STATISTICS INDONESIA

Pelopor
Data Statistik
Terpercaya
Untuk Semua

Broadband Related Indicator

as an overview of broadband and internet access

SENTOT BANGUN WIDOYONO, MAIPM: *BPS-Statistics Indonesia*

Presented for the ITU Regional Workshop on Reshaping Policy and Regulatory Landscape for Accelerating Broadband Access

Jakarta, 9 September 2015

KEMKOMINFO

ITU

150 ITU 1865-2015

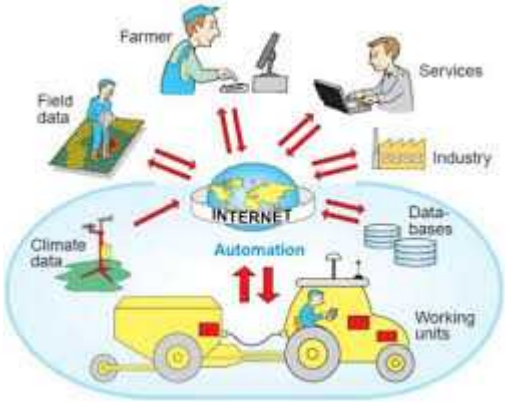
OUTLINE

- Introduction
- Broadband Market and Internet Access
- Related Indicator
- Challenges and Way Forward

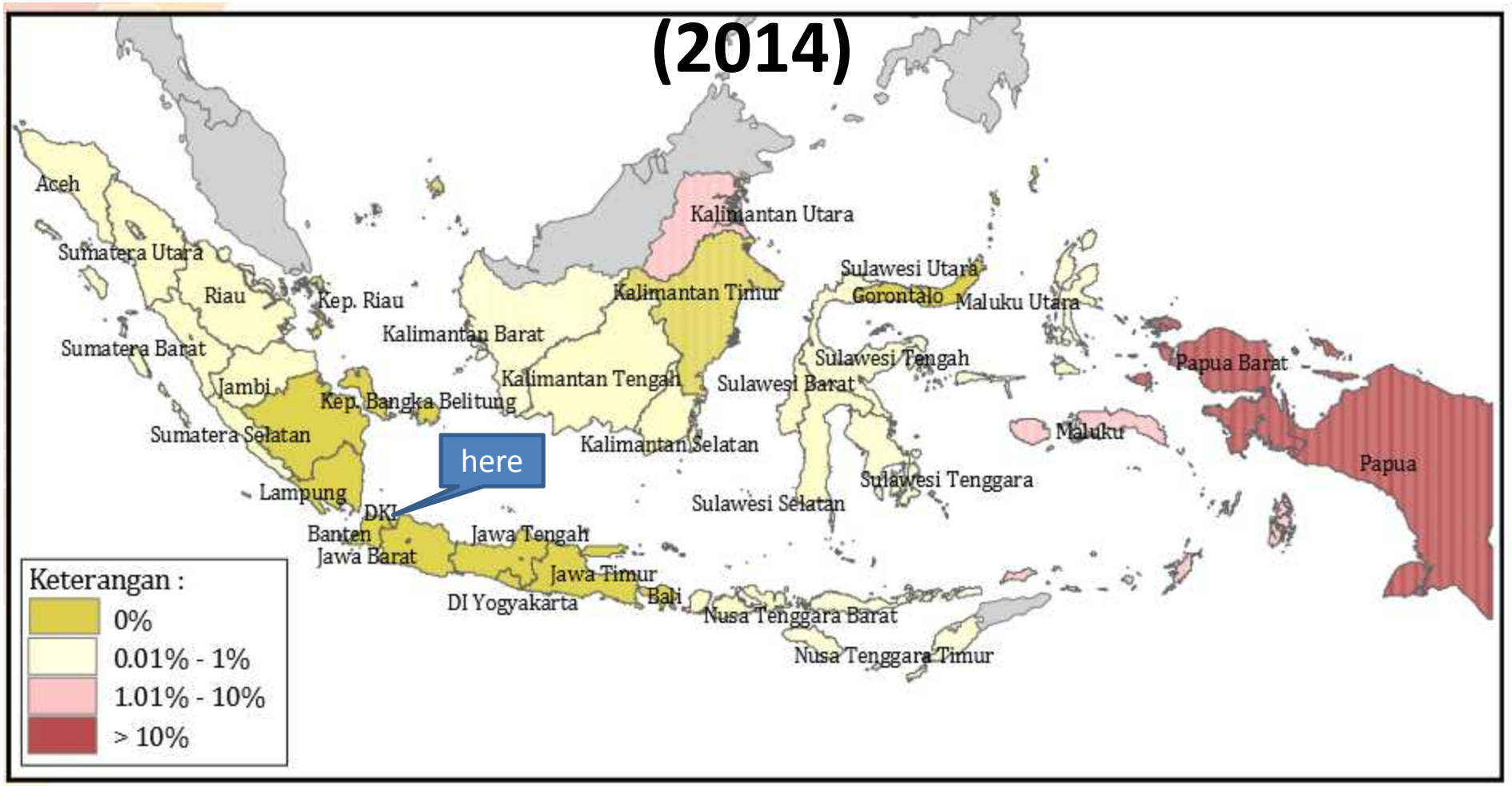
STATISTICS INDONESIA

Pelopor
Data Statistik
Terpercaya
Untuk Semua

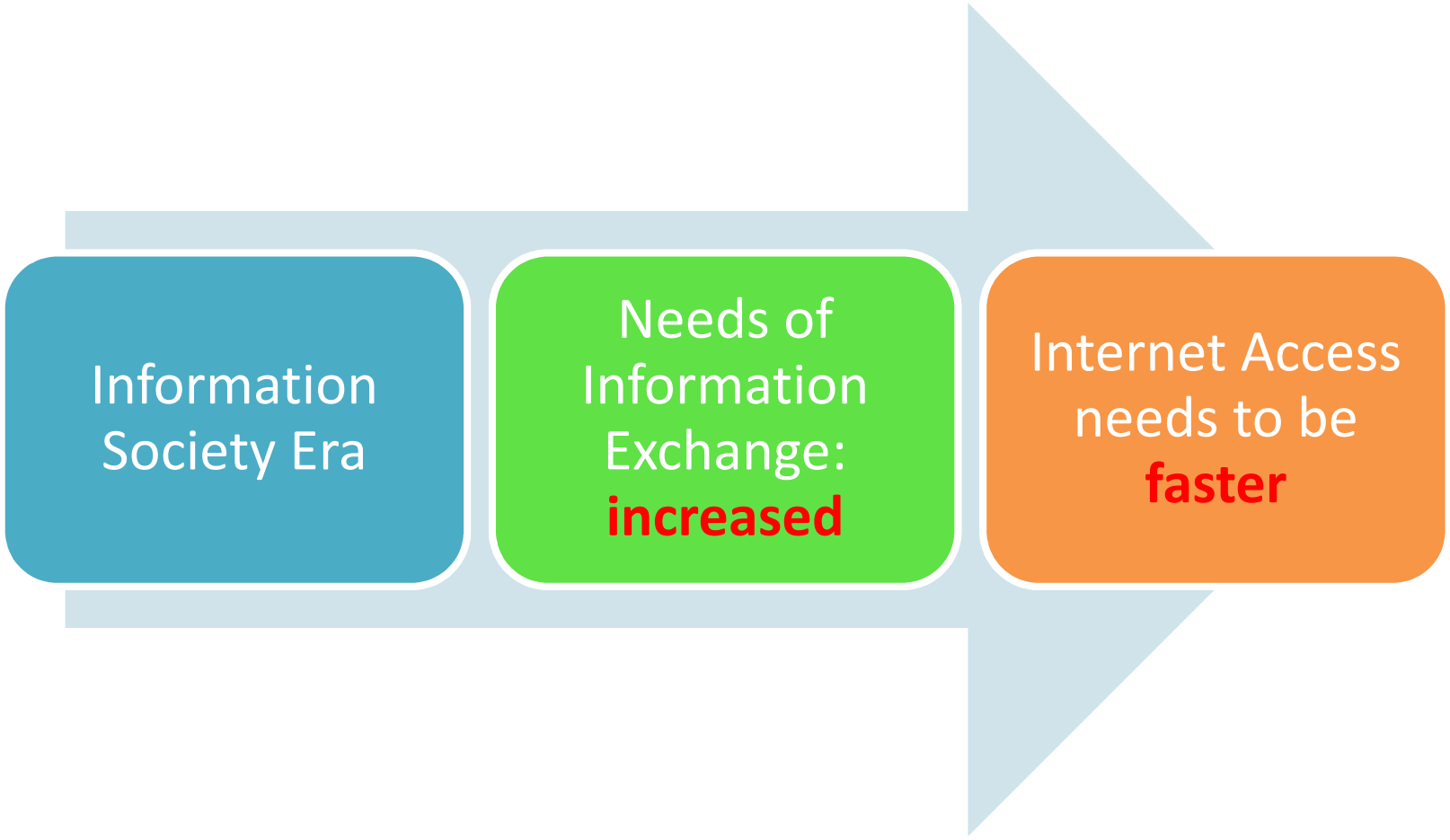
Introduction



% villages has no access to electricity (2014)



