



Emerging trends in the digital economy

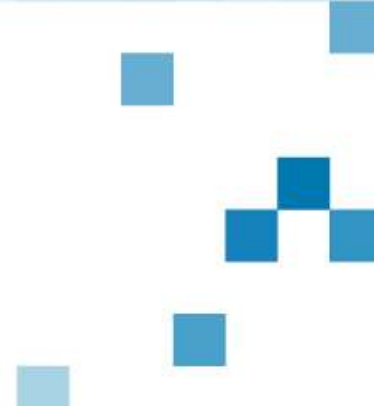
2021

Dr. Douglas van den Berghe – NxtZones and FDI 4.0



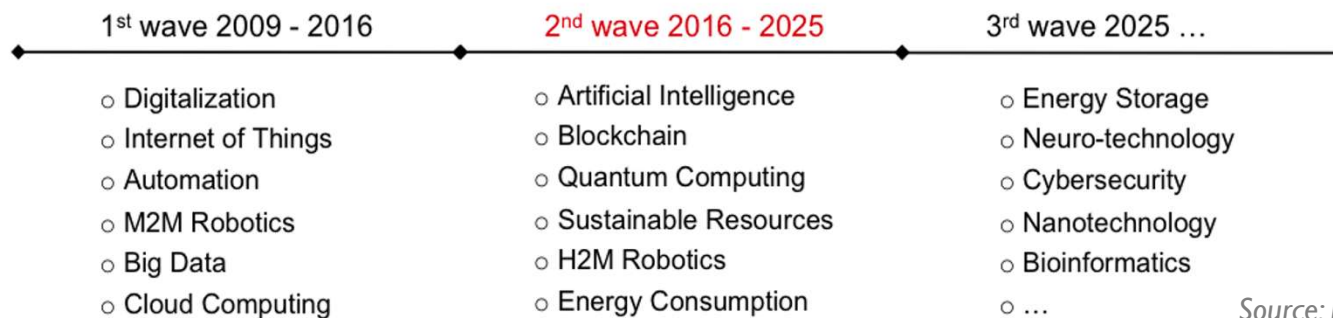
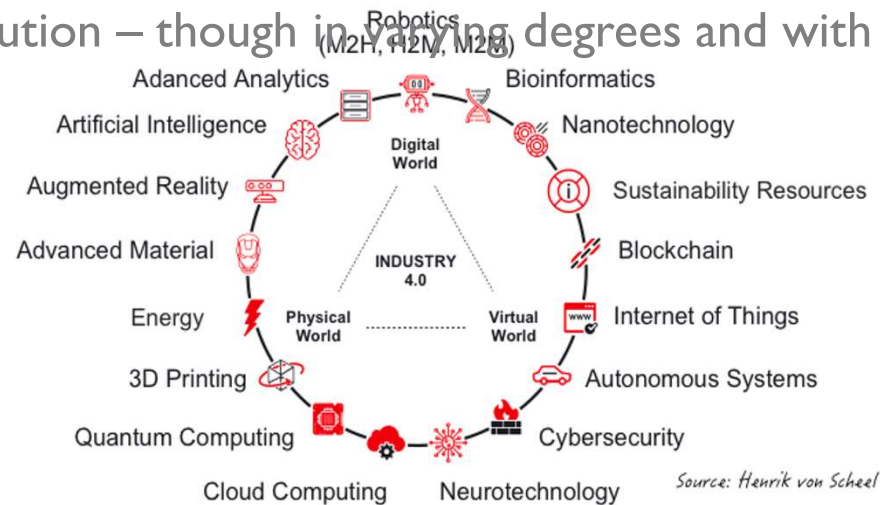


Industry 4.0



4th INDUSTRIAL REVOLUTION & ECONOMIC DEVELOPMENT

- The new global economic context and the impact of the 4th Industrial Revolution (4IR) may provide additional opportunities as well as threats that locations need to prepare for.
- Every single “target” sector or industry is likely to be affected by the 4th Industrial Revolution – though in varying degrees and with different outcomes.



4th INDUSTRIAL REVOLUTION & ECONOMIC DEVELOPMENT

CHALLENGES

Disruption of Traditional Industries



Automation & Employment Loss



Required Labor Skills



OPPORTUNITIES

3D Printing



Internet of Things



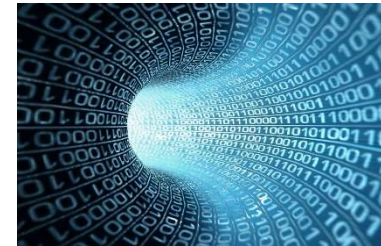
Self-Driving Vehicles



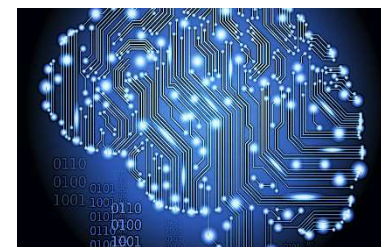
Robotics



Big Data & the Cloud





Artificial Intelligence




4th INDUSTRIAL REVOLUTION & ECONOMIC DEVELOPMENT


Examples of how 4IR companies disrupt (multiple) traditional industries

	Industry	How it Could Be Disrupted
	Space Launches	Offering lower priced transport into space
	Telecommunications	Offering lower priced service worldwide
	Satellite Internet	Putting more satellites into space for cheaper

	Automobiles	Building the best, lowest-cost electric vehicle
	Personal Transport	Eliminating the need for car ownership entirely
	Solar Energy	Increasing access with Powerwall and Solar Roof
	Fossil Fuels	Maximizing efficiency of solar panels
	Car Sharing	By making idle Tesla cars available via app

