



Fostering Innovation in a Digital Economy

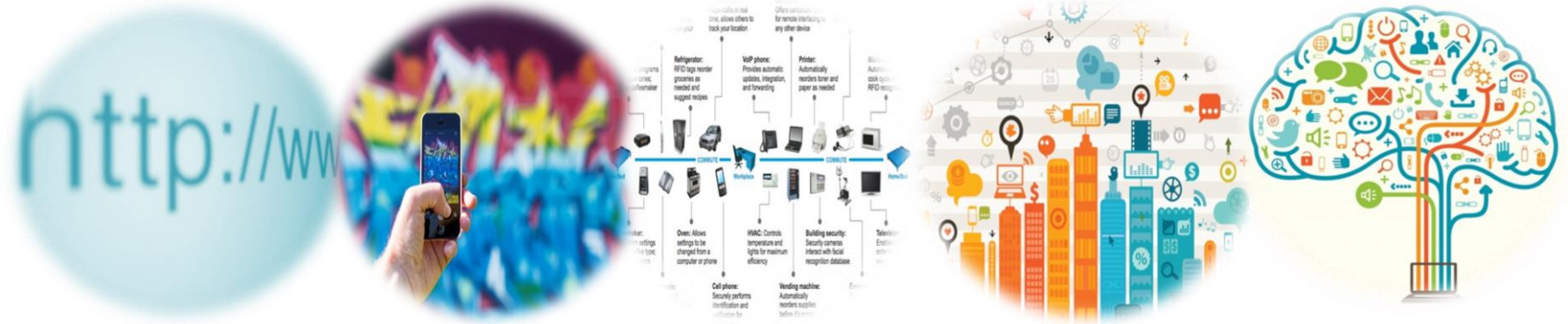
**APEC Structural Reform Capacity Building Workshop
June 1-3, Singapore**

Dr. Peter Lovelock
TRPC

Key Points

- 1 Divergence within and across APEC fundamentally challenges the potential for an integrated economic community and the prospects for a digital economy
- 2 However there are important opportunities for APEC to proactively drive a digital economy and for low income countries to leapfrog to digital
- 3 Interconnectivity and interoperability are the key building blocks of a digital economy; multi-modal access the key integrator
- 4 Cross-sector policy frameworks are the key enabler. Awareness and capacity are fundamental to achieving this.
- 5 Access, service delivery and affordability are the key determinants to innovation and inclusiveness

Digital Economy is...



an inter**connected economy** wherein the **Internet** is an embedded and **pervasive infrastructure** – the horizontal enabler – and **driver** across *all sectors* of the economy and society.

From Connectivity to Interconnectivity



Digital Economy and Society

- Digitization of public service delivery, social interactions and commercial transactions
- Creation of inclusive and integrated society

Multi-modal Platforms

- More 'things' coming online
- Services, content and processes → platform agnostic

Interconnectivity and Interoperability

- Proprietary networks becoming IP-based
- Platforms talk to each other and are able to work with one another

Interconnectivity and Interoperability provide the foundations...

- Proprietary networks becoming IP-based provides the capability to interconnect and interoperate
- Interconnection of networks of all kinds \neq the Internet
- Interoperability of applications and content across different platforms and networks is also required
- Combined, the two provide the ability to diversify the range of communications, products and services on the able to be delivered on IP-based networks

For multi-modal platforms to emerge

- Able to access the same applications and content from a variety of different devices
- Fosters collaborative work processes, communications and sharing of information regardless of devices
- Allows consumers to become platform agnostic and to choose the when, where and how of digital content consumption.
- Internet consumption patterns shifting from fixed devices (i.e. PC) towards mobile devices

Leading to a digitally integrated economy and society



- Internet = stand-alone vertical
- Economies of *scale*



- Internet = universal platform
- Economies of *scope*

The role of the government is to facilitate advancement of an Internet economy with the vision to instill interoperability in order to usher in the digital economy

