



Global value chain trend in 2018

Ministry of Industry
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กระทรวงอุตสาหกรรม
Ministry of Industry



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Outline



- 1. Definitions : GVCs**
- 2. ประเทศไทยมีส่วนร่วมใน GVCs อย่างไร**
- 3. Lesson Learned/Good Practices**
- 4. แนวทางการพัฒนา GVCs ของประเทศไทย**
- 5. Case Study : Rubber Industry**



1. Definitions : GVCs

Definitions : GVCs

Global Value Chain or Global Production Network

“The process of trade and production network which disperse around the world to search for resources, labor, infrastructure, technology, capital, tax and trade facility etc. to achieve the objective of **least cost, quick response, creditability** and customer satisfaction.



2. ประเทศไทยมีส่วนร่วมใน GVCs อย่างไร

Thailand and GVCs



For Thailand to join GVCs, we should set the best policies package for:

- 1) ICT to coordinate and link around the world.
- 2) Trade liberation & trade facilitation.
- 3) International logistics connectivity.

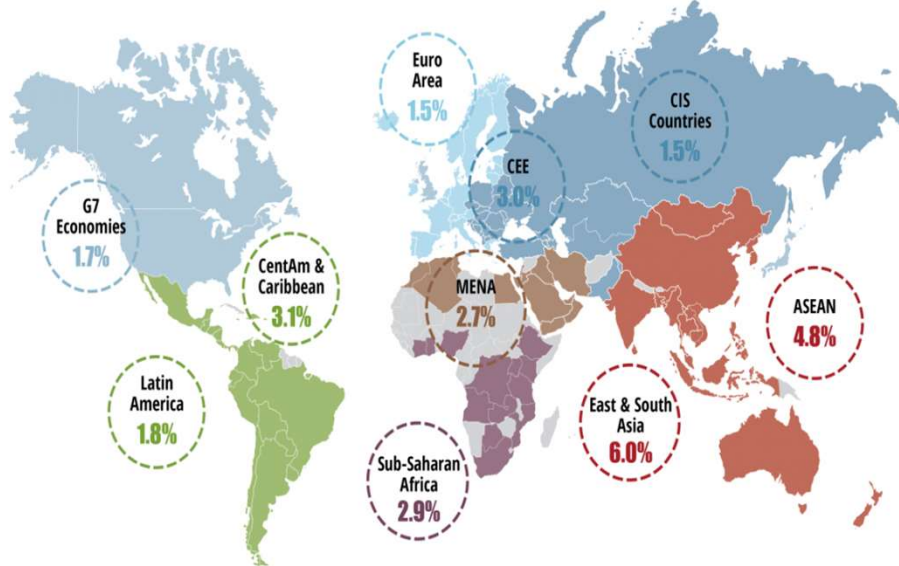
To achieve the goal of least cost, quick response and creditability.

Upgrade Thailand GDP and GDP per capita to highly income country



GLOBAL GROWTH TO EDGE UP IN 2017

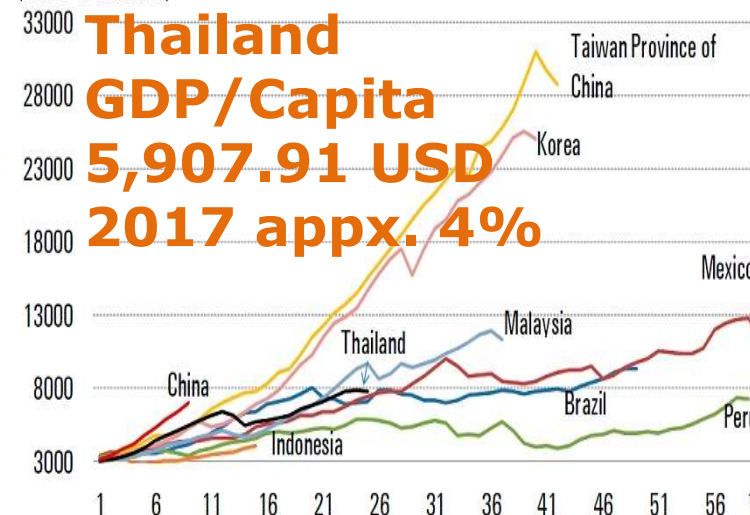
Geopolitical factors, elections in various European countries and the inauguration of Donald Trump as President of the U.S. will all contribute to a highly uncertain global context in 2017. Analysts expect the world to grow 2.9%.



