Digital Economy; Trusted Internet and innovation – the 'Made in Thailand' brand

Third Topic Session

Bob Fox, Chair JFCCT ICT

Big visions; what lies beneath?

Alice in Wonderland: the Red Queen has to run faster and faster just to stand still

The Red Queen effect has become a scientifically based phenomenon, used in business and other areas to describe how running faster and faster and doing more may not achieve the objective.

We must work smarter and in new, collaborative, ways.

"…organisms must constantly adapt, evolve, and proliferate not merely to gain reproductive advantage, but also simply to survive while pitted against ever-evolving opposing organisms in an ever-changing environment…."

Source: John Seely Brown & Lewis Carroll
-see eg. https://hbr.org/2010/08/six-fundamental-shifts-in-the.html

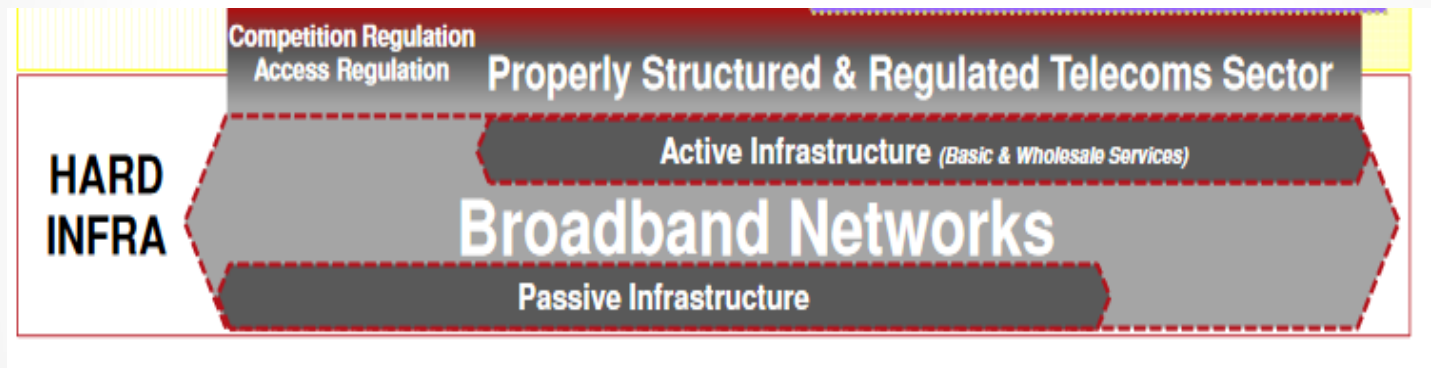# Services & Innovation – how much real substance?

Government around the world are recognizing digital economies. Reforms, change to substance, and change to names.

In the rush to be keep up and try to be an attractive hub…..

….are we creating the appearances but missing some fundamentals?

Digital Economy layers

Digital Economy works in 3 layers / building blocks; base layer:

Digital Economy relies in Telecoms infrastructure (soft and hard) (p. 14 FORUM BOOKLET).

It's a lot about telecoms…

Our telecoms infra (soft and hard) –
unevolved SOEs have special privileges, market
distortions:

- lack of regulated wholesale market,
- messy, ad hoc deals due to lack of a clean structure
  with all operators licensed directly by NBTC.
- Foreign Dominance Notification
- Plan for national broadband backbone to be supplied
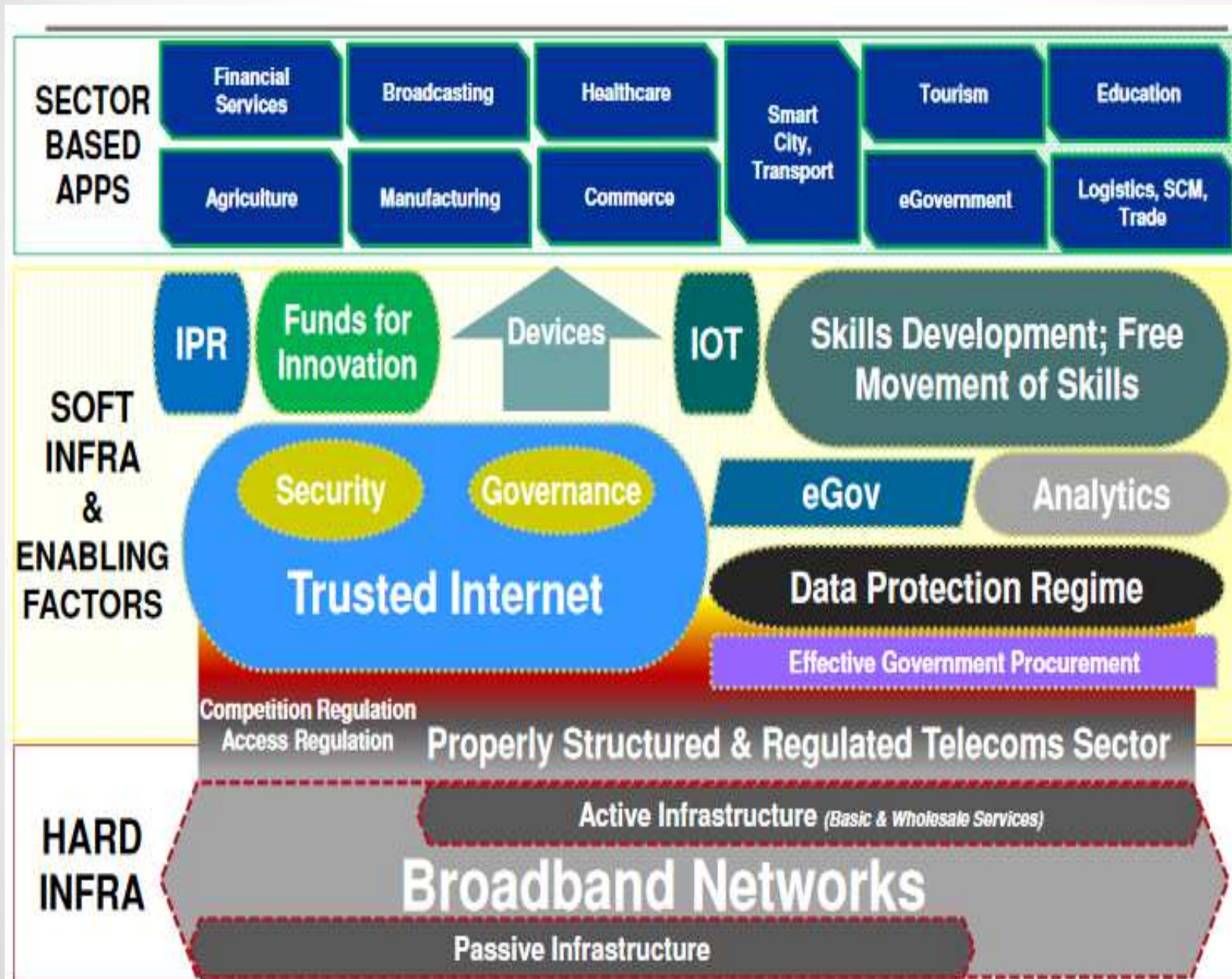 by an unreformed SOE

see FORUM BOOKLET p 14-15.