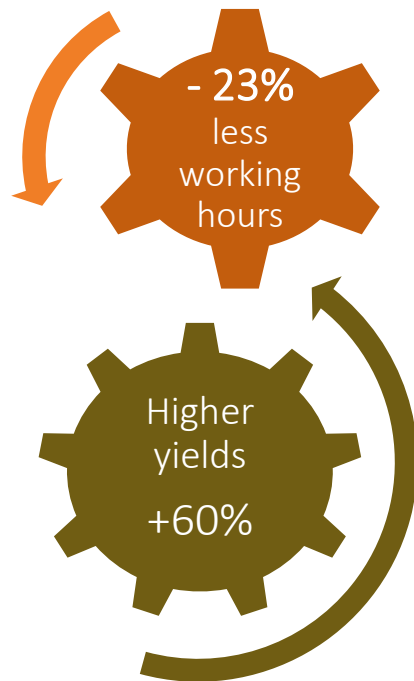
Digitization boosts productivity and fosters innovation *across* sectors.

But the benefits of digitization are often proving to be more dramatic in *traditional* sectors



Japan's farming industry is facing extinction from the TPP, demographic pressure and declining competitiveness...

Adopting cloud transformed its supply chain and helped breed a young generation of farmers



Transitioning to a digital economy requires more than technology take-up.

It requires re-imagining business models...



- Food service > 10% of GDP (USD105B pa)
- With the # of chicken restaurants in Korea > than the # of McDonalds globally...
- ...**Supply threatens** to be > **Demand**
- And yet small 'mom-and-pop' shops have neither the skills nor the motivation to go online

Digitization allows mom-and-pop restaurants to expand their reach, compete on quality and manage return-on-investment

사장님
저희가
찍어드릴게요~

오케이!

우리가게 CF 만들기

배달의민족이 사장님 업소만의 특별한 CF를 만들어 드립니다.
세상에 하나뿐인 **우리가게 CF 영상 만들기**에 지금 참여해보세요.

배달의민족 × modoo:

우리가게 홈페이지 만들기

남들 다 있는 홈페이지! 만들고는 싶었지만, 엄두가 나지 않으셨죠?
배달의민족과 네이버가 **우리가게의 모바일 홈페이지**를 만들어 드립니다.



성공업을 만드는 운영 노하우 전수 프로젝트

꽃보다 매출

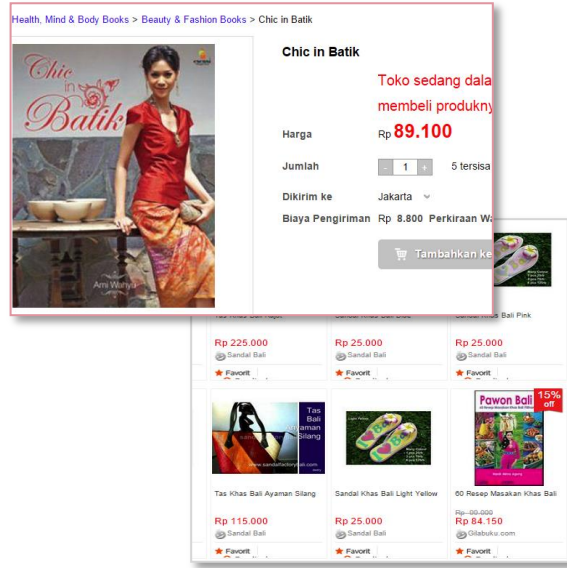
전문가의 창업노하우 컨설턴트 업소방문 1:1코칭 고객응대 트레이닝

사장님- 걱정마세요

배달의민족



While emerging markets are playing catch up...
... and still face challenges in terms of access to affordable devices, robust connectivity and limited market awareness...



E-commerce in Indonesia



E-learning in Vietnam



... they are gaining momentum with digital start-ups...

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Restaurant Discovery Site Zomato Eats Up \$60M To Fuel Expansion Into New Verticals

Posted Sep 7, 2015 by [Jon Russell \(@jonrussell\)](#)

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 **Dipendra Jain**
10:30 am on Nov 3, 2015 LISTS TIPS

5 reasons to tap into the startup ecosystem In Indonesia

22 Comments 

About author: I am the CEO of LiteLabs, a mobile app development company having offices in Jakarta, Indonesia and Bangalore. As a seasoned professional, I've worked with top Fortune 100 companies for over 12 years.