FocusEconomics Consensus Forecast - www.focus-economics.com

FOCUS ECONOMICS

GDP/Capita
(in PPP U.S. dollars)



Source: IMF staff calculations.

* t=0 is defined as the year when the GDP per capita for a particular country reached 3000 U.S. dollars in PPP terms.

To join Hi-end Global Value Chains is the Best answer?

GDP of Some ASIA and ASEAN Countries in 2017 (Nominal GDP)



Country	GDP (billion USD)	Population (million)	GDP per capita (USD)	Growth (%)
Cambodia	20.02	15.76	1,270	6.9
Myanmar	67.43	52.89	1,275	7.2
Vietnam	203	92.70	2,186	6.3
Laos	15.9	6.76	2,353	7.0
Philippines	305	103.30	2,951	6.6
Indonesia	932	261.10	3,570	5.2
Thailand	407	68.86	5,908	3.9
Malaysia	296	31.19	9,503	5.4
Brunei	11.40	0.42	26,939	-1.3
Singapore	297	5.61	52,961	2.5
India	2,264	1,324	1,709	6.7
China	11,200	1,379	8,123	6.8
South Korea	1,411	51.25	27,539	3.0
Japan	4,939	127	38,894	1.5
Hong Kong	321	7.35	43,681	3.5

Source : OECD



3. Lesson Learned/Good Practices

OECD report : 70% of world trade is in GVCs



The rise of GVCs

- Half the world's manufacturing imports are themselves semi-finished inputs
- Around 70% of world service imports are intermediate services
- Trade in intermediate goods and services account for the majority of international trade

The keen strategy to join GVCs



- Focus on Hi-End GVCs not Low-End :

