



ASOSIASI  
PENGUSAHA  
INDONESIA



## SESSION 3: DIGITALIZATION AND SERVICES

**Asian Think Tank Forum 2024**

*Digitalization as an Opportunity for Inclusive Growth in Aisa and the Pacific*

**Shinta W. Kamdani**

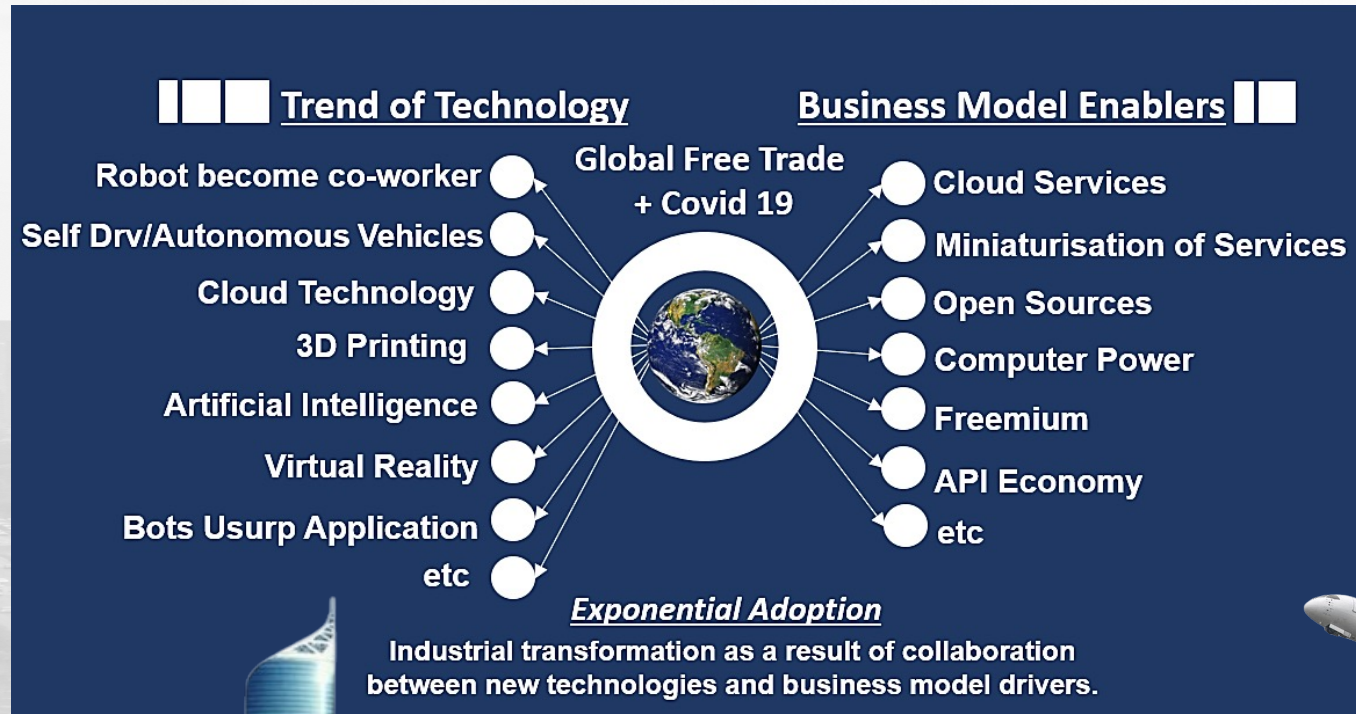
**Chairman of APINDO**



# Flywheel effect of digitalization...

**79%** CEO in Asia Pacific changed their investment focus into digital transformation within the last 3 years (PWC, 2022)

