

Engaging in the Digital Economy in Thailand

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EU Business Avenues in S E Asia – ICT



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Agenda

1. Aspects of the Thailand market
2. Digital Economy Schematic – how to think about Digital Economy/ICT
3. Foreign Investment & Opportunities; How to Participate

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Some key metrics

Population	68m
GDP PPP	\$16,100 (2015)
Mobile subs	95m
Mob pen	150%
3G/4G as %	80%
Broadband pen	8.5%
Gini co-efficient	37.8 (2013 WB)

Key features 1

Still many foreign investment restrictions (FBA Lists, Foreign Dominance regulation)- but BOI, FBA permissions; note specifically promoted areas.

Three main mobile operators, negligible MVNO activity

No regulated wholesale market, no structured national broadband plan yet, an SOE plan for rural broadband; mobile broadband very popular; big take up of smartphone apps; Fintech development starting; top down approach to security and internet governance.

Digital Economy policies taking shape

Large number creative local and foreign doing software development etc;

Key features - 2

Some restrictions on international capacity (eg cable landing stations); single international internet policy. Higher cost of international capacity.

Slow take up of service liberalisation

Industry wages lower

Stable currency

There is still much red tape – big focus on ‘doing business’ lesser on eGov; but intention exists

Key features- 3

Competition enforcement to be developed; recent changes to law

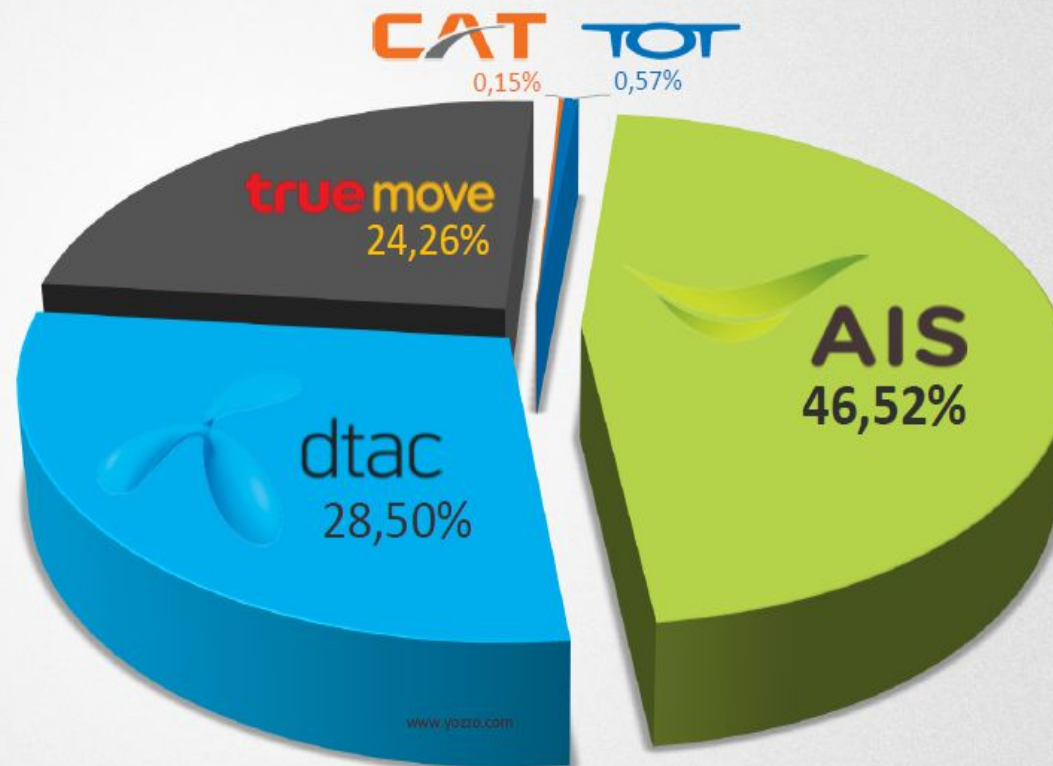
Family of Digital Economy laws – a vision; some over-reach. Cross border (PDPA) and Privacy need addressing.

'Trusted Internet' vision needs some work

Important for civil society engagement in all aspects including security. Laws in progress of passage and implementation.

Mobile Market

THAILAND'S MOBILE OPERATOR MARKET SHARES Q4 2014



Estimated information for Q4 Year 2014

Source: Yozzo with permission. Use of Yozzo data does not imply Yozzo endorsement of views.