Leading Auto-makers



Leading Auto parts makers

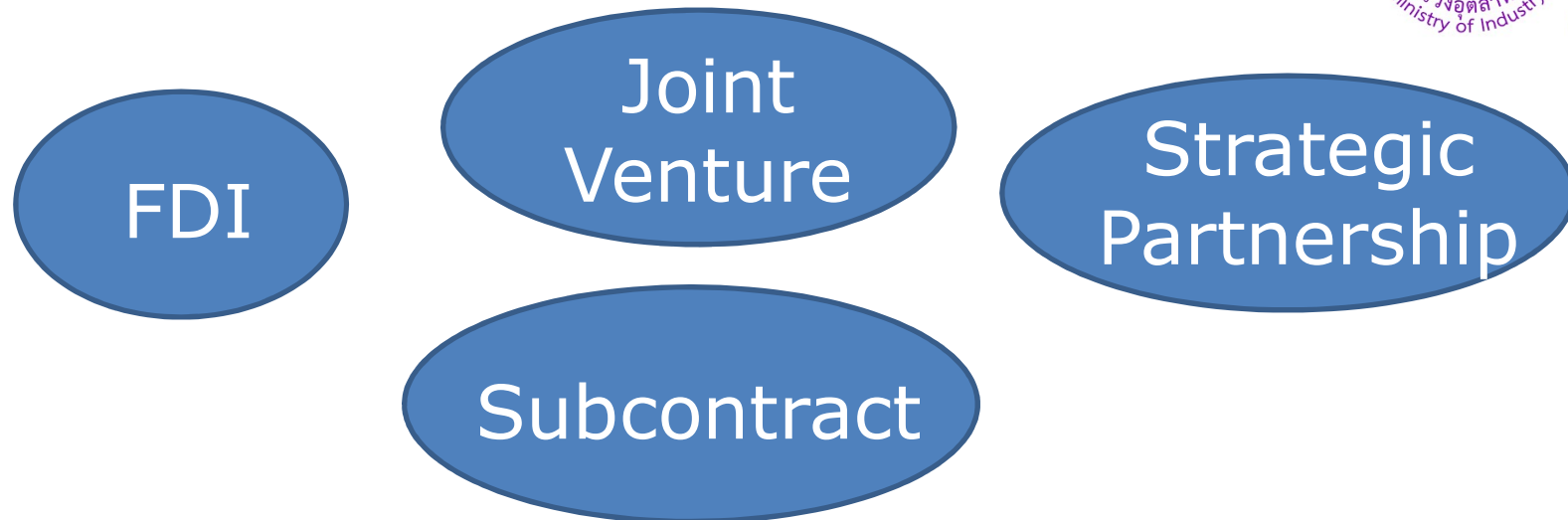


Major Companies in Thailand For parts manufacturing & MRO



- Hi-End GVCs create High Value added to Thailand more than world GDP growth rate.

How to join GVCs?



Samsung share Funds and **Toshiba** share Technology in R&D of flash memory chips.

LG share Funds and **Phillips** share Technology in R&D of thin-film transistor/liquid crystal display screens.

Foxconn Taiwan company buy **Toshiba**.

Hisenne Chinese company by **Sharp** electronics department.

How to join GVC? What's policy?



1

2



3

**Technology
first and
follow by
Commerce**



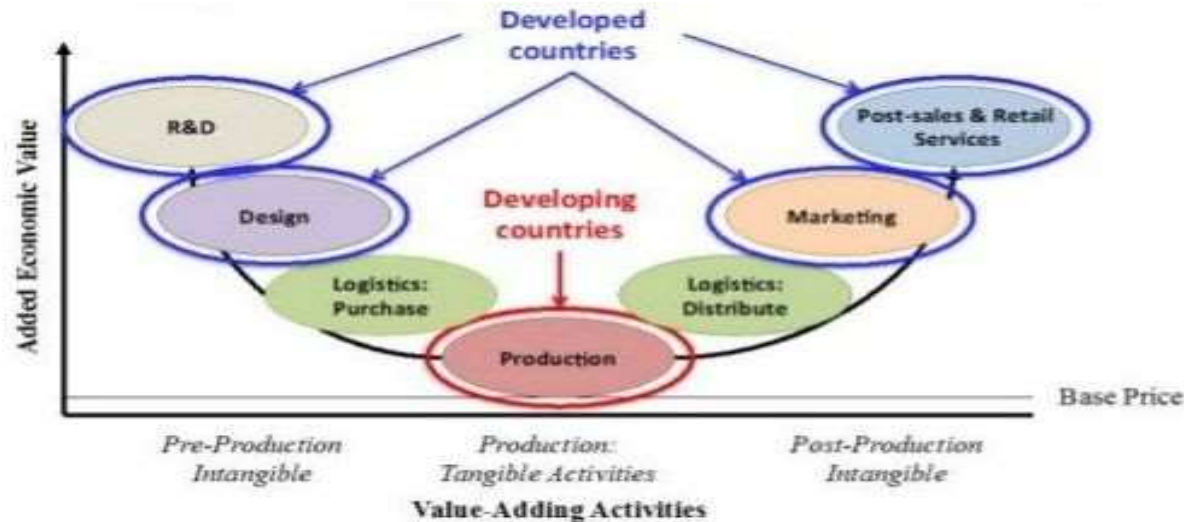
**Commerce
first and
follow by
Technology**



**Commerce
together
with
Technology**



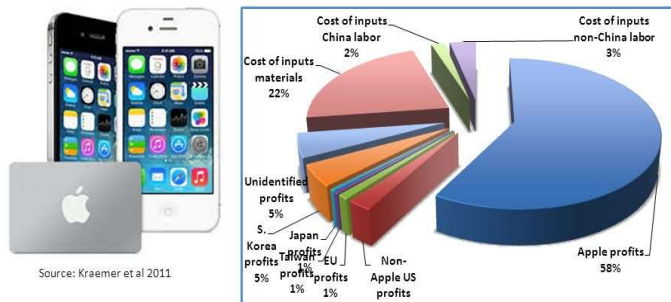
Global Value Chain or Global production network