You can create a community post just like Dipendra, just click [here!](#)



Zomato, the India-based restaurant discovery site, has close looks to further its push into new verticals including food reservations and more.



Tuesday, 3 November 2015 News [bizhub.vn](#)

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Updated October, 26 2015 08:30:00 

Viet Nam's startup ecosystem begins to go past 'Flappy'



A customer browses goods on shopping site Vatgia.com. Vatgia is among Viet Nam's first generation of startups, after which many startups are developing very fast and expanding in the region. — VNS Photo Viet Thanh

by Mai Huong

Governments increasingly cognizant of the need to develop a national digital economy plan...

Australia



Australia's
broadband
network
bring it on

Australian Government
Department of Broadband,
Communications and the Digital Economy

CONNECTING, COLLABORATING, CREATING

Advancing Australia as a Digital Economy:

AN UPDATE TO THE NATIONAL DIGITAL ECONOMY STRATEGY

Canada



FIVE PILLARS
OF DIGITAL
CANADA 150



1. Connecting Canadians



2. Protecting Canadians



3. Economic Opportunities



4. Digital Government



5. Canadian Content

Korea

A circular logo with a red and blue design, containing the Korean text '창조경제' (Creative Economy) and '특별위원회' (Special Committee).

창조경제특별위원회

Special Committee on Creative Economy

The creative economy's ecosystem from seeds to flowers

Government

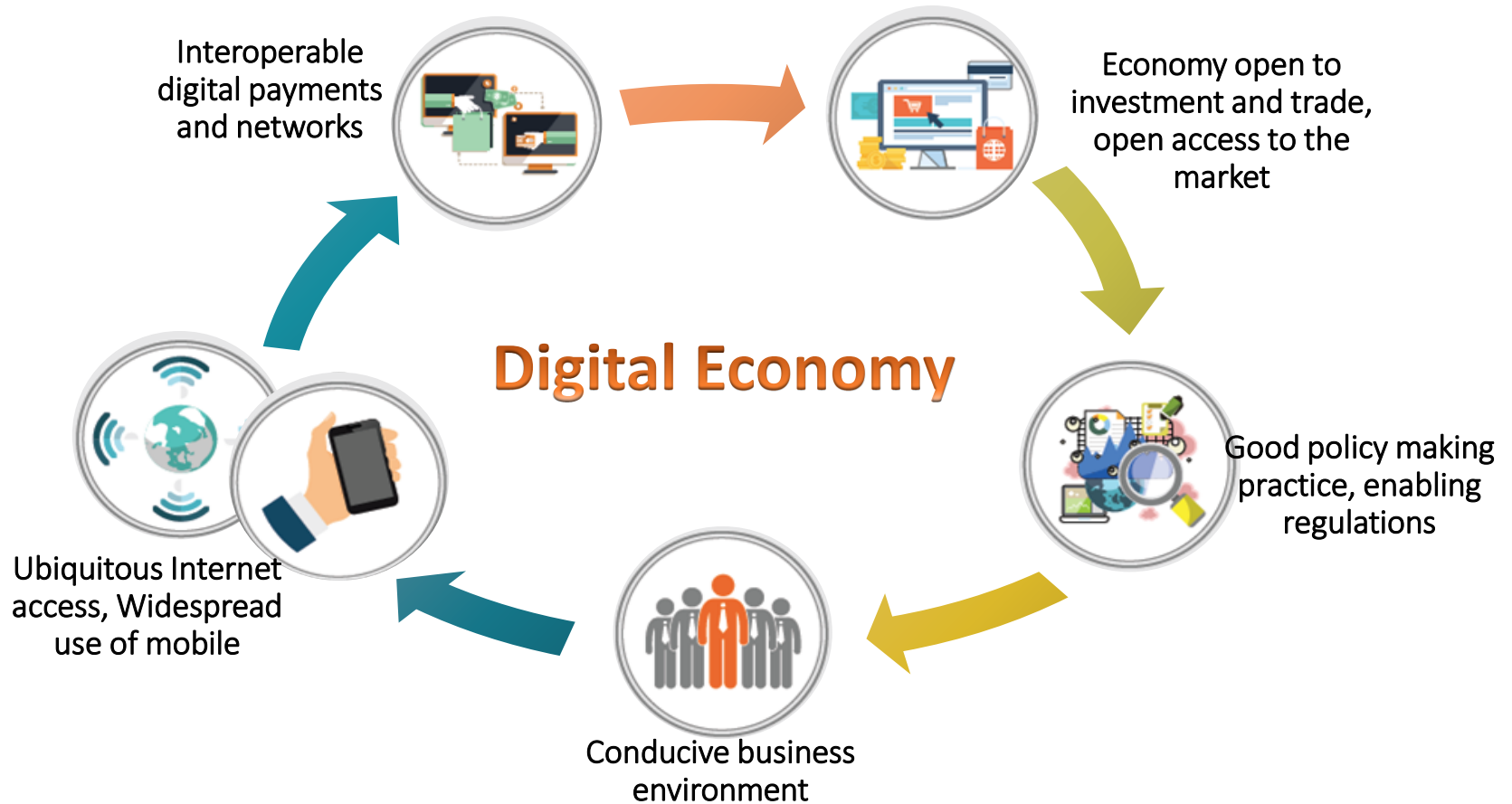
- Intellectual property
- Fair regulation
- Financial support
- Fair competition

