DICT AND THE FUTURE OF THE PHILIPPINE DIGITAL ECONOMY

A PRESENTATION by JOHN D. FORBES

Senior Adviser
American Chamber of Commerce of the Philippines, Investment Climate Improvement Project

Chairman of the Legislative Committee
AmCham Philippines

Vice Chairman of the Legislative Committee
Management Association of the Philippines

Principal author of *Arangkada Philippines*

MAP Executive Academy Forum

DICT: Is it Really necessary for Philippine transformation?

Monday August, 6 2012

Grand Ballroom InterContinental Manila

SUMMARY of PRESENTATION

✓ Reasons for JFC interest in ITC in the Philippines

✓ Historical JFC postions regarding DICT

✓ Arangkada telecommunications and IT recommendations

✓ Philippine e-governace rankings

✓ How connected is the Philippines?

✓ Cyber security and cyber attacks

✓ The world of DICTs

✓ Broadband and e-governance programs in Australia

✓ Eight arguments for a DITC in the Philippines

✓ Arguments against a DITC in the Philippines

✓ Conclusions

REASONS for JFC INTEREST

✓ Foreign chambers of commerce are partners in national economic development and are deeply interested in its pace and quality

✓ Most JFC member firms come from highly digital economies, at the leading edge of the digital revolution, and embrace enhanced productivity from the use of technology

✓ Faster digital transformation is needed to close the digital divide and result in more rapid and inclusive growth

✓ For 35 years, ICT hardware firms have invested in the Philippines and for 25 years so have business process outsourcing firms. Both industries employ over one million Filipinos

HISTORICAL POSITIONS in FAVOR of DICT

✓ AmCham: The Roadmap to More Foreign Investment, March 2003

✓ AmCham: Roadmap II More Foreign Investment, July 2004

✓ Creation of Commission on Commission on ICT, January 2004

✓ *Arangkada Philippines*, December 2010

✓ JFC press and Congressional statements during the 13th, 14th, and 15th (current) Congresses
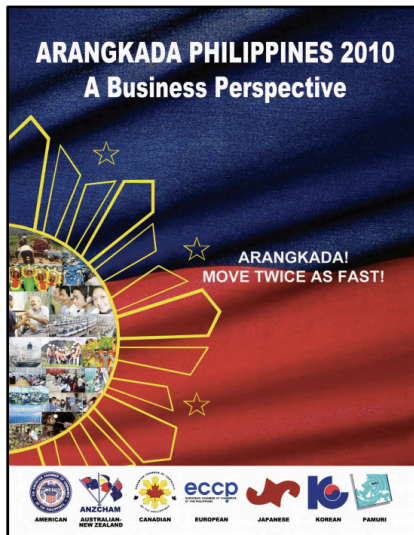
ARANGKADA PHILIPPINES
MOVE TWICE AS FAST

RECOMMENDATIONS for TELECOMMUNICATIONS and INFORMATION TECHNOLOGY

✓ Use **broadband to empower a majority** of Filipinos by providing inexpensive access to information and e-governance

✓ Double computer penetration and **triple Internet penetration**

✓ Provide **free Wi-Fi** access in crowded urban areas and enable widespread use of digital services

ARANGKADA
PHILIPPINES
MOVE TWICE AS FAST

✓ **Make e-governance a reality** for the nation, including digital fund transfers for public sector payments

✓ Develop a single **national government website** and national **GPS mapping**

✓ **Create a separate DICT**

(Source: *Arangkada Philippines*, pp. 86—90, 170—171 and 316. Also visit www.arangkadaphilippines.com)

UNITED NATIONS E-GOVERNMENT DEVELOPMENT INDEX

**Legend:** Singapore · Malaysia · Vietnam · Thailand · Indonesia · Philippines
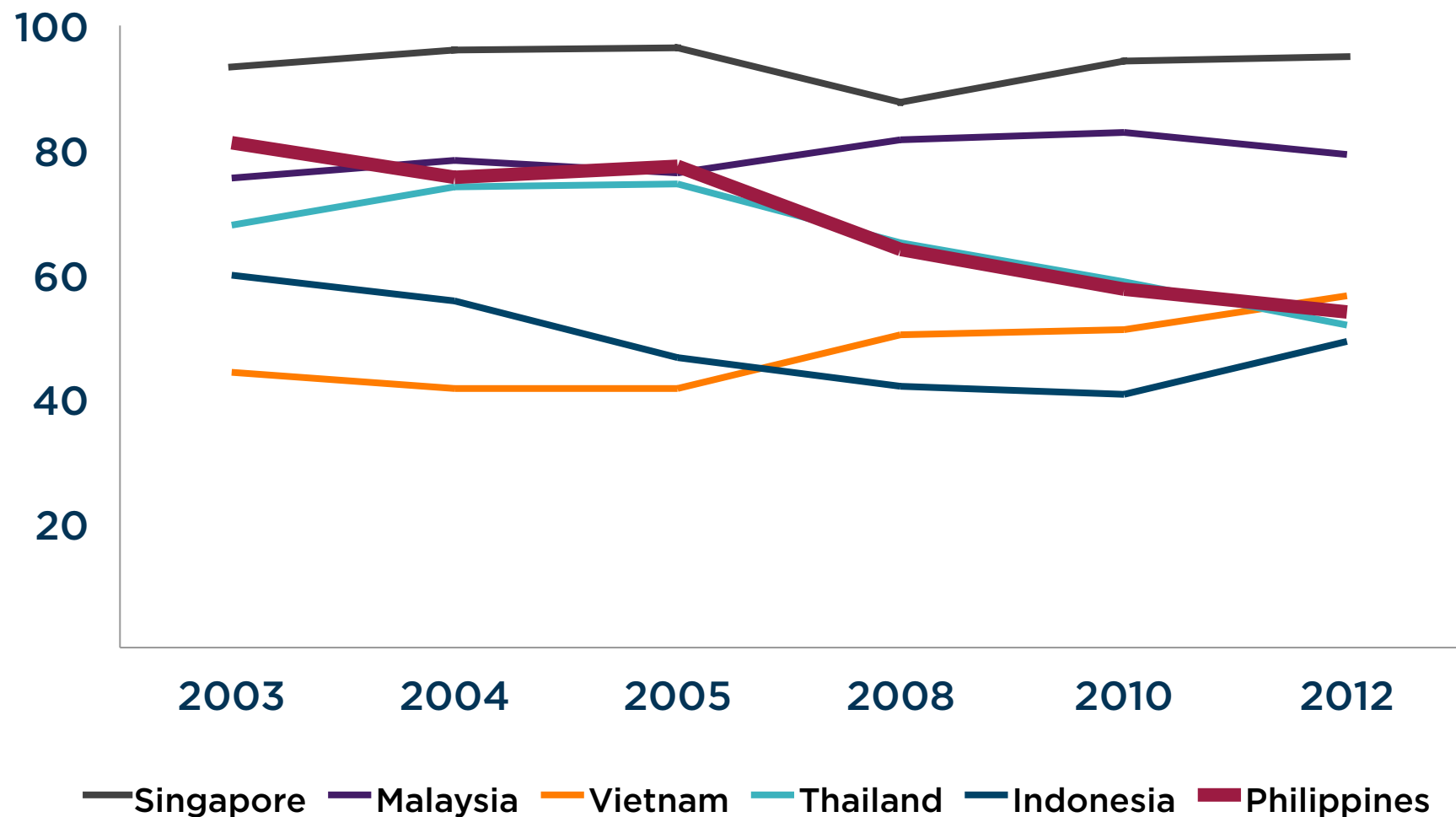
Calculated percentile rankings. The E-Government Development Index, as measured by the United Nations Department of Economic and Social Affairs (UNDESA), is based on three indicators: **(1) Online Service; (2) Telecommunication; and (3) Human Capital**

