

ASEAN@50:
The 4th IR & Challenges

Manila, 23-24/11/2017

Challenges and major issues

Global trends over next 20 years (VN 2035)

1. Multi polar world; geo-political and middle-class pressure
2. Aging population; urbanization (green/smart city)
3. 4thIR/Industry 4.0 (SMAC; IoT, AI; 3-D printing, blockchains; new energy technology, new materials; biotechnology)
4. Mega-FTAs (TPP?, TIIP?, RCEP, FTAAP) and regional linkages; regional and global institutional reforms
5. Resource competition (water, energy) and climate change
6. Arising Asia (China, India)
7. USD dominates then gradually decreases (Optimal currency group?)

Vision of ASEAN integration By 2015

1. Common prod base & single market
2. Competitive regional economy
3. Equitable dev't
4. Integration into the global economy

By 2025

1. A highly integrated & cohesive economy
2. A competitive, innovative & dynamic ASEAN
3. Enhanced connectivity & sectoral cooperation
4. A resilient, inclusive & people-oriented, people-centred ASEAN
5. A global ASEAN

■ ***Creating a new dynamism for ASEAN growth and development?***

➔ How ASEAN can utilize the economies of scale (Huge population with “middle class” + “hub” of production network & GVCs)?

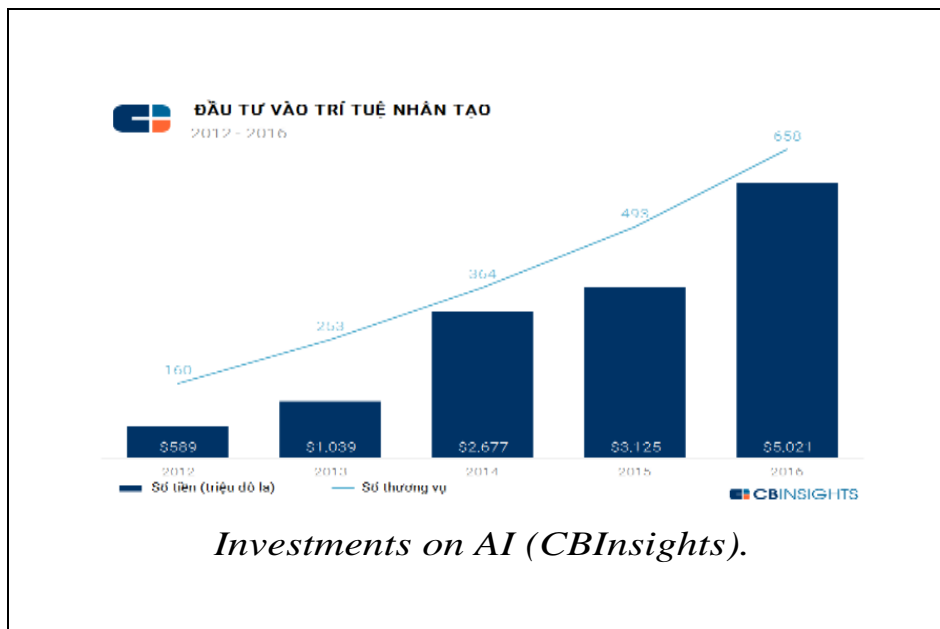
- To have a “highly integrated” AEC (Key problems: “behind the border” regulations; facilitation; NTMs; Services. Realization: Unilateral reforms + Cooperation and/or rule-based commitments)
- To promote further connectivity (“soft” and “hard” infrastructure)
- To take advantages of new technology & the 4thIR (digital economy; IPRs and competition policy; education & new skills; start-ups, SMEs in production networks and GVCs)

4th IR impacts: Very big & deep, on all aspects of human life (economy; society & culture; politics, security; and dev't competition among nations)

	Positive impacts	Challenges
<i>Economy</i>	Improving efficiency & quality	Job losses for both unskilled & some skilled (56% of all employment in ASEAN-5 is at high risk of displacement due to technology in the next two decades. Industries with high capacity for automation: Restaurants; Wholesale & Retail Trade; Construction; Manufacturing)
<i>Society, culture</i>	Improving living standards & the access to services with high quality + New values of culture and civilization	Inequality? Privacy? Cyber crime prevention? Dilemma in preserving traditionally cultural values
<i>Politics</i>	Strengthening transparency and accountability; democratizing social life	Building regulatory framework for digital world?

Impacts on business

- New skills demand; from “jobs” to portfolio of “tasks”; shorter job longevity
- New demand for products (“greener”, “smarter”, “more creative” and “individually customized”)
- New ways of doing business (in terms of resource allocation, market interaction and role of services). Boundaries between industries are blurring (car is just a computer on wheels). Emerging new industries/sectors (shared economy Uber/Grab; Fintech; E-commerce; “Blockchain”-based areas)
- Firms’ governance and management improvement (information collection & analysis; internal and external linkages; decision; and monitoring). R&D and IPR enforcement are key for determination of firms’ value
- Gov’t regulatory issues: Labour market (job security; insurance & pensions); money & tax; financial security and stability (“sandbox”)



- **Huge benefits vs. High costs and Risks** (Job losses; adjustment and compliance costs; Cyber-and connectivity security)
- Many things (life and social values, emotion,..) are being changing:
Hard now to quantify/measures (!?)
- **The key:**
 - The 4thIR is unavoidable and of necessity
 - Need to cope with and to have action (“priorities”!!)