**87%** global CEO said that digital technology has disrupted industry irreversible (MIT)



**Technology shifting**



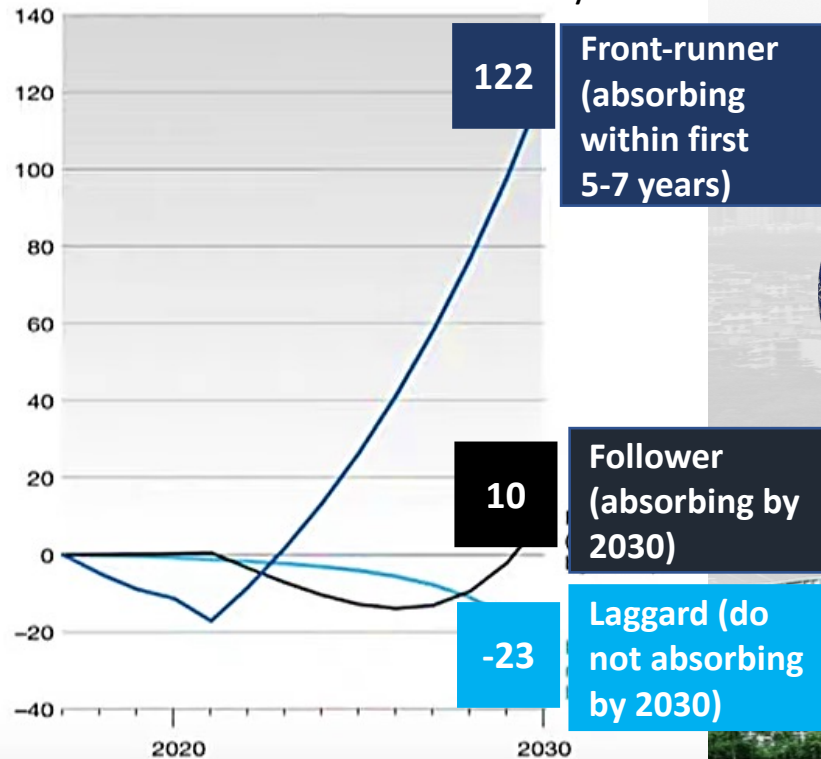
# Digitalization as a key driver of servicification

Digitalization enables service-led innovation

Manufacturing >>> Service-centric industries

## Comparison of growth between companies that adopt and do not adopt Big Data & AI (2030)

Source: McKinsey



Global service trade growth

65%

Global GDP

Cloud computing & AI usage

94%

Use cloud services

60%

Integrating AI

E-commerce market size

\$ 6,3 trillion

Streaming and SaaS contributing to over 70% of internet traffic

Automation & efficiency

47%

Automated service processes

Boosting efficiency & cutting costs

30%

Source: WTO, Flexera, Statista, McKinsey



# Indonesia digital at a glance

4<sup>th</sup>

largest internet users in the world  
**77% (213 million)** active internet users, as of 2023

76%

Smartphone penetration  
**206+ million smartphone user**  
as of 2021

2<sup>nd</sup>

4<sup>th</sup>

largest users of top social media platforms  
**135 million** Facebook, **113 million** TikTok, and **106 million** Instagram active users, as of Apr 2023

**\$82B**

**in digital economy in 2023, and is on course to reach \$360B by 2030.**  
Driven primarily by e-commerce sector

Source: Google, Tamasek & Bain, BPS

Indonesia Needs

**+7% GDP Growth**  
**to Become High Income Country**  
**by 2045**

5,05%

Economic growth  
QII-2024 (yoy)