Source: BPS-Statistics Indonesia, “Village Census, 2014”


Information Society Era
Needs of Information Exchange: increased
Internet Access needs to be faster

V.C. EDUCATION INFORMATION
(ONLY FOR THOSE AGED 5 YEARS AND ABOVE)

20. a. Did you access to the internet in the last 3 months? 1. Yes 2. No ➡ [R.21]

21. [If "Yes" (R.20=1)] Location/media to access the internet
[Fill in code 1 if yes, code 2 if no]

1 Home 3 Office 5 Hand Phone

2 Cafe 4 School 6 Others

(ex: Portable Modem)

VIII. INFORMATION TECHNOLOGY AND COMMUNICATION

1. Is there any home phone in this household?
1. Yes 2. No

c. Number of active handphone number which all household members hold
..... number(s)

2a. Is there any household member who has celular phone or handphone (HP)?
1. Yes 2. No ➡ [R.3]

b [If (R2.a=1)] Number of household member who has active handphone number:
..... person (s)

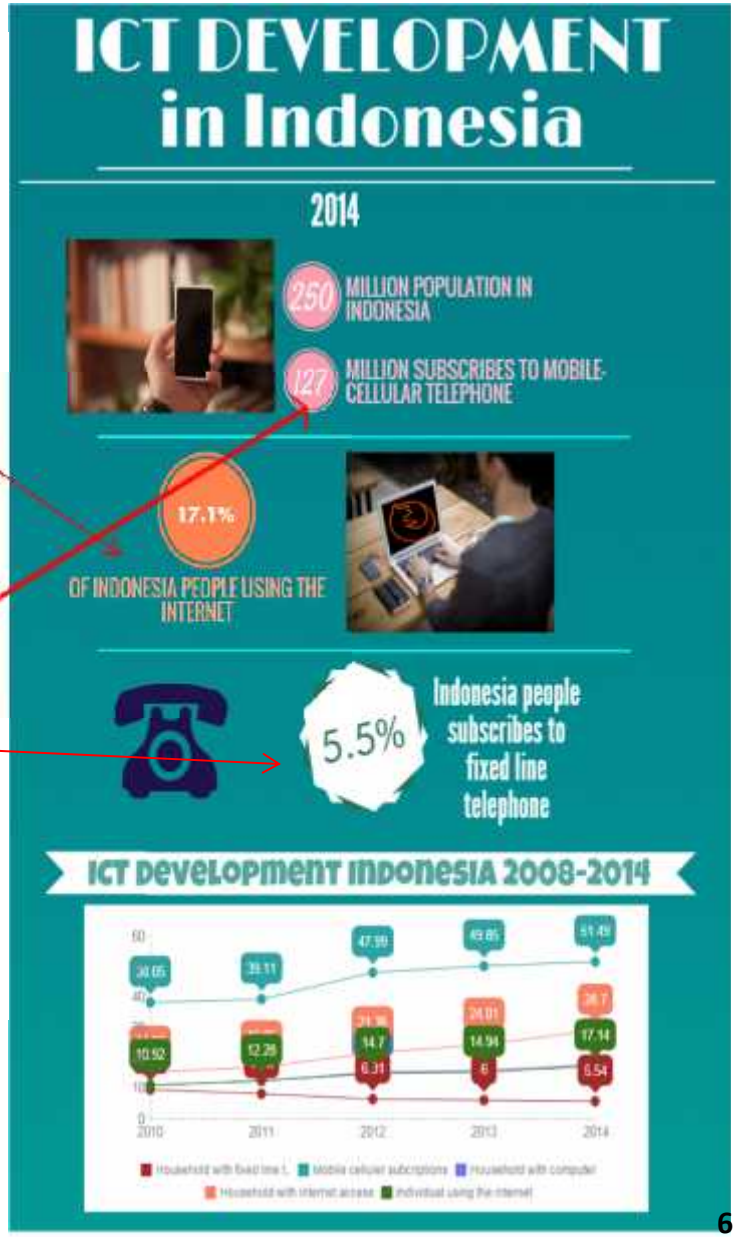
3. Is there any computer in this household?
[Fill in 1 if yes, 2 if no]

a Desktop/Personal Computer (PC)