Networked Readiness Index (NRI) 2016

Ranking 62/139

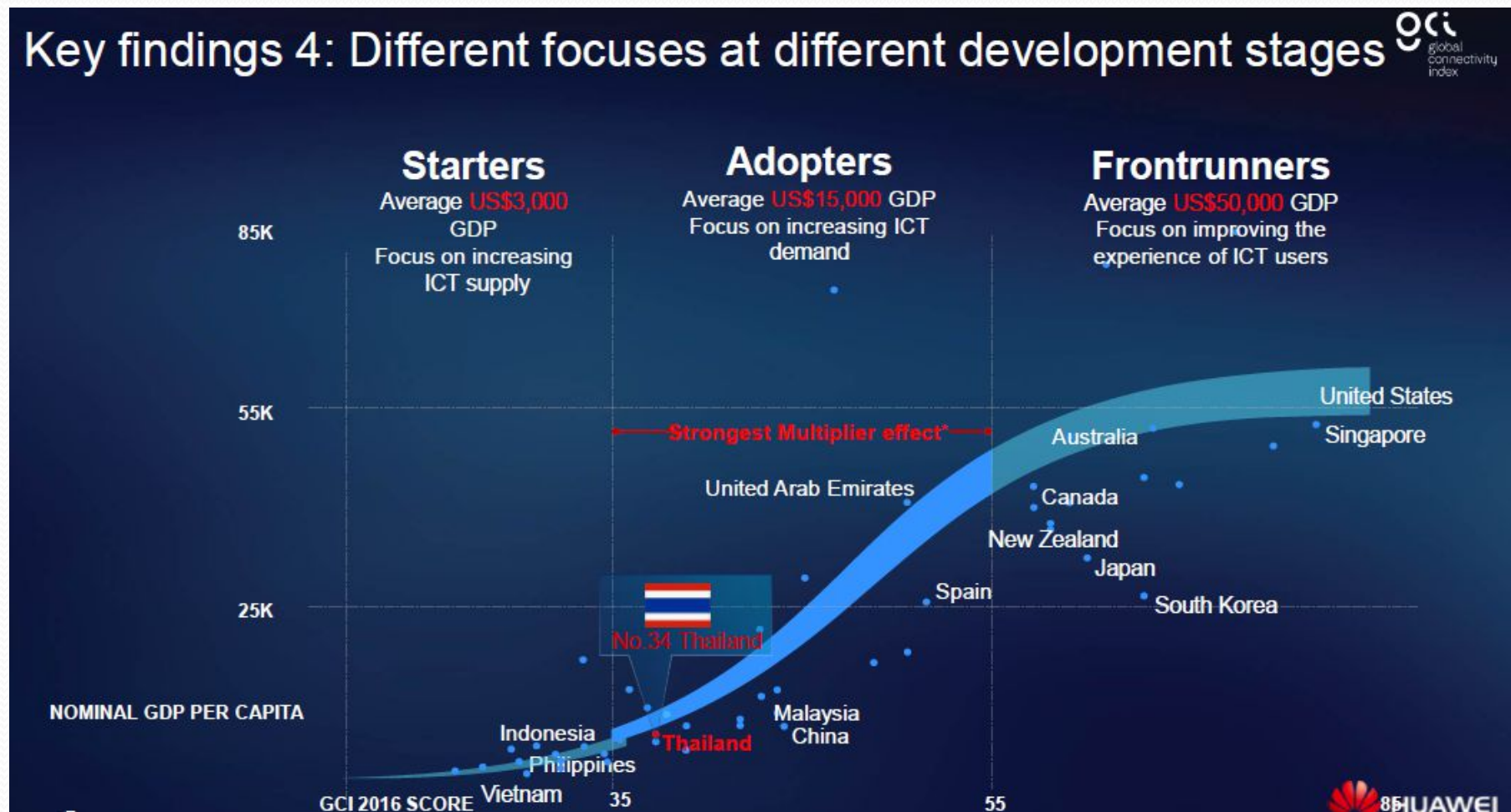


	Info	Rank / 139	Score	Trend	Distance from best
▾ Expand All Pillars Networked Readiness Index 1-7 (best)	(i)	62	4.2		
Subindex A: Environment subindex 1-7 (best)	(i)	54	4.2		
 1st pillar: Political and regulatory environment 1-7 (best)	(i)	80	3.7		
 2nd pillar: Business and innovation environment 1-7 (best)	(i)	48	4.6		
Subindex B: Readiness subindex 1-7 (best)	(i)	62	4.9		
 3rd pillar: Infrastructure and digital content 1-7 (best)	(i)	67	4.3		
 4th pillar: Affordability 1-7 (best)	(i)	64	5.5		
 5th pillar: Skills 1-7 (best)	(i)	73	5.0		
Subindex C: Usage subindex 1-7 (best)	(i)	63	4.0		
 6th pillar: Individual usage 1-7 (best)	(i)	64	4.3		
 7th pillar: Business usage 1-7 (best)	(i)	51	3.9		
 8th pillar: Government usage 1-7 (best)	(i)	69	3.8		
Subindex D: Impact subindex 1-7 (best)	(i)	65	3.7		
 9th pillar: Economic impacts 1-7 (best)	(i)	74	3.2		
 10th pillar: Social impacts 1-7 (best)	(i)	57	4.3		

Key features - GCI

50 countries, 40 indicators ; Thailand at 34/50

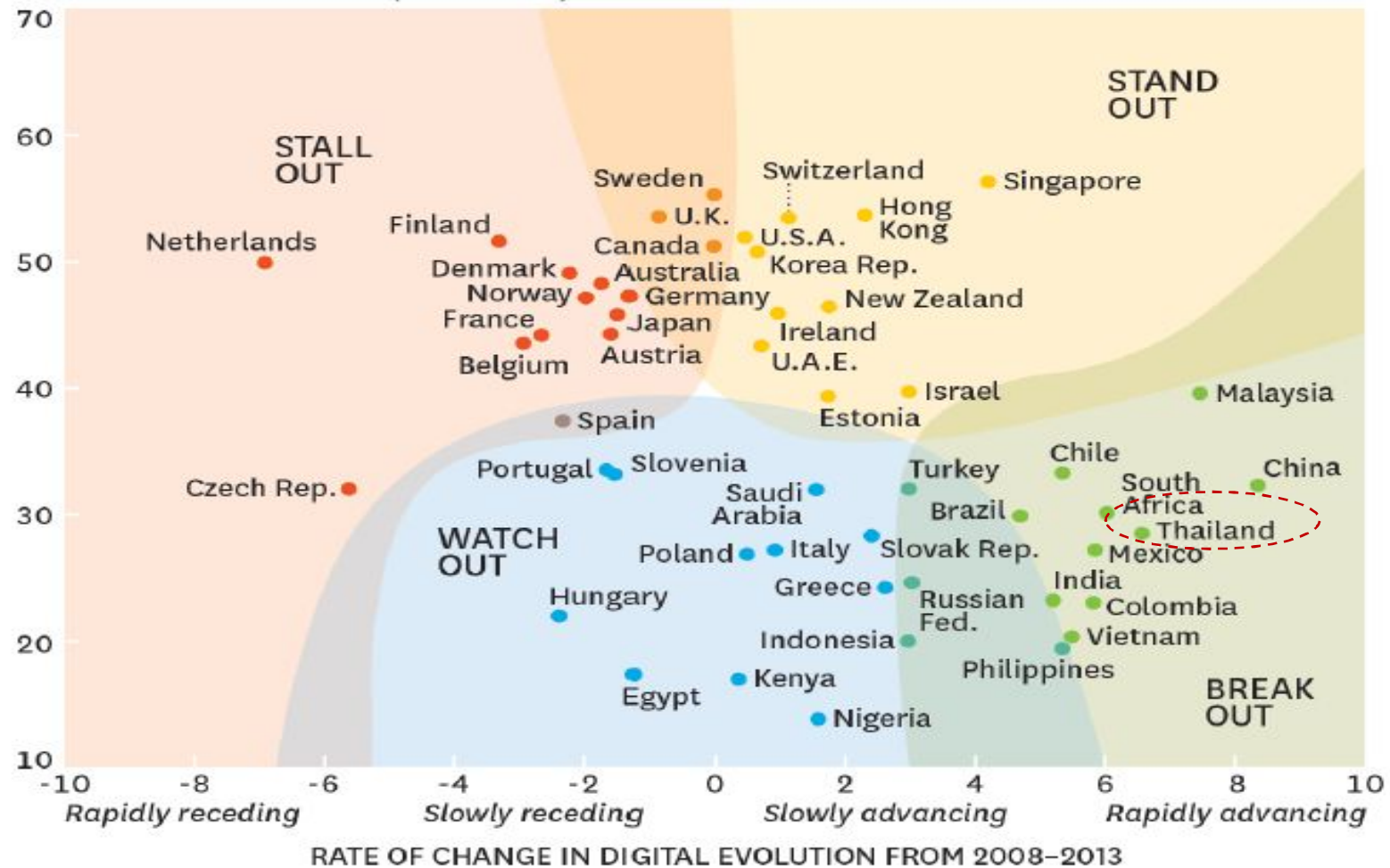
Key findings 4: Different focuses at different development stages