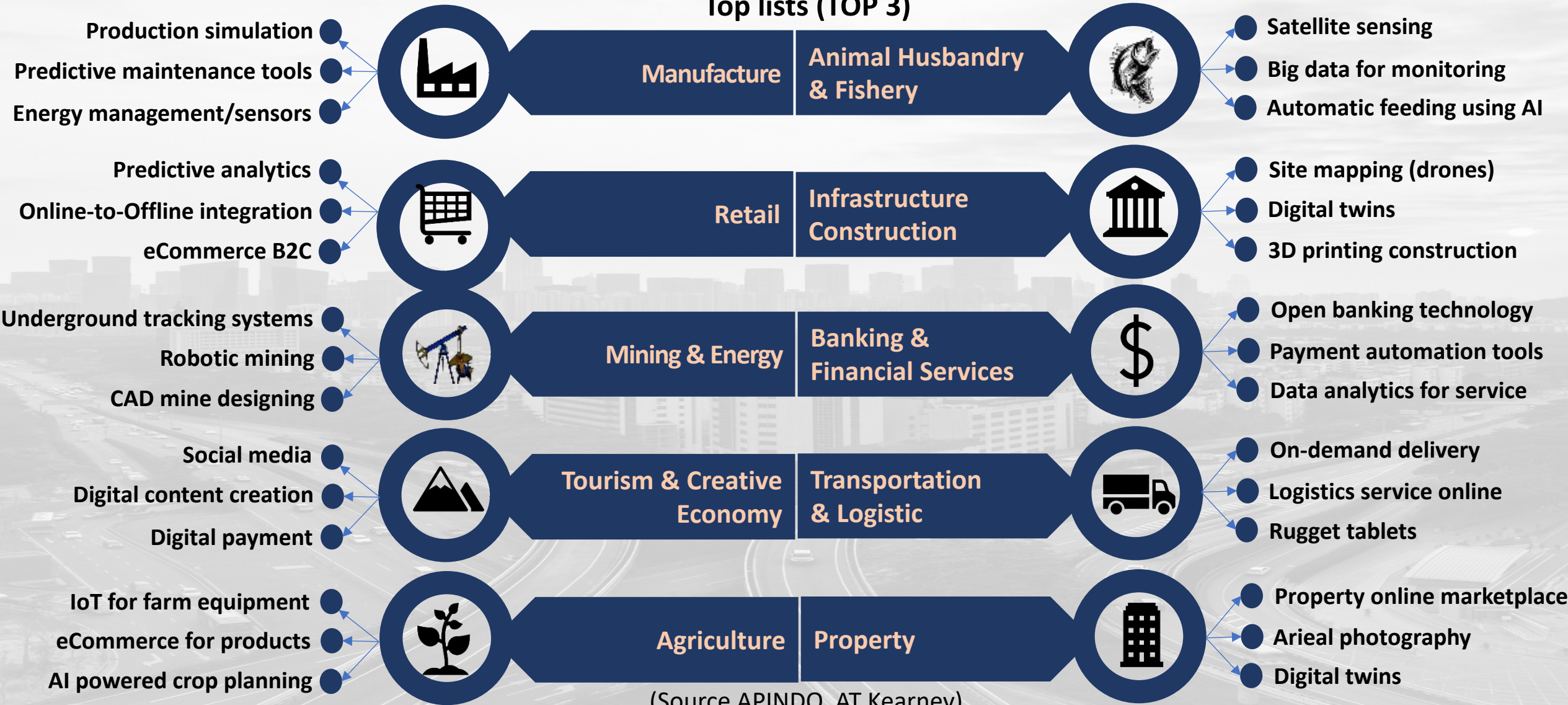
**Leveraging digital economy**  
**transformation, boost the economic**  
**growth...**





# Digitalization considered by private sectors in Indonesia to implement in 1-2 years ahead (APINDO Survey 2023)

## Top lists (TOP 3)



(Source APINDO, AT Kearney)



# Key Factors for a Technology-Based & Digitalized Economy

1

ICT Infrastructure

2

Human Capital

3

Business Climate %  
Cybersecurity

4

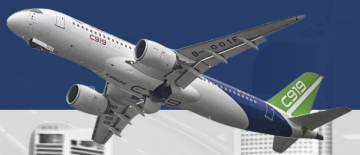
Research & Development  
and Innovation

5

Funding & investment

6

Policy & Regulation





Businesses are observing structural issues of digitalization, and the key to Indonesia's success of digital economy

## Structural Issues in **Digitalization Adoption** in Indonesia

(for MSMEs, Businesses in Remote Areas, and Women Entrepreneurs)



Digital Infrastructure



Digital literacy



Cost of trial and error of  
tech adoption



Protection of basic digital  
rights & cybersecurity



Gender Disparity





# Indonesia's business climate is still at a nascent stage with strong opportunity to improve

rank

60

2022 Business Environment Ranking

rank

45

World Digital Competitiveness  
Ranking 2023

1

Adoption of digital tools  
across businesses is still  
limited

only

32%

MSMEs being  
digitally onboarded,  
despite MSMEs  
making up 99%  
registered companies  
in Indonesia

2

Indonesia startup  
ecosystem has been  
rapidly deteriorating

rank

2

to

12

(2020)

(2022)