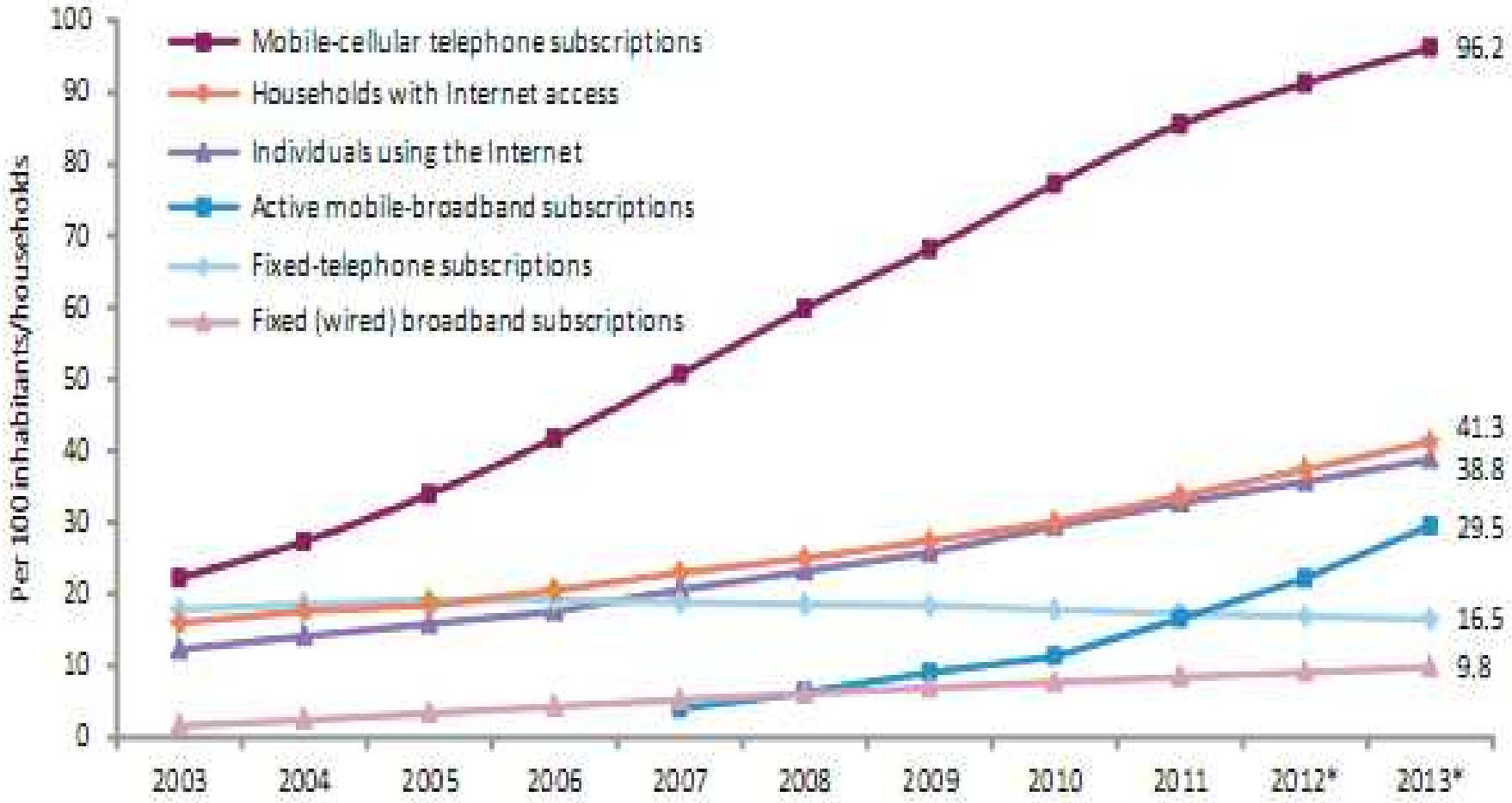
b Laptop/Notebook

300.000 households as sample annually

Source: BPS, National Social-Economic Survey, processed



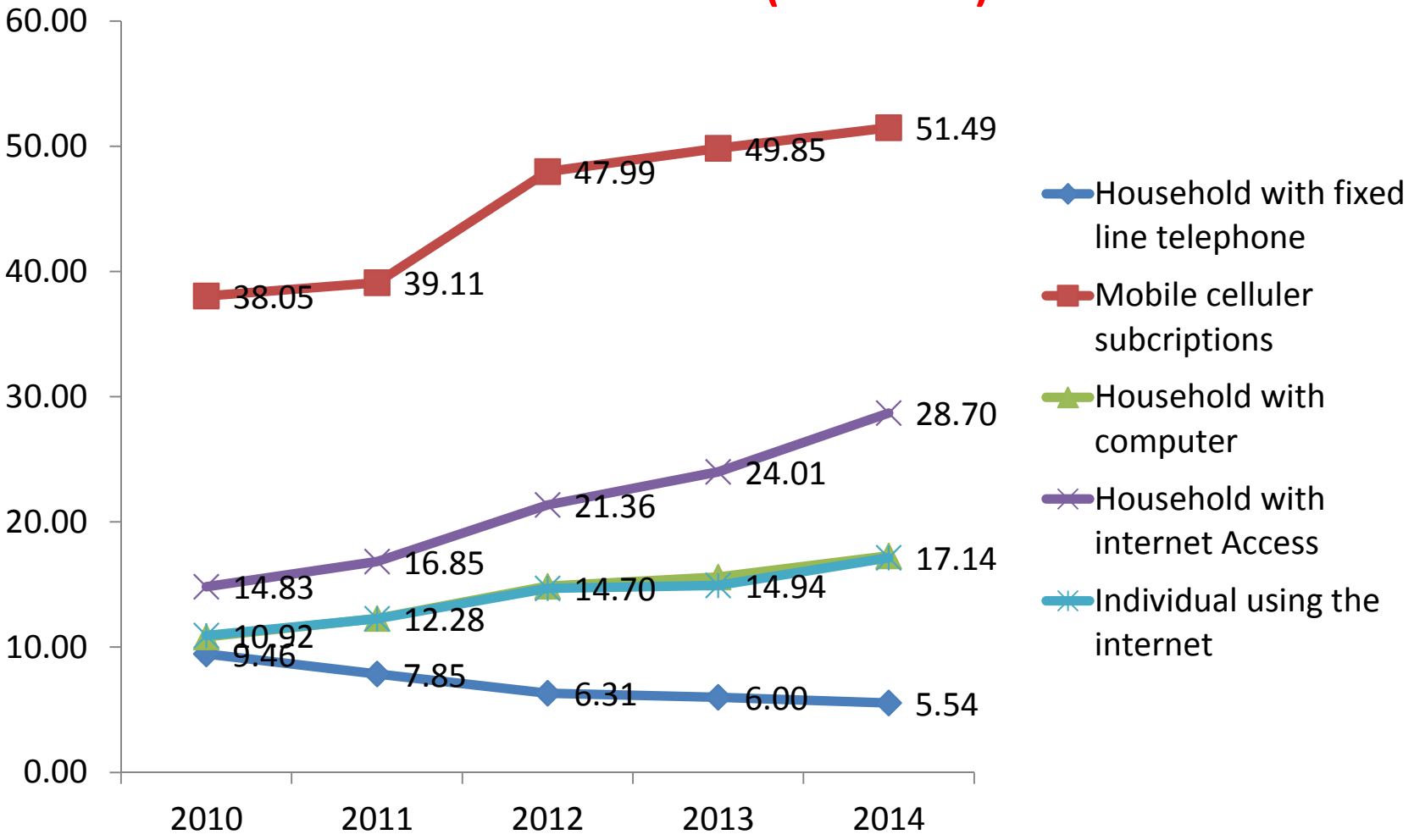
Global ICT Development (2003-2013)



Source: *International Telecommunication Union (ITU), 2014*

Indonesia ICT Development

main indicators (in Million)



Source: BPS-Statistics Indonesia, National Social-Economic Survey, processed

akamai's [state of the internet]

ASIA PACIFIC HIGHLIGHTS (Q3 2014)

INTERNET & BROADBAND ADOPTION

In the third quarter, the global average connection speed decreased 2.8% to 4.5 Mbps, while the global peak connection speed decreased 2.3% to 24.8 Mbps. Japan joined South Korea and Hong Kong to give Asia-Pacific the top three spots in the average connection speed metric globally and regionally, while India had the lowest at 2.0 Mbps. Hong Kong had the highest peak speed regionally and globally at 84.6 Mbps peak connection speed, while India had the lowest peak speed in the region at 13.9 Mbps.

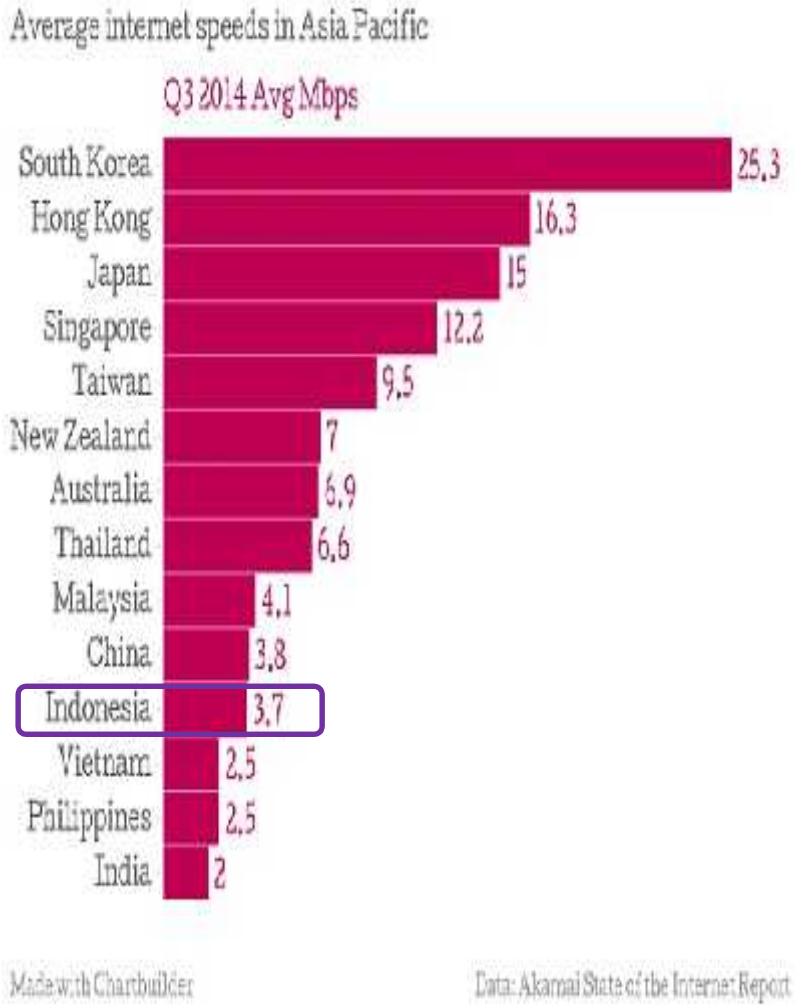
4.5 Mbps
Global Average Connection Speed