Digital Economy layers

2nd layer added
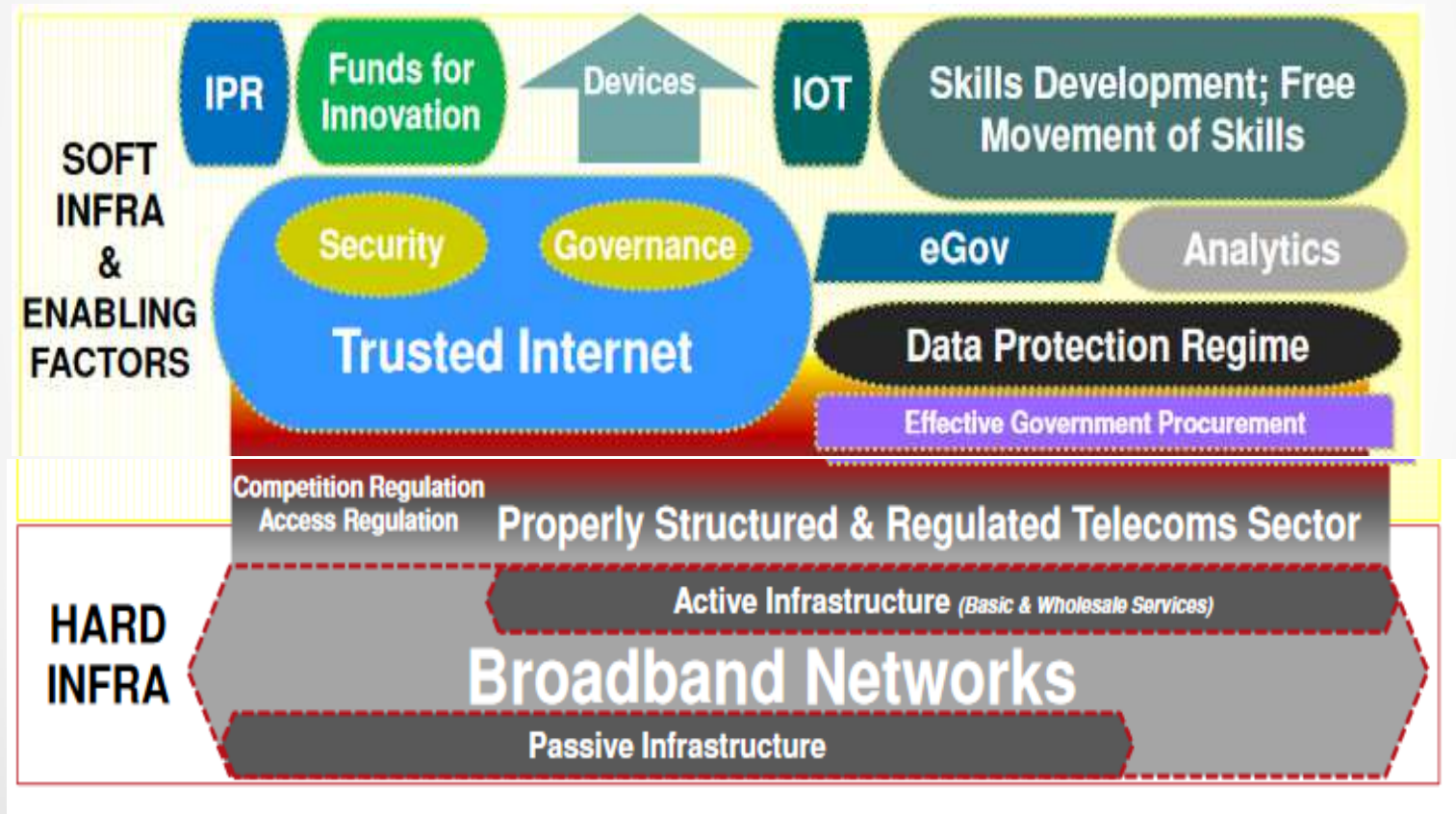
Digital Economy layers

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, Software-as-a-Service, social media (e.g. Facebook, LINE)
- **substitutes for established equipment and services** – virtual private communications networks, security services, virtualised PBXs, and services delivered on-line (e.g. accounting / other business processes, graphic design, software development, Software-as-a-Service, data analytics, knowledge-based outsourcing)
- **marketing, sale, logistics, etc. of physical goods** – e.g. 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.

The definition recognizes the role of the telecoms industry – D.E. relied on an effective and efficient industry. Soft and hard telecoms infra is a critical success factor.

Digital Economy Family of 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.	• Robust independent NBTC important; • 'policy' vs 'regulation'. • Too much power to a committee
2	Personal Data Protection Law	PDP law will affect all	• 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: • 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	

The two major gaps are shown in blue

1. A business tool

2. An enabler for an intelligent society

Governance: Multi-stakeholder model; top down, especially via difficult laws does not work.

Difficult laws: almost impossible to comply with, often unclear, then selectively enforced. Rule of Law means clarity, consistency, predictability, fair enforcement

Top down rules "If you've done nothing wrong
- you have nothing to worry about"

Trusted Internet 2

In the Digital Economy family of laws:

Two huge gaps: SOE reform, competition lacking.