Jakarta's historical ranking as startup  
ecosystem has been declining

3

Indonesia still  
demonstrates lagging  
cybersecurity ecosystem

rank

85

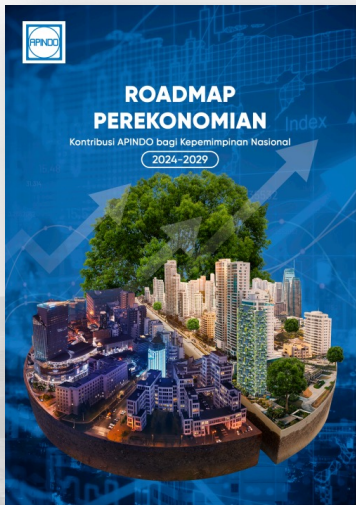
National Cyber Security Index (2023)



# Businesses highlights key challenges on ICT infrastructure ...as an integral of digital economy development

## Challenges

Based on the APINDO survey:



**43%**

Satisfied with the availability, affordability, and quality of IT hardware, software, and services

**45%**

Satisfied with the telecom services quality

**48%**

Satisfied with the availability of telecom services

**49%**

Satisfied with affordability of telecom services

**1**

Poor signal and network's stability, availability, and quality.

**2**

Limited knowledge, capability, and understanding on IT hardware, software, and services.

**3**

Expensive telecommunication packages, IT hardware, software, and services.

**APINDO  
proposes:**

Expand telecommunications networks by infrastructure development

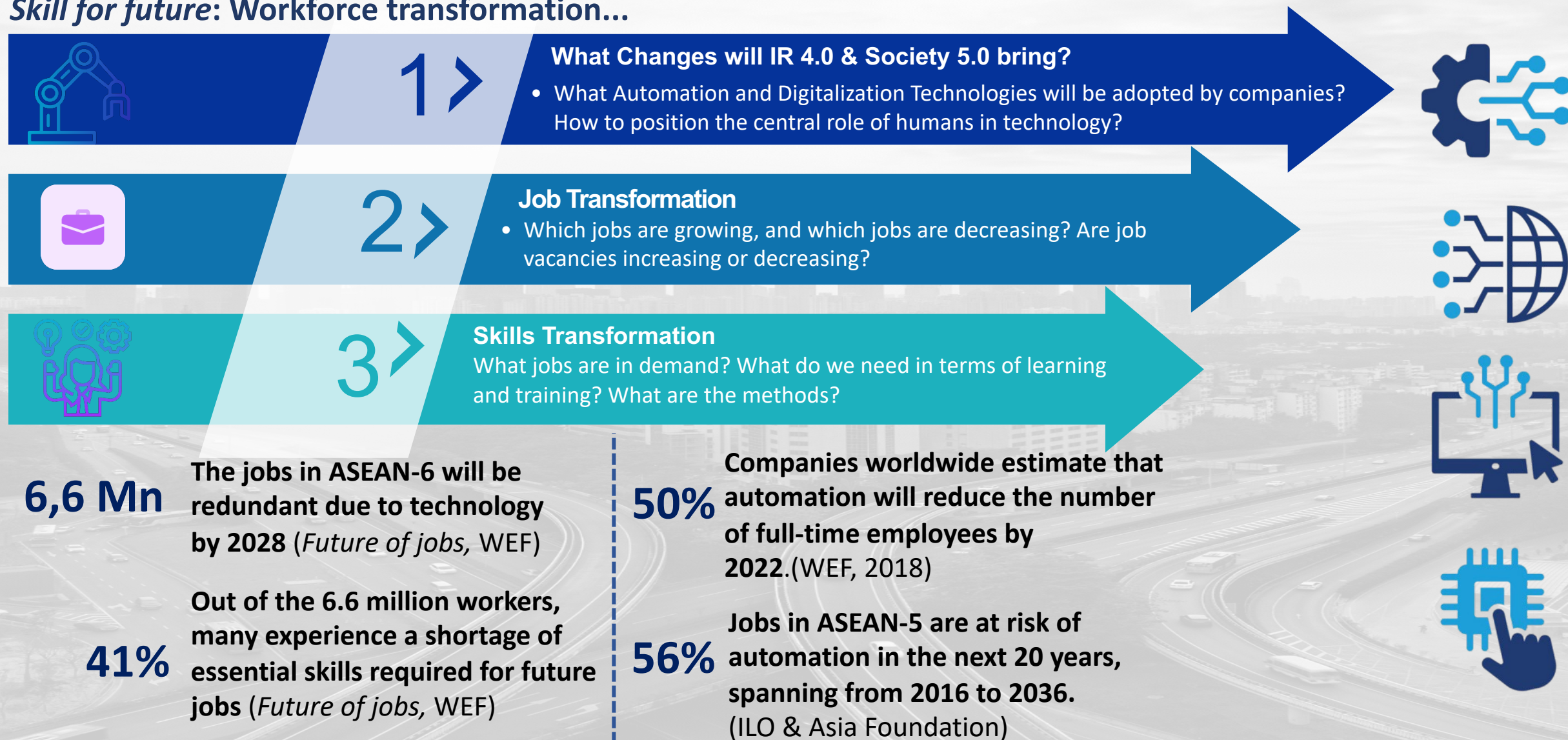
Significantly enhancing ICT/digital talent through training, workshop, etc