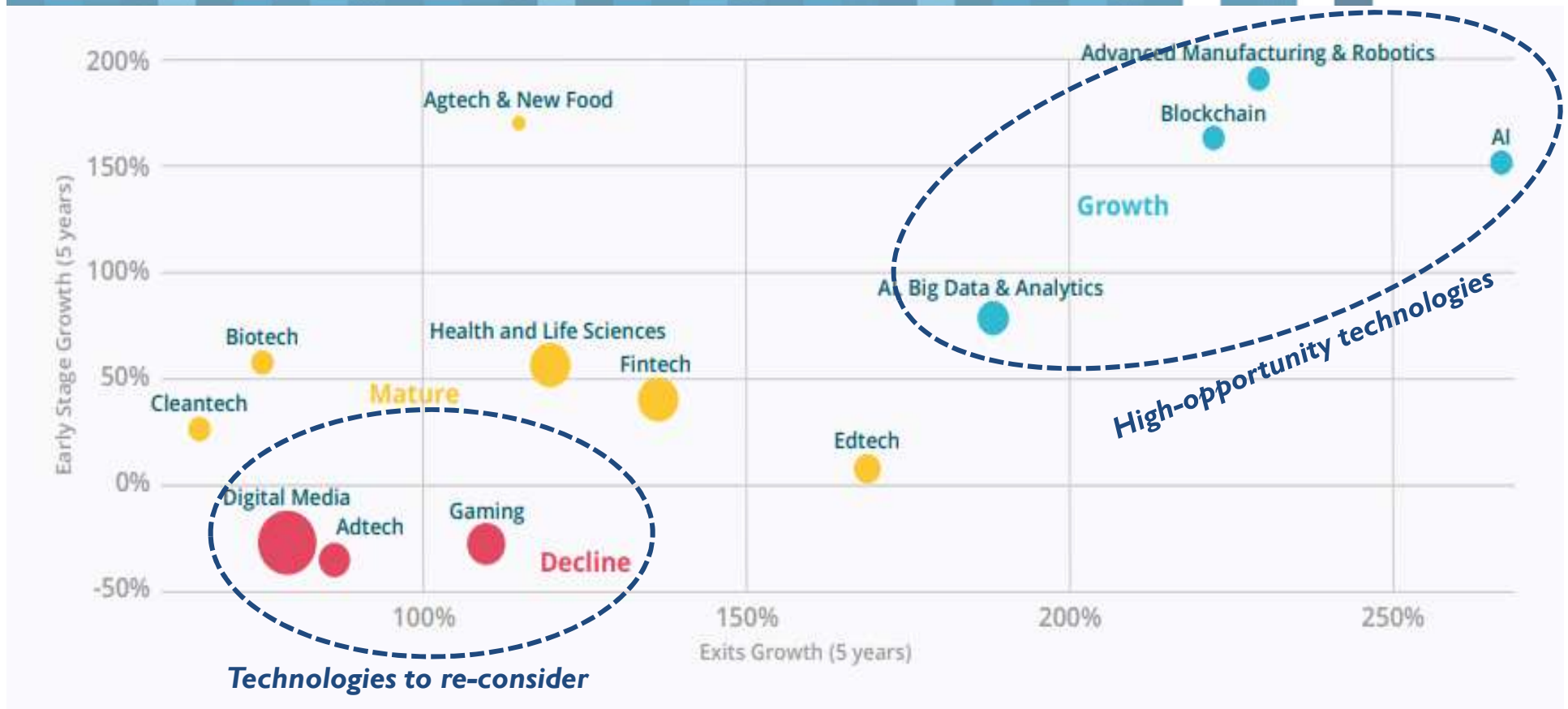
	Tunneling	Reducing cost of tunneling through the ground
	Infrastructure	Building more efficient transportation infrastructure
	Real Estate	Increasing range people can live from their place of work
	Freight Shipping	Reducing freight costs by a magnitude

	AI/Machine Learning	Owning the best AI system in the world
	Competitive Gaming	Consistently producing better-than-human AIs

	Prosthetics	Reducing cost of effective prostheses by magnitude
	Medicine (Treatment)	Treating serious illness with simple injection
	Military	Allowing enhancement of human capabilities
	Robotics	Better modeling of brain-machine interaction

Source: CB Insights (2018) “From Energy To Transport To Healthcare, Here Are 8 Industries Being Disrupted By Elon Musk And His Companies”⁵

TECHNOLOGIES & DISRUPTION



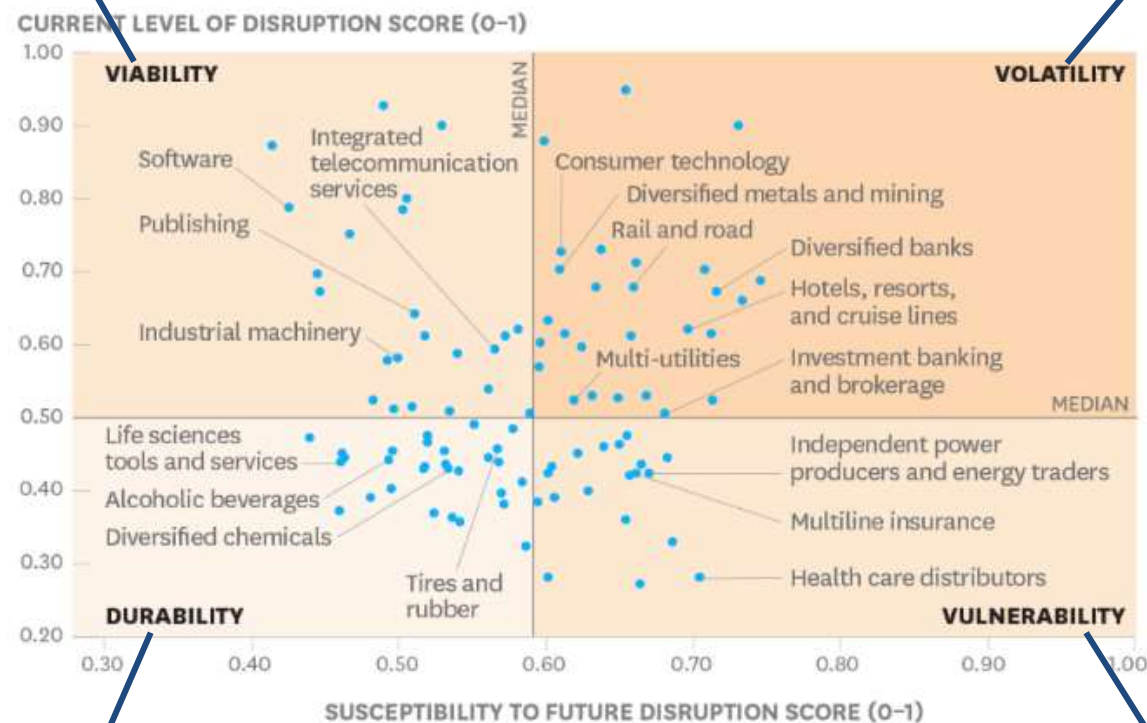
Source: Startup Genome (2018) Global Startup Ecosystem Report 2018

Different technologies of the 4IR provide different levels of opportunities. How do these impact your target sectors & industries?

FOUR STATES OF INDUSTRY DISRUPTION

New or reborn industries that have endured a significant disruption. High rates of innovation mean that sources of competitive advantage are often short-lived as new disruptors continually emerge.

High levels of disruption and are susceptibility to even more disruption in the short term. Strong barriers to entry have perished