Source: Global Connectivity Index (Huawei) at 'Opportunity Thailand' 15 Feb 2017

Digital Evolution Index

HOW COUNTRIES SCORED ACROSS FOUR FACTORS ON THE DIGITAL EVOLUTION INDEX (OUT OF 100)



SOURCE DIGITAL EVOLUTION INDEX, THE FLETCHER SCHOOL AT TUFTS UNIVERSITY

HBR.ORG

BSA Cloud Scorecard

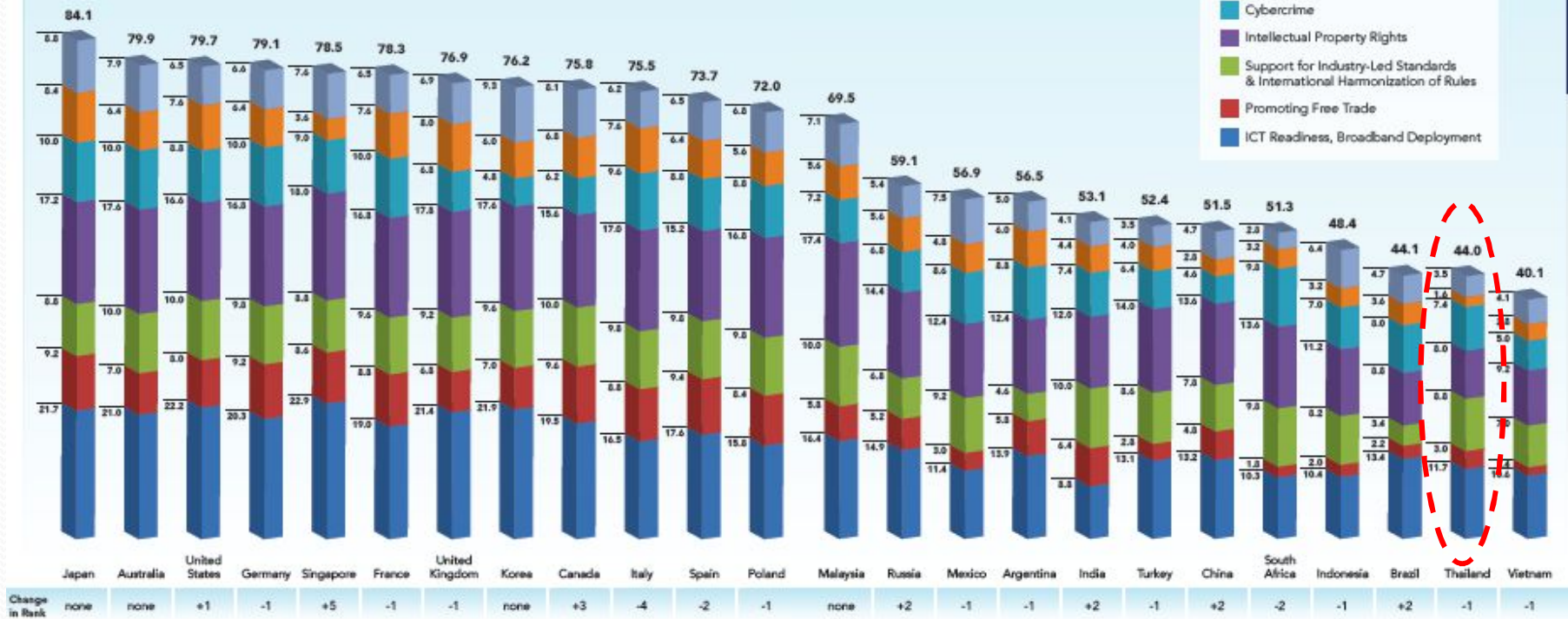


2013 BSA Global Cloud Computing Scorecard

Several countries have made marked improvements in the policy environment for cloud computing in the past year. These findings are based on the BSA Scorecard's one-of-a-kind examination and ranking of 24 countries that account for 80 percent of the global ICT market.

7 KPIs

- Data Privacy
- Security
- Cybercrime
- Intellectual Property Rights
- Support for Industry-Led Standards & International Harmonization of Rules
- Promoting Free Trade
- ICT Readiness, Broadband Deployment