- Quality jobs
Sustainable growth engine
- New products and services
- Convergence
Industry + Industry
Industry + Culture
- Creative imagination

Science, technology ICT

Source: Cheong Mi Do

To foster successful transition, it is necessary to ensure appropriate building blocks are in place



Developing economies playing catch-up... Albeit slowly and in a siloed manner

Indonesia



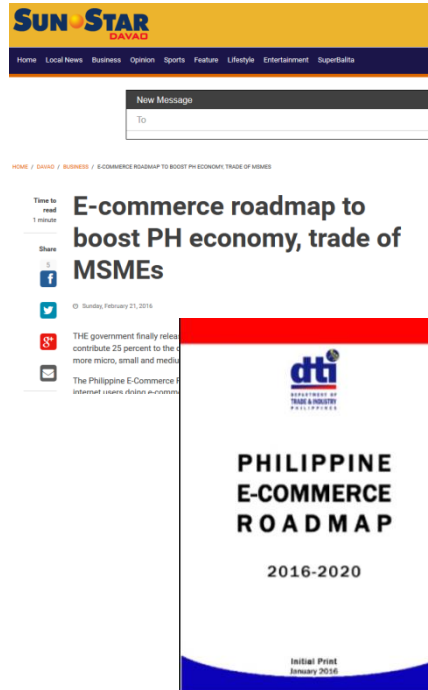
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Indonesia Completes Its First E-Commerce Guideline

Jakarta. The Indonesian government has completed a road map for its e-commerce industry that would guide future regulations on the trade of online goods and services, as well as data and fund transfers done over the Internet, according to a state official.

Philippines



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E-commerce roadmap to boost PH economy, trade of MSMEs