Value Chain



Distribution of value for Iphone



Source: Kraemer et al 2011

- GVCs require high quality services embodied in production & increasingly outsourced
- US (Apple) captures 58.5% of Iphone sales price
- Korea: 5%
- Japan: 0.5%; China: 1.8%
- Most value: product design, software development, product management, marketing & other high wage functions kept by Apple
- Trend: dispersion of functions





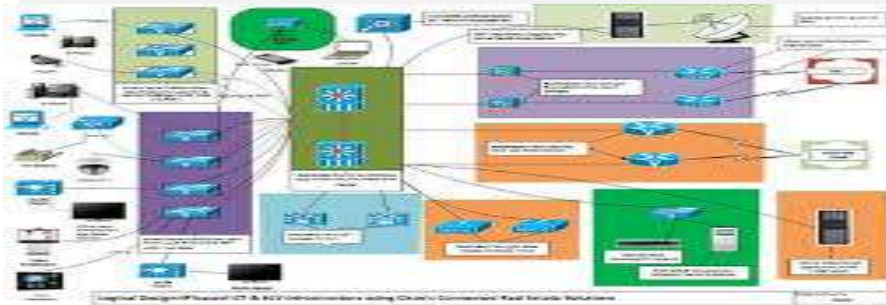
4. แนวทางการพัฒนา GVCs ของประเทศไทย

How to attract GVC to Thailand : Government policies



GVCs will join and invest in the location which provide lowest cost, quickly response and high creditability.

Good ICT Infrastructure



Trade Liberation and Trade Facilitation



International Logistics Connectivity



Good Quality and Sufficient sources of Labor



How private sector join with GVCs?



- To be partner with GVCs, Hi-end Company : Apple, Samsung, Tesla etc.



- By improve and adjust their firm : management, technology and R&D to increase firm capability

Thailand join GVCs :



- EEC to be world class economic zone to support super cluster
- Growth rate 5% per year and GDP increase 450,000 million baht per year
- Create job 100,000 positions per year and increase tax base 100,000 million baht per year



BOI promote EEC to be

- 1) U-TAPAO-Airport aviation and space hub
- 2) Eastern Economic Corridor of Innovation (EECI)
- 3) Digital Park Thailand (EECD)

By invest about 1,500,000 million baht for megainfrastructure in 3 provinces Chonburi, Rayong and Chachoengsao.



Example :



- Cooperation Agreement with Air Bus, Joint venture and R&D partnership
- Project : ASEAN Aircraft Maintainance and Spare Parts Center