24 economies representing 80% of the world's IT spend

Source: Business Software Alliance 2013

Cloud Scorecard criteria

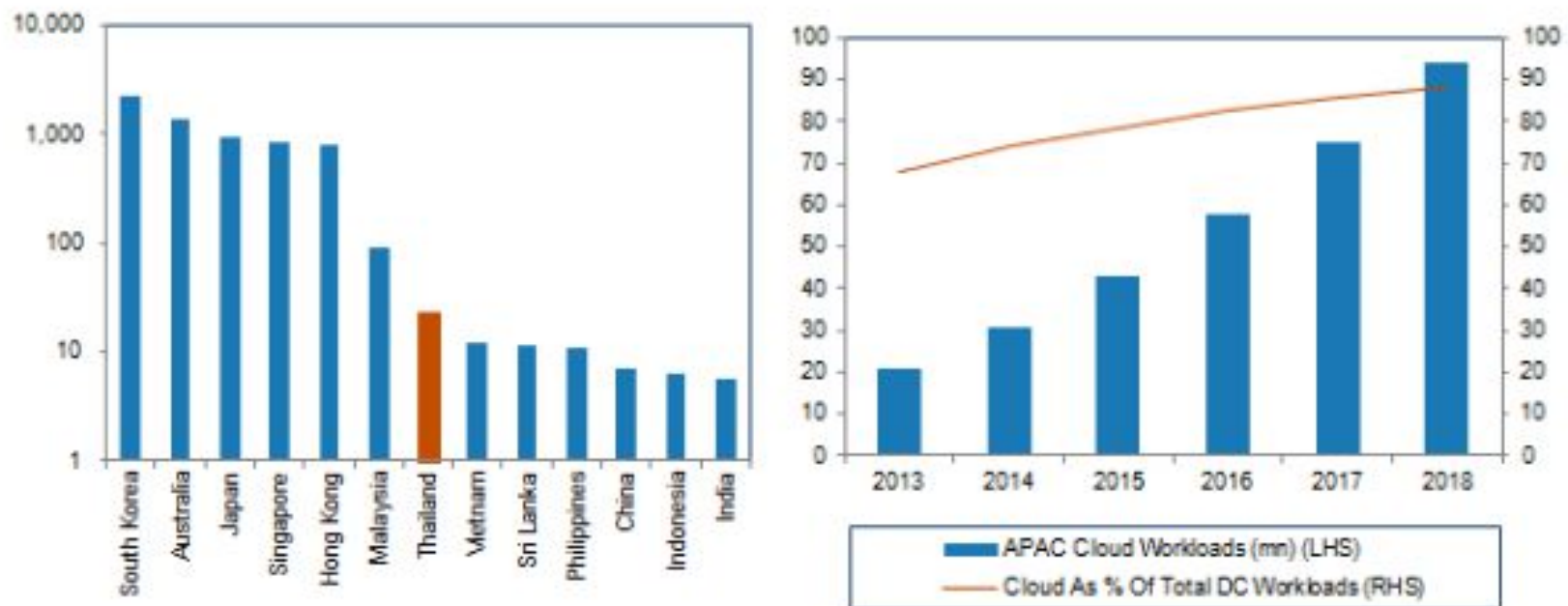
- i. Data Privacy**
- ii. Security**
- iii. Cybercrime**
- iv. Intellectual Property Rights**
- v. Industry-led standards & int'l harmonisation of rules**
- vi. Promoting Free trade**
- vii. ICT Readiness**

Cloud readiness expected to improve

Cloud

Cloud Infrastructure Deficit A Bottleneck And Opportunity

Secure Servers Per mn People (LHS) & APAC Cloud Workload Forecast (RHS)



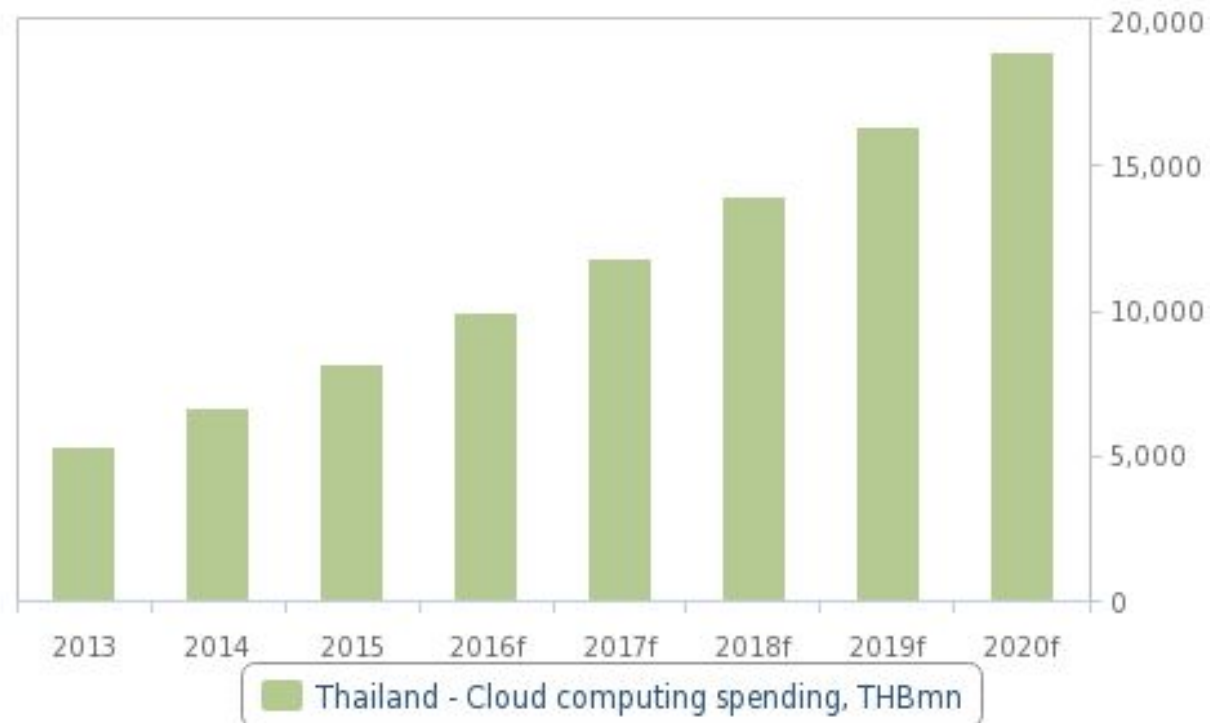
Source: World Bank, Cisco VNI 2015

Source: BMI Dec 2016

Cloud demand

Cloud Computing Demand

(2013-2020)

