

Viet Nam and the Fourth Industrial Revolution

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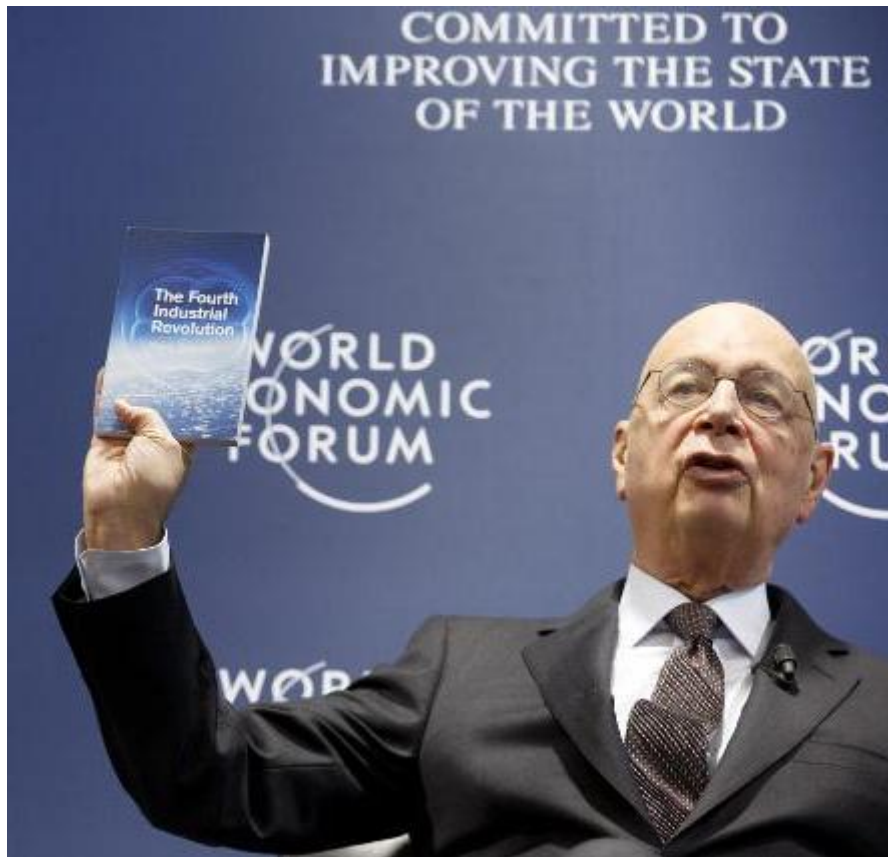
Automation
machine

