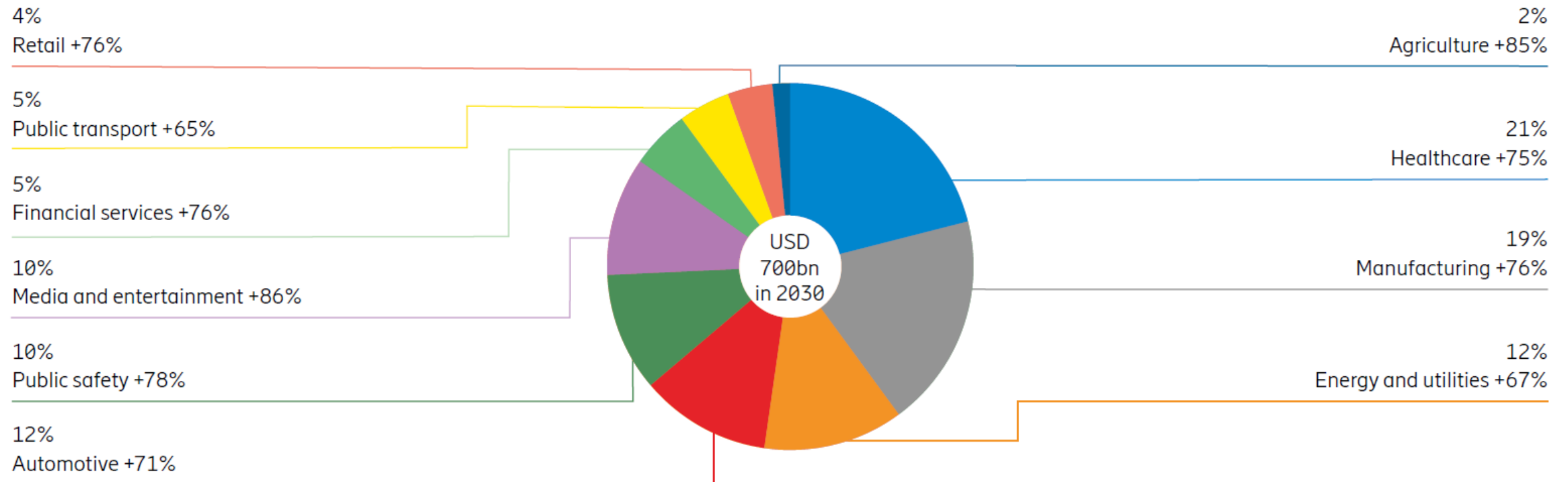คำถาม: ทำไมประเทศไทยต้องให้ความสนใจ 5G ที่มาใช้ใน Smart Factory ?

5G for Business – significant 5G-enabled revenue potential for CSPs across 10 industries

Share and growth rate for global total 5G-enabled B2B potential for service providers
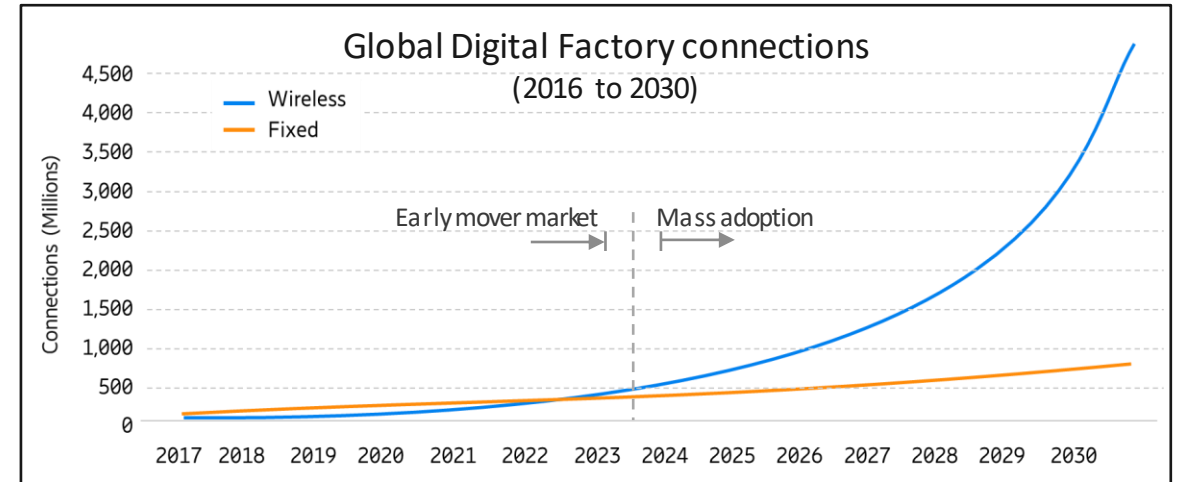
4%
Retail +76%