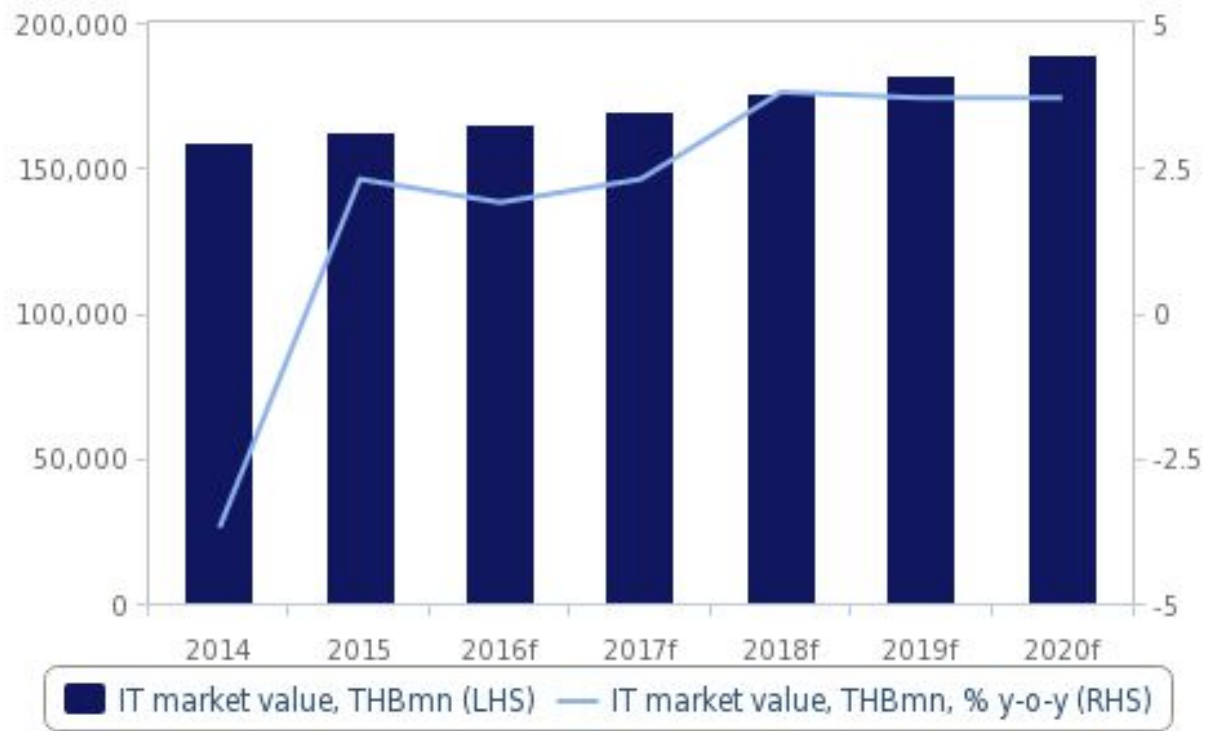


f = BMI forecast. Source: BMI

IT Market

IT Market Growth To Accelerate As Economy Strengthens

Thailand IT Spending Forecast, 2013-2020



f = BMI forecast. Source: BMI

Source: BMI Dec 2016

eCommerce

Will Thailand E-Commerce growing up?

What is problem statement?



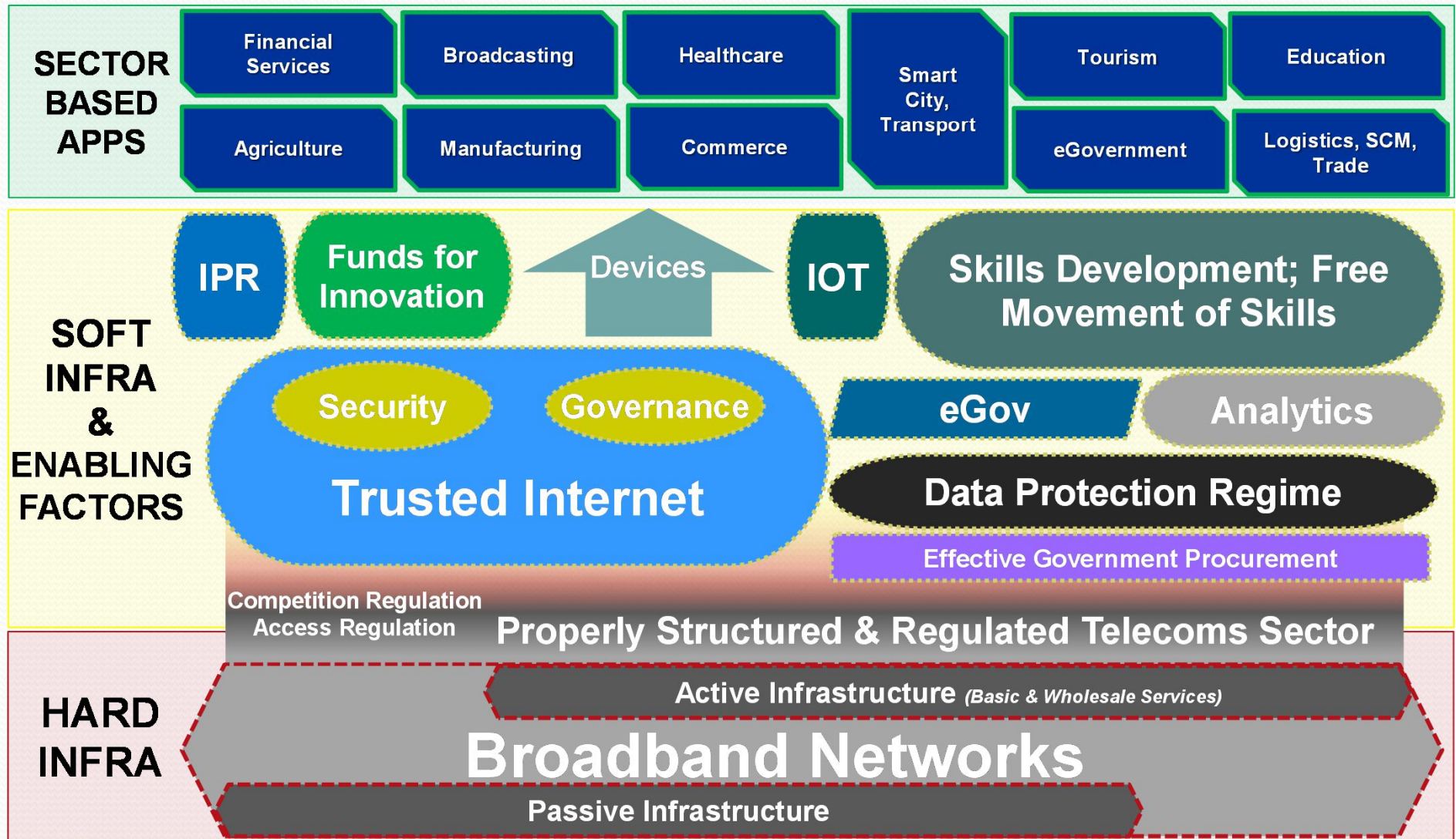
- 1** High Cost of e-Payment and logistics
- 2** Telecommunications Infrastructure (Internet) : expensive, non-stable and non-inclusive
- 3** E-Commerce Disruptive technologies
- 4** Lack of capital for Startup
- 5** Lack of “Intellect” (Manpower)
- 6** Have A Problem But do not know who can help
- 7** Foreign invasion intensify (eWTP: e-World Trade Platform)