UNITED NATIONS E-GOVERNMENT DEVELOPMENT INDEX

✓ **Online Service Index** looks at the stage of development of the national government's central portal as well as related websites that deliver e-information and e-services

✓ **Telecommunication Index** measures the following indicators: number of fixed phone lines per 100 habitants; number of fixed internet subscriptions per 100 habitants; number of broadband facilities per 100 habitants

✓ **Human Capital Index** considers the adult literacy rate and the combined gross enrollment ratio in primary, secondary, tertiary levels

MOBILE PHONE SUBSCRIPTIONS PER 100 INHABITANTS

Singapore — Malaysia — Vietnam — Thailand — Indonesia — Philippines
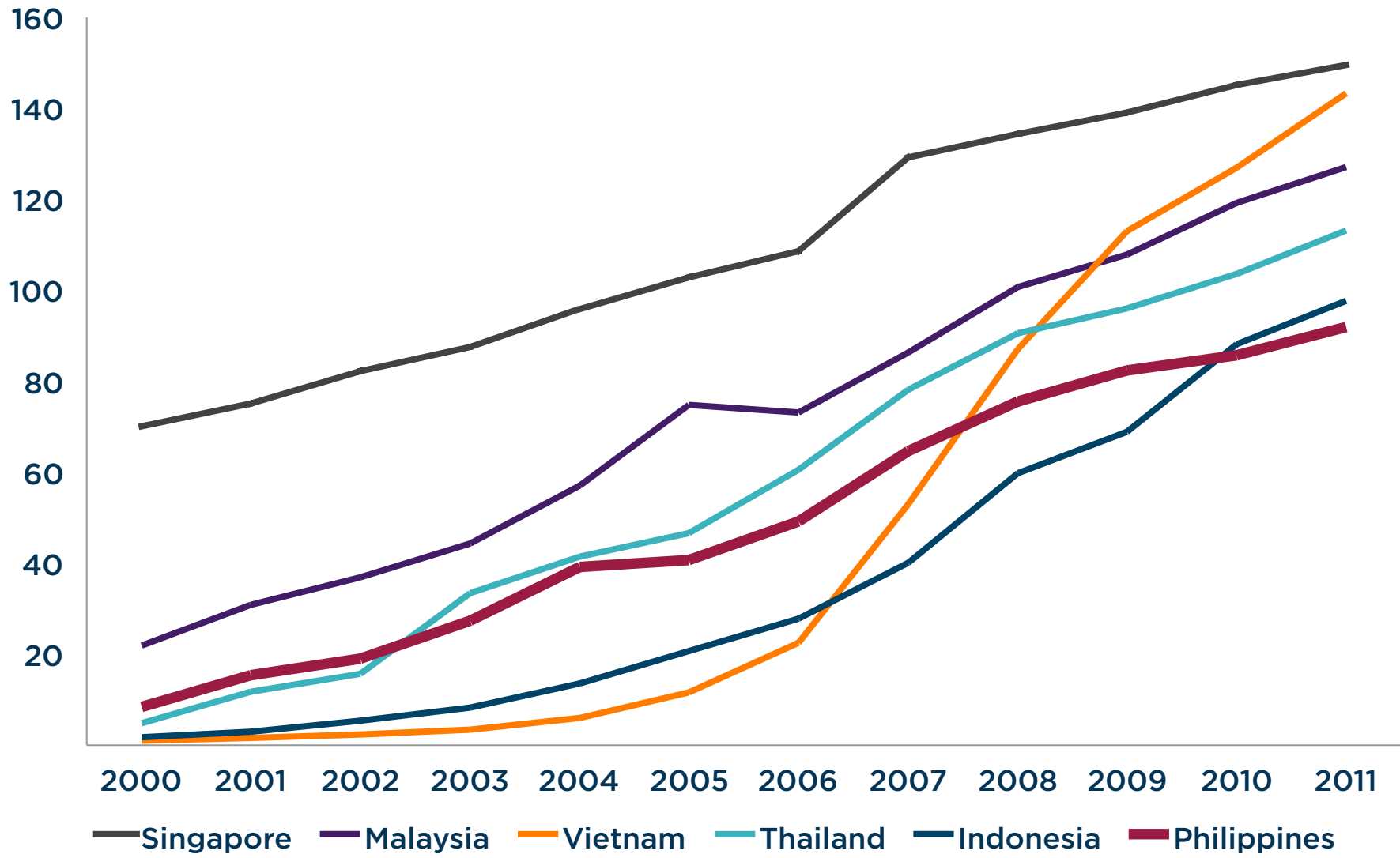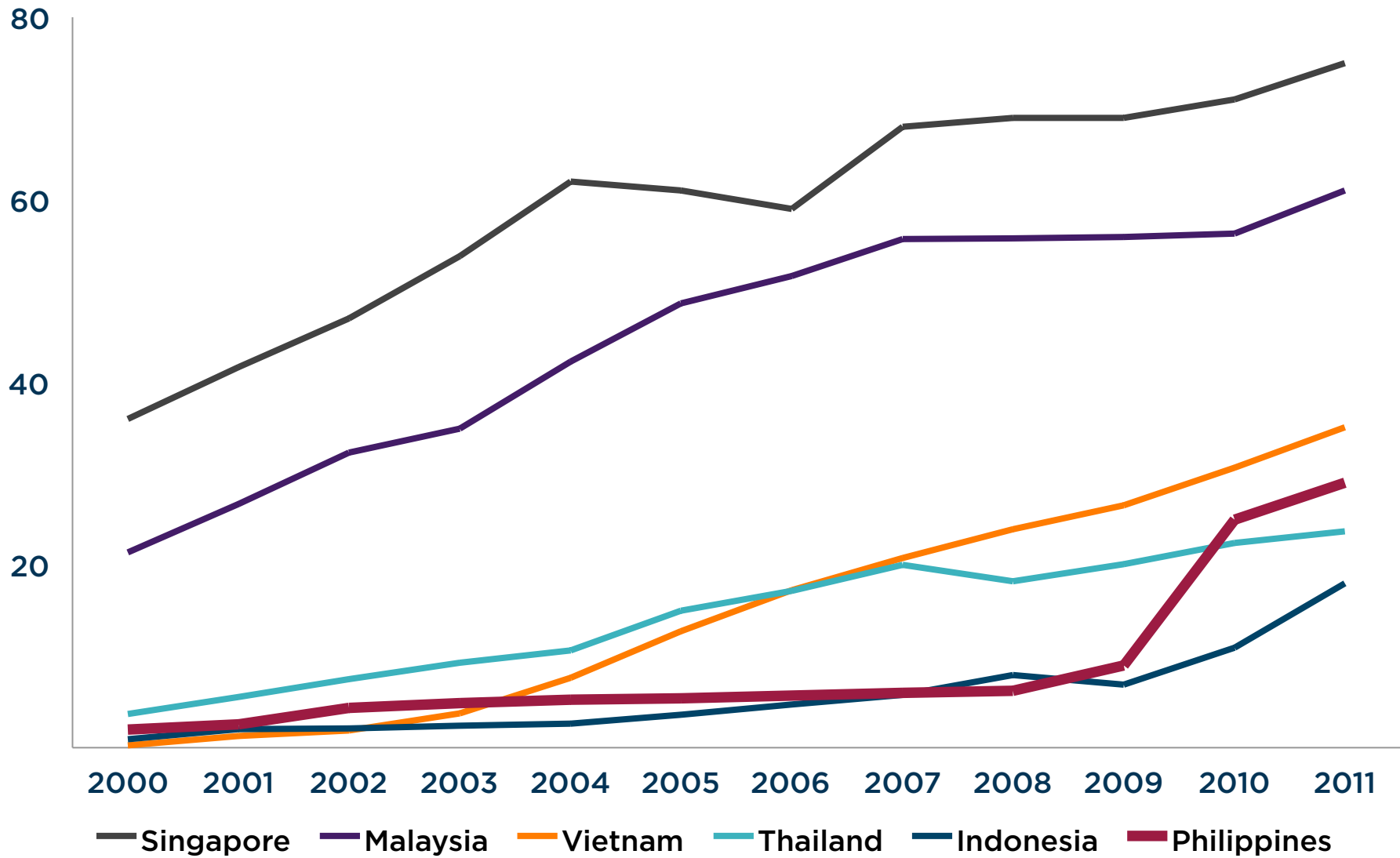
SOURCE: United Nations and International Telecommunications Union