Too much power in single committees which all look similar; not addressed: Cross border – need Rule of Law basis

CCA changes and Cybersecurity current drafts do not give the right business or societal confidence

But ePayments looks a lot better ! (collaborative development)

11

Data = the enabler; Support its flow – especially cross border

Digitization is transforming business models in ways that enable more cross-border activity

Cross-border implications of digitization		Data	Goods	Services	Finance	FDI
Remote monitoring	Remote tracking	●	●			
	Remote maintenance	●	●			
Supply-chain management	Remote inventory management	●	●			
	Supplier management	●	●			
Access to global markets	Cross-border access to customers	●		●	●	
	Cross-border access to labor	●		●		
	Cross-border access to finance	●			●	
Business operations and strategy	Centralized back-office operations	●		●		
	Cross-border digital payments	●			●	
	Real-time communications and collaboration	●		●		
	Data sharing and analytics-driven decision making	●	●	●	●	●

SOURCE: McKinsey Global Institute analysis

Source: MGI – Digital Globalisation – the new era of Digital Global Flows, 03/16

Multi-Region Production Partnerships

Intel **IBM** **AMD** **TI** **Motorola** **AMD** **Infineon** **ST/Philips** **Samsung** **SMIC** **NEC** **Toshiba-Sony** **Fujitsu** **Elpida** **Renesas** **PSC** **TSMC** **UMC** **Nanya** **UMCi** **Chartered**

━━━ **Logic Technology/Production Partnerships/Consortia**
━━━ **Memory Technology/Production Partnerships**
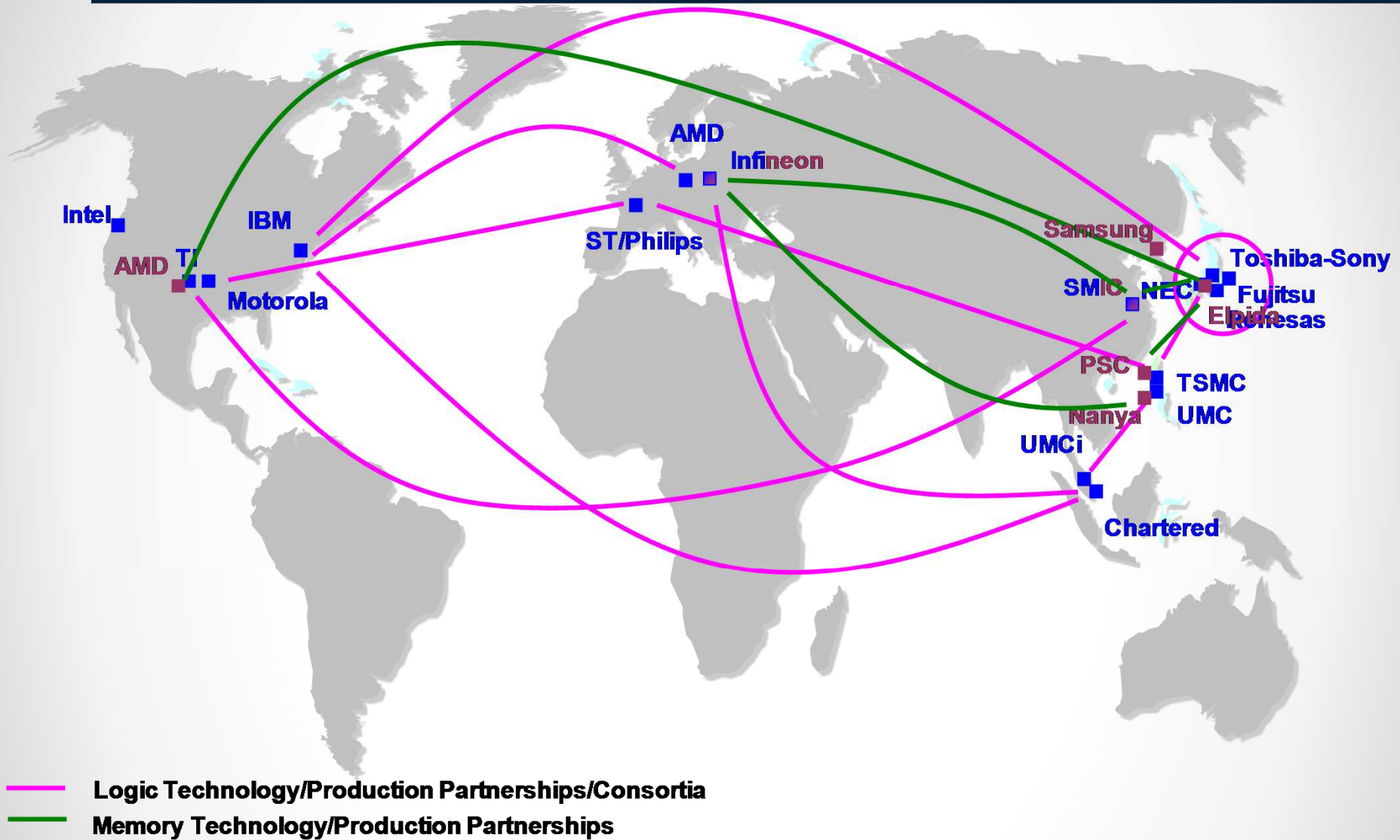
Source:
William F Miller - Herbert Hoover Professor of Public & Private Management Emeritus,Stanford University
President and CEO Emeritus,   Stanford Research Institute (SRI) International in 'New Regions of Talent & Innovation"