Source: ETDA at regional event on eCommerce and Competition March 2017

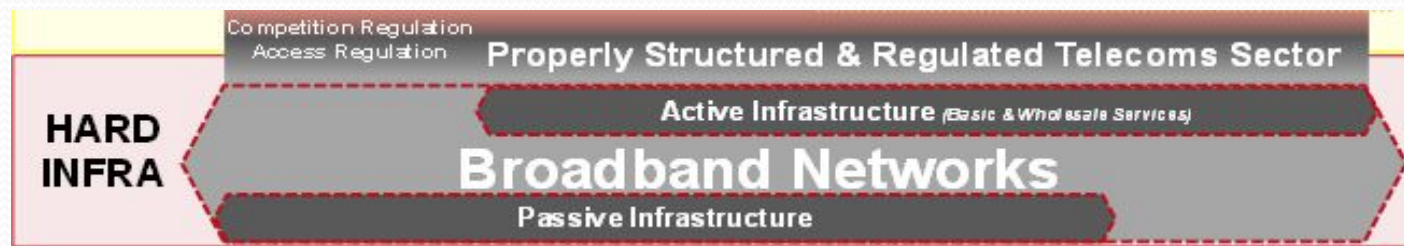
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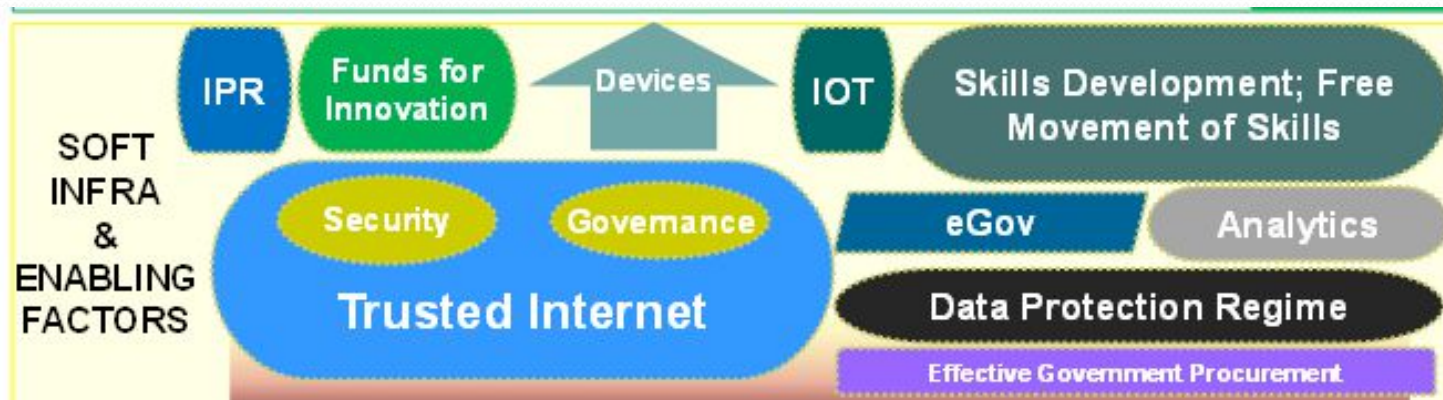
Digital Economy Schematic



Digital Economy schematic – bottom layer



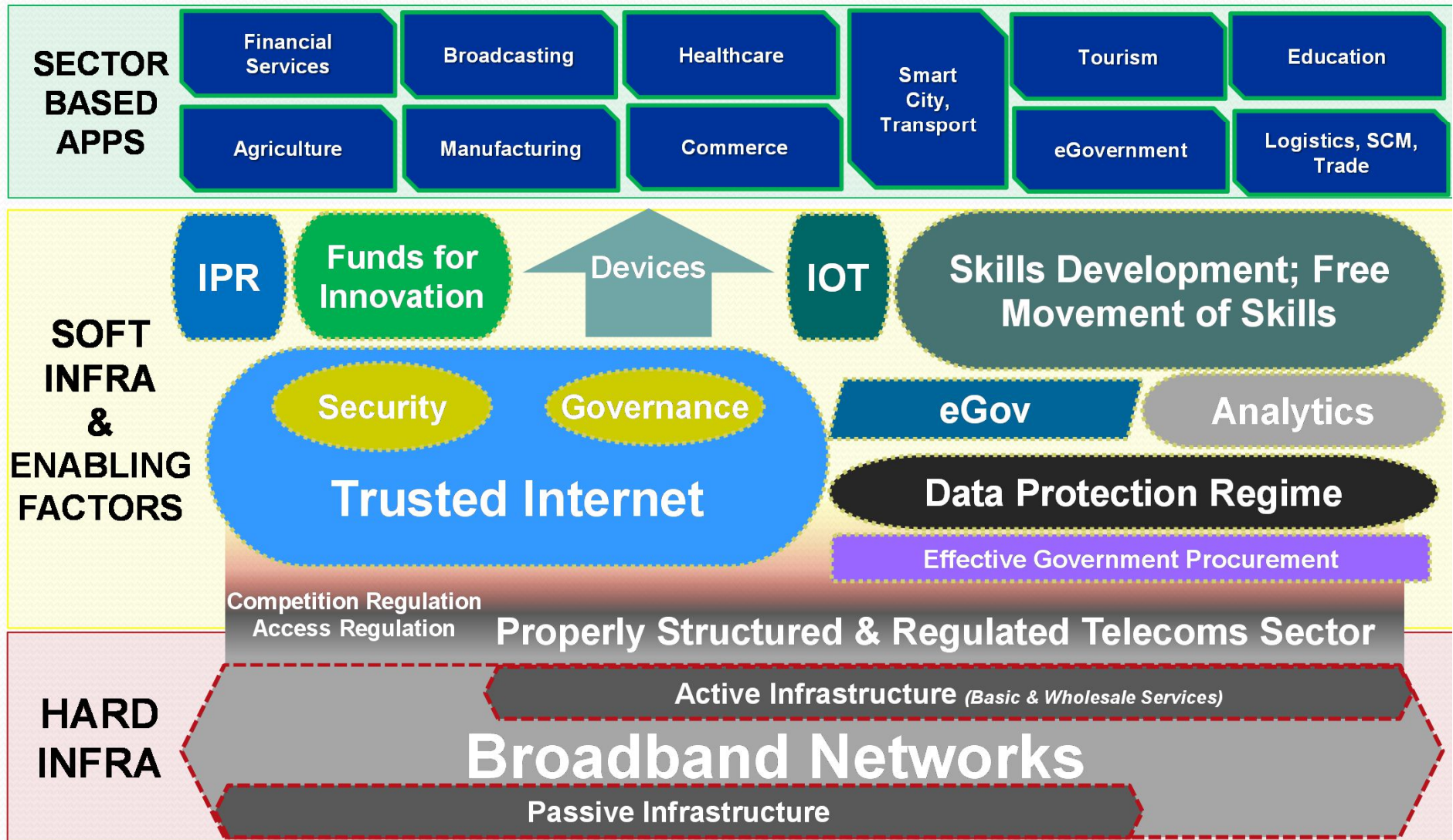
Digital Economy schematic - middle layer