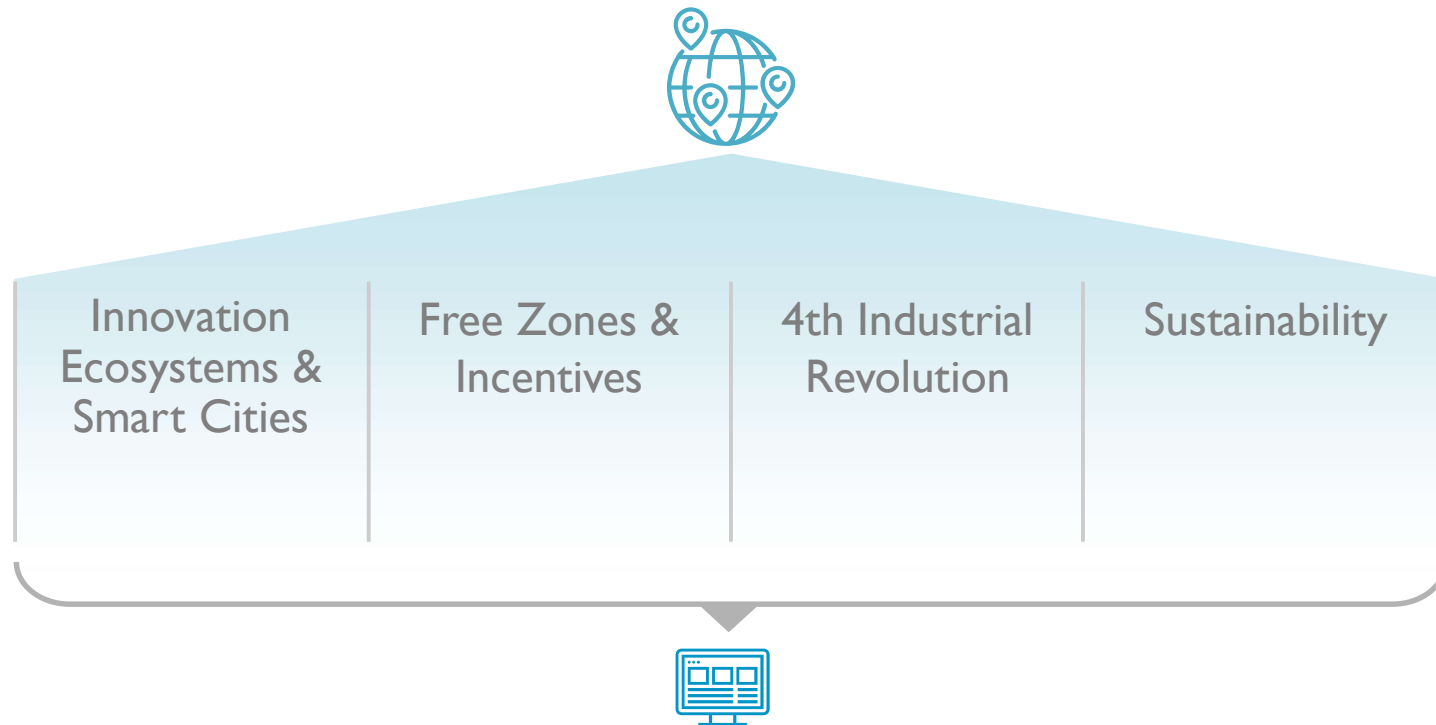


Efficient, mature industries where the sudden influx of non-traditional competition can be controlled, *if* executives are prepared to respond to changing consumer demands and take advantage of the growth opportunities.

Presence of high barriers to entry such as regulation and capital requirements. Often increasing pressure to improve efficiency and reduce operating costs. This pressure attracts opportunistic disruptors.

Drivers of Future Competitiveness

Drivers of Future Economic Development & Competitiveness



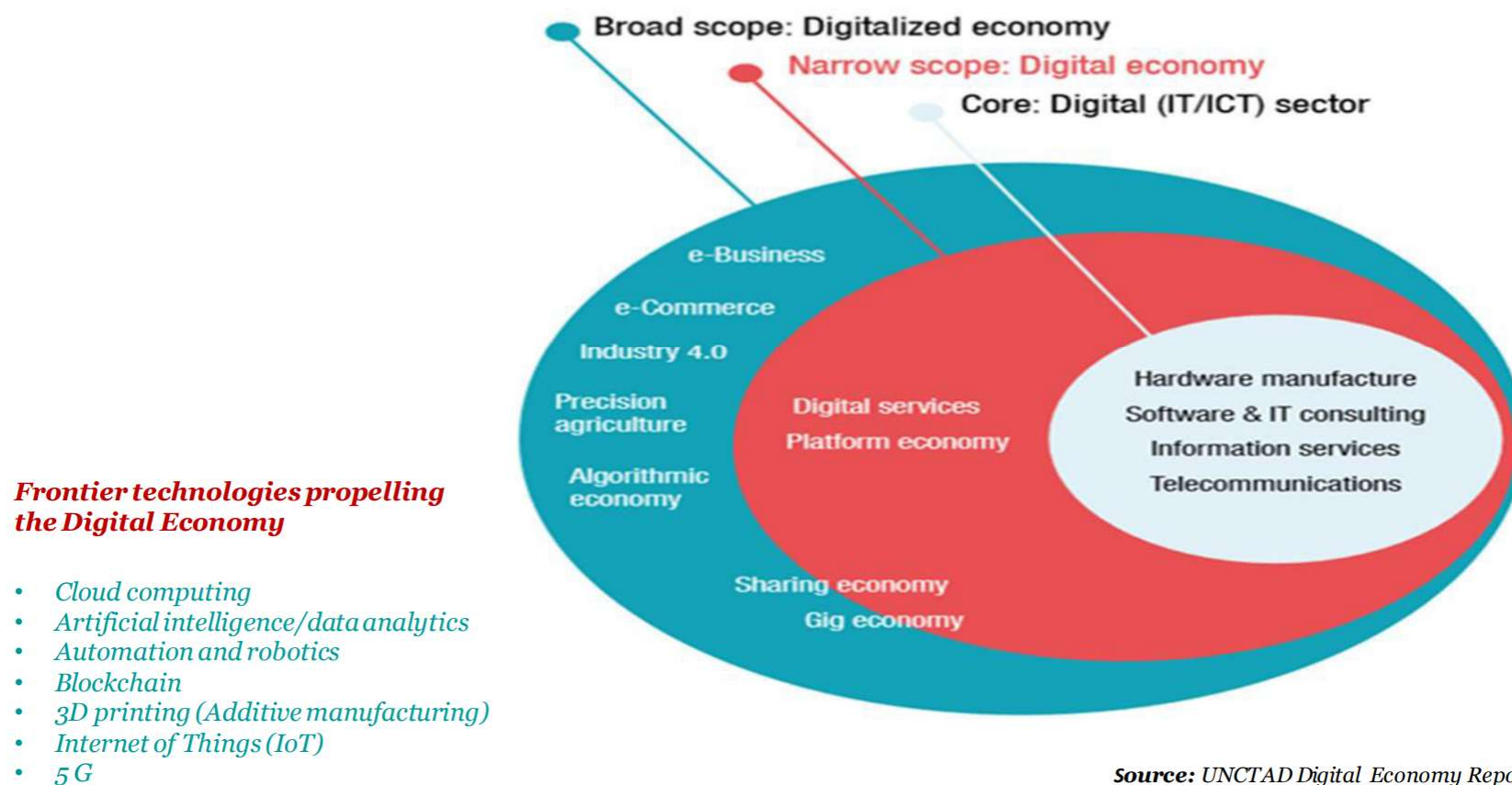


The digital economy



What does the digital economy look like?