FIXED BROADBAND SUBSCRIPTIONS PER 100 INHABITANTS
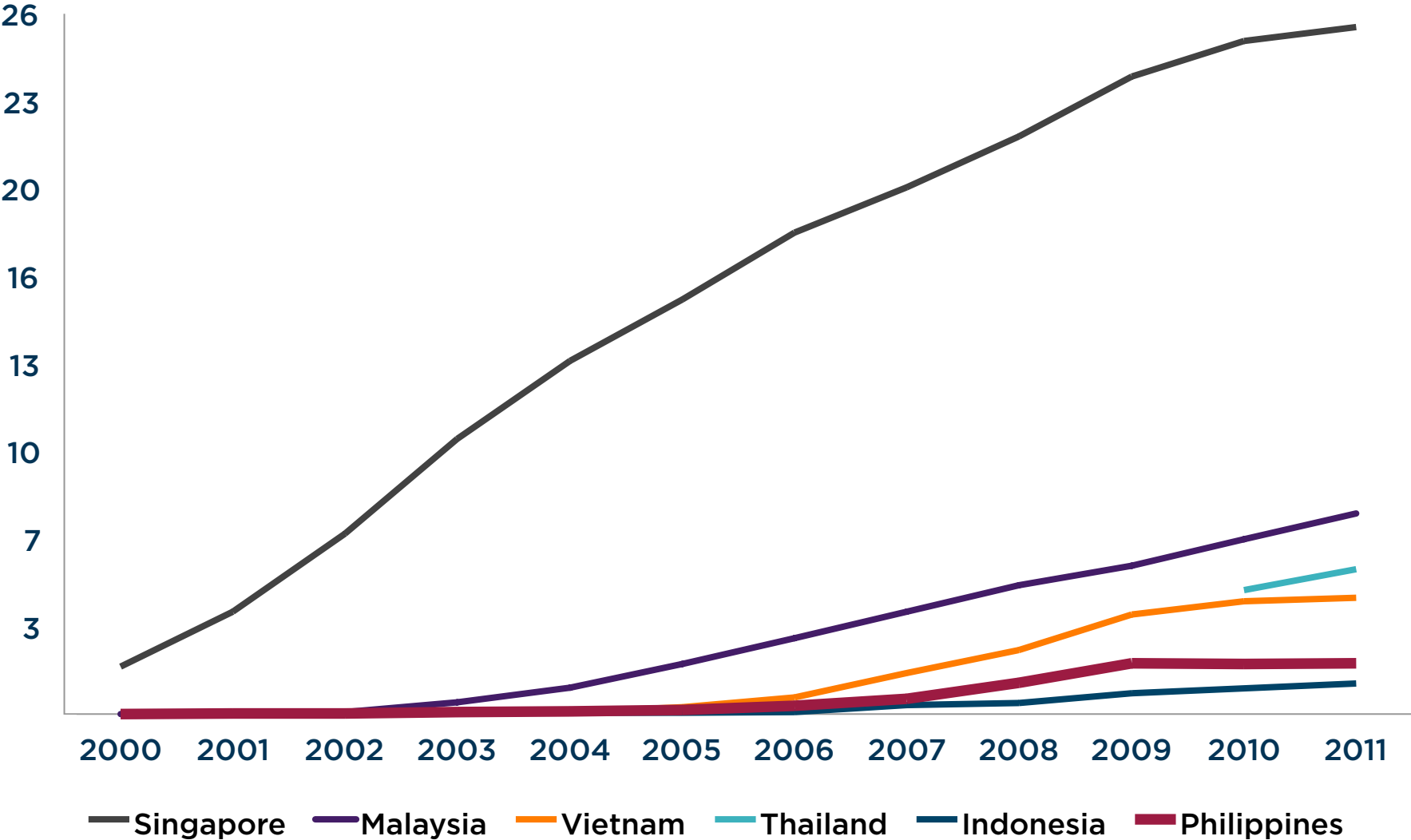
SOURCE: United Nations and International Telecommunications Union