2%
Agriculture +85%

5%
Public transport +65%

21%
Healthcare +75%

5%
Financial services +76%

19%
Manufacturing +76%

10%
Media and entertainment +86%

10%
Public safety +78%

12%
Energy and utilities +67%

12%
Automotive +71%

USD 700bn in 2030

Global service creator, 5G for business addressable market, 2030 share, 2020-2030 CAGR
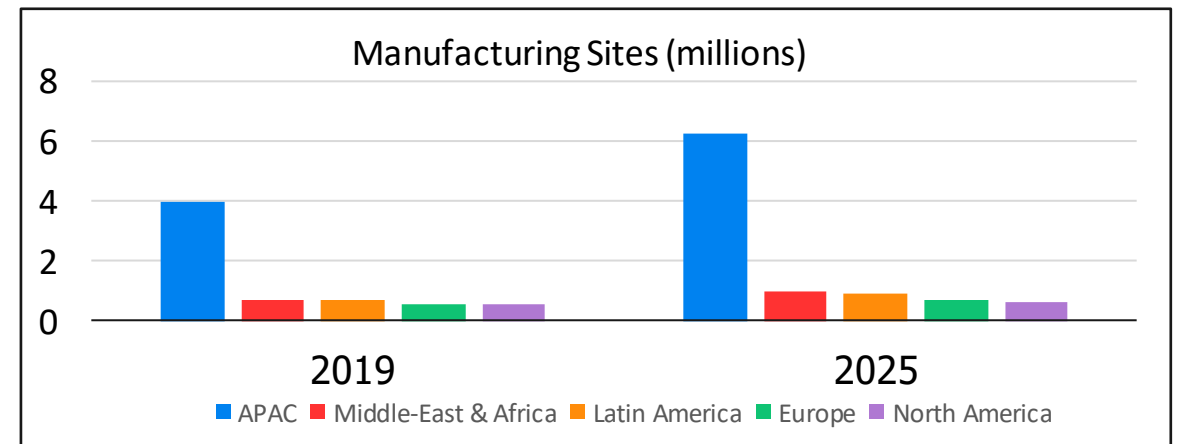
Source: Ericsson and Arthur D. Little

Unlocking the value of Industry 4.0

- ● ABI study on the potential of wireless Industry 4.0

- ● Significant value in Smart Manufacturing and Smart Warehousing

- ● Smart manufacturing in 2030:
  - • 1 trillion USD
  - • 4.7B wireless connections, >100× growth
  - • 67% of all manufacturing sites in APAC
  - • High Return on Investment (ROI) or high Cost of Inaction (COI)

Global Digital Factory connections (2016 to 2030)

Wireless
Fixed

Connections (Millions)

4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0

Early mover market   Mass adoption

2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030

Source: ABI Research

Manufacturing Sites (millions)

8
6
4
2
0

2019   2025

■ APAC ■ Middle-East & Africa ■ Latin America ■ Europe ■ North America

Source: ABI Research

คำถาม: แนวโน้ม Industry 4.0 wireless ecosystem ในบริบทโลกเป็นอย่างไร?

Insights from the Global Lighthouse Network

In collaboration with the World Economic Forum

McKinsey & Company

The Fourth Industrial Revolution (4IR), adapting to four durable shifts:

- Agility and Customer centricity
- Supply chain resilience
- Speed and Productivity
- Eco-Efficiency

The journey is just getting started...

Level 1

- Connected machines with real-time OEE tracking & mobile alerting
- Paperless operations including scheduling, workflows & work instructions
- Repetitive tasks are automated on the shop floor
- Live material tracking across the facility

Level 2

- Optimized production planning, resource scheduling and workflows
- Real-time modeling and simulation of plant processes
- Augmented reality for training and production
- Real-time performance benchmarking across the network

Level 3

- Automated planning of daily production based on artificial intelligence algorithms
- Self-tuning equipment leveraging machine learning to drive quality
- Predictive analytics to prevent machine failure
- Intelligent routing of material across the entire network

Smart Factory use cases

End-to-end digital thread for radio production

Energy monitoring and management

Environmental monitoring

Digital performance management

Augmented reality for remote support

Machine learning based visual inspection

Digital adherence for safety and quality

Alerting and escalation

Automated kitting process

Autonomous Mobile Robots (AMR)
Autonomous Guided Vehicles (AGV)

Control tower to showcase plant dashboards

Digital material tracking and visualization

What's the most important ingredient to make 5G industry 4.0 wireless ecosystem successful?

Maturing the Industry 4.0 wireless ecosystem
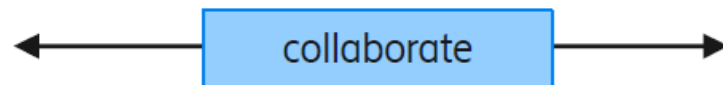
Orchestrator's - Value Chain

Digitalization/ Roles	CSP	Ericsson	Devices	Application	Platforms	SI & Consulting
network services- 4G/5G	x					
dedicated networks- 4G/5G		x				
enterprise network O&M	x	x				
use case- devices			x			
use case- application				x		
Consulting						x
Platforms					x	
system integration						x
digitalization value	10%		15%	30%	15%	30%

← collaborate →

Sim card writer

watchdog

Mgmt Portal

Micro Radio

Radio Dots

Baseband

Network Controller