24.8 Mbps
Global Average Peak Connection Speed

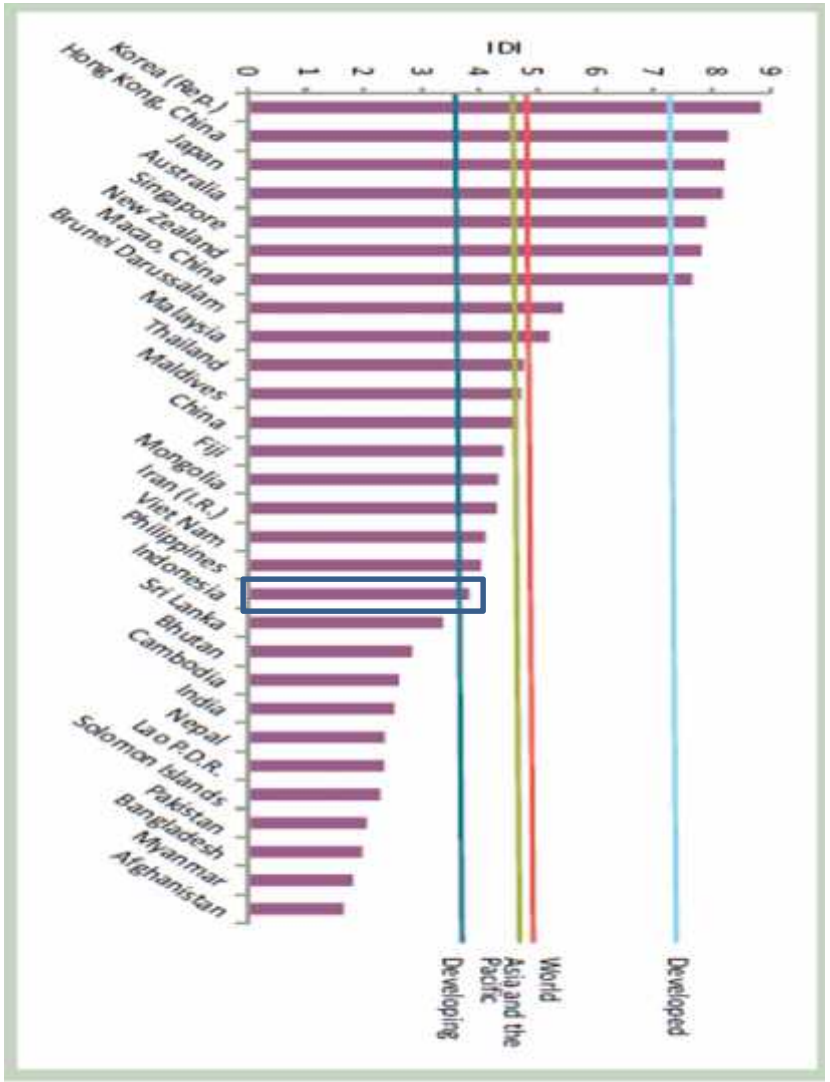
Country/Region	Q3 '14 Avg. Mbps	Q3 '14 Peak Mbps
South Korea	25.3	74.2
Hong Kong	16.3	84.6
Japan	15.0	65.1
Singapore	12.2	83.0
Taiwan	9.5	55.1
New Zealand	7.0	32.2
Australia	6.9	36.0
Thailand	6.6	41.9
Malaysia	4.1	29.8
China	3.8	18.1
Indonesia	3.7	25.8
Vietnam	2.5	16.6
Philippines	2.5	21.3
India	2.0	13.9

http://www.stateoftheinternet.com/downloads/pdfs/2014-q3-state-of-the-internet-report-infographic-asia.pdf

Internet speed vs ICT Development Index (IDI)

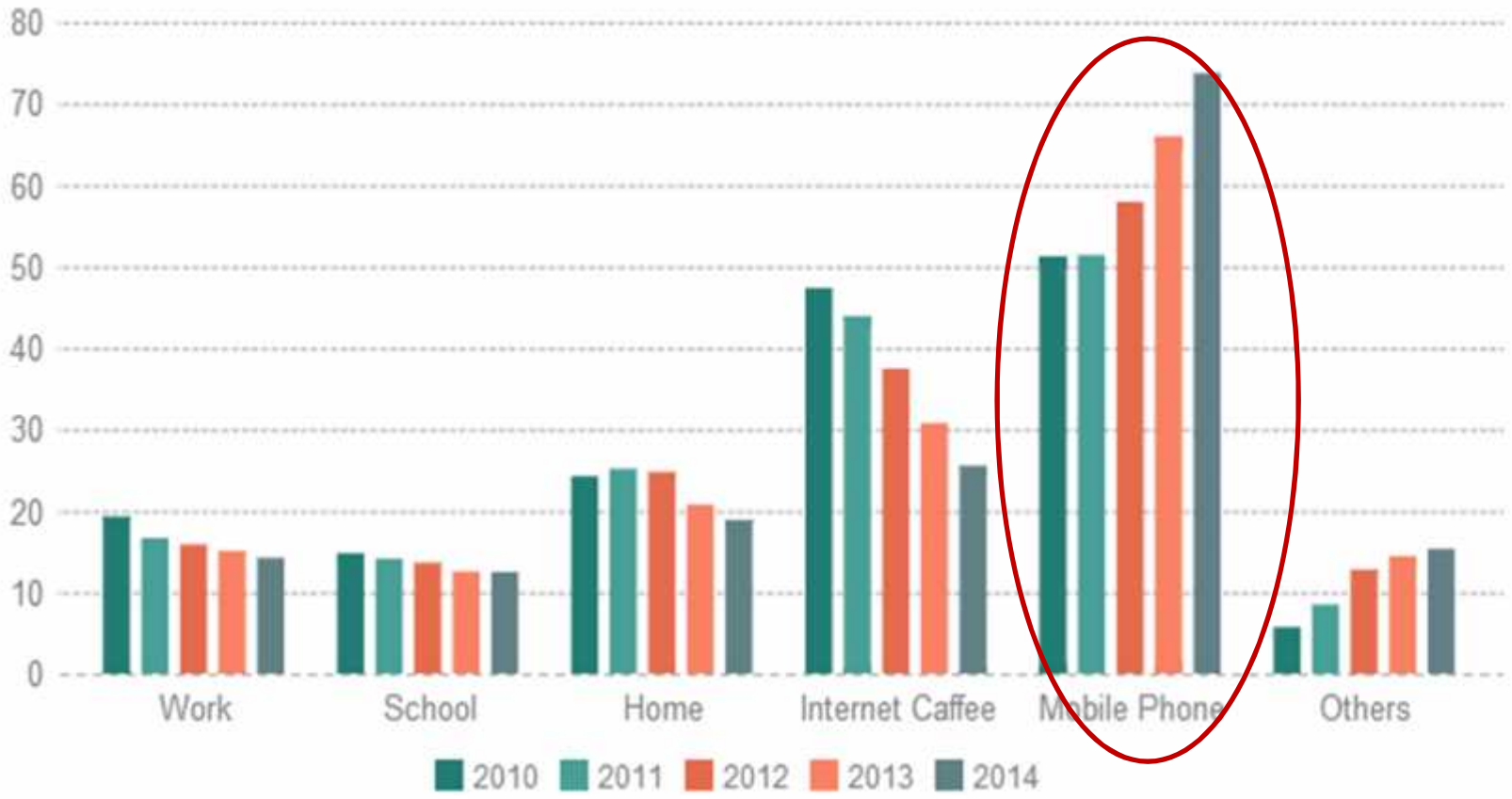


http://www.futuregov.asia/ext/resources/photologue/photos/2015/Average-internet-speeds-in-Asia-Pacific-Q3-2014.jpg
(download at 20150113:08.54 AM)