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World Economic Forum

The World Economic Forum



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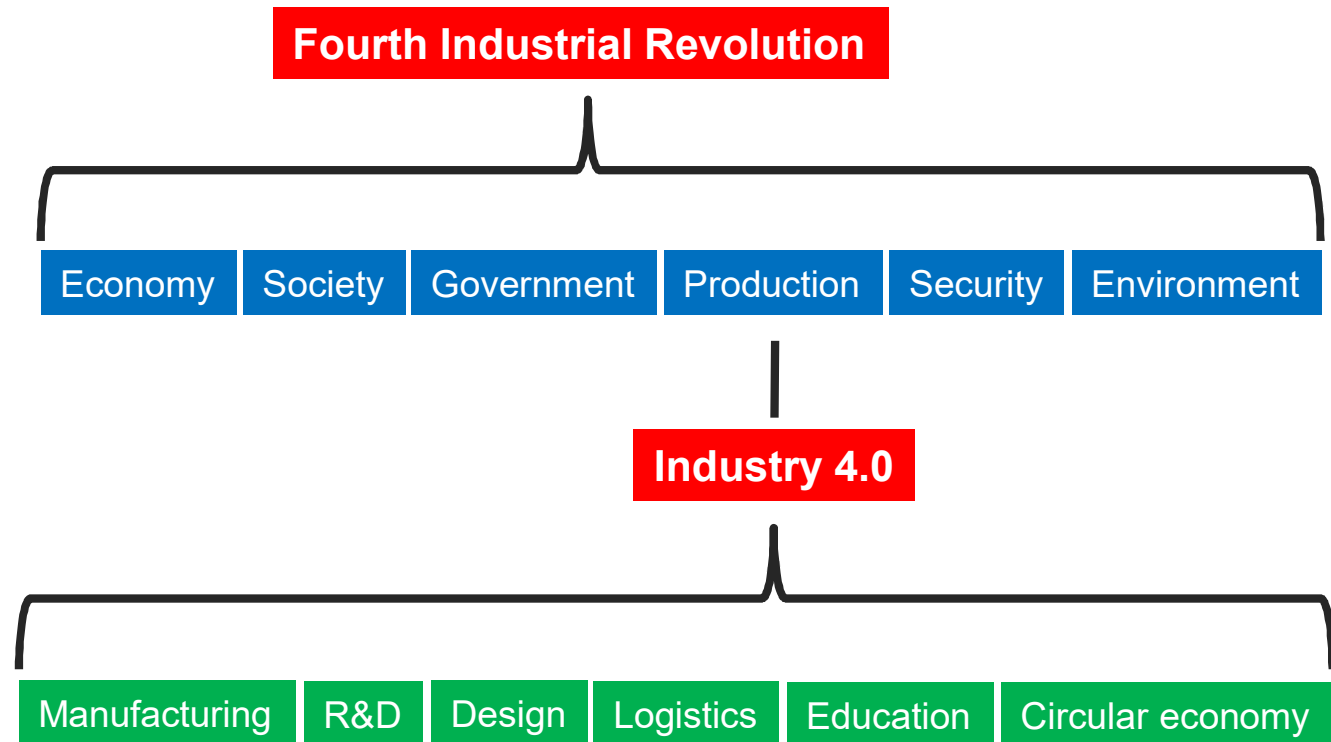
- The International Organisation for Public Private Cooperation
- Focussed on 14 big global challenges
- Underpinning all our work is the unfolding impact of the Fourth Industrial Revolution
- “The speed of change has never been this fast, but will never be this slow again”

A history of revolutions

10,000 years ago	Agrarian Revolution	<ul style="list-style-type: none"> • Domestication of animals • New farming technologies
1760	1st Industrial Revolution	<ul style="list-style-type: none"> • Steam power • Railways & mechanised production
1890	2nd Industrial Revolution	<ul style="list-style-type: none"> • Electricity • Assembly line & mass production
1960	3rd Industrial Revolution	<ul style="list-style-type: none"> • Digital technologies • Semiconductors, computers, the internet
2010	4th Industrial Revolution	<ul style="list-style-type: none"> • Ubiquitous mobile internet, internet of things • Sensors, AI, machine learning, robotics, 3D printing • Breakthroughs in nano-tech, genetics, new materials

What makes the Fourth IR different?

- Speed of change
- Non-linear change
- Fusion of different technologies
- Breadth & depth
- Good & bad



What does the 4IR mean for economic progress?

Possible enabler of higher living standards for more people

- Innovative goods and services that improve quality of life
- More empowered citizens with high skill and knowledge-intensive jobs
- More sustainable business models
- Potential for developing countries to “leapfrog” to higher technologies

Potential for higher inequality and social disruption

- Disintermediation and automation destroy many jobs
- Destruction of middle-class, greater polarization of incomes
- Poor social outcomes: lower trust, lower community cohesion and unrest
- Developing countries could be left farther behind in this technological revolution, particularly if industrial technologies “leapfrog” low-wage countries