13

Personal Data Protection Law

Section 13 "The [Personal Data Protection] Committee shall have the following powers and duties:

…….

(5) to prescribe the rules regarding the protection of personal data sent or transferred abroad; .."

Qualified committee chair appointed by cabinet; + six ex officio; + four qualified appointed by cabinet.

We need a very attractive, Rule-of-Law based, trusted regime to support cross border data flows.
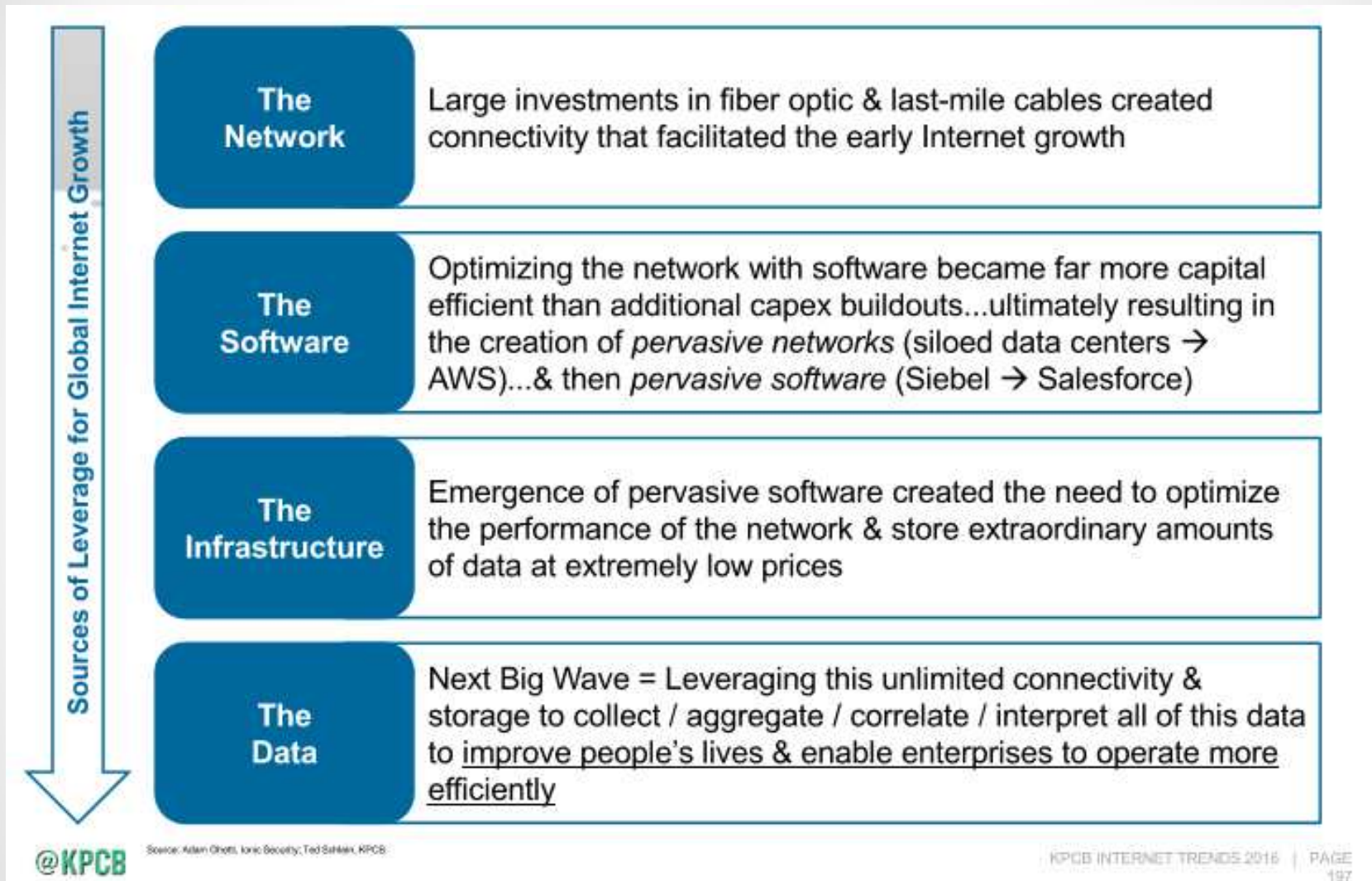
Consumers' Top Privacy Concerns