Source: ITU

Internet Access by Location

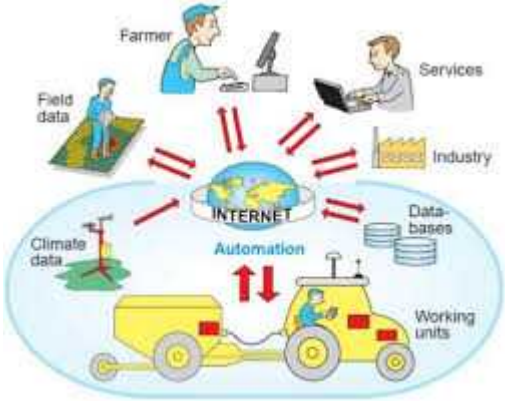


Source: BPS, National Social-Economic Survey, processed

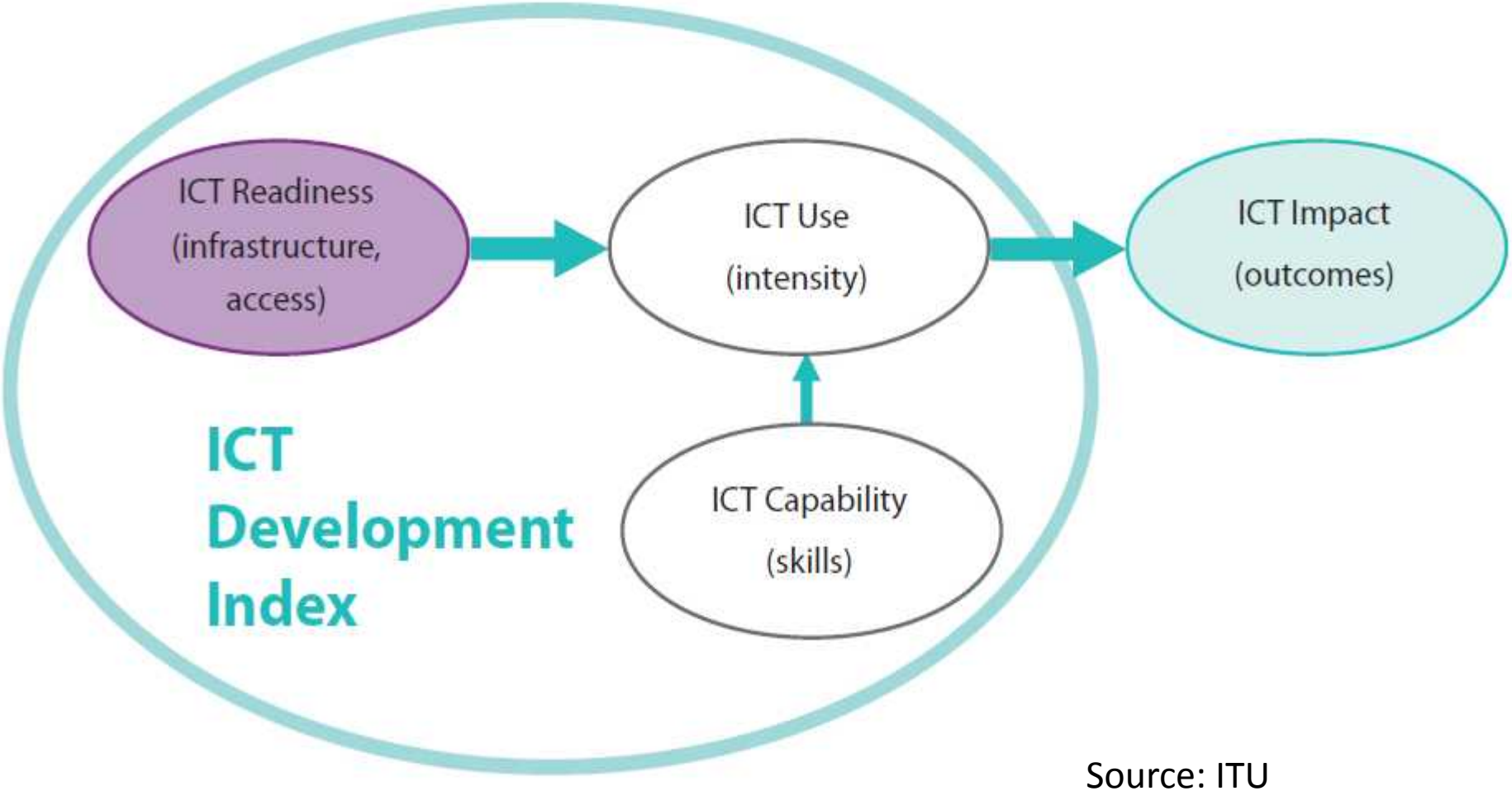
STATISTICS INDONESIA

Pelopor
Data Statistik
Terpercaya
Untuk Semua

BROADBAND & RELATED INDICATORS



3 STAGES IN THE EVOLUTION TOWARDS AN INFORMATION SOCIETY



Source: ITU

ICT Developmen Index

ICT Access
0,40

- *Fixed-telephone subcription per 100 inhibitans*
- *Mobile-cellular telephone subcriptions per 100 inhibitans*
- *International internet bandwidth (bit/s) per internet user*
- *Percentage of household with computer*
- *Percentage of household with internet access*

ICT Use
0,40

- *Percentage of individuals using the internet*
- ***Fixed (wired)-broadband subcriptions per 100 inhibitans***
- ***Wireless-broadband subcriptions per 100 inhibitans***

ICT Skill
0,20

- *Adult literacy rate*
- *Secondary gross enrollment ratio*
- *Tertiary gross enrollment ratio*

Source: ITU

Broadband: Coverage

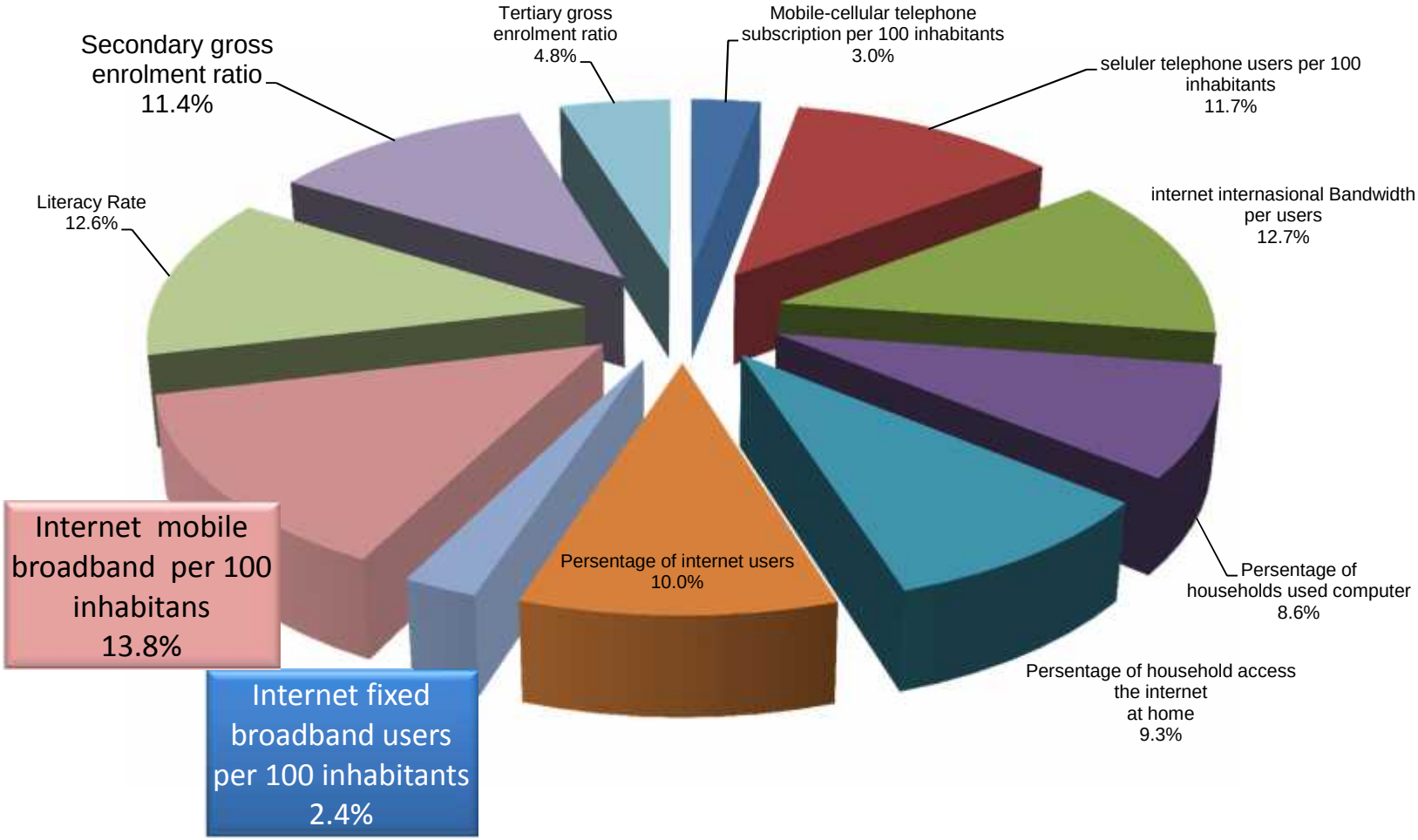
- **A general term meaning a telecommunications signal or device of greater bandwidth, in some sense, than another standard or usual signal or device;**
  - **The broader the band, the greater the capacity for traffic.**
  - **In data communications, the term refers to a data transmission rate of at least 256 kbit/s.**

- **Mobile broadband network via a card or USB modem [*dongle*]**
  Mobile broadband network (at least 3G, e.g. UMTS) via a card (e.g.integrated SIM card in a computer) or USB modem.

