



**EU-China cooperation opportunities:
technical and policy perspectives**

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www.euchina-iot5g.eu

Agenda

- Policy context
- Future Internet
- Recommendations
- Conclusions



The EXCITING project



- EXCITING focus is **EU/China cooperation on 5G/IoT**
- 5G and IoT are **key enablers for Future Internet** use cases
- 5G and IoT are **key priorities** for the European Commission and the Chinese government
- Other technologies to be considered for Future Internet: AI, big data, block chain...



Future Internet: needs

- Strong policy context
- Common values, e.g.:
 - Privacy
 - Trust
 - Cyber-security
- Shared vision



5G & IoT – Europe and China



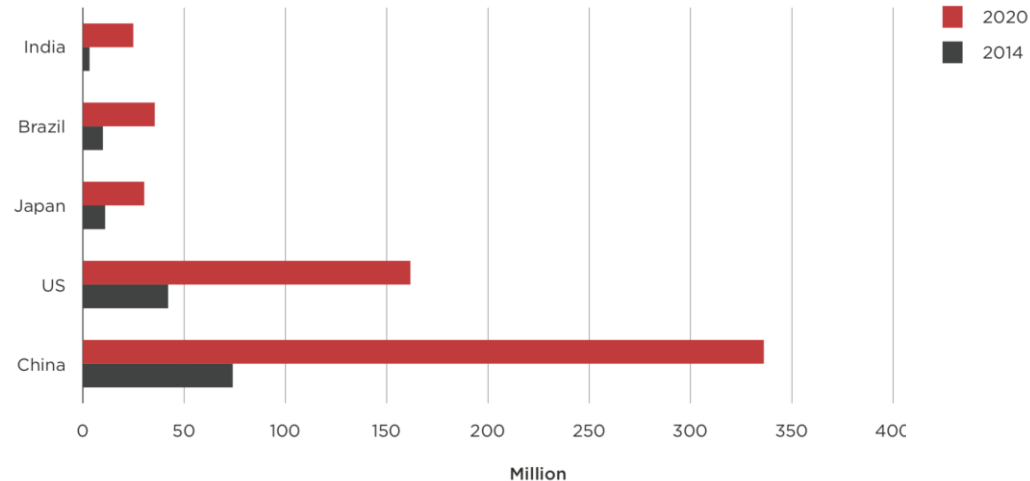
- Strong ecosystems
- On 5G and IoT, both Europe and China have:
 - Research programmes
 - Dedicated IoT and 5G research initiatives
 - Promotion groups
 - Technology roadmaps and deployment plans



5G & IoT – Context in China (1/2)



- China is no longer only a copycat country
- China is now a technology innovator
- Strong entrepreneurial dynamism supported by Chinese government
- IoT leadership has repercussions on a wide number of sectors (transport, healthcare, retail...)
- China offers economies of scale for IoT



Cellular M2M Connections (source: GSMA Intelligence)

5G & IoT – Context in China (2/2)



- IoT
 - Vibrant startups ecosystem
 - Strong support from the Chinese government (tax breaks, Special Fund for public entities)
 - Effective value-chain
 - **China is the IoT worldwide leader**
- 5G
 - Also strong governmental support (*Made in China 2025* initiative, *Five Year Plan*)
 - Specific 5G policies
 - **China is leader in terms of 5G readiness**



China: key policies for IoT and 5G



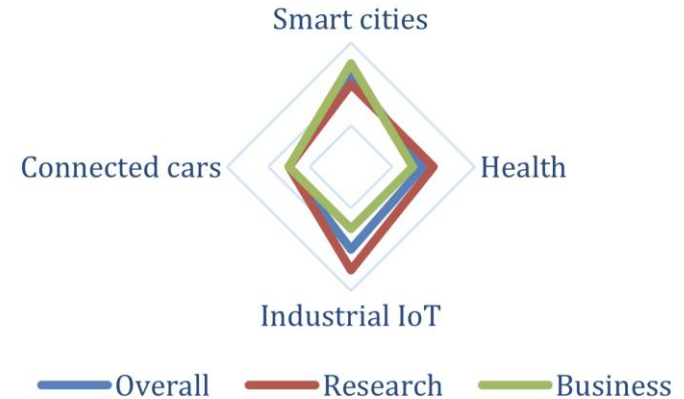
- **Made in China 2025** strategy
 - Objective: to boost manufacturing innovation
 - IoT, smart appliances and high-end consumer electronics, are the major priority for funding
 - Funding > €1.3 billion
- **Internet Plus** action plan
 - Objective: to integrate the Internet within traditional industries and create a new economic growth
- **Special Fund**
 - Objective: support IoT in technological R&D, industrialization, application models, standard design and public service
 - Grants for self-funded projects, and loan
 - Funding: > €1 billion– supported by MIIT and MoF