Digital Economy schematic – top layer



Digital Economy Schematic



Definition of Digital Economy



The **'digital economy'** is all economic activity mediated by software and enabled by telecoms infrastructure.

This includes core telecoms services such as **voice, messaging, data** and **video**.

The goods and services within the digital economy can be broadly grouped as:

intrinsically digital – streaming video, ebooks, computing services, Facebook, LINE

substitutes for established equipment and services – virtual private communications networks, security services, virtualised PBXs, and services delivered on-line (e.g. accounting, graphic design, software development, Software-as-a-Service, data analytics, knowledge-based outsourcing).

marketing, sale, logistics etc of physical goods – eg Amazon, eBay, Alibaba, Tarad.com, Pantipmarket

Digital Economy is the means of enabling participation by all in social and economic enterprise, and also includes the role played by governments in developing infrastructure and services

How Digital Economy could work



Digital Economy works through layers, or building blocks.

Full vertical integration is (rightly in our view) not proposed. Those providing applications and services may have access to infrastructure but not have to build or own it.

Much relevant global experience to brought to this situation, such as net neutrality principles, wholesale market operations, regulated wholesale pricing, competition regulation and a fair structure for the telecoms industry.

Digital Economy Laws

Ref	Name of Law	Purpose	Comments
1	Frequency Act, aka NBTC Act	Amends Frequency Act 2010, role of NBTC and how spectrum is issued.	<ul style="list-style-type: none"> • Robust independent NBTC important; • 'policy' vs 'regulation'. • Too much power to a committee
2	Personal Data Protection Law	PDP law will affect all	<ul style="list-style-type: none"> • Purpose should be about confidence in the jurisdiction and consumer protection, • Cross border insufficient;
3	Computer Crimes Act amendments	Tighten CCA	Surveillance, record keeping?
4	Digital Development for Economy and Society	Consolidates into one law, these three laws: <ul style="list-style-type: none"> • Committee for Digital Economy and Society • Promotion of Digital Economy • Digital Development Fund for Economy and Society law 	Policy making powers in a committee. What checks and balances? Establish National Digital Economy Promotion Committee and committee office Establish Digital Dev Fund for Economy and Society, DDF for E&S Committee.
5	Ministry, Department and Bureau Reform law	Reforms MICT into MoDE.	Powers?
8	ETA amendment.	Upgrade ETA / ETDA	Liabilities?
9	Cybersecurity law	Due process? Establish NCSC, powers?	s. 35 controversial. Note 'trusted internet' concepts.
8	Draft Royal Decree establishing ETDA	Revises ETDA	
9	Competition Law upgrade (missing)	Promote and regulate completion.	Should apply to telecoms sector . See separate paper on this.
10	Structural reform - Mandated access to wholesale services and infra from SOEs (missing)	Towards properly structured industry	

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Participation

A. Commercial Presence

1. Thai partner (eg 51% local shareholder in company)
2. BOI promotion – eg software development, eCommerce, data centres, some cloud, TISO, BPO, advanced services. Allows up to 100% foreign equity with other benefits
3. Permission for greater than 49% foreign equity – FBA licence. Permission is not available for some activities.

B. Supply via distributor

C. Direct on-line supply

Promotions

First 'S' curve (5) and New 'S' curve (5) industries – new: robotics, aviation and logistics, biofuels and biochemicals, the digital industry, and the medical hub.

EEC – Eastern Economic Corridor (Eastern Seaboard)

Smart City cluster programmes – Chiang Mai, Khon Kaen, Phuket

Various Board of Investment (BOI) promoted areas of activity.