Digital Economy: structure and content



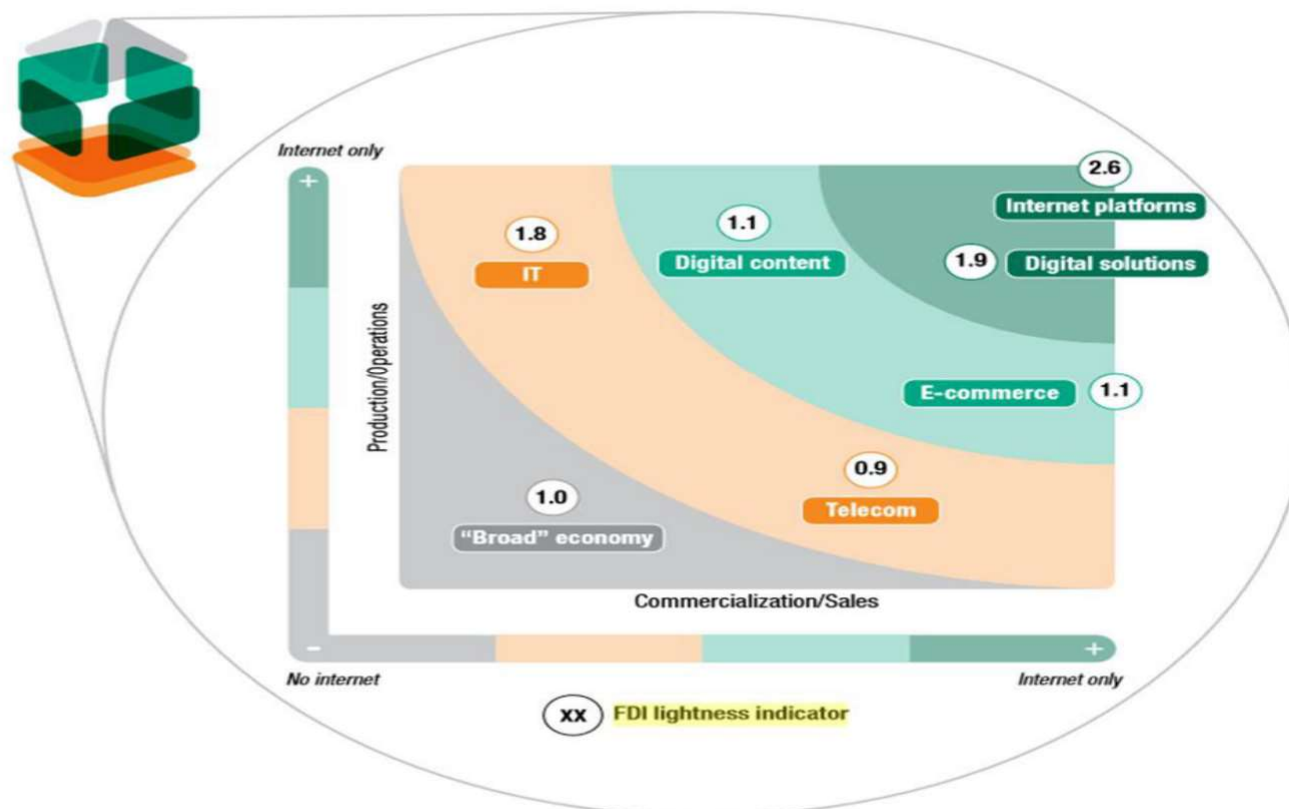
Source: UNCTAD Digital Economy Report 2019

FDI lightness or NFIs?

Growing Internet Intensity and 'FDI Lightness'

Possible FDI impact

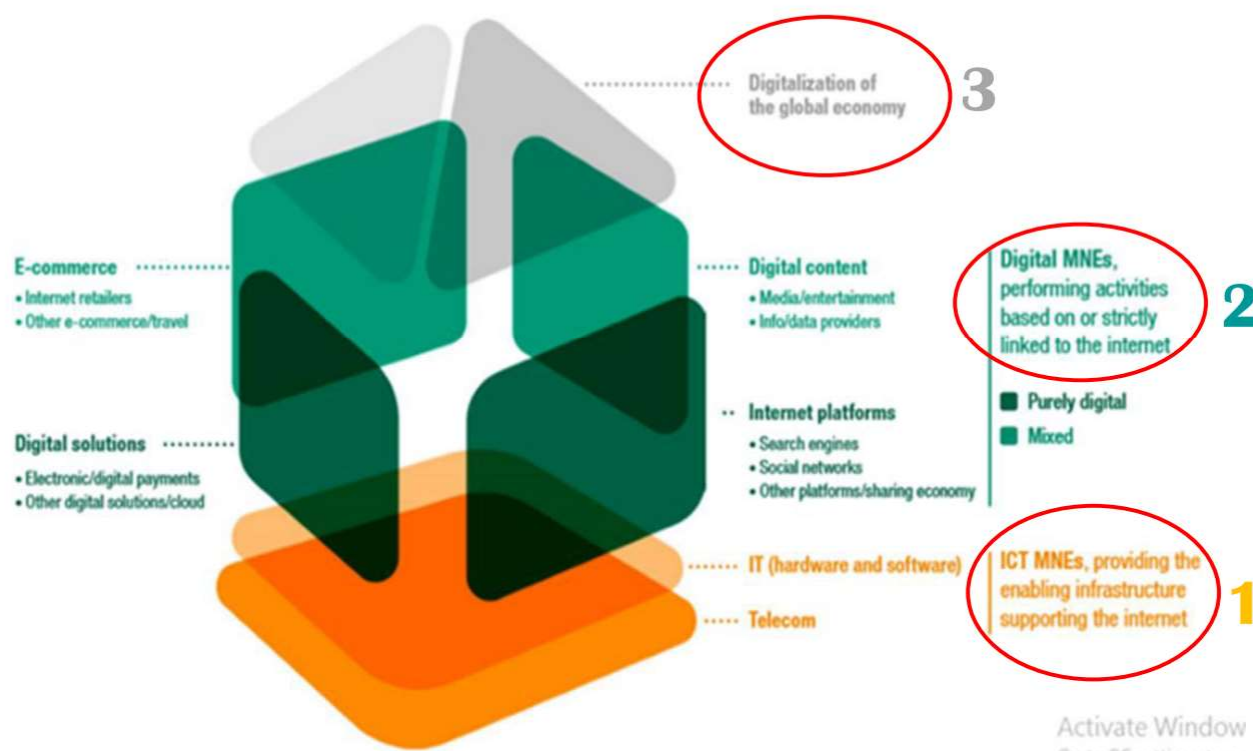
- Reshoring
- Regionalization
- Replication
- Diversification



Source: UNCTAD Department of Investment, Technology and Enterprise (various)

FDI in the digital economy

Digital Economy: 3 Types of Foreign Direct Investors (MNEs)