PERCENTAGE OF INDIVIDUALS USING THE INTERNET

Singapore — **Malaysia** — **Vietnam** — **Thailand** — **Indonesia** — **Philippines**

SOURCE: United Nations and International Telecommunications Union

WORLD ECONOMIC FORUM NETWORKED READINESS INDEX

	2002	2005	2009	2012

Malaysia · Singapore · Vietnam · Thailand · Indonesia · Philippines
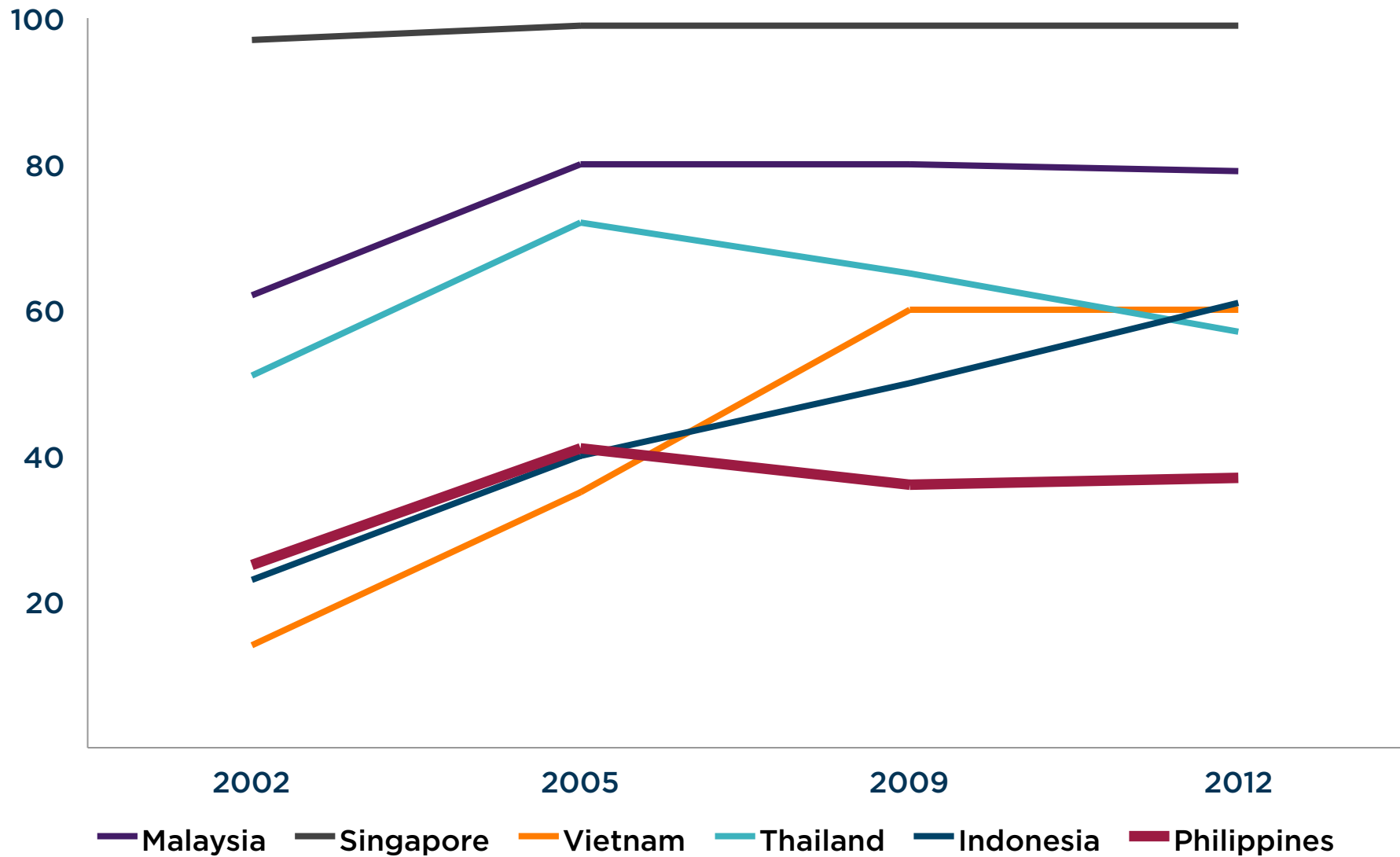
Percentile rankings are author's calculations