dti
DEPARTMENT OF TRADE & INDUSTRY
PHILIPPINES

PHILIPPINE E-COMMERCE ROADMAP

2016-2020

Initial Print
January 2016

Thailand



GOVINSIDER

CONNECTED DIGITAL INCLUSIVE INNOVATION SECURITY SMART EVENTS ABOUT

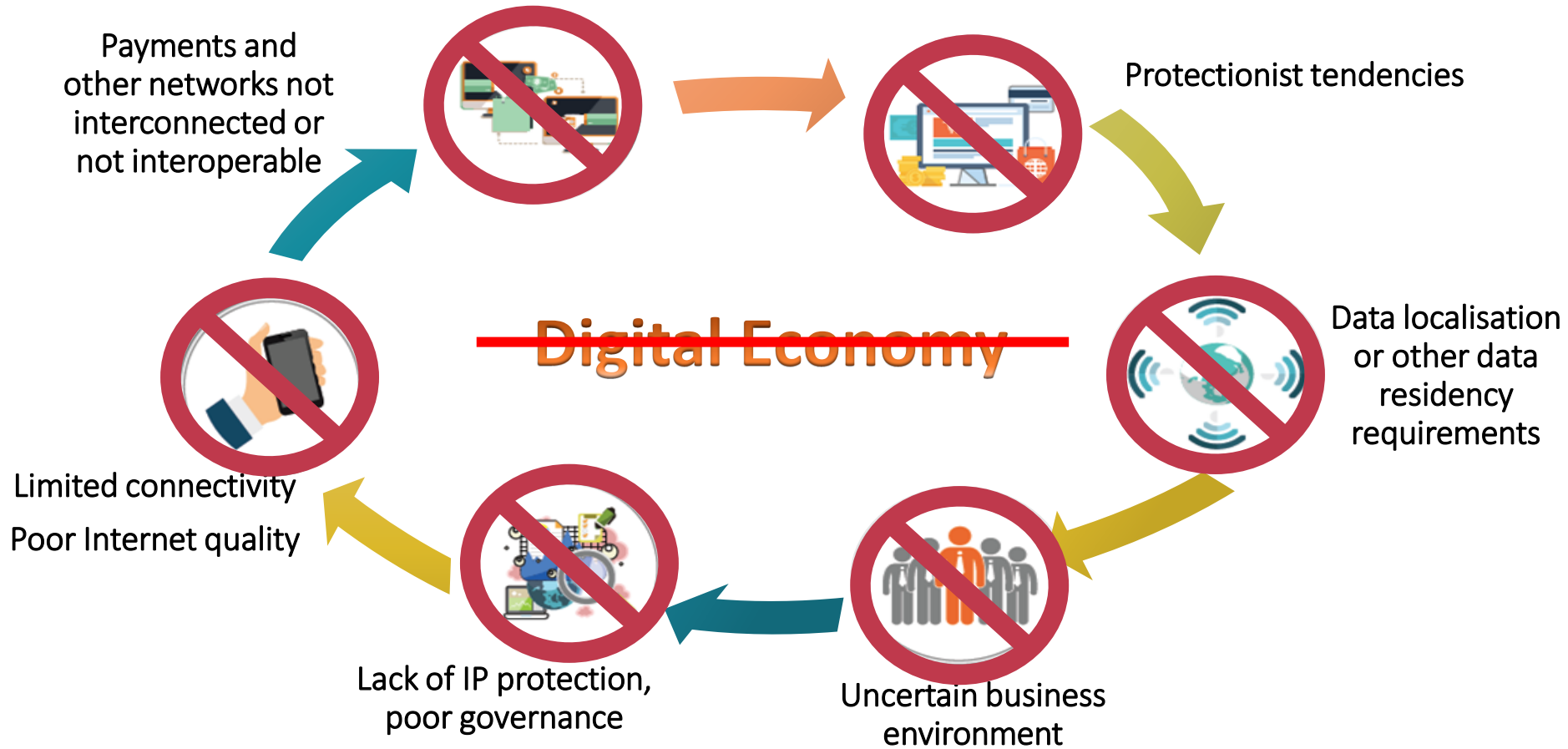
Thai cabinet approves digital economy plans

National digital strategies get official green light.



Thailand's Cabinet has officially approved two plans on Digital Economy and Digital Government for the next three years, government spokesperson Major-General Sansern Kaewkamnerd announced this week.