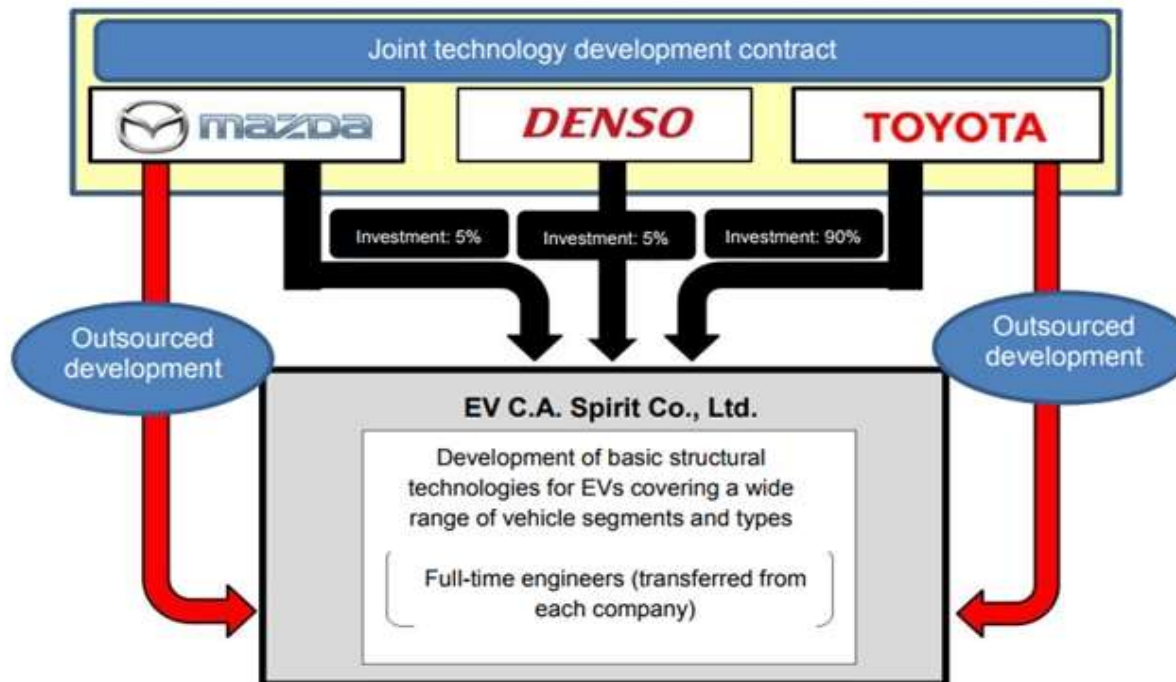


Source : Prachachat August 2017

Example :

Japan's DENSO plan to develop future automotive technology, hoping to use Thailand as a base for electric vehicle parts and will apply for investment promotion by the year 2018.

Outline of Structure of New Company



**Source : Office of Industrial Economics
18 Nov 2017**

Example :



- **Hi-tech company from China is looking at Thailand as a gateway to ASEAN.**
- **China's BYD (BYD) plans to invest in the production of EV batteries in Thailand.**
- **Siasun, the giant robot manufacturer interested in establishing a production base and looking for partners in Thailand.**

Source : Thansettakit 21 Nov 2017, One Belt One Road and 'Thailand 4.0' for stability - prosperity together



Mission of DIP

SMEs's Projects

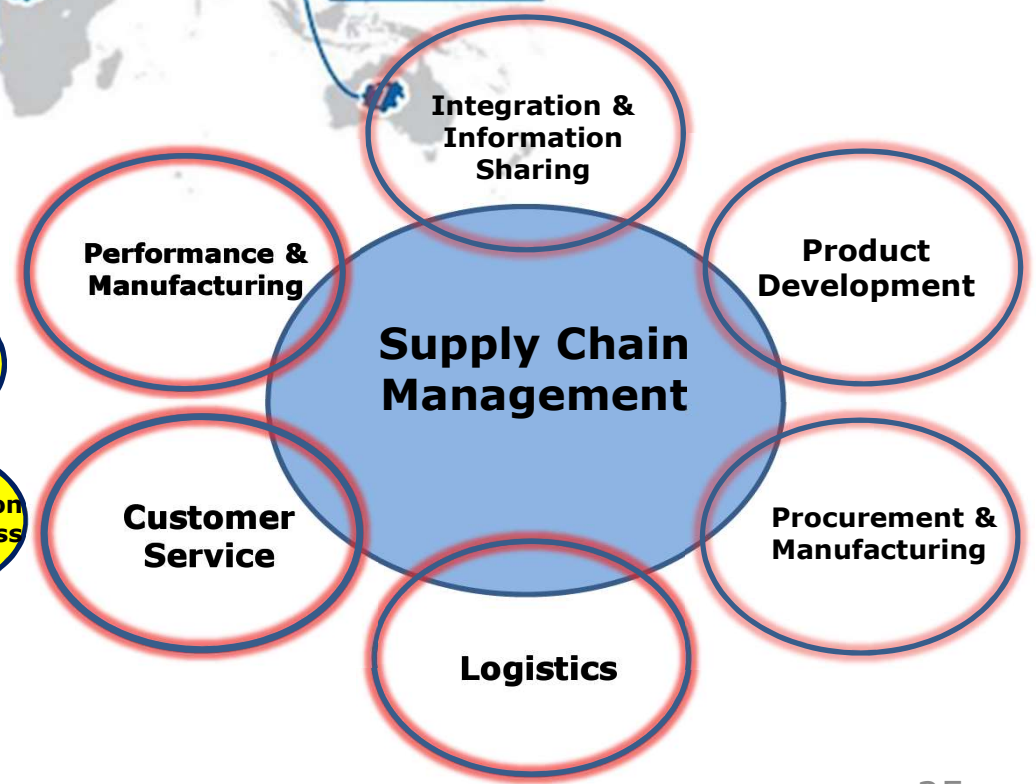
- Training
- Consults
- ERP, WMS
- Value Added



Role of Department of INDUSTRY PROMOTION in Logistics



Logistics 9 activities



How Thailand set up our GVCs?