GOOGLE INTERNET SPEED TEST for DESKTOPS

VIETNAM 6.6

THAILAND 9.6

MALAYSIA 14.3

PHILIPPINES 15.2
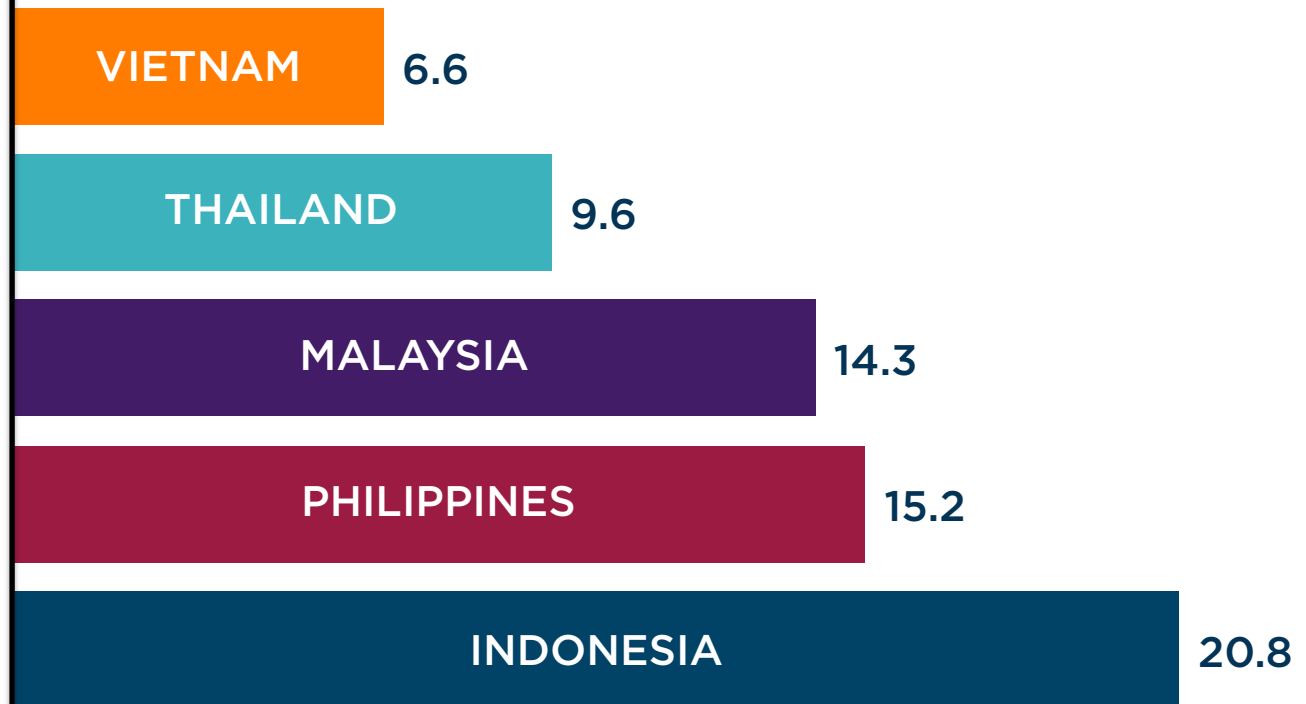
INDONESIA 20.8

Mean load time in seconds. Source: Google Analytics (April 19, 2012)

FACEBOOK USER STATISTICS

2.6 M
(#55)

6.4 M
(#29)

12.5 M
(#17)

15.8 M
(#16)

28.8 M
(#8)

42.8 M
(#4)
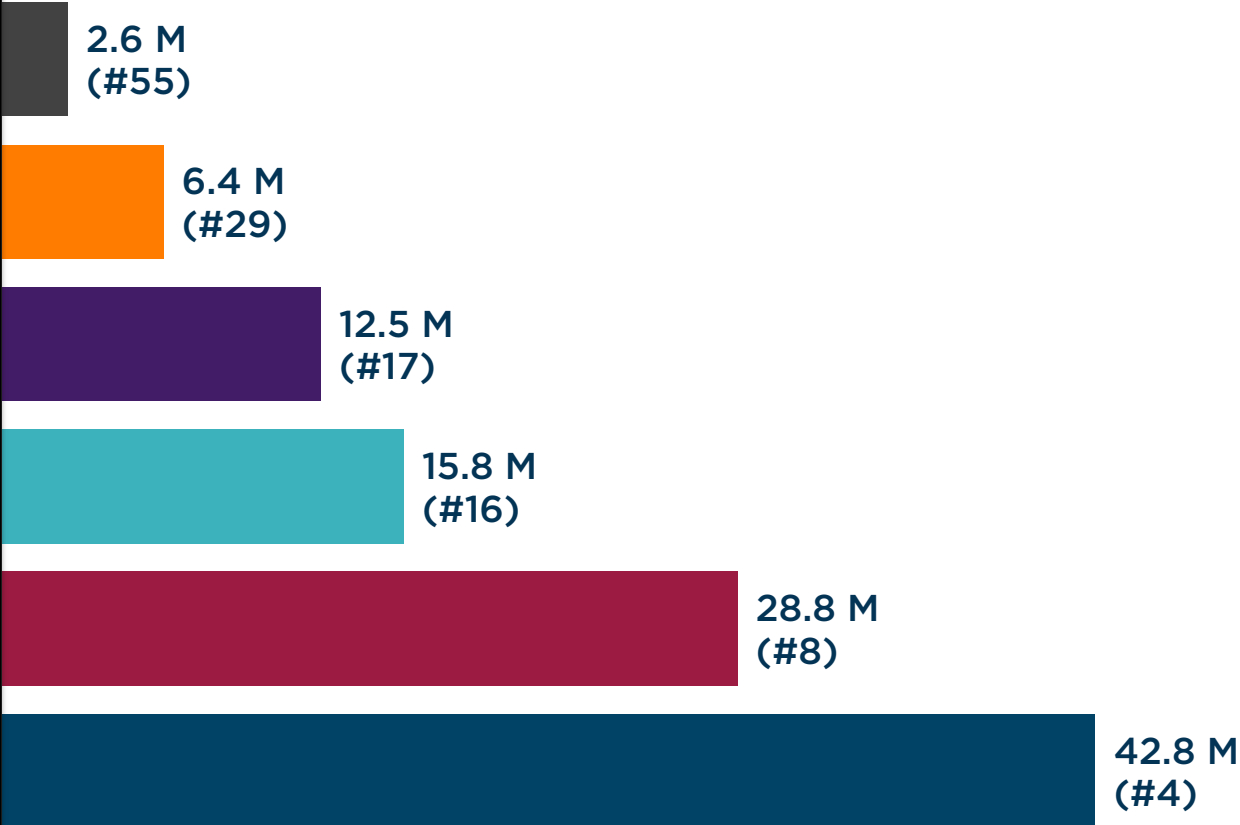
- Singapore
- Vietnam
- Malaysia
- Thailand
- Philippines
- Indonesia

Global rankings in parenthesis. Source: www.socialbakers.com
(August 3, 2012)

CYBER SECURITY and CYBER ATTACKS

✓ Facebook thwarts **600,000** attempts each day to hack into user accounts
Source: David Segal, New York Times (June, 9 2012)

✓ Visa and Mastercard warned of an intrusion that hit Global Payments in North America, leading to the "export" of Track 2 data from 1.5 million credit cards, nearly 10 million credit cards might have also been compromised
Source: Dan Goodin, Ars Technica (April, 2 2012)

CYBER SECURITY and CYBER ATTACKS

INDESIA RECORDED NEARLY 1.5 MILLION CYBER ATTACKS DAILY IN 2011

"Most of the attacks on Indonesia came from China, Russia and the United States," Communications and Information Minister Tifatul Sembiring told a press conference

Indonesia, with the help of Japanese security experts, will build an Internet security center to counter future cyber attacks, Tifatul said, adding that Indonesia had a lot to learn from Japan on cyber security

Source: Ismira Lutfia, Jakarta Globe (May, 7 2012)

CYBER SECURITY and CYBER ATTACKS

CYBER SECURITY MALAYSIA

✓ An agency under the Ministry of Science, Technology, and Innovation

✓ Aspires to become a globally recognized national cyber security reference and specialist center by 2020

✓ Provides expertise in digital forensics and security quality management

✓ Coordinates and implements the National Cyber Security Policy (NCSP)

✓ Conducts cyber threat research and risk assessment

Source: www.cybersecurity.my

CYBER SECURITY and CYBER ATTACKS

"…Foreign governments, criminal syndicates, and lone individuals are probing our financial, energy and public safety systems every day…. Taking down vital banking systems could trigger a financial crisis. The lack of clean water or functioning hospitals could spark a public health emergency…. The loss of electricity can bring businesses, cities and entire regions to a standstill. My administration has made cybersecurity a priority…."