Competitiveness in the 4IR

Forum has been measuring competitiveness since 1979

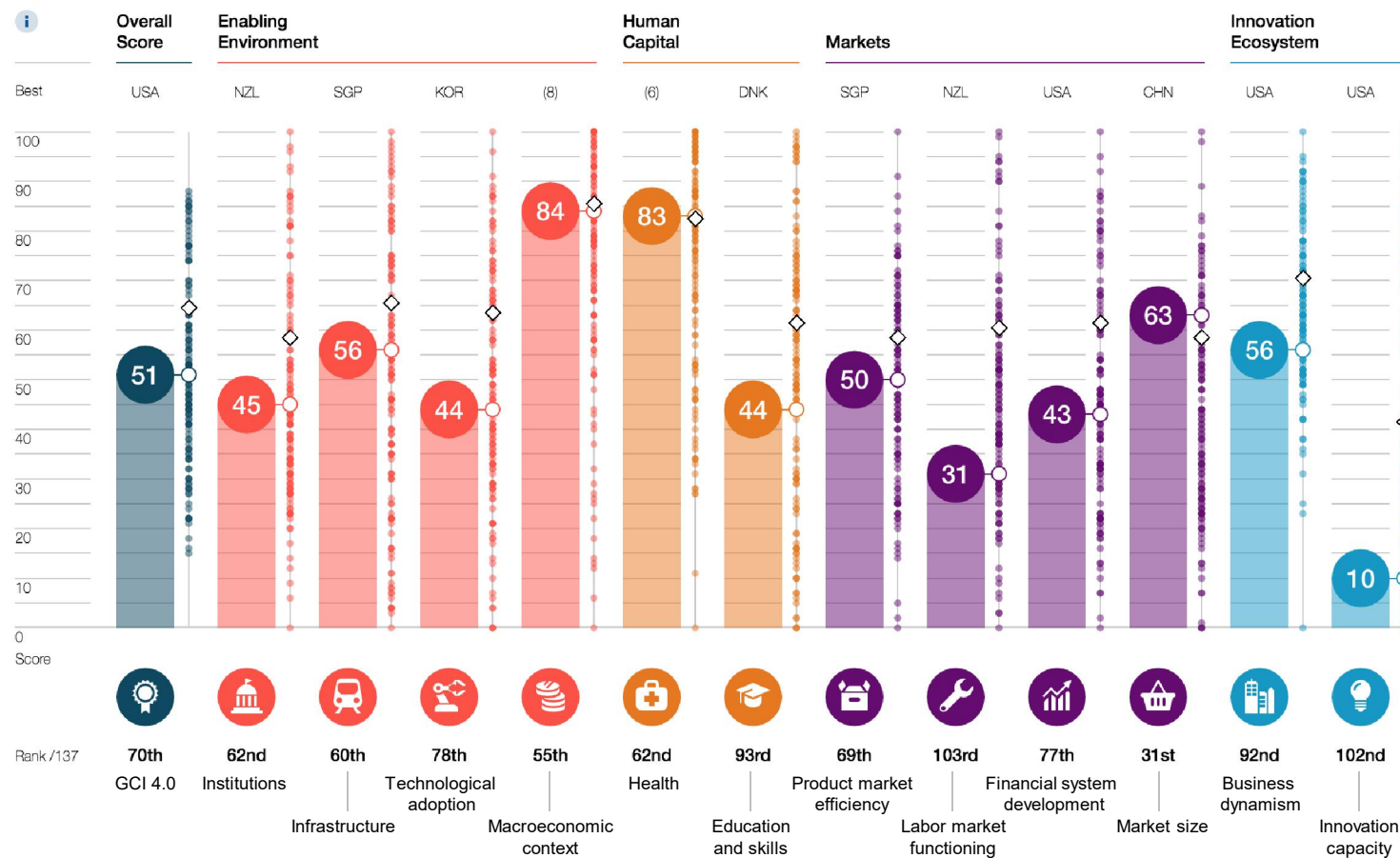
- The factors, policies and institutions that determine the level of productivity
- Competitiveness is neither a beauty contest nor a zero-sum game
- Goal is to put competitiveness on countries' policy agendas

In 2017, rolled out a new methodology for the era of the 4IR (GCI 4.0)