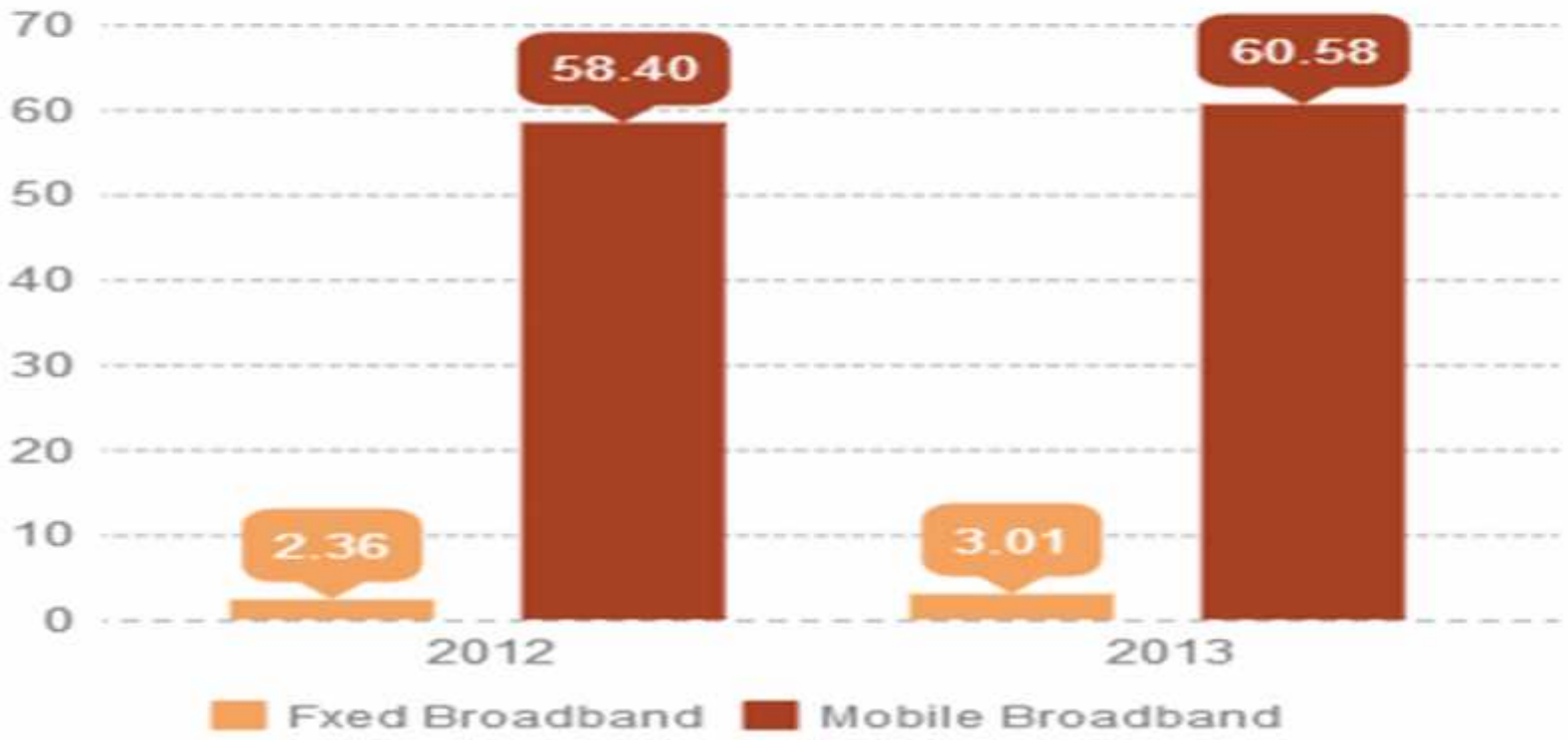
- **Mobile broadband network via a handset**
  Mobile broadband network (at least 3G, e.g. UMTS) via a handset

Source: ITU, Manual for Measuring ICT Access and Use by Households and Individuals

CONTRIBUTION OF EACH COMPONENT TO IDI



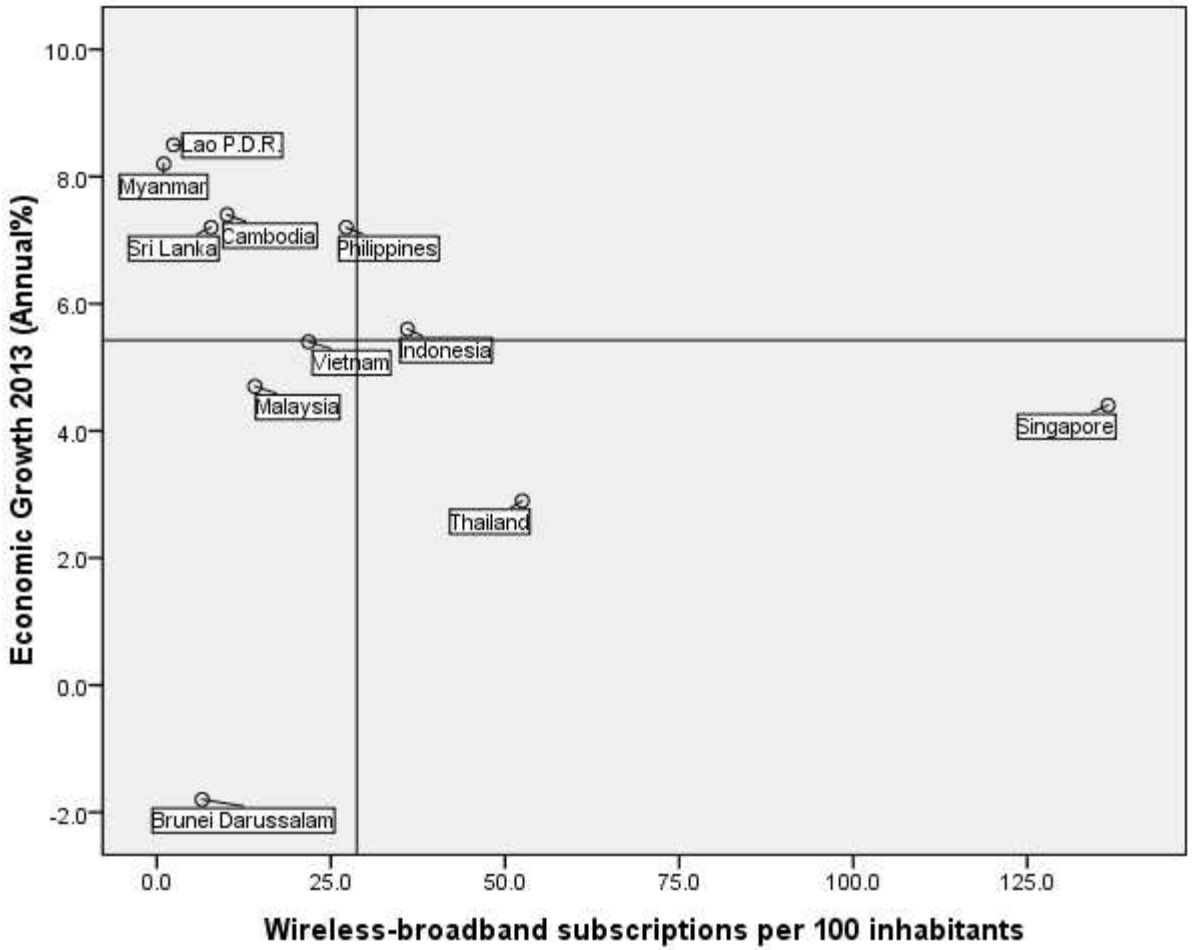
Fixed Broadband & Mobile Broadband subscription (in million)



Source: Ministry of Communications and Information Technology, Republic of Indonesia

BROADBAND AND ECONOMIC DEVELOPMENT:

Wireless-broadband subcriptions per 100 inhabitants and Economic Growth, 2013



IDI will accelerate *Economic Growth of ICT Industry*

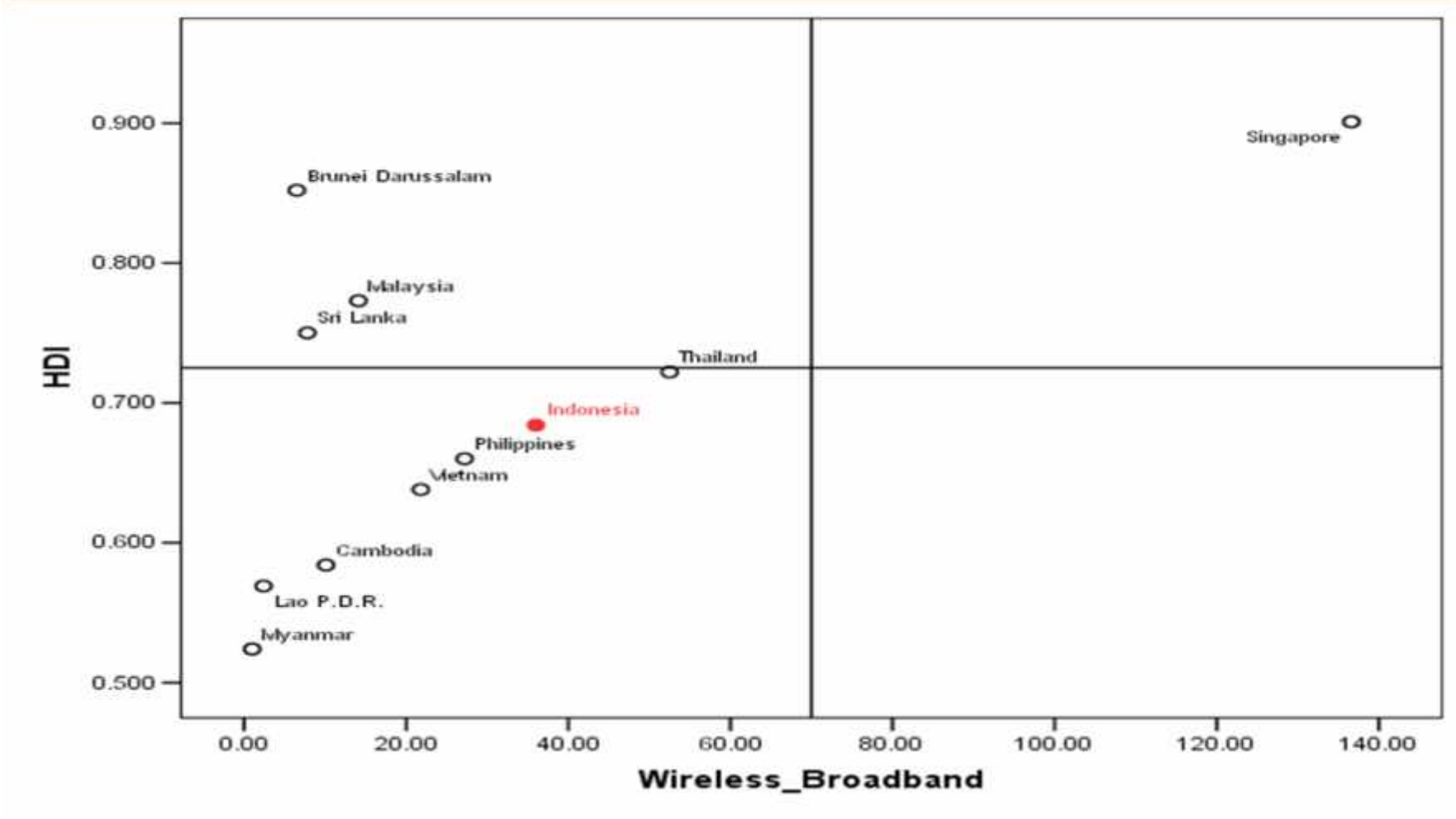
The growth of ***ICT Development Index*** **(IDI)** 1 point index, will accelerate value added of ***ICT*** **industry in GDP by** 2.873%

Equation of the model:

Economic Growth ICT Industry = 8,855 + 2.873 *IDI*

BROADBAND AND HDI:

Wireless-broadband subcriptions per 100 inhabitants and HDI, 2013



BROADBAND AND BANDWIDTH IN INDONESIA, 2013

- Fixed broadband subcription 1.33 per 100 inhabitants.
- Wireless broadband subcription 26.76 per 100 inhabitants.

ACCESS AND INFRASTRUCTURE

Bandwidth international per internet user 14.013 bit/s.

STATISTICS INDONESIA

Pelopor
Data Statistik
Terpercaya
Untuk Semua

STATISTICS RELATED ICT INDICATORS: CHALLENGES and WAY FORWARD

SENSUS EKONOMI 2016

AEC: ASEAN Economic Community

Strategic Thrust 4: Infrastructure Development

8

Initiative 4.1: Improve broadband Connectivity

	Action	Description
4.1.1	Establish an ASEAN Broadband Corridor	• Identify and develop locations in each ASEAN Member State which offer quality broadband connectivity • Enable seamless usage of broadband services and applications across ASEAN to further connect and enhance the development of ICT and other sectors • Promote the diversity of international connectivity among ASEAN Member States
4.1.2	Establish an ASEAN Internet Exchange Network	• Establish a regulator-operator forum to develop a platform to facilitate intra-ASEAN internet traffic • Facilitate peering amongst ASEAN internet access providers to improve latency and speeds as well as lower costs

Source: Budi Yuwono (ASEAN), 2014

Different Data Sources and Method: resulted in different figures

IDI Sub-Index	2012		2013	
	BPS	ITU	BPS	ITU
ICT Access	5.30	4.19	5.62	4.32
ICT Use	**3.18**	**1.61**	**3.26**	**1.80**
ICT Skill	6.92	6.89	7.15	6.89
TOTAL IDI	**4.78**	**3.70**	**4.98**	**3.83**

Note:

1) Different data sources
2) Different Ideal Values, due to different method of estimation as well as data sources

IDI is very sensitive indicator

Different Ideal Values: resulted in different figures of IDI

IDI Sub-Index	2012		2013	
	BPS	ITU	BPS	ITU
ICT Use	3.18	1.61	3.26	1.80
Fixed (Wired) Broadband subscription per 100 inhabitants	1.07	1.2	1.33	1.3
Wireless Broadband subscription per 100 inhabitants	26.33	31.6	26.76	36.0
TOTAL IDI	4.78	3.70	4.98	3.83

DATA are the lifeblood of **DECISION-MAKING** and the raw material for **accountability**

[The United Nations Secretary-General's Independent Expert Advisory Group on a Data Revolution for Sustainable Development (IEAG)]

IDI: need more understanding and concern

- ✓ IDI is very sensitive index
  - Depending on **data source**
  - Depending on definition in collecting data
  - Depending on **ideal value**
  - Depending on area, **national** vs **sub-national**
- ✓ IDI is composite Index, the figures:
  - Depend on each component index
  - Depend on the weight
- ✓ Importance of IDI
  - Indicator of country performances
  - Policy evaluation in ICT Development
  - Could be use to promote economic growth acelaration

Mobile broadband subscription per 100 inhabitant

INDONESIA BY PROVINCE, 2013

	Low
	Medium
	High

IDI Indonesia (ICT Use sub Index) 2013 (BPS)