— President Obama (Asian Wall Street Journal, July 23, 2012)

THE WORLD
of DICTs

✓ More than 80 percent of countries have separate ICT administrative agencies, according to the International Telecommunications Union (ITU) study in *Trends in Telecommunications Reform* (July 4, 2012)

✓ In ASEAN: six members have an ICT ministry (Brunei, Indonesia, Malaysia, Singapore, Thailand, and Vietnam) while four (Cambodia, Laos, Myanmar, and the Philippines) do not

✓ Thailand has a plan for free wireless and bought one million tablets for students

✓ Pakistan established a Ministry of Information and Technology in 2002. Before, it had only a division in the Ministry of Science and Technology

THE WORLD
of DICTs

✓ South Korea established in 2008 the Ministry of Knowledge Economy as part of its growth strategy which relies on innovation, R&D, and technology to increase the value-added of goods and services

✓ Australia has a Department of Broadband Communication and the Digital Economy which last year released a Corporate Plan (2011-2013) outlining the strategic priorities and future directions
(See **http://www.dbcde.gov.au/**)

Australian Government
Department of Broadband,
Communications and the Digital Economy

Search for [Enter keywords...] [Go]

Advanced search

About us | Careers | Minister | Consultations and submissions | Funding and programs | Publications | Policy and legislation | Initiatives map

#au20
National Digital Economy Strategy

Leveraging the National Broadband Network to drive Australia's Digital Productivity

National Digital Economy Strategy

The strategy shows how Australia can become a leading global digital economy by 2020.

‹‹ 1 2 3 **4** 5 ›› ›

Initiatives in your area
Find local digital and communications initiatives on our interactive map.

Broadband
Delivering super-fast broadband to homes and workplaces.

Online safety and security
Increasing awareness and education to better protect internet users.

Digital economy
Further developing Australia's infrastructure, confidence, skills and regulation.

Mobile services
Improving mobile services, especially in regional, rural and remote areas.

Telephone services
Improving telephone services, including access for people with disabilities.

Radio
Ensuring Australians can enjoy the full benefit of high quality radio services.

Television
Coordinating and overseeing the smooth transition from analog to digital.

Post
Providing advice on postal policy and legislation.

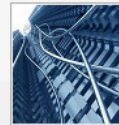**Minister's media centre**   Stay informed

Healthier future for remote Northern Territory communities

Minister for Broadband, Communications and the Digital Economy, Senator Stephen Conroy, today launched a telehealth initiative that will help remote communities in the Northern Territory get better access to healthcare.

‹‹ **1** 2 3 4 5 ›› ›

What's new   Stay informed

Boosting Australia's Productivity Performance

The department has published a paper outlining how broadband, communications and the digital economy are improving Australia's productivity and it is now online.

‹‹ **1** 2 3 4 5 ›› ›

National Broadband Network | get READY for digital TV | CYBER SECURITY | digitalbusiness.gov.au | BUDGET 2012-13

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> Future Directions of the Digital Economy
> Cybersafety plan
> Australian Broadband Guarantee
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> Stay Smart Online
> Get Ready for Digital TV
> Do Not Call Register
> National Broadband Network
> digitalbusiness.gov.au

Portfolio agencies
> Australian Broadcasting Corporation (ABC)
> Australian Communications and Media Authority (ACMA)
> Special Broadcasting Service (SBS)
> Australia Post
> NBN Co Ltd

AUSTRALIAN DIGITAL ECONOMY STRATEGY

DIGITAL ECONOMY GOALS BY 2020

✓ Rank as one of the top OECD countries in portion of households that connect to broadband at home

✓ Rank in the top five OECD countries in relation to the portion of business and non-profit organizations, using online opportunities to drive productivity

✓ Have majority of Australian households, businesses and other organizations gain access to smart technology to better manage their energy use

✓ Have four out of five Australians choose to engage with the government through the internet or other type of online service

AUSTRALIAN DIGITAL ECONOMY STRATEGY

DIGITAL ECONOMY GOALS BY 2020

✓ Have 90 percent of high priority consumers such as older Australians, mothers and babies, and those with chronic disease, gain access to individual electronic health records

✓ Provide connectivity to all educational institutions that will enable them to deliver innovative and flexible educational services and resources online, giving students who cannot access courses via traditional means the opportunity for virtual learning

✓ Double the level of teleworking so that at least 12 percent of Australian employees can have a teleworking arrangement with their employer

AUSTRALIAN DIGITAL ECONOMY STRATEGY

CURRENT INITIATIVES FOR 2011-2013 TO ACHIEVE LONG-TERM DIGITAL GOALS

✓ **DIGITAL ENTERPRISE**
Spend $12.4 M over three years to provide advice and support services to SMEs and non-profit organizations regarding the National Broadband Network (NBN)

✓ **ONLINE RETAIL FORUM**
Government to promote the importance of a vibrant retail sector

✓ **SMART INFRASTRUCTURE**
$100 M for the implementation a commercial scale smart grid and $61 M over the next three years for smart infrastructure technologies to improve efficiency of transport networks in major cities

AUSTRALIAN DIGITAL ECONOMY STRATEGY

CURRENT INITIATIVES FOR 2011-2013 TO ACHIEVE LONG-TERM DIGITAL GOALS

✓ **TELEHEALTH**
Fund trial runs of NBN-enabled telehealth services for older Australians living at home with serious illnesses and inclusion of such services to Medicare benefits

✓ **NBN-ENABLED EDUCATION**
Fund trial runs of NBN-enabled tele-education project utilizing state-of-the-art virtual interactive training rooms, laboratories and community learning capabilities

✓ **DATA.GOV.AU**
Establish a single data catalogue for both state and federal government information

AUSTRALIAN ICT BUDGET PORTFOLIO

✓ $20 B in equity funding for the National Broadband Network from 2012 to 2016

✓ $143 M over five years to assist free-to-air television broadcasters to relocate their digital television services

✓ $54 M over four years to assist free-to-air broadcasters to relocate part of their electronic news gathering functions to alternate radiofrequency spectrum, to free up spectrum in the 2.5 gigahertz bands for next-generation communications

"Information technology (IT) advancements have been at the center of a transformation in how the private sector operates—and revolutionized the efficiency, convenience, and effectiveness with which it serves its customers.