Rate Level of Privacy Concerns Across Each of the Following Ways Companies Interact with Personal Data, n = 2,062

(These percentages reflect all respondents who rated their privacy concerns on a 1-5 scale, with 5 = Extremely Concerned, 4 = Very Concerned, etc.)

If / Where they sell my data	78%
Where they keep my data	73%
How they identify me as an individual	68%
How long they have my data	67%
Who sees and analyzes the data	67%
How a company gets my data	66%
When and how I opted into sharing	61%
How they use data to personalize marketing	59%
How they use data to provide customer support	54%
How they use data to improve or innovate	53%
How they identify me as a group	52%

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Source: Mary Meeker, Internet Trends 2016

Data = A new growth platform

Sources of Leverage for Global Internet Growth ↓	**The Network**	Large investments in fiber optic & last-mile cables created connectivity that facilitated the early Internet growth
	The Software	Optimizing the network with software became far more capital efficient than additional capex buildouts...ultimately resulting in the creation of *pervasive networks* (siloed data centers → AWS)...& then *pervasive software* (Siebel → Salesforce)
	The Infrastructure	Emergence of pervasive software created the need to optimize the performance of the network & store extraordinary amounts of data at extremely low prices
	The Data	Next Big Wave = Leveraging this unlimited connectivity & storage to collect / aggregate / correlate / interpret all of this data to <u>improve people's lives & enable enterprises to operate more efficiently</u>

@KPCB   Source: Adam Ghetti, Ionic Security; Ted Sahlein, KPCB

KPCB INTERNET TRENDS 2016 | PAGE 197

Source: Mary Meeker, Internet Trends 2016

16

Source: Mary Meeker, Internet Trends 2016

Capitalising on Data

1) Manufacturing and Services are inter-twined. So is data
2) Logistics efficiency
3) Support from better transport infrastructure
4) Skills development for 'digital literacy' – not parochial, avoid Thai-based certifications – use global standards wherever possible
5) Right structure for telecoms (evolved SOE, wholesale market), Good governance of systems in support of telecoms effective operation, internet governance
6) Maintain an open internet while respecting privacy and supporting security.
7) Network / operational security is everyone's job; national security by an agency with right Rule of Law governance.
8) Easy of doing business generally; avoid data nationalisation

"Made in Thailand"

(Anywhere)