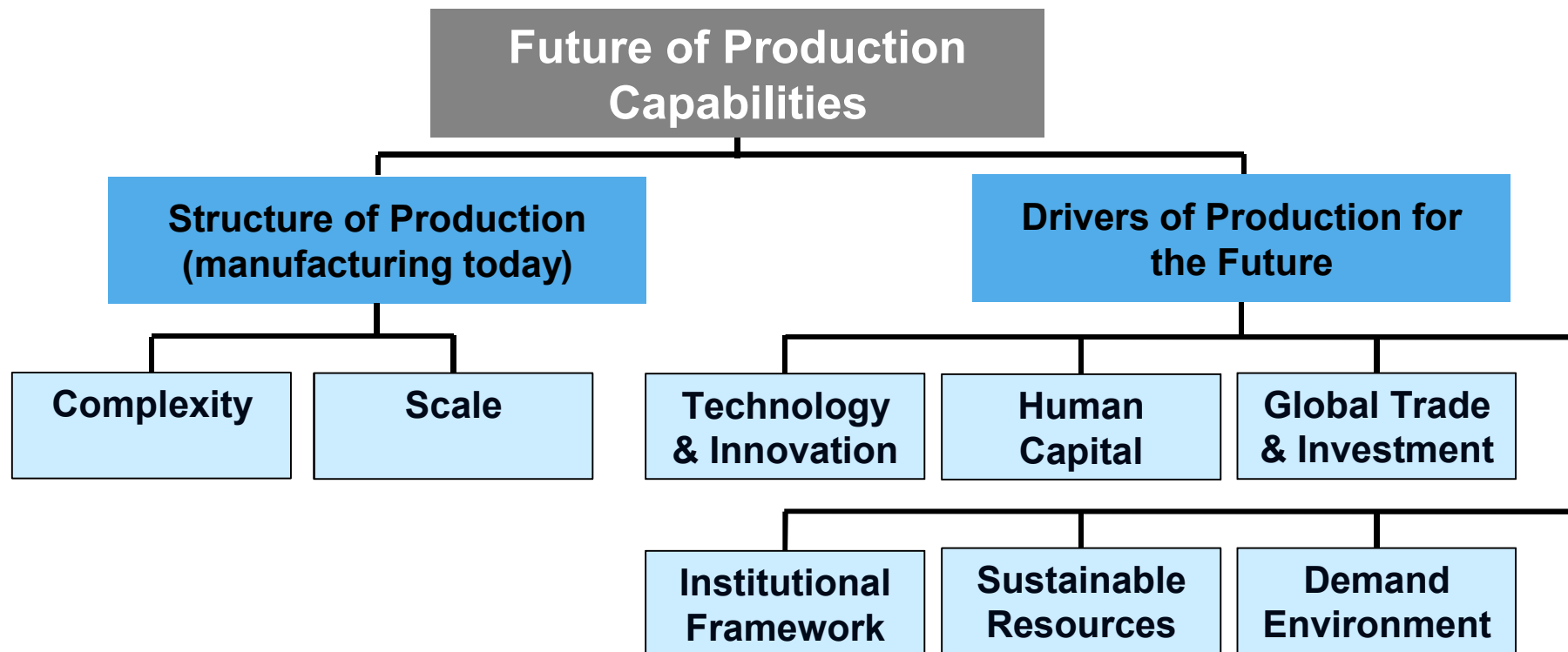
- Methodology still being fine-tuned
- More future-oriented
- More focus on technology adoption and readiness
- More emphasis on human-related factors
- New approach to innovation and innovation ecosystems