Increasing affordability of hardware, software, services



Businesses will likely also demand and prioritize a different set of skills from the employees...

## Skill for future: Workforce transformation...



# Businesses will likely also demand and prioritize a different set of skills from the employees...

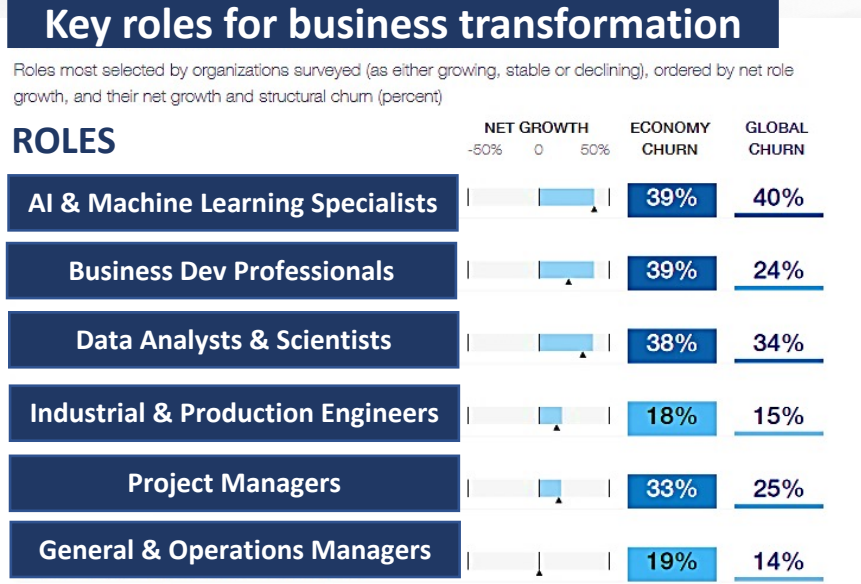
Cognitive Skills	Working with others
Analytical thinking ★	Empathy and active listening
Creative thinking ★	Leadership & social influence
Systems thinking ★	Teaching and mentoring
Reading, writing, and math	Self efficiency
Multi-lingualism	Resilience, flexibility and agility ★
Technology skills	Curiosity and lifelong learning ★
AI and big data ★	Motivation and self-awareness ★
Technology literacy ★	Dependability and attention to detail
Networks and cybersecurity ★	Ethics
Programming	Environmental stewardship
Mgmt. & engagement skills	Global citizenship
Service orientation/CS	Physical abilites
Marketing & media ★	Sensory – processing abilities
Quality control	Manual dexterity, endurance & precision
Resource mgmt. & operations	
Talent management	