Industry 4.0 Readiness Ratings of ASEAN Nations

Country	Basic Requirements	Efficiency Enhancers	Business Sophistication and Innovation Factors	Readiness Rating 20-50-30
Cambodia	4.2	3.6	3.0	3.5
Indonesia	4.8	4.3	4.1	4.3
Lao PDR	4.3	3.6	3.3	3.7
Malaysia	5.6	5.0	5.1	5.2
Myanmar	3.5	3.2	2.7	3.1
Philippines	4.6	4.3	3.9	4.2
Singapore	6.4	5.7	5.2	5.7
Thailand	4.9	4.6	3.9	4.5
Viet Nam	4.5	4.0	3.4	3.9

Source: Ramanathan (2017)

5 challenges for ASEAN digital economies (Karndee Leopairote 2017)



Lack of human capital & talent



Payment regulations & mechanisms



Internet infrastructure



Logistics infrastructure



Low consumer awareness & trust

■ **Lessons from the world and ASEAN experiences:**

- Having political will and determination
- Building foundations of an information (HR with new skills, high quality of IT infrastructure; values of civilized society)
- Creating an environment encouraging innovation and being attractive to talents; Firms and technology institutes play central role
- Selecting priorities (meeting both national dev't and the 4thIR demands) + having appropriate supporting policies

- Actions for ASSEAN (Steven C.M. Wong 2017)
 - AEC needs urgently to discuss impact of automation, robotics, artificial intelligence, industrial internet of things (IIoT) on economies
 - Effort should be cross-cutting: Economics, Science & Technology, Human Resources and Education (STEM)
 - Current efforts (AFTA, RCEP) still rooted in 2nd Industry Revolution. Need to transition at least to 3rd within this decade. Open up telecom infrastructure, digital providers and value added services

The case of Vietnam

Plus	Minus
<ul style="list-style-type: none"> • Right recognition and political will (Party Resotution on IT (as a key foundation for dev't); PM's Direction16/CT-TTg 	<ul style="list-style-type: none"> • Very slow implementation/enforcement (in terms of resource allocation, action, and coordination)
<ul style="list-style-type: none"> • Having comparative advantages and a name in the world IT map 	<ul style="list-style-type: none"> • Regarding 4 indicators GCI, GII, GMCI and NRI, Vietnam is just approaching to the average of ASEAN-5 • Vietnam's readiness to the 4thIR is lower than that of ASEAN -5
<ul style="list-style-type: none"> • Relatively good social foundation (55% of people use internet, about 60% using smart phones (2016),... 	<ul style="list-style-type: none"> • HR with good skills and infrastructure are still major problems. Existing "digital gap".
<ul style="list-style-type: none"> • Technologies of the 4thIR have been somehow applied in many areas (production and business; health care; transportation, banking,...) 	<ul style="list-style-type: none"> • The application is far from mass scale. VN is being losing its comparative advantages
<ul style="list-style-type: none"> • Aspirations and decisive embarkation of a number of VN's companies 	<ul style="list-style-type: none"> • A recent survey: 66% firms thought VN is hard to catch up with the 4thIR

■ **Necessary conditions for VN to catch up with the 4thIR**

- ***National governance:*** (1) Leaders' responsibility & accountability; (2) Priority focus and resource allocation (VN often wants to achieve too many targets); (3) "Accepting" challenges & knowing risk management
- ***Innovation:*** An institution enhancing innovation and a National Innovation System (NIS) in which firms and technology & science institutes play a central role + Creation of a legal framework in favor of "knowledge & creation" and development of various forms of investment funds
- ***Human resource:*** An education system suitable for new skills, including "digital skills"; An working environment attracting talents
- ***Infrastructure:*** An appropriate IT infrastructure (broad & high speed band; good database) and cyber-security

■ Implementation and actions

- VN 2035: 6 areas for breakthrough + The 4thIR Xây dựng → To build a *National Digital Transformation Strategy*

Breakthroughs	Priorities/Focus
<i>1. Institution reform</i>	<ul style="list-style-type: none"> ● E-Government
<i>2. Strengthening of competitiveness and development of private sector</i>	<ul style="list-style-type: none"> ● Start-up eco-system; smart governance; smart logistics and infrastructure ● Sectors of focus: agriculture; tourism; IT
<i>3. Innovation enhancement</i>	<ul style="list-style-type: none"> ● Tertiary education & university; English; Talent attraction & development of “digital” human resource
<i>4. Urbanization</i>	<ul style="list-style-type: none"> ● Smart cities (ecological friendly, people-center; economic efficiency)
<i>5. Equality and social inclusion</i>	<ul style="list-style-type: none"> ● Digital access; inclusive finance
<i>6. Sustainable development</i>	<ul style="list-style-type: none"> ● Natural disaster management; Coping with climate change