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Sustainable Development through Technology and Innovation

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- How can we incentive the take-up and adoption of innovation technology, for sustainable development in the GMS and ASEAN?
- What best practices can be learned from innovation leader and achievers : leveraging strengths and addressing weaknesses in innovation performance in the GMS and ASEAN?
- What are the key lessons that policy-makers need to take into account to leverage sustainable industrial development?

Trend of Technology and Innovation

- Speech and Language Technology will advance near to human language
- Deep Learning technology will advance help to data manage and help study & learning
- Biological Information Processing will replace old technology
- Virtual Reality will clever and in the further we have reality life in VR. / AR.
- (Artificial Intelligence) AI. And Robotic will come and replace human worker some part of working

— Credit source: <https://blogs.microsoft.com/next/2016/12/05/17-17-microsoft-researchers-expect-2017-2027/#sm.0007fy9za16y1fea1045co41lnva1>

Trend of Technology and Innovation

- Smart Technology will appear and advance : IOT. , AI. , Robotics , CCTV + Data Analytics ...
- Mobile Application will reduce and Chatbot will replace
- Internet of Things : IOT. And AI. will apply to farm / smart farm
- FPGA, Non-silicon Processor, Near Data Processing, Quantum Computing, DNA Storage and Near Eye Display
- Big Data will very important in the further

— Credit source: <https://blogs.microsoft.com/next/2016/12/05/17-17-microsoft-researchers-expect-2017-2027/#sm.0007fy9za16y1fea1045co41lnva1>

Why SME's must use Technology and Innovation

- Add up productivity (speed simply standard by technology and innovation)
 - I. Order by fax machine very slow / Line is fast
 - II. Connect and share database is perfect : Central Group in Thailand link system to supplier to automatic PO. → Automatic payment to due date very easy / standard

Why SME's must use Technology and Innovation

- Able to management (every time everywhere)
 - I. Traditional business owner sit in shop / Now and in the further owner can be manage every time everywhere
 - II. Technology / Innovation are support business : Mobile can be manage everything (camera , take note , presentation , calculate ...)

Why SME's must use Technology and Innovation

- Technology Force (if SME's not change is stop or back step)
 - I. E-commerce open channel to access to many customer (very great opportunity)
 - II. Cloud computing help SME's reduce cost (pay per use for software not buying)
 - III. Drone and IOT. technology improve farmer to smart farm
- Another's
 - I. Government force to change for some benefit : Tax , Loan
 - II. Change generation of business owner

How can we incentive the take-up and adoption of innovation technology, for sustainable development in the GMS and ASEAN?

- Tax Incentive Measurement
 - I. Thailand promote and support to SME's (SME's use software can be double reduction income tax) policy by Minister of Digital Economy and Society
 - II. R&D project can be reduction tax 200 percent policy by Minister of Science and Technology
 - III. BOI. Offer investment zone area to invest in Thailand by reduce income tax per zone
 - IV. etc ...

How can we incentive the take-up and adoption of innovation technology, for sustainable development in the GMS and ASEAN?

- Intellectual Property Measurement
 - I. Education to people for understand about IP.
 - II. To fight for conscious of people
 - III. To protect of violet IP.
 - IV. Reduce of violet IP. And to promote ecosystem for build creative and innovation products for drive industry of the country



How can we incentive the take-up and adoption of innovation technology, for sustainable development in the GMS and ASEAN?

- Finance and Loan Measurement
 - I. Privilege to SME's and Entrepreneur use Technology / Innovation (low interest long term and etc...)
 - II. Privilege about free consultation with expert
 - III. Privilege about international market exhibition

How can we incentive the take-up and adoption of innovation technology, for sustainable development in the GMS and ASEAN?

- Education Measurement
 - I. Education to people for understand about IP.
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What best practices can be learned from innovation leaders and achievers : leveraging strengths and addressing weaknesses in innovation performance in the GMS and ASEAN ?

- Technology and Innovation change SME's must change
 - I. Thailand government support and investment in EEC. Megaproject SME's should be follow (EEC. & One belt One Road to be in the line strategy)
 - II. Malaysia government support and investment in e-commerce industry
 - III. IOT. Very important technology not far from now will convergence to business activity
 - IV. Thailand predict in 2021 will got fully aging society ROBOTIC / AI. Technology will replace human working

What best practices can be learned from innovation leaders and achievers : leveraging strengths and addressing weaknesses in innovation performance in the GMS and ASEAN ?