Future of Jobs top skills for 2027

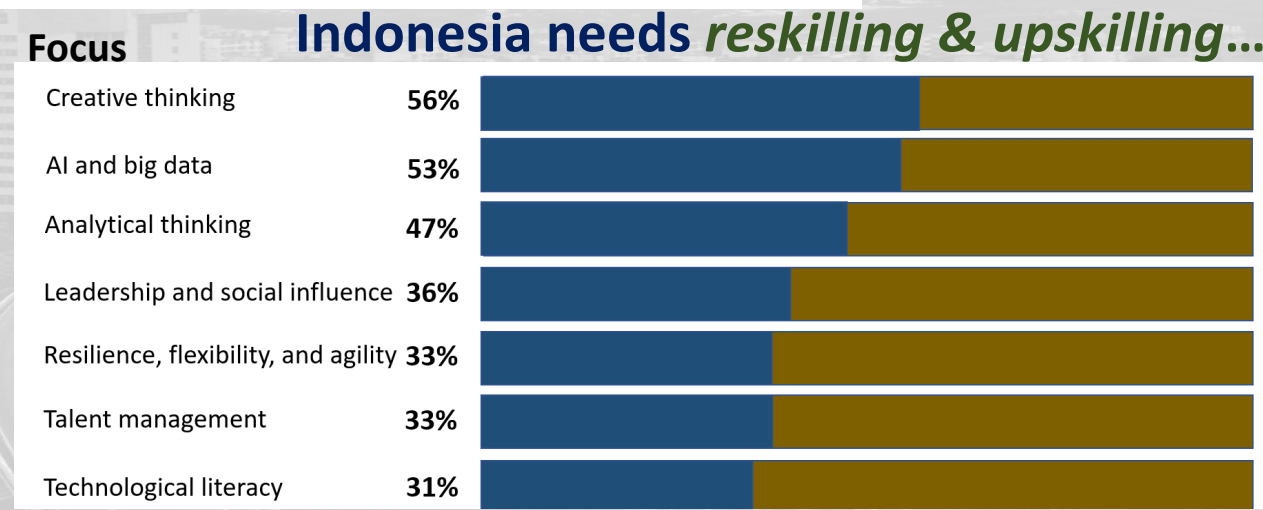
★ *Whitin top 10 skills*

Source: WEF, 2023

## Country Profile: Indonesia - Future of Jobs 2023



Source: WEF, 2023



47% Skills in Indonesia needs *re/upskilling*

Creative Thinking

AI & Big Data

Analytical Skills





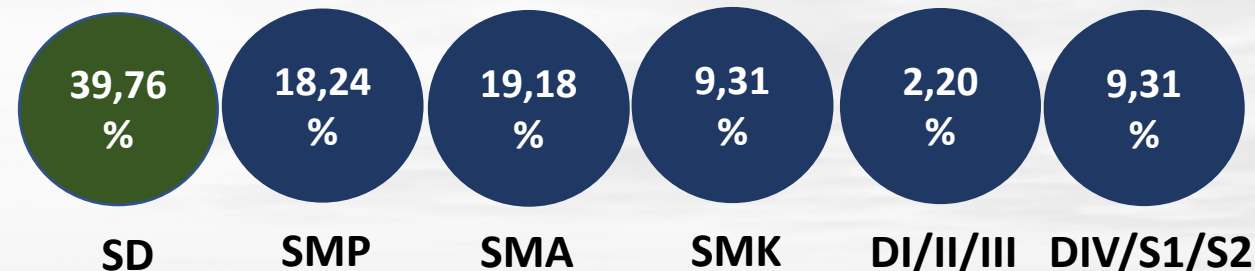
**#47** Globally, Indonesia was ranked #47 in *Digital Skills Gaps Index* (DSGI) 2021, with lower scores in research intensity (score: 3,6/10) and government support (score: 4,5/10)

### Human Development Index (HDI), ASEAN countries (2022)

Global Rank	Country	HDI Value
12	Singapore	0,939
51	Brunei Darussalam	0,829
62	Malaysia	0,803
66	Thailand	0,800
114	Indonesia	0,705
115	Vietnam	0,703
116	Philippines	0,699
140	Laos	0,607
146	Cambodia	0,593
149	Myanmar	0,585