The _____ **Government** largely has missed out on that transformation due to poor management of technology investments, with IT projects too often costing hundreds of millions of dollars more than they should, taking years longer than necessary to deploy, and delivering technologies that are obsolete by the time they are completed. We are working to close the resulting gap between the best performing private sector organizations and the federal government."

"The _____ _____ _____, develops and provides direction in the use of Internet-based technologies to make it easier for citizens and businesses to interact with the _____ **Government**, save taxpayer dollars, and streamline citizen participation."

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MANAGEMENT

Financial Management

Procurement Policy

E-Gov

Performance & Personnel Management

Office of E-Government & Information Technology

Information technology (IT) advancements have been at the center of a transformation in how the private sector operates—and revolutionized the efficiency, convenience, and effectiveness with which it serves its customers. The Federal Government largely has missed out on that transformation due to poor management of technology investments, with IT projects too often costing hundreds of millions of dollars more than they should, taking years longer than necessary to deploy, and delivering technologies that are obsolete by the time they are completed. We are working to close the resulting gap between the best performing private sector organizations and the federal government.

The Office of E-Government and Information Technology (E-Gov), headed by the Federal Government's Chief Information Officer, develops and provides direction in the use of Internet-based technologies to make it easier for citizens and businesses to interact with the Federal Government, save taxpayer dollars, and streamline citizen participation.

EIGHT ARGUMENTS for a DICT in the Philippines

✓ Improve e-governance

✓ Raise national competitiveness rankings

✓ Promote a national telecommunications infrastructure that truly enables a digital economy

✓ Enhance cyber security

✓ Implement digital economy solutions for urban and rural development programs

✓ Provide the country with a Chief Information Officer (CIO)

✓ Create a permanent department that cannot be changed by an executive order

✓ Provide high level international representation for the Government of the Philippines

PHILIPPINE DEVELOPMENT PLAN CALLS for a DICT

Accelerating Infrastructure Development
1. Pursue legal, regulatory and policy reforms

"Establish the Department of Information and Communications Technology via the DICT Bill. The DICT shall be established to coordinate and implement the national ICT development agenda, policies, programs, and projects. Transforming the CICT into the DICT should result in a thorough implementation of the national e-strategies cutting across other critical sectors such as e-education, e-health, and the country's representation in international and regional ICT bodies."

(PDP 2011-2016, page 167)

PHILIPPINE GOVERNMENT INITIATIVES in ICT

DEPARTMENT OF SCIENCE AND TECHNOLOGY

✓ One-stop shop information on technologies available per industry

✓ Project NOAH (Nationwide Operational Assessment of Hazards)

✓ "Science for Every Juan" (online database on science in the country)

✓ e-Technology Resource Center

PHILIPPINE GOVERNMENT INITIATIVES in ICT

NATIONAL COMPUTER CENTER

✓ IT Technical Assistance for government agencies

✓ ICT Monitoring

✓ ICT courses (offered offline)

✓ e-Bayad Payment Gateway System (currently unavailable)

PHILIPPINE GOVERNMENT INITIATIVES in ICT for 2013

✓ **DISASTER PREVENTION**

P1.5 B to the National Mapping and Resource Information Authority (NAMRIA) for the Unified Mapping project targeting 18 major river basins and nearly P300 M for the Geohazard Assessment and Mapping Program

✓ **PUBLIC FINANCIAL PROCESSES**

P238 M to digitize public financial management operations (National Payroll System, Integrated Financial Management Information System, Cash and Treasury Management System, Philippine Research Education and Gov't Information Network)

PHILIPPINE GOVERNMENT INITIATIVES in ICT for 2013

✓ **E-GOVERNANCE: BUSINESS AND COMMERCE**
P136 M for the Philippine Business Registry, a web-based system integrating business registration processes of the DTI, BIR, SSS, PhilHealth, and PAG IBIG

✓ **E-GOVERNANCE: SECURITY AND CRIME**
[Budget pending] Biometric Criminal Record Clearance System for the clearance processing and online application system of the NBI

✓ **E-GOVERNANCE: LAND TITLING**
P22.9 M for the Land Titling Computerization Project, which will digitize 99.6 % of land titles by the NRA

(Refer to the 2013 Budget Message of the President)

IMPROVED E-GOVERNMENT SERVICES for the PHILIPPINES

- ✓ Full automation of the National Single Window

- ✓ Speedier NBI clearance application and processing

- ✓ Electronic public database of all court decisions

- ✓ Online payments of taxes and other government fees

- ✓ Electronic voter registration

- ✓ E-procurement expansion

- ✓ Online education (virtual/distance learning programs)