- Society Trend / New opportunity for make business
 - I. Society 1.0 : Hunting Society
 - II. Society 2.0 : Agrarian Society
 - III. Society 3.0 : Industrial Society
 - IV. Society 4.0 : Information Society
 - V. Society 5.0 : Super Smart Society

What best practices can be learned from innovation leaders and achievers : leveraging strengths and addressing weaknesses in innovation performance in the GMS and ASEAN ?

- SIGMA* (Government + Private sector)
 - I. Security or Cyber Security to protect from crime cyber
 - II. Infrastructure provide to support people
 - III. Government or e-Government to help people access to government services
 - IV. Manpower
 - V. Application

What are the key lesson that policy-maker need to take into account to leverage sustainable industrial development?

- Technology and Innovation very important (not ignore)
 - I. Access to services from government (G-services move to on internet / cloud computing)
 - II. Add up productivity / potential / growth of business
 - III. Super fast / high way (Information and Data pull on internet / cloud computing)
 - IV. Be equal farmer / SME's / Entrepreneur / business sector is equal about data and information
 - V. Finance Industry big change because of Fintech coming
 - VI. Medical and healthcare industry big change because of AI. / IOT. Coming
 - VII. Agriculture big change because of AI. / IOT. Coming
 - VIII. E-commerce will change traditional of commerce

What are the key lesson that policy-maker need to take into account to leverage sustainable industrial development?

- Skill development

the transformation to industry 4.0 will replace routine jobs with robotics and automation. Therefore, it is necessary to develop new skills that better support Non-Routine/Non-Repetitive/Task specific/Project-based jobs. The government will set up a system to integrate education, training, and occupation development for Thais to adjust to changes and allow them to set their future paths. Measures under this sub-agenda include alternatives for education, training and occupation development, development of educational and training systems, and development of skills to meet the demands of the industrial sector

What are the key lesson that policy-maker need to take into account to leverage sustainable industrial development?

- Incubate Entrepreneurs and Develop Networks of Innovation-Driven Enterprise

A shift from traditional farmers to” Smart Farmer” who focus on management and technology and have the ability to convert themselves into a modern agricultural business model. Development of ecosystem for smart farmers will include educational and training, study and career support funds, database and agricultural information system development

What are the key lesson that policy-maker need to take into account to leverage sustainable industrial development?

- Incubate Entrepreneurs and Develop Networks of Innovation-Driven Enterprise

A transformation of traditional SMEs into “Smart SMEs” Thailand 4.0 aims to increase the revenue and contribution of SMEs from 37% of total GDP to 50% of national GDP within 10 years. The Government plans to develop SMEs through financial support for SMEs that have potential but lack of financial liquid, develop knowledge and management skills, enhance digital transformation, create Big Data and develop open innovation for SMEs

What are the key lesson that policy-maker need to take into account to leverage sustainable industrial development?

- Incubate Entrepreneurs and Develop Networks of Innovation-Driven Enterprise
A switch from traditional services to “High Value Services” Thailand is internationally recognized in 6 service businesses; (1) Wellness & medical services: spa and beauty services, elderly care, medical services (2) Digital content services: movie industry, advertising, animation, gaming, and software (3) Hospitality services : tourism service, hotel management, reception services, event organizations (4) Education services (5) Professional services: designers, accountants, lawyers, consultants, doctors, dentists, IT developers and (6) Logistics services: logistics, distribution centers, IT logistics, postal services. Several measures are set to enhance competitiveness of these 6 services cluster, for example, investment promotions, establishment of Service Innopolis, build global collaborative and market networks

What are the key lesson that policy-maker need to take into account to leverage sustainable industrial development?

- Incubate Entrepreneurs and Develop Networks of Innovation-Driven Enterprise

Startup development promotion Thailand 4.0 has set the policy to support startups development at all stages with the policy to push Thailand towards becoming “*Center of Connectivity and Destination for Startup Investment in ASEAN*” by encouraging competition for business ideas, providing clear and strong incentives to angel and venture investors, undertaking policies to support incubation and growth of startups and establishing stock exchanges for startups to sell the equity of successful startups to interested investors.

Moreover, 3 measures have been set in order to build ecosystems for incubating startups. Such measures include (1) financial support and risk management measures, (2) Capacity-Building Measures for Thai startups, and (3) Building connectivity with the regional and global community

<http://thaiembdc.org/thailand-4-0-2/>



Reference information

- <http://thaiembdc.org/thailand-4-0-2/>
- <https://www.techtalkthai.com/17-technology-predictions-for-2017-2027-by-microsoft-researchers/>



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