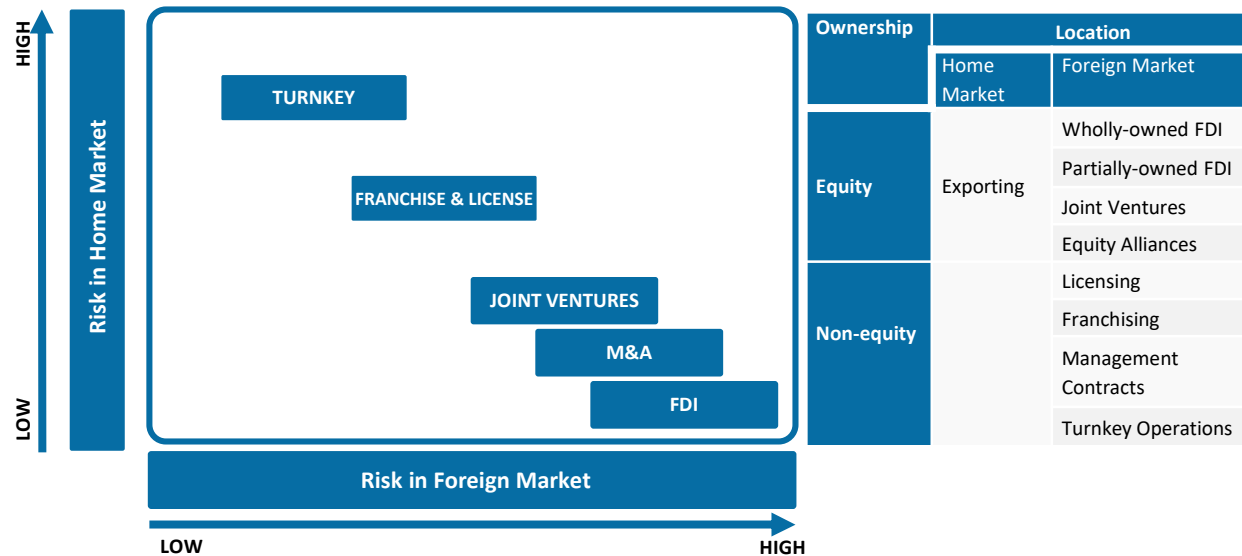


Source: UNCTAD World Investment Report 2017

FDI versus NFIs

NEW FORMS OF INVESTMENT

THE LANDSCAPE IS CHANGING



Preferred market entry strategy



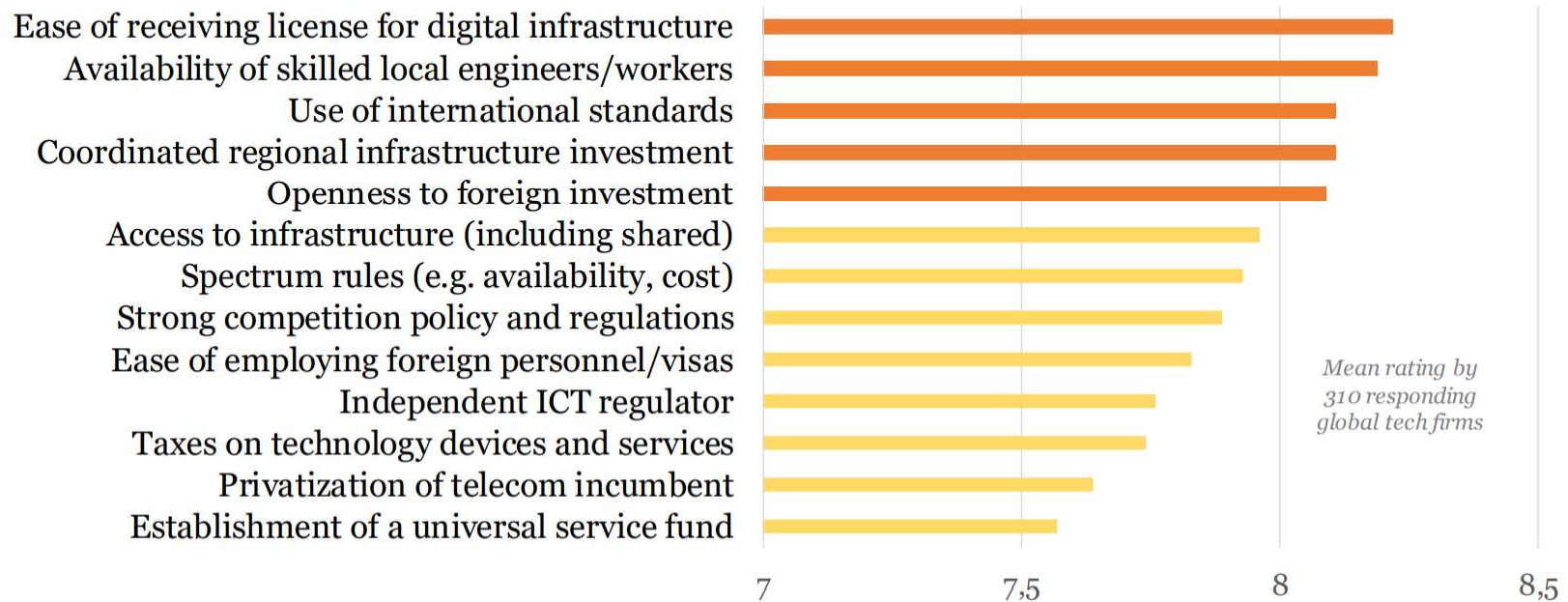
Location drivers of the digital economy



Key drivers of FDI for ICT MNEs

ICT MNEs: Key drivers of country choice

How important are the following regulatory elements for investing abroad in digital infrastructure?

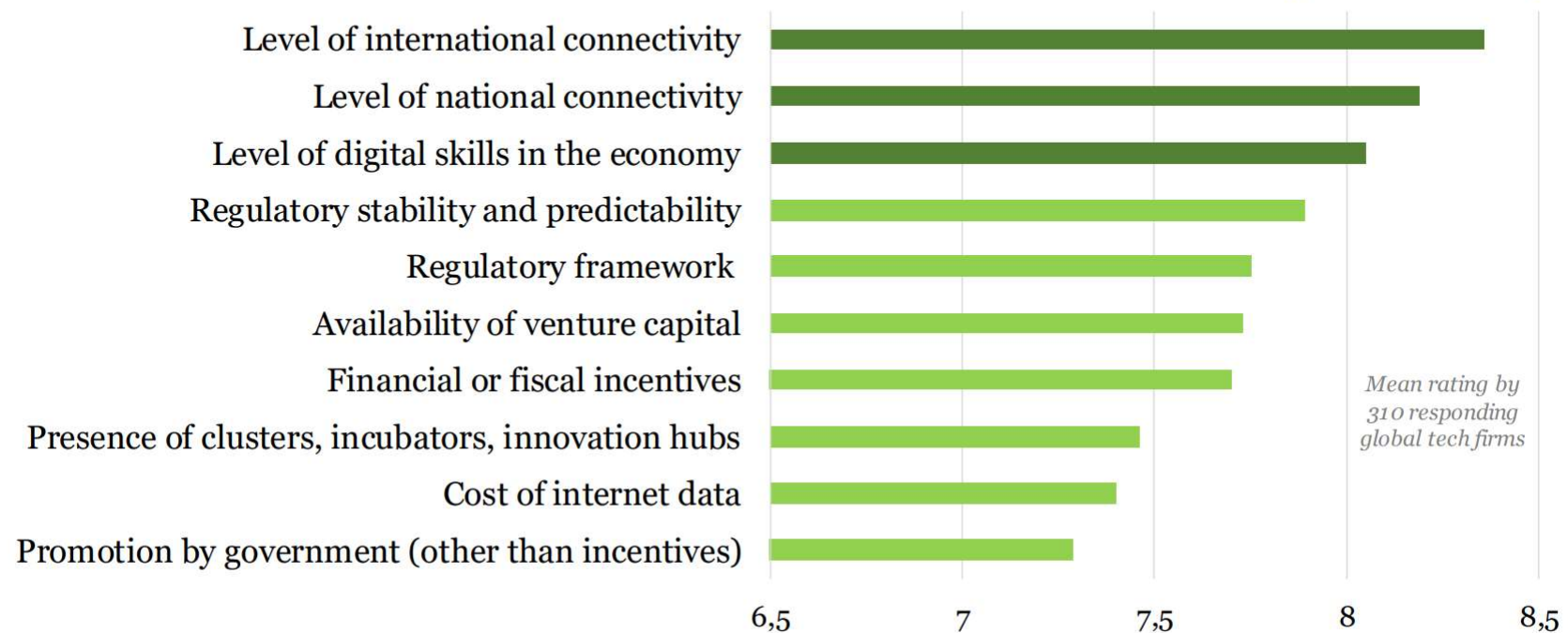


Source: World Economic Forum (2020), *Digital FDI: Policies, regulations and measures to attract FDI in the digital economy*

What attracts digital MNEs?

Digital MNEs: Key drivers of country choice

How important are the following for investing abroad in the digital economy?