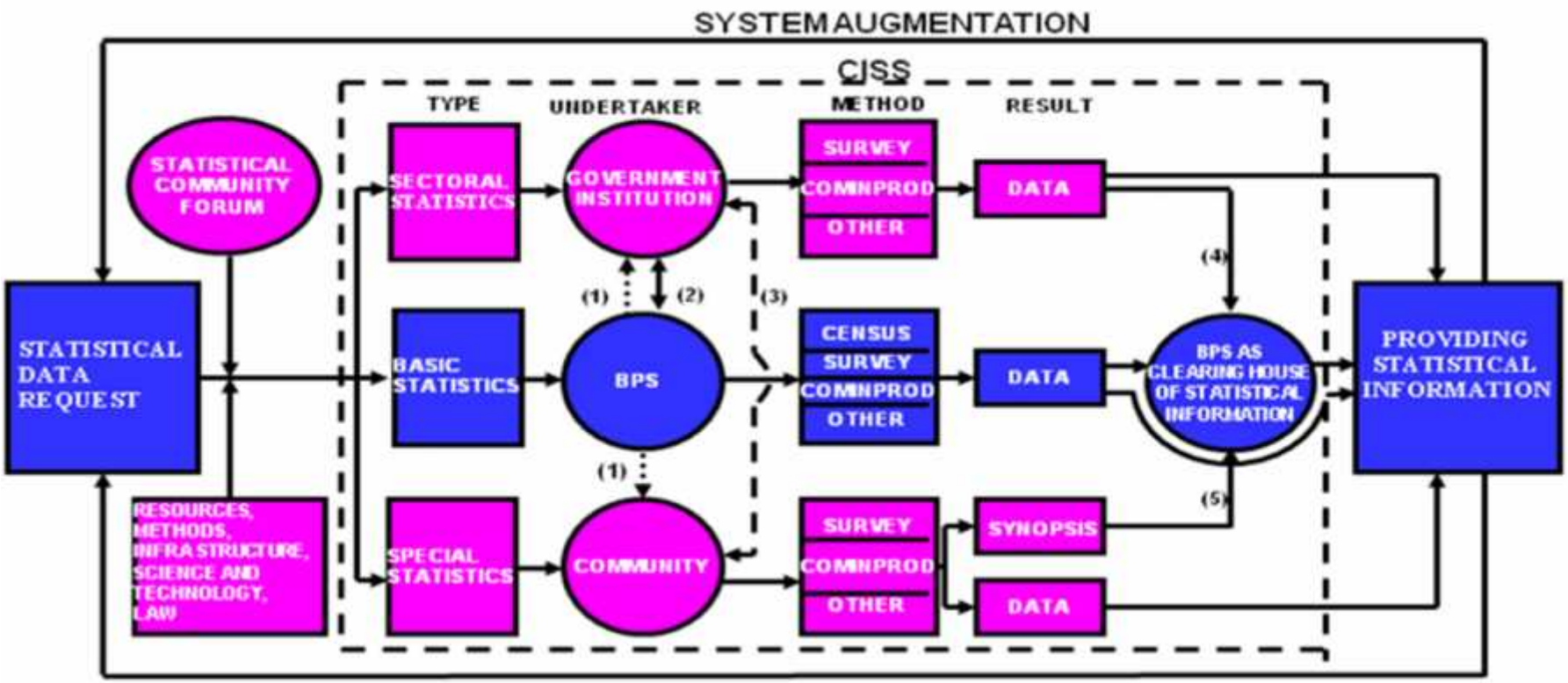
	Low
	Medium
	High

The more URBAN the region, the higher the sub index

IDI Indonesia 2013 (BPS)

	Low	:	Aceh, Sumatera Utara, Jambi, Sumatera Selatan, Bengkulu, Lampung, Kep. Bangka Belitung, Jawa Tengah, Jawa Timur, Nusa Tenggara Barat, Nusa Tenggara Timur, Kalimantan Barat, Kalimantan Tengah, Sulawesi Tengah, Sulawesi Selatan, Sulawesi Tenggara, Gorontalo, Sulawesi Barat, Maluku, Maluku Utara, Papua Barat, Papua
	Medium	:	Sumatera Barat, Riau, Jawa Barat, Banten, Bali, Kalimantan Selatan, Kalimantan Timur, Sulawesi Utara
	High	:	Kepulauan Riau, DKI Jakarta, DI Yogyakarta

Way Forward:Statistics Law No 16/1997
NATIONAL STATISTICAL SYSTEM (NSS)



NOTE :

CISS	: Coordination, Integration, Synchronization, and Standardization.
COMINPROD	: Compilation of Administrative Product.
(1)	: BPS actives to coordinate statistical undertaking.
(2)	: Government Institutions submit survey plan and BPS provides recommendation.
(3)	Government Institutions give the result to BPS.
(4)	Private/Community submit synopsis to BPS.
(5)	Government Institutions and private/community are coordinated and cooperated together by BPS.

Other issues identified

- National ICT strategies and broadband plans should include measurable targets and indicators
- ICT data collection at the international level should be coordinated, eg. through the Partnership on Measuring ICT for Development
- A number of countries from the region (especially the Pacific islands) are currently not included in the ITU ICT Development Index (IDI) due to non-availability of data – these data gaps need to be addressed (see previous recommendations)
- A number of countries proposed additional indicators while others proposed to reduce the number of indicators collected by ITU to minimum necessary. Such proposals could be raised in the Expert Group forums (see previous recommendations)

Conclusions

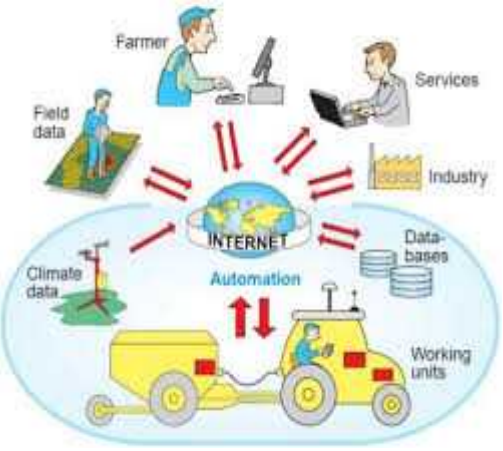
- Wireless broadband is more favorable compare to fixed (Wired) broadband in Indonesia.
- Broadband indicators faced problems in data sources
- How do we investigate broadband market and internet access, esp. in sub-national level?

STATISTICS INDONESIA

Pelopor
Data Statistik
Terpercaya
Untuk Semua

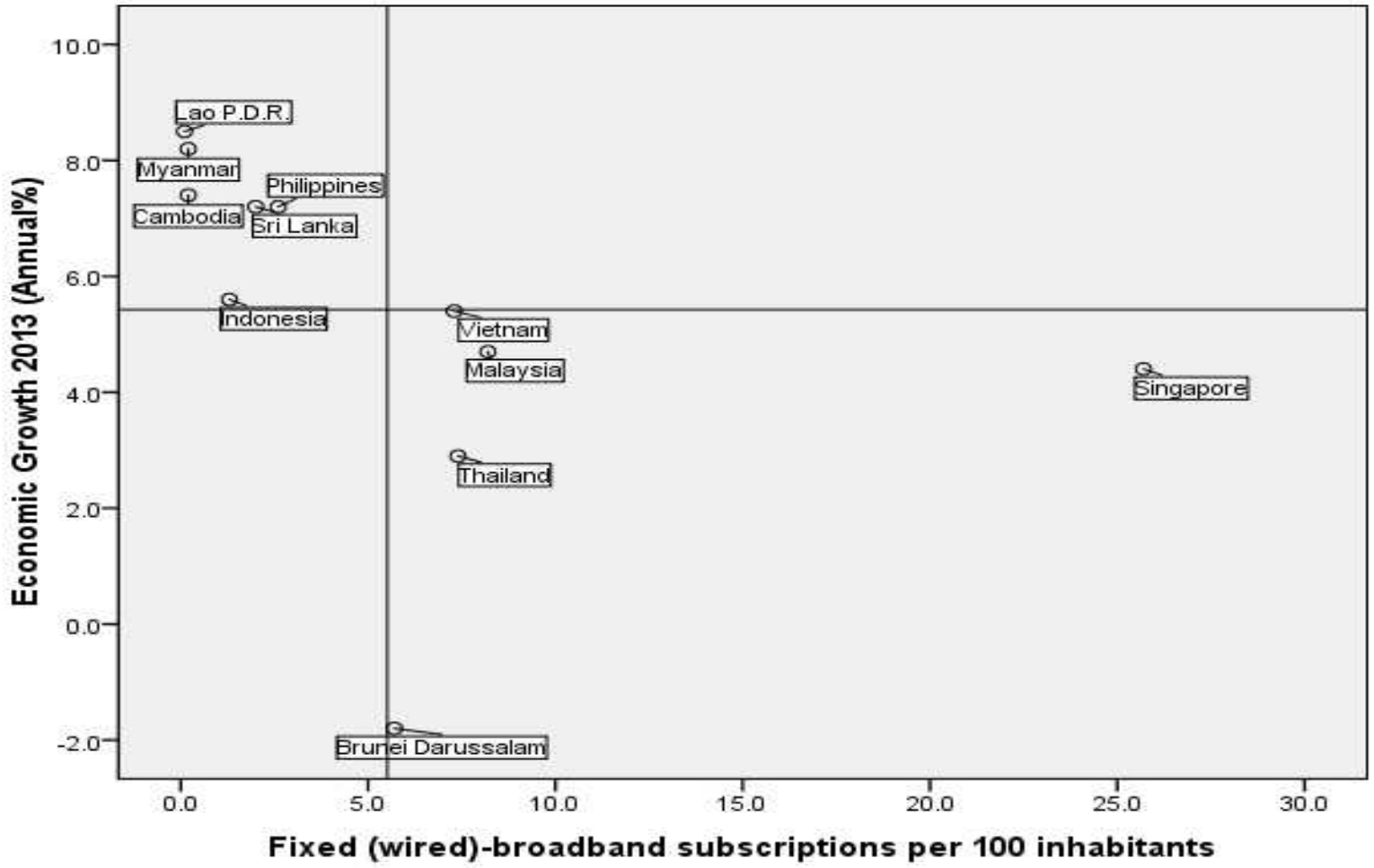
Thank You

The Agent of Trustworthy Statistical Data for All



BROADBAND AND ECONOMIC DEVELOPMENT:

Fixed (wired)-broadband subcriptions per 100 inhabitants and Economic Growth, 2013



BROADBAND AND HDI:

Fixed (wired)-broadband subcriptions per 100 inhabitants and HDI, 2013