- ✓ National road and traffic mapping and GPS system

- ✓ Patient and doctor access to electronic records

INTERNATIONAL INSTITUTE FOR MANAGEMENT DEVELOPMENT (IMD) COMPETITIVENESS YEARBOOK

Singapore — Malaysia — Thailand — Indonesia — Philippines
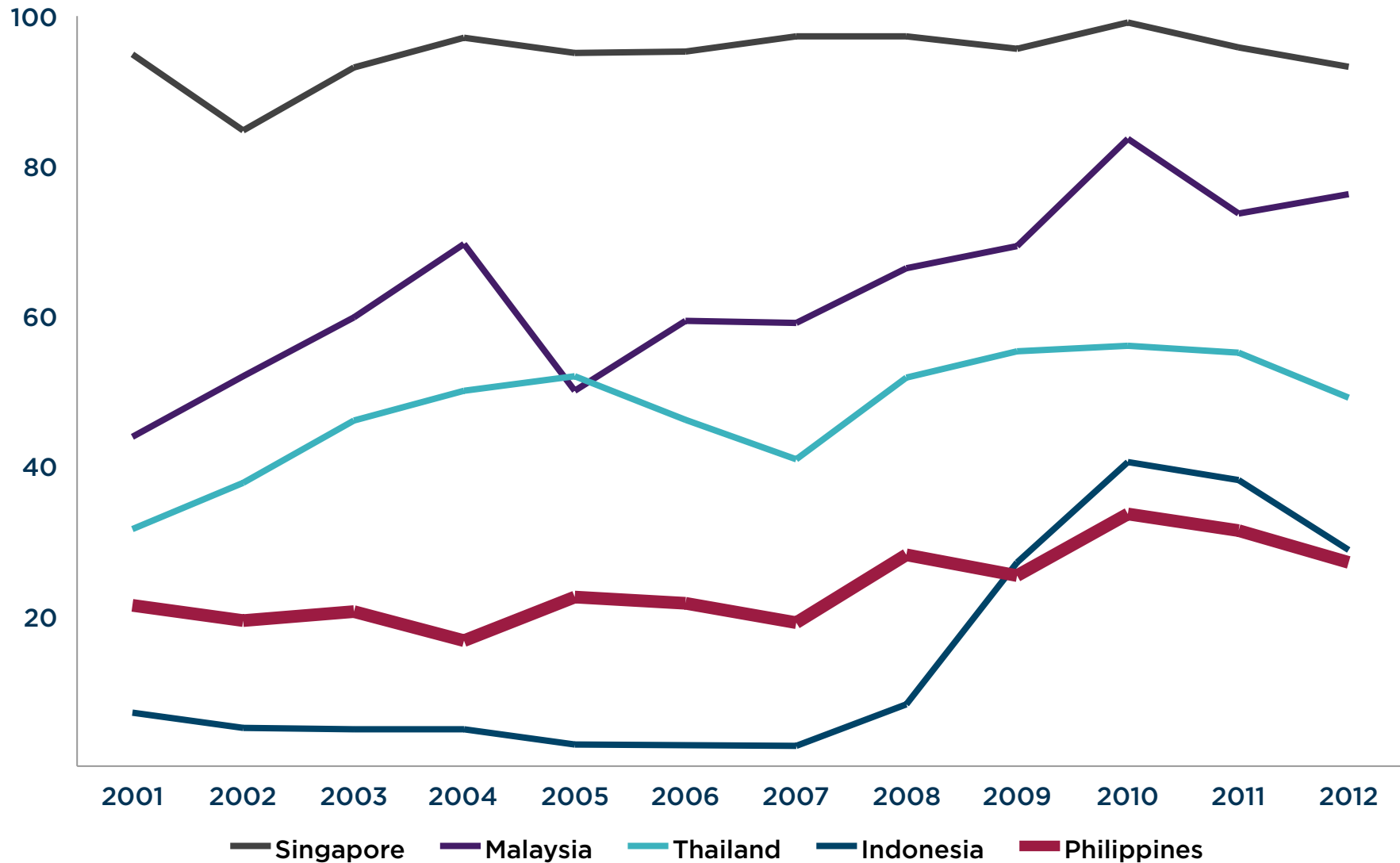
Percentile rankings (out of 59 economies) are author's calculations

IMD COMPETITIVENESS YEARBOOK 2012 SURVEY QUESTIONS ON ICT

1. How successful is the government in promoting the use of ICT in your country?

   Not successful at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very successful

2. To what extent do ICTs enable access for all citizens to basic services (health, education, financial services, etc.) in your country?

   Do not enable access at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Enable access significantly

3. To what extent does the government have a clear implementation plan for utilizing ICTs to improve your country's overall competitiveness?

   No plan | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Clear plan

IMD COMPETITIVENESS YEARBOOK 2012 SURVEY QUESTIONS ON ICT

4. To what extent does the use of ICTs by the government improve the quality of government services to citizens (e.g., speeding-up of delivery time, reducing errors, introducing new online services, enhancing transparency) in your country?

Not at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Has generated considerable improvements

5. How would you assess your country's laws relating to the use of ICT (e.g., electronic commerce, digital signatures, consumer protection)?

Highly undeveloped | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Well-developed

6. To what extent are ICTs creating new business models, services, and products in your country?

Not at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | A significant extent

IMD COMPETITIVENESS YEARBOOK 2012 SURVEY QUESTIONS ON ICT

7. To what extent are ICTs creating new organizational models (e.g., virtual teams, remote working telecommunicating) within businesses in your country?

    Not at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | A significant extent

8. In your country, to what extent does the existing internet bandwidth capacity limit businesses to perform their activities or embark on new business opportunities?

    Limits extensively | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Does not limit at all

9. To what extent do businesses in your country use ICTs for communicating and carrying out transactions with other businesses?

    Not at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extensively

IMD COMPETITIVENESS YEARBOOK 2012 SURVEY QUESTIONS ON ICT

10. To what extent is the internet increasing the sales of businesses in your country and allowing to access new customers?

Not at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extensively

11. How would you rate the level of access to the internet in schools in your country?

Very limited | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Extensive

12. In your country, how accessible is digital content (e.g., text and audiovisual content, software products) via multiple platforms (e.g., fixed-line internet, wireless internet, mobile network, satellite)?

Not accessible at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Widely accessible

IMD COMPETITIVENESS YEARBOOK 2012 SURVEY QUESTIONS ON ICT

13. How widely used are virtual social networks (e.g., Facebook, Twitter, LinkedIn) for professional and personal communications in your country?

Not widely | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Used widely

ARGUMENTS against DICT

✓ **EXTRA COSTS**

The DICT combines disparate agencies with ICT-related mandates already budgeted without adding another layer to the bureaucracy and creates administrative efficiencies. DOTC to be renamed as Department of Transportation

✓ **ALREADY ENOUGH DEPARTMENTS**

There is no magic number in any government. DHUD is a LEDAC priority (Approved on 3rd R in Senate July 24 and pending 2nd R in House). DICT is as important as DHUD. ICT is as critical as energy (DOE), public works (DPWH), and transportation (DOTC). DOTC secretaries are too occupied with air, land, and marine sectors to handle telecommunication

ARGUMENTS against DICT

✓ **DTI IS SUCCESSFULLY PROMOTING THE BPO SECTOR**

But DITC will enable an inclusive digital economy not promote investment in one sector. The bill's "Statement of Policy" describes 16 functions of DICT; ICT-enabled services is only one. DTI and PEZA would continue to promote BPO sector.

✓ **DICT WILL IMPOSE REGULATIONS ON BPO**

DICT should regulate only as necessary and support broad requirements of the digital economy

CONCLUSIONS

✓ The Philippine Government has too slowly increased its bureaucratic capacity to support and encourage the digital economy – CICT and now DOST/ICTO

✓ There are many critical challenges to enabling the post-industrial economy in the Philippines

✓ The legislation should be enacted this year and implemented with the full support of DOST/ICTO during the term of President Aquino

CONCLUSIONS

✓ With the support of industry, Congress passed the DICT Act after 10 years for a DICT to be the prime mover to achieve the Philippine Digital Strategy Vision announced in June 2012

"A digitally empowered, innovative, globally competitive and prosperous society where everyone has reliable, affordable and secure information access in the Philippines. A government that practices accountability and excellence to provide responsive online citizen-centered services. A thriving knowledge economy through public-private partnership."

✓ We look forward to the enactment of the DICT Act this year and continued close cooperation with the ICTO.

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