Source: UNDP, 2022

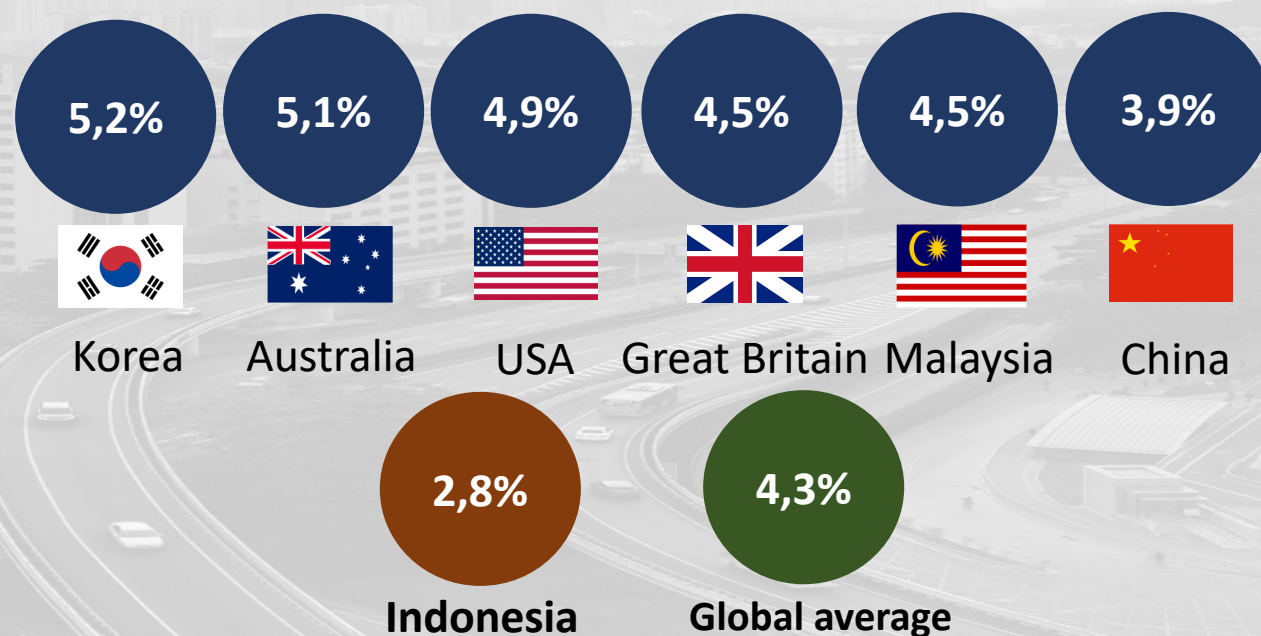
### Distribution of the working population based on education (2023)



Source: BPS, 2023

### Government spend on education

2022, % of PDB





However...

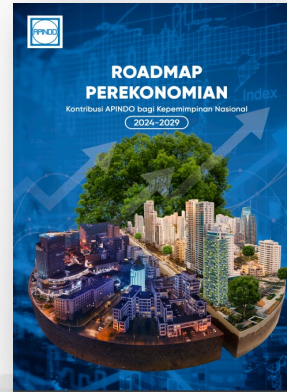
**46%**

Workers in Indonesia's manufacturing sector have low to mid-level skills

**80%**

Global manufacturers cite skill gaps as a major barrier to digitalization and servicification