GVCs is the sum of technology & commerce.

Develop our own technology & commerce

- Low Cost
- Long time
- Difficult

Buy high value added unit of existing GVCs

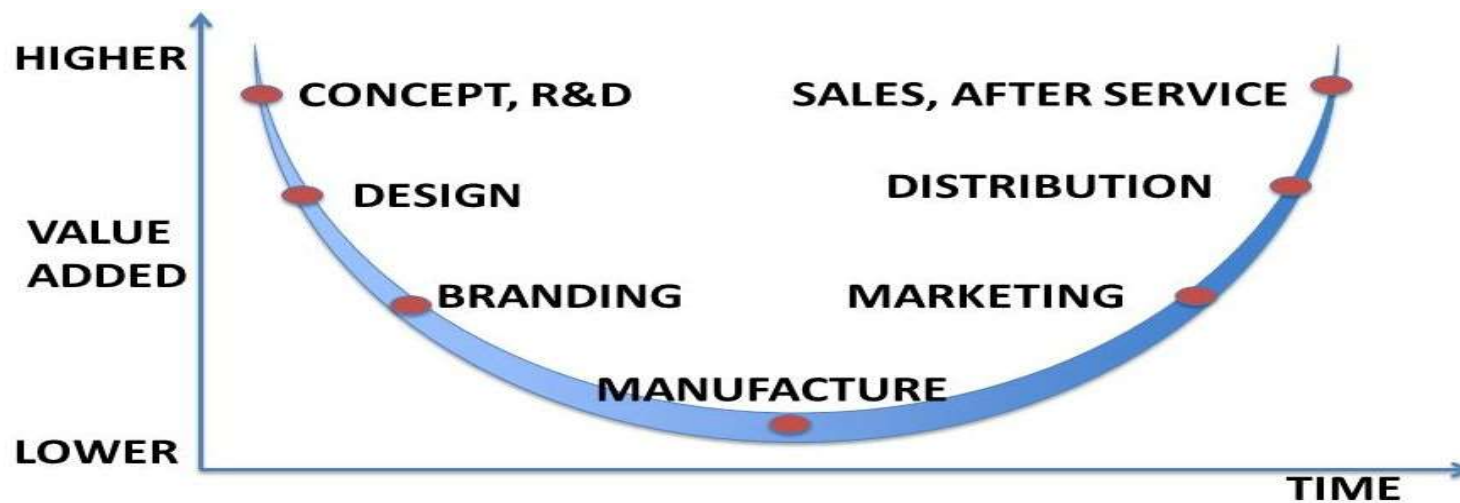
- High Cost
- Short time
- Simple

The question is what GVCS and what parts of it we should buy ?



1) Buy GVCs that make high return or solve our problems

2) Buy the most important parts : research unit design unit and marketing unit



- Opportunities for upgrading & diversification in both upstream & downstream in goods & services
- Strategic positioning in the GVC



5. Case Study : Rubber Industry

Rubber plantation area in ASEAN in 2004

ประเทศอาเซียนเป็นแหล่งผลิตยางพาราของโลกที่สำคัญ โดยอินโดนีเซียมีพื้นที่ปลูกต้นยางพารามากที่สุด แต่มีผลผลิตเป็นอันดับ 2 รองจากไทย ซึ่งมีผลผลิตและการส่งออกยางพาราเป็นอันดับ 1 ของโลก



ข้อมูล : 1.Global Trade Atlas, เมษายน 2557

2.The Association of Natural Rubber Producing Countries Volume 5,No.12, เมษายน 2557