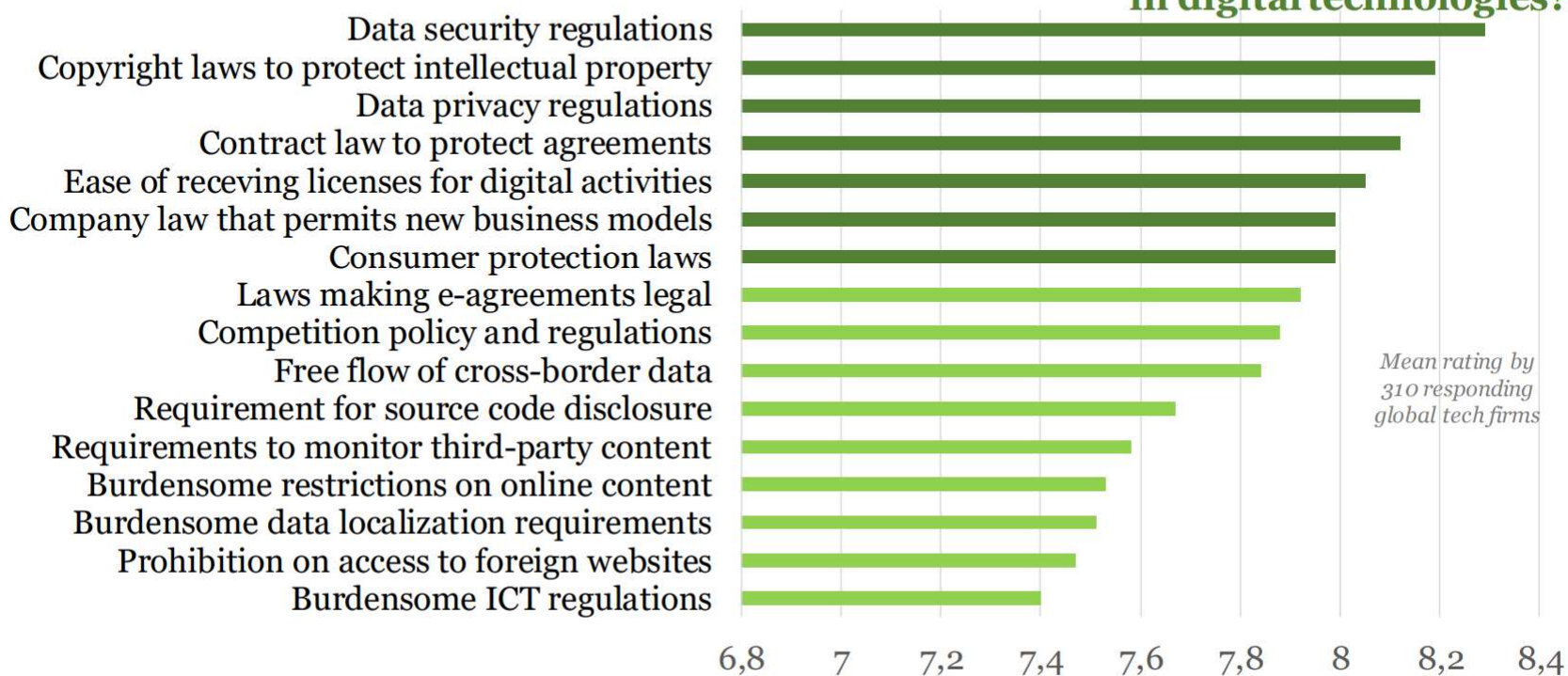


Source: World Economic Forum (2020), Digital FDI: Policies, regulations and measures to attract FDI in the digital economy

What about policy and regulation for digital FDI?

Digital FDI: enabling regulatory frameworks

How important are the following for investing abroad in digital technologies?

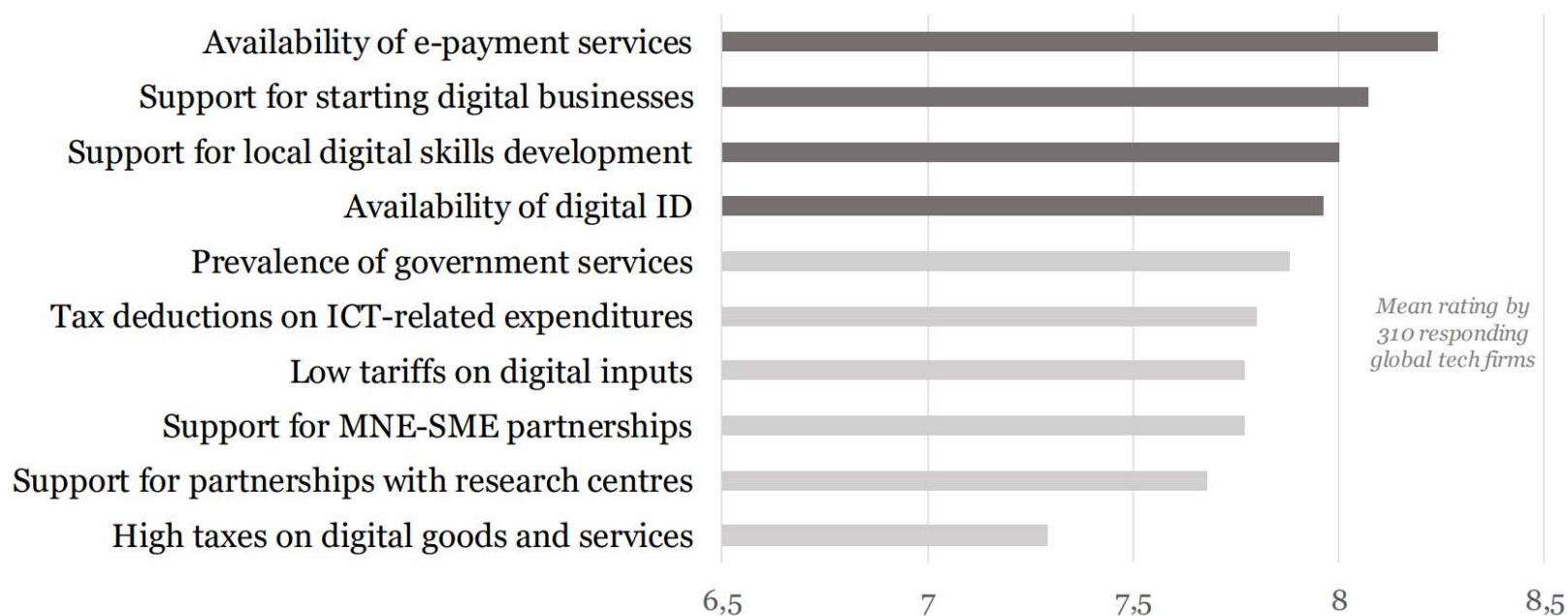


Source: World Economic Forum (2020), Digital FDI: Policies, regulations and measures to attract FDI in the digital economy

How can an economy adopt digital technology

Enabling FDI in Digital Adoption by the Broader Economy

How important are the following for adoption of digital technology?