The importance of verticals

- Verticals are of high importance for 5G and IoT (smart cities, factories of the future, smart health...)
- Building cooperation on verticals gives the opportunity to further bind EU and Chinese developments and stakeholders
- The Smart Factories vertical present good opportunities for EU stakeholders

Verticals' opportunities



Recommendations



- Recommendations for future EU/China cooperation have been developed by the EXCITING project
- They target both entrepreneurs and the EC
- They cover:
 - Research, Development and Innovation
 - Incubation, Acceleration and Entrepreneurship
 - Market



Recommendations

Research, Development and Innovation (1/2)



Obstacles

China is still more focused on the hardware part, and on providing wide wireless access and high-speed broadband

Return policy of overseas Chinese scientists

Links between vertical sectors are limited

Opportunities

EU-China ICT-22 Call also fixed a common priority on 3.5Ghz and C-V2X,

participating in Chinese programmes at individual level (researchers) more than organisational level

MoST co-funding mechanism

Horizon Europe international collaboration framework

Recommendations

Foster common calls on verticals & application domains for building upon comparative advantages

Foster Chinese co-funding in research exchanges for counteracting research return policies / Keep EU research system open to Chinese researchers



Recommendations

Research, Development and Innovation (2/2)



- R1.1 - Foster common calls on verticals & application domains for building upon comparative advantages
- R1.2 – Make internships in China more accessible to European students
- R1.3 – Make sure the European Union and European stakeholders keep the manufacturing know-how



Recommendations

Incubation, Acceleration and Entrepreneurship (1/2)



Obstacles

Chinese Public Private Partnerships of state-sponsored enterprises

Informal organisation & heavy involvement of local authorities in Chinese clusters

Cultural barriers, business involving Chinese authorities

Opportunities

Incubation ecosystem

STI Innovation Clusters dedicated to new generation mobile communications

Corporate Chinese investors

Recommendations

Favour inter-cluster collaborations for enabling best practices exchanges and a better mutual recognition of stakeholders & roles

ENRICH Nodes / initiatives in China to get a step ahead / known framework for 5G / IoT companies wanting a Chinese ticket



Recommendations

Incubation, Acceleration and Entrepreneurship (2/2)



- R2.1 - Take time to understand and "feel" the Chinese market
- R2.2 – Provide support to European businesses willing to enter the Chinese market



Recommendations

Market (1/2)

Obstacles

Public Procurement favour national goods and services & frequent and unwritten change of rules by local authorities for foreign businesses

China is still more focused on the hardware part, and on providing wide wireless access and high-speed broadband

Restrictions for foreign businesses even in Free Trade Zone

Opportunities

Public procurement policy for goods that are not available in China or 20% more expensive than abroad

Chinese special economic zones

Recommendations

Foster verticals & application domains for building upon comparative advantages

“Learn” from Chinese approach for developing EU one & finding intersections between both

District-focus policy dialog for market & business related activities



Recommendations

Market (2/2)



- R3.1 – Facilitate European companies to enter Chinese markets
- R3.2 – Foster sectorial synergies through projects
- R3.3 – Foster Europeans' understanding of Chinese communication and culture
- R3.4 – Encourage Europeans investments into Chinese companies
- R3.5 – Focus on collaboration with SMEs and startups more than big entities
- R3.6 – Encourage joint-ventures with Chinese businesses



Conclusions

- China is leading the IoT market and is first in terms of 5G readiness
- EU/China **cooperation** on 5G/IoT **can be further improved**
- Main challenge is beyond research: need for effective reciprocity in market access
- On 5G, although China is leader in terms of readiness, Europe is not late: it's important to keep the EU timeline (pre-commercial experiments in 2019 & commercial launch in 2020-2021)



Thanks!

More on:

The **EXCITING** project website:

<http://euchina-iot5g.eu>

The **Panorama** tool:

<http://panorama.euchina-iot5g.eu>

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