Case study : Rubber Industry



- Natural rubber, Thailand produces raw rubber 4.5 million tons per year which sale as raw material about 85% at the value 180,000 million baht and sale as finish products 15% at the value 460,000 million baht in 2016. Rubber market is very fluctuate, so effects the price and to be important problem of Thailand.
- **Project** : Buy tires leader (No. 1-3) in the world tires market to boost value added , smooth market demand and stables the raw rubber price.
- **Assumption** :
 - rubber price and tire price up and down the same way.
 - one tire weight 25 kg at average.
 - Case 1 (Past) : one tire price 4,000 Baht , so tire value 160 B/kg and rubber price 47 B/kg
 - Case 2 (Now) : one tire price 2,500 Baht , so tire value 100 B/kg and rubber price 40 B/kg

Source : Rubber Authority of Thailand and presenter

CASE 1 (Rubber Price 47 B/Kg, 1 years ago)



No policy		Buy tires lead company	
	Value : million baht		Value : million baht
Raw-mat. Sale 85% $0.85 \times 47 \times 4,500$ $= 179,775$	179,775	No raw-mat. sale	0
Products sale 15%	460,000	Other products sale 15%	460,000
		Sale as tires 85% $= 0.85 \times 160 \times 4,500$ $= 612,000$	612,000
Total sale	639,775	Total sale	1,072,000
Value added or Net Gain		432,225 million Baht/year	

Source : Rubber Authority of Thailand and calculate.

CASE 2 (Rubber price 40 B/kg, actual now)



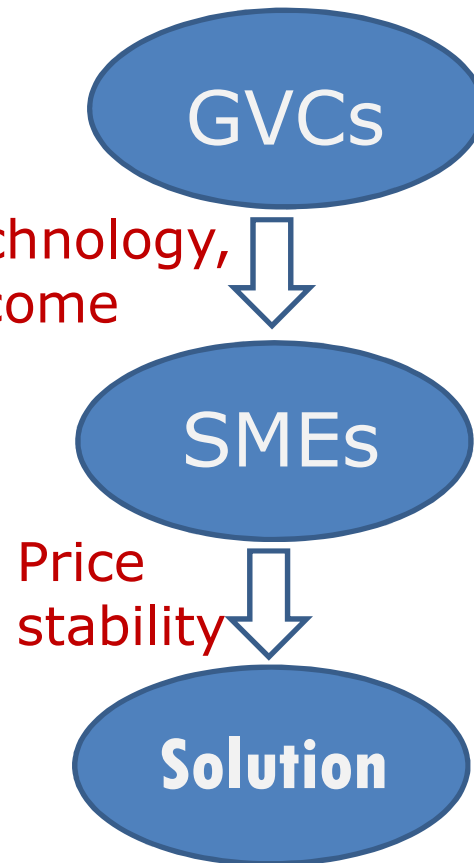
No policy		Buy tires lead company	
	Value : million baht		Value : million baht
Raw-mat. Sale 85% $0.85 \times 40 \times 4,500$ = 153,000	153,000	No raw-mat. sale	0
Products sale 15%	460,000	Other products sale 15%	460,000
		Sale as tires 85% $= 0.85 \times 100 \times 4,500$ $= 382,500$	382,500
Total sale	613,000	Total sale	842,500
Value added or Net Gain		229,500 million baht/year	

Source : Rubber Authority of Thailand and calculate.

Impact of Buying Tires Leader 100% local content



- Top-Down diversify income, technology, business etc. to SMEs and rubber producers.
- Create income to Thailand about 300,000 million Baht per year.
- Solve rubber political issues and rubber price fluctuation.



Suggestion



- **Target policy :**
 - **Buy tires leader (No. 1-3) in the world tires market.**
 - **Set up a government public fund from rubber bond to buy a lead company.**

Conditions : Focus in tires for trucks, heavy trucks and air planes which take high load.

To make Thailand be highly income country by 2037



- **Government must set good package of policies in join Hi-end GVCs**

- **Private must alert to change and improve management, technology and human resources**

*** Key success : least cost , quickly and creditable ***



THE END

Inside Alibaba's smart warehouse staffed by robots



Click

<https://www.youtube.com/watch?v=FBI4Y55V2Z4>