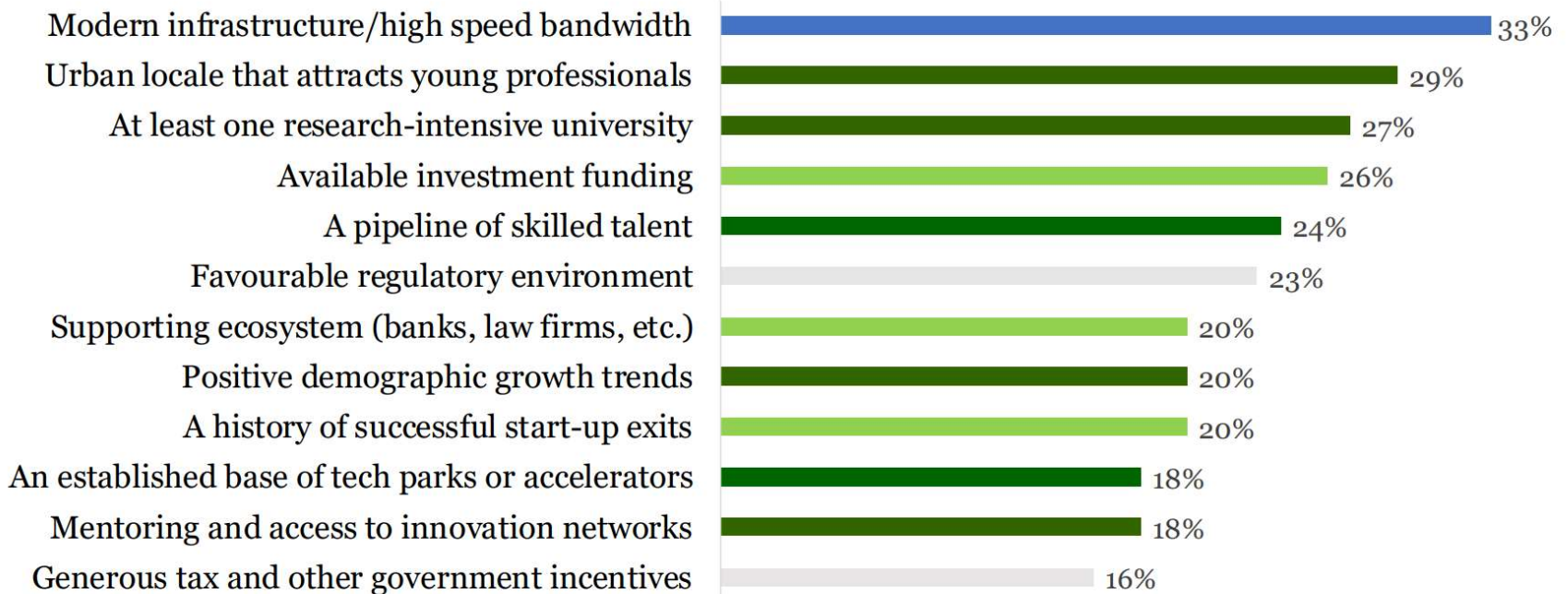


Source: World Economic Forum (2020), Digital FDI: Policies, regulations and measures to attract FDI in the digital economy

Tech hubs and the start up ecosystem

Tech hubs and venture capital are also essential

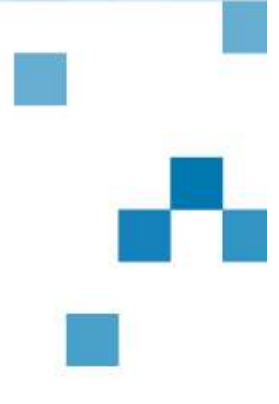
Core ingredients of dynamic tech hubs most attractive to digital economy investors



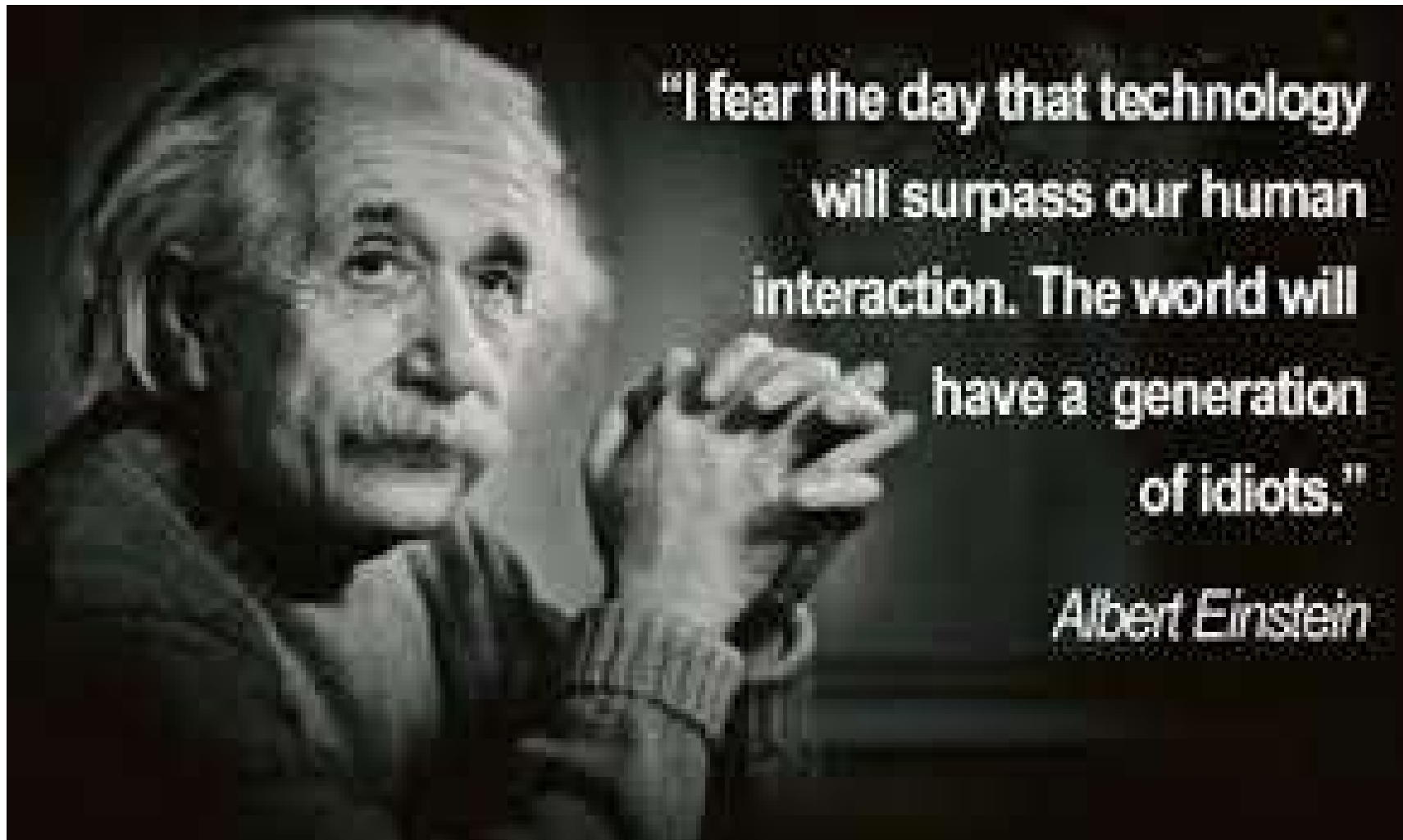
Source: KPMG Technology Industry Innovation Survey 2020



Impact on Economic Zones

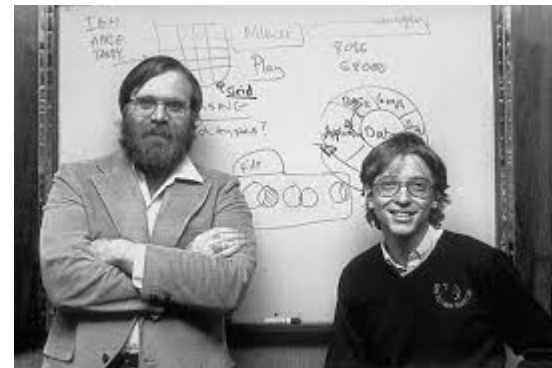


Einstein on Technology



TECH COMPANIES REQUIRE DIFFERENT SERVICES

Anticipating on the opportunities of the 4th Industrial Revolution requires to move beyond traditional incentives and services....