Other

S Curve industries

10 targeted industries which will be given investment privileges

5 existing industries (First S-Curve)

- Next-Generation Automotive
- Smart Electronics
- Affluent, Medical and Wellness Tourism
- Agriculture and Biotechnology
- Food for the future

5 new industries (New S-Curve)

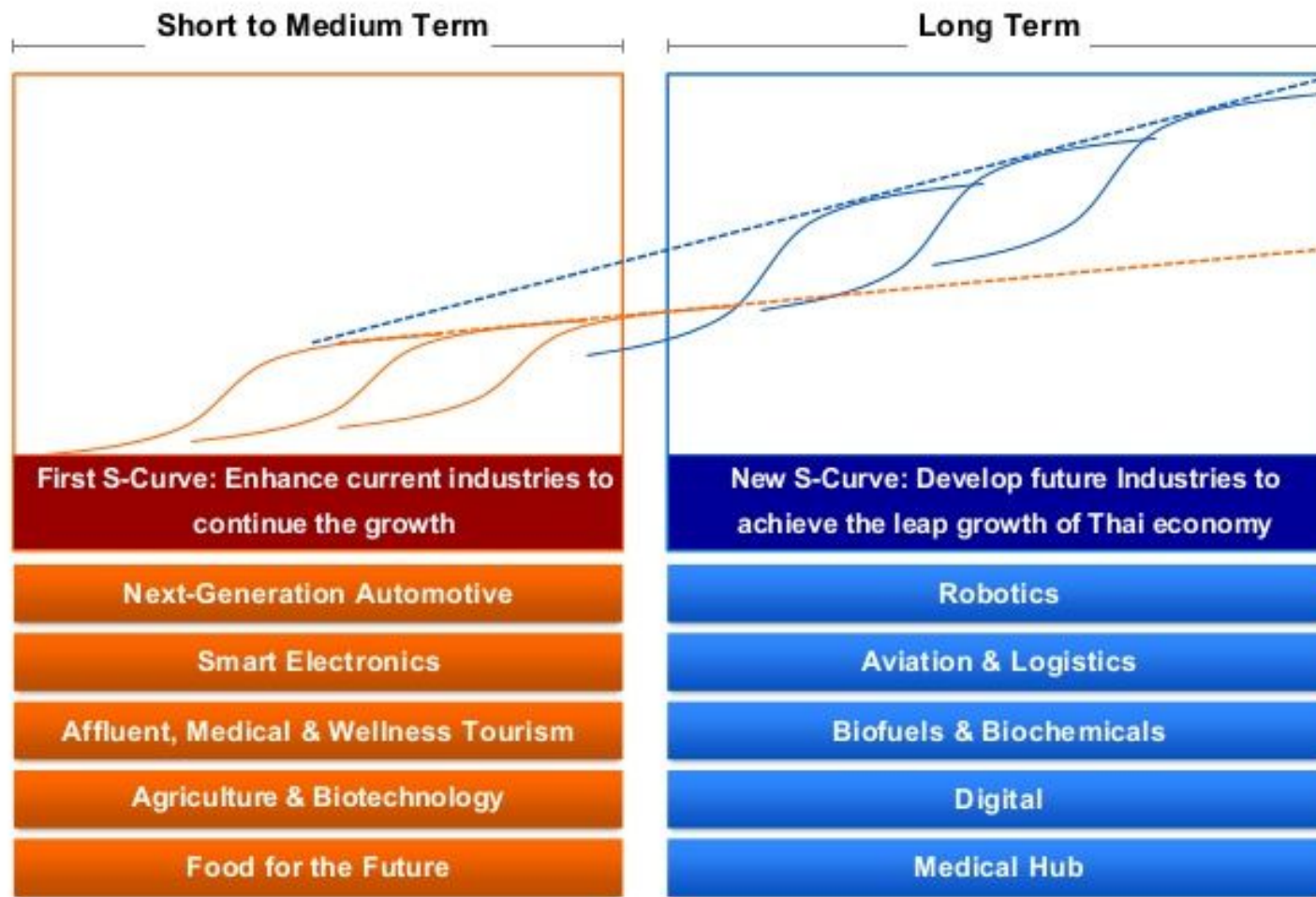
- Robotics
- Aviation and Logistics
- Biofuels and Biochemicals
- Digital
- Medical hub

These industries will be granted BOI privileges and tax incentives. The Government also plan to set up Competitiveness Enhancement Fund to attract private companies to invest in Thailand



S curve

5 + 5 TARGETED INDUSTRIES



Sector-based Incentives



- A1:** Knowledge-based activities, focusing on R&D and design to enhance the country's competitiveness
- A2:** Activities in infrastructure for the country's development, activities using advanced technology to create value added, with none or very few existing investments in Thailand
- A3:** High technology activities which are important to the country's development, with a few investments already existing in Thailand
- A4:** Activities with lower technology than A1-A3 but add value to domestic resources and strengthen supply chain
- B1-B2:** Supporting industries that do not use high technology but are still important to value chain

	Exemption of Corporate Income Tax	Exemption of Import Duty on Machinery	Exemption of import duty on raw material imported for use in production for export	Non-tax
A1	8 years (No Cap) + Merit	✓	✓	✓
A2	8 years + Merit	✓	✓	✓
A3	5 years + Merit	✓	✓	✓
A4	3 years + Merit	✓	✓	✓
B1	0 year + Merit (some activities)	✓	✓	✓
B2	-	-	✓	✓

Targeted Core Technologies

Biotechnology	Advanced Materials Technology
Cell Culture / Tissue Engineering Technology	Advanced Catalyst Technology
Gene and Molecular Technology	Composite Materials Technology
Genetic Engineering Technology	Functional Materials Technology
Omics Technology	Photonics & Optical Technology
Biodegradable Materials Technology	Printed Electronics and Organic Electronics
Bioinformatics	Advanced Materials Forming Process
Advanced Bioprocessing Technology	Materials Characterization Technology
Bio-Analytical Technology	Energy Storage
Biomaterial Production Technology	Digital Technology
Nanotechnology	Big Data Analytics Technology
Drug Delivery System	Decentralized Sequential Transaction Database
Nano-encapsulation	Human Computer Interaction Technology / Brain Computer Interface
Nanofiber Technology	Internet of Things Technology
Nanomaterials Syntheses	Natural Language Processing Technology
Membrane Technology	Virtual & Augmented Reality Technology
Adsorption Technology	Digital Engineering and Manufacturing Technology
Nano-characterization and Testing	Software Testing Technology
Nanostructure Fabrication	Embedded Technology
Surface Coating/Engineering Technology	Smart Grid
	Wearable Technology
	Artificial Intelligence Technology
	Sensor Technology
	Automation Technology
	Robotics Technology

Opportunities

See Digital Economy schematic:

eGov; eCommerce; network and operational security; mobile broadband apps, SME Accounting; FinTech, MedTech, AgriTech, EduTech, media services; content management

Other 'S'curve industries.

Infrastructure management

Regulatory / competitive, services.

Internet governance services.

When invested – participate through EABC/ JFCCT.

Thank you

www.eabc-thailand.eu

www.jfcct.org

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