Performance Overview 2017-2018

Compare with ◇ East Asia and Pacific

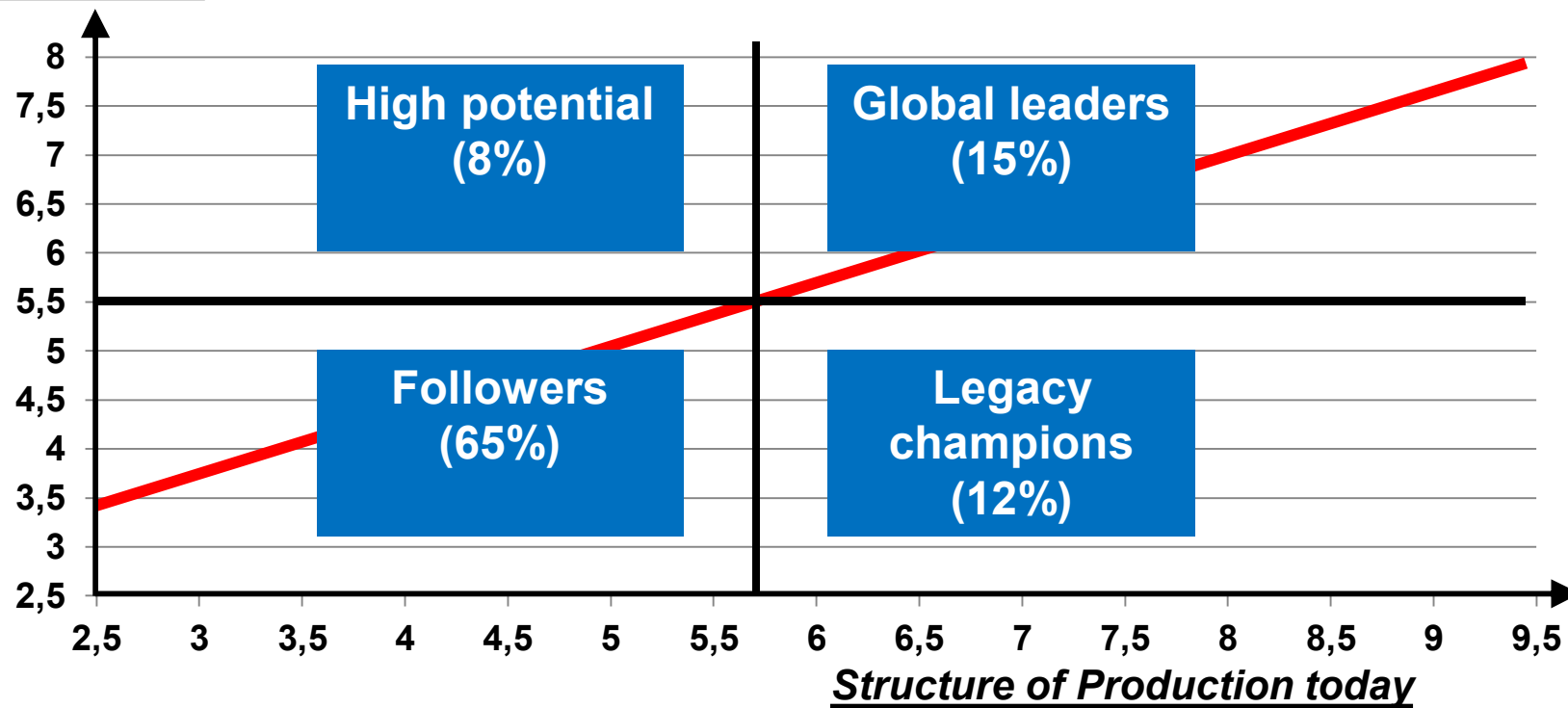


Measuring readiness for the future of production



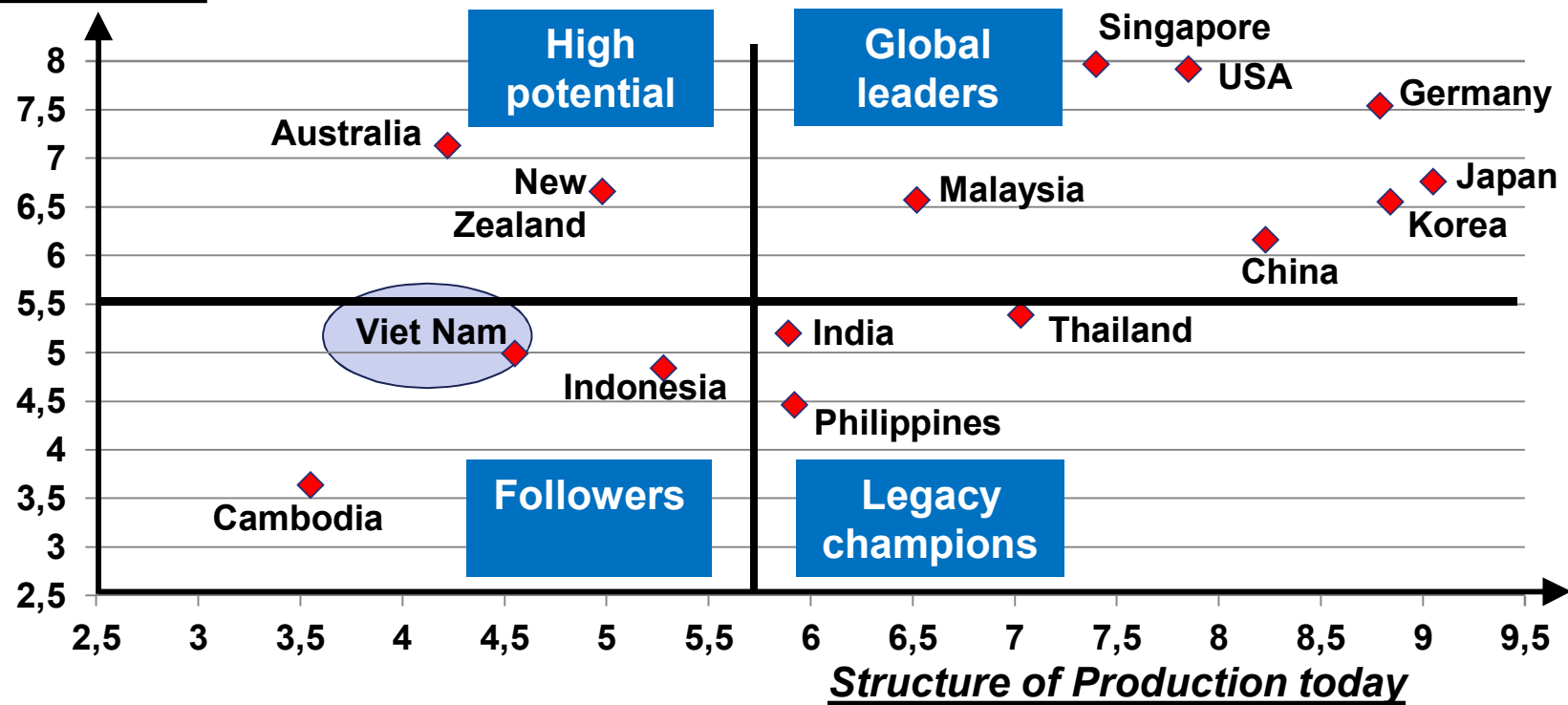
Readiness for the future of production

Drivers of Future Production



Readiness for the future of production

Drivers of Future Production



Partnering with Viet Nam

Partnership signed in Jan 2017

- Focussed on navigating the 4IR

Current areas of work:

- Competitiveness & Social Inclusion
- Education, Skills, and Jobs
- Digital Economy
- Cross-border Trade
- Manufacturing
- Agriculture and Food Security
- Infrastructure



Initial policy recommendations

Upgrade Viet Nam's labour force

- Bring academia and business together to reform education
- Promote competition among schools, faculty and universities
- Change social attitudes to vocational training

Upgrade innovation ecosystems

- Enable and facilitate data generation, transmission and processing to power new technologies and solutions
- Cultivate and promote a fail-fast-learn-fast culture
- Complete facilitating regulatory frameworks in a fast, agile, experimental manner

Think regionally as well as nationally (promote the AEC)

- Technologies of the 4IR do not recognise borders
- Connectivity between nations (both physical and digital) is more important than ever
- Vietnamese tech companies need scale to be competitive