3 **3** **3** **3**

1

2
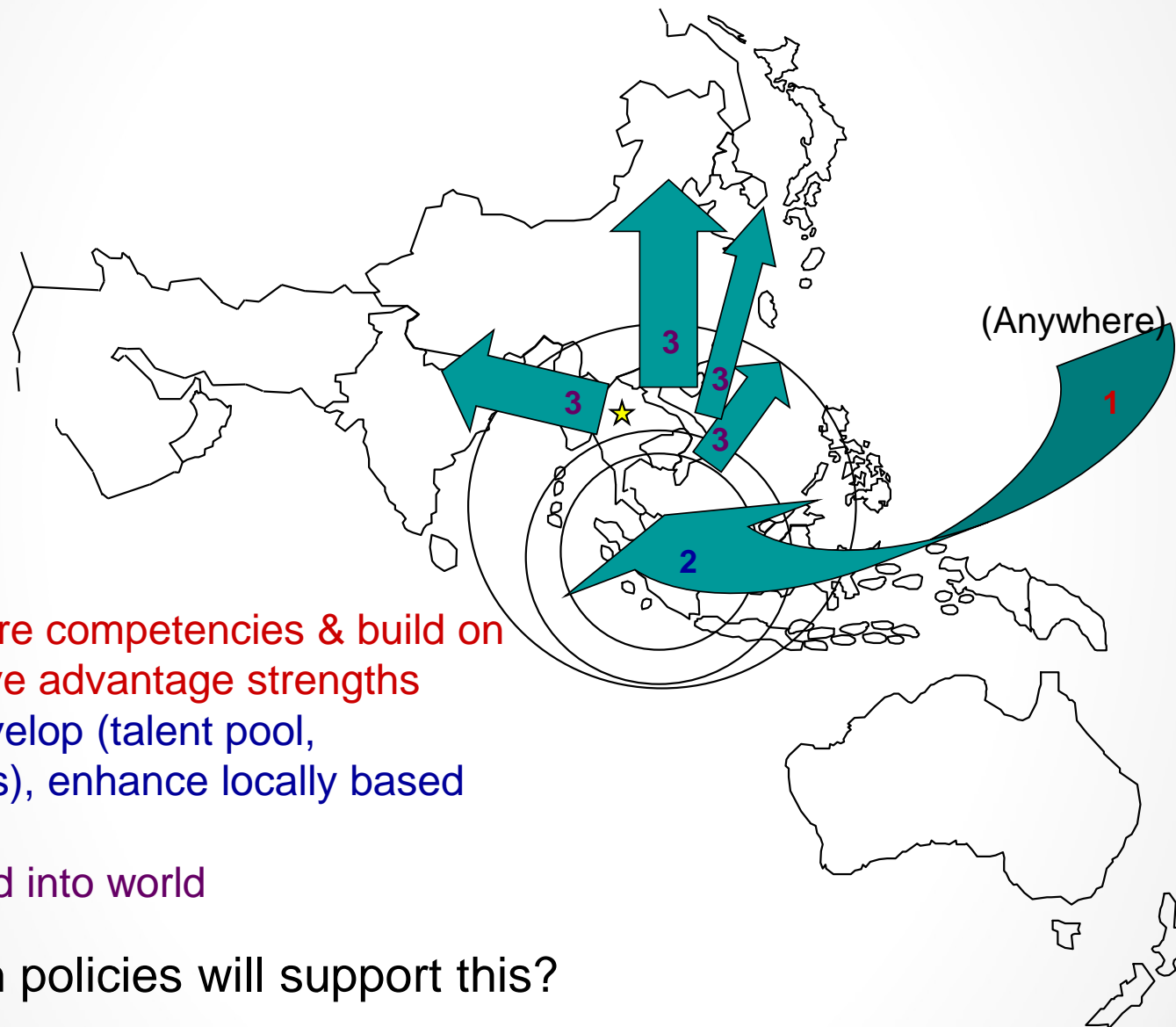
1 Transfer core competencies & build on
   comparative advantage strengths
2 Deploy, develop (talent pool,
collaborations), enhance locally based
talent
3 Springboard into world

Which policies will support this?

"Made in Thailand"

"Send us your capital and skills"
"Come and do your thing in Thailand"

Much raw creativity, but real innovation?

New specific support for Start Ups – OK
But it's the 'Doing Business' fundamentals
   - see 18-19 Forum Booklet

examples:
- Work Permit & Visa – change definition of 'work'
- Are the new, personally probing questions for work permit holders helpful? (also apply to 90 day reporting)
- Company incorporation and operation – still more difficult than it need be

Key Message

Telecoms: away from concession, rent seeking, move to single licensing model.

Digital world:
We cannot control all activity and should not try to.

Respect civil society, and business, MSM model and all playing a part in network and operational security, not top down.

We need a trusted internet

Thank you