Source: WEF, McKinsey



**29,82%**

Struggle to find quality talent

**51,82%**

Manufacturing sector have underqualified workers in their job positions

Source: APINDO Roadmap survey

**Challenges in improving the competence and skills of human resources:**

Limitations of the BLK role

Industry's Self-Financing costs

Skills & development

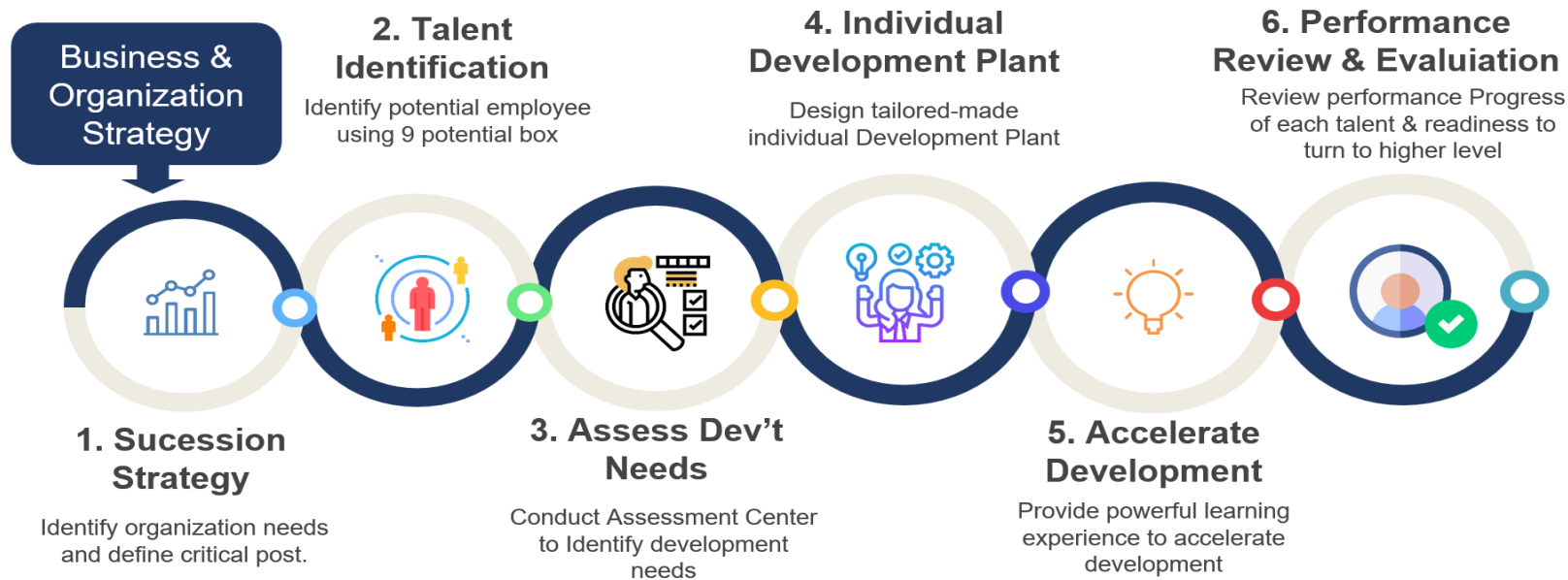
Technology and Skills investments





# Businesses gearing up the human resources for the optimization of digitalization

## Transitioning to the future of jobs with Talent Development Framework strategy



1

Enhancing skills to operate in a fully digitalized environment

2

Developing cognitive skills to ensure employees can respond to redesign and innovation needs

3

Enhance social and emotional skills to ensure effective collaboration

4

Build adaptive skills and resilience to thrive during evolving business situations

## VISION

Digital should be treated as an enabler for business, engine for value creation to the economy and, as means to promote new employment, driving Indonesia to become a high-income country

---

## MAIN RECOMMENDATION 1-5 YEAR

1. Promote deployment of high-speed internet infrastructure (e.g., 5G, Gigabit FTTx) in the highly productive areas, such as Tier-1 cities and Special Economic Zones
2. Launch national one-stop online portal that enables workforce of all age groups to access online learning courses, and promote the pursuit of skills mastery especially for digital capabilities
3. Establish national technology zones for business players, to encourage development of businesses engaged in technological research, design, and manufacturing
4. Roll out MSMEs Go Digital program to help them adopt advanced digital solutions and use technologies to build stronger capabilities in seizing growth opportunities from the expanding digital economy
5. Create a nation-wide technology startup platform to allow local tech startups to have access to potential talent, funding, and diverse startup network
6. Appoint R&D champions for leading national companies to act as an innovation lighthouse and inspire other business players to conduct R&D activities
7. Incentivize business players to adopt digital/ smart technology across large enterprises, MSMEs and startups through various mechanisms, such as tax incentives, grants, and subsidies
8. Set up a robust digital economy regulatory regime by promoting key policies and regulations, to activate digital acceleration across business players, workforce, and infrastructure





**Thank You**

**Contact**

Employer Association of Indonesia  
Asosiasi Pengusaha Indonesia (APINDO)  
Permata Kuningan Building, Lt. 10  
Jl. Kuningan Mulia Kav. 9C  
Guntur – Setiabudi  
Jakarta Selatan 12980  
Tel. (62) 21 8378 0824,  
Fax. (62)21 8378 0823/8378 0746  
Website : [www.apindo.or.id](http://www.apindo.or.id)