Sustainability and the digital economy go hand in hand

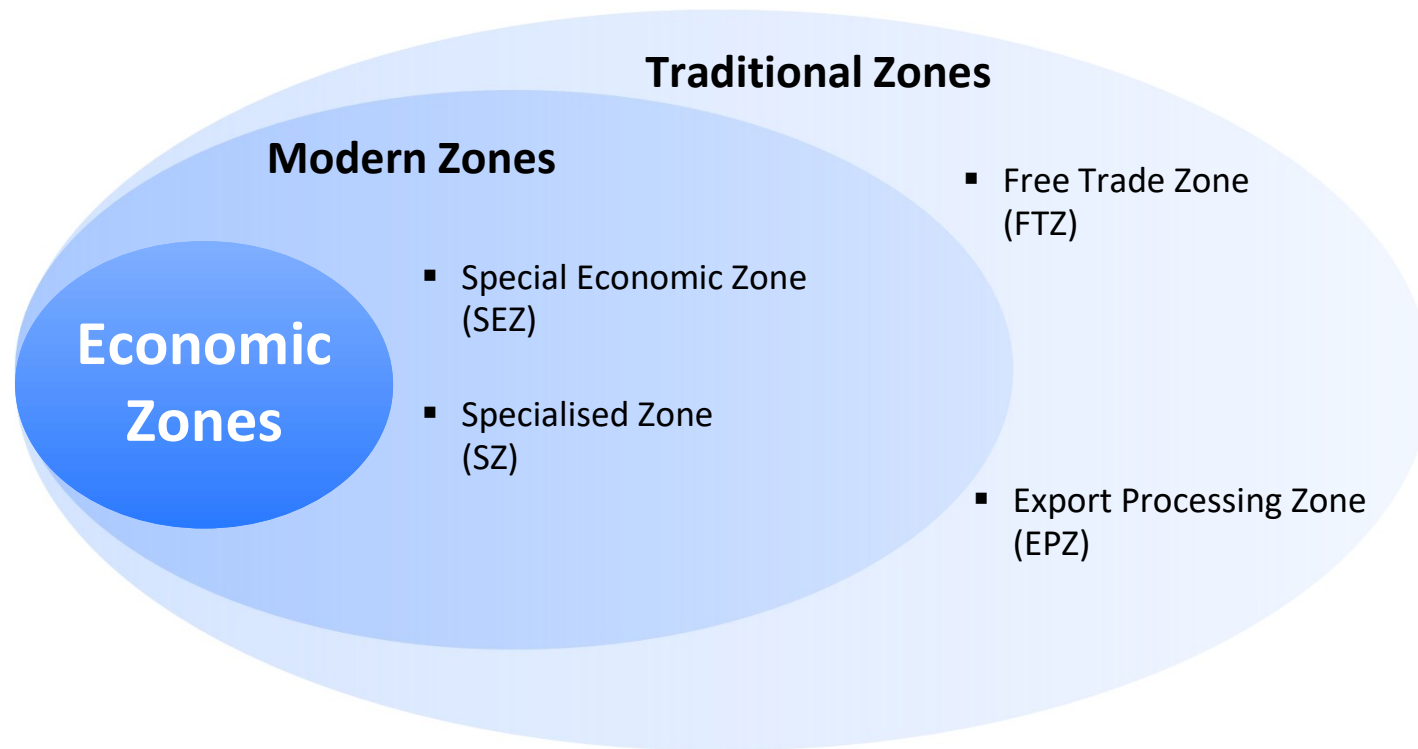


SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD



Where are the digital zones?



FREE ZONES – EVOLUTION & CHALLENGES



Globalization



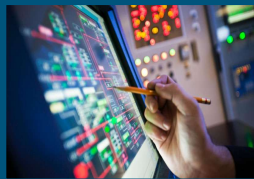
Liberalization



Regionalization



Economic Crises

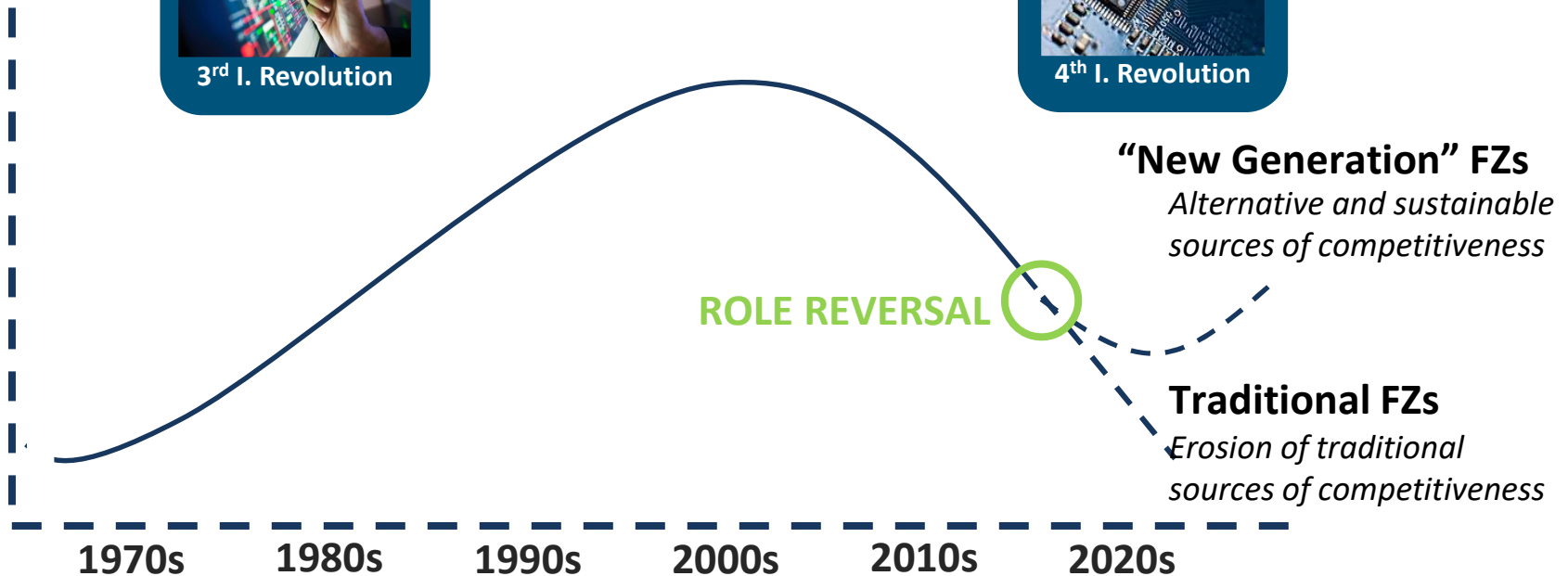


3rd I. Revolution



4th I. Revolution

FZ Competitiveness





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