Blockages often the result of lack of awareness, capacity, or policy-making



IMPLEMENTATION PRINCIPLES

- Cross-border
- Compliance
- Localisation
- Flexibility
- Dynamism
- Practicality
- Scalability
- The Plan

Internet Economy

Technology

Innovation

Economic Transformation

Infrastructure

Trust and Security

Financing

Empowerment

HARMONISATION & EQUIVALENCE

CONTENT

CONSUMER ISSUES

STAKEHOLDERS

- APEC Groups
- SMEs
- MSMEs
- Private sector

GLOSSARY

FINANCING

- Infrastructure
- Security
- Getting MSME's online
- Taxation

STANDARDS

- Interoperability
- e-payment systems
- Security
- e-identity

INTERNET ECONOMY

TECHNOLOGY (PLATFORM)

- Cloud
- Mobile
- IoT
- IPv6
- e-identity

DATA

- Definition
- Harvesting
- Flows
- Protection & privacy
- Utilization of data to promote IE
- Opportunity

INFRASTRUCTURE

- Broadband (fixed & mobile)
- LTE
- Spectrum
- Affordability and quality (QoS)
- Digital divide (traditional divide & digital gap)

ENGAGEMENT & ADVOCACY

- Capacity building

TRUST AND SECURITY

- Network
- Personal data
- Information

LAWS

- Policy and regulation

Facilitation

Empowerment

Facilitation & Empowerment

Digital economy as the key driver of development



fostering innovation and the development of next-gen technologies



leapfrogging development gaps financial services, education and health

invigorating traditional sectors through digitisation and new business models



expanding opportunities and fostering inclusive growth for SMEs, the elderly, marginalized and disabled



▲ Freedom and Equality in Medieval Japan, video lecture by Professor Kazuto Hongo of the University of Tokyo, open to the public free of charge



developing smarter and more sustainable ways of using natural resources



encouraging citizen participation and improving services delivery



Digital Applications and Inclusive Society

Interconnected Health

- The Internet and interconnectivity among people and devices can advance the public health agenda
- E-health enables (among others):
 - better informed decision making
 - real-time and remote consultations and treatment
 - universal records to enhance quality of treatment
 - real-time response to pandemics
- A majority of APEC governments have included e-health in their development agendas²¹
- However, interoperability and interconnectivity within and across e-health systems remains an issue

Interoperable Education

- E-APEC Agreement of 2000 promotes “awareness, general knowledge and appreciation of ICT, particularly the Internet”
- Massive Open Online Courses (MOOCs) emerging as one particular promising platform and collaborative learning tool; there are others
- Challenges include basic connectivity, cost of connection, bandwidth availability, cost of maintenance and capacity

Multi-modal Disaster Risk Management

- ICT and the Internet play a crucial role in different phases of disaster risk management
- Multi-platform communications systems enhances efficiency and efficacy of disaster information flow
- Cloud-based systems allow immediate access to analytics and risk-assessment
- SNS opened door to 'crowd sourced' early warning
- Across APEC, connectivity and information dissemination still remain a challenge

Financial Inclusion

- At an individual level, Internet provides means to participate in economic activities, connect to communities and mobilise for a social cause
- At the macro level, the Internet facilitates greater citizen participation, the impetus for govt to enhance transparency and governance
- Evidence of APEC's commitment toward financial inclusion of remains weak.
- Payments/ transactions and network access (communications, IT) remain fundamentally separated from a policy and regulatory perspective
- ***We have the tools to address financial exclusion now.***

Areas for Intervention

1. Vision and plans



Government needs have a **clear vision and a coherent set of policies** for digital advancement, encompassing all sectors of the economy

2. Harmonization and alignment



Harmonizing regulations enables access to global markets, and investment into local markets

3. Business environment



Business processes need to be simplified to encourage new entrants to enter and innovate. Transparency needs to be improved.

Areas for Intervention - *continued*

4. Industry engagement



Governments in Asia need to be continuously encouraged to consult the industry and engage them in policymaking

5. Capacity Building



Retooling workforce and creating appropriate human capacity building programmes at a national level is vital for Asia

6. Policy research support



Governments in Asia need **research support** in understanding unintended impacts of their regulations

Regulatory Recommendations

- **Cross-Border Data Enablement:** No data residency requirements
- Equivalence in **Data Privacy Regimes**
- **Seamless Payments** Enablement: Need for more efficient, affordable and widely available cross-border payments mechanisms
- Accessible **trade and customs** rules
 - Raise and align de minimis levels
 - Certification programme: authorised economic operator (AEO) by WTO
 - Single Window systems

Frameworks need to be aligned regionally and recourse mechanisms initiated