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Indonesia

Strengthening the National Broadband Plan to maximize the socioeconomic contribution of ICT : The Pentahelix Approach

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Strengthening the National Broadband Plan to maximize the socioeconomic contribution of ICT : The Pentahelix Approach



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15th APT POLICY AND REGULATORY FORUM (PRF-15)
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Agenda

- 1 **INDONESIA PROFILE**
- 2 **CALL FOR BROADBAND ACCELERATION**
- 3 **MAXIMIZING THE SOCIO-ECONOMIC IMPACT OF ICT**
- 4 **THE PENTA-HELIX APPROACH**
- 5 **CONCLUSION**

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Indonesia



The world's largest archipelago



Scattered rural areas



Difficult landscape

- More than 17,500 islands
- Spanning the length of 3,977 miles
- Total area 1.9 million square miles

Source: UNDP

Population*:
248.8 million

Economic Growth*: 5.8%
GDP/capita at current
price*: IDR 36.5 million

34 provinces*
511 districts/city*
80,714 villages*

*2013

source: Indonesia Statistics Agency, 2014



The Archipelago Economy : Unleashing Indonesia's Potential

Indonesia today ...

16th-largest economy in the world

45 million members of the consuming class

53% of the population in cities producing **74%** of GDP

55 million skilled workers in the Indonesian economy

\$0.5 trillion
market opportunity in consumer services, agriculture and fisheries, resources, and education



... and in 2030

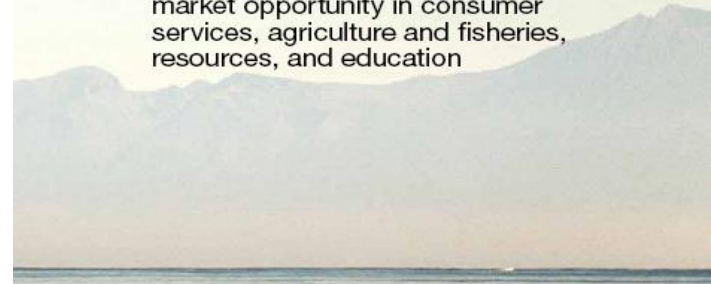
7th-largest economy in the world

135 million members of the consuming class

71% of the population in cities producing **86%** of GDP

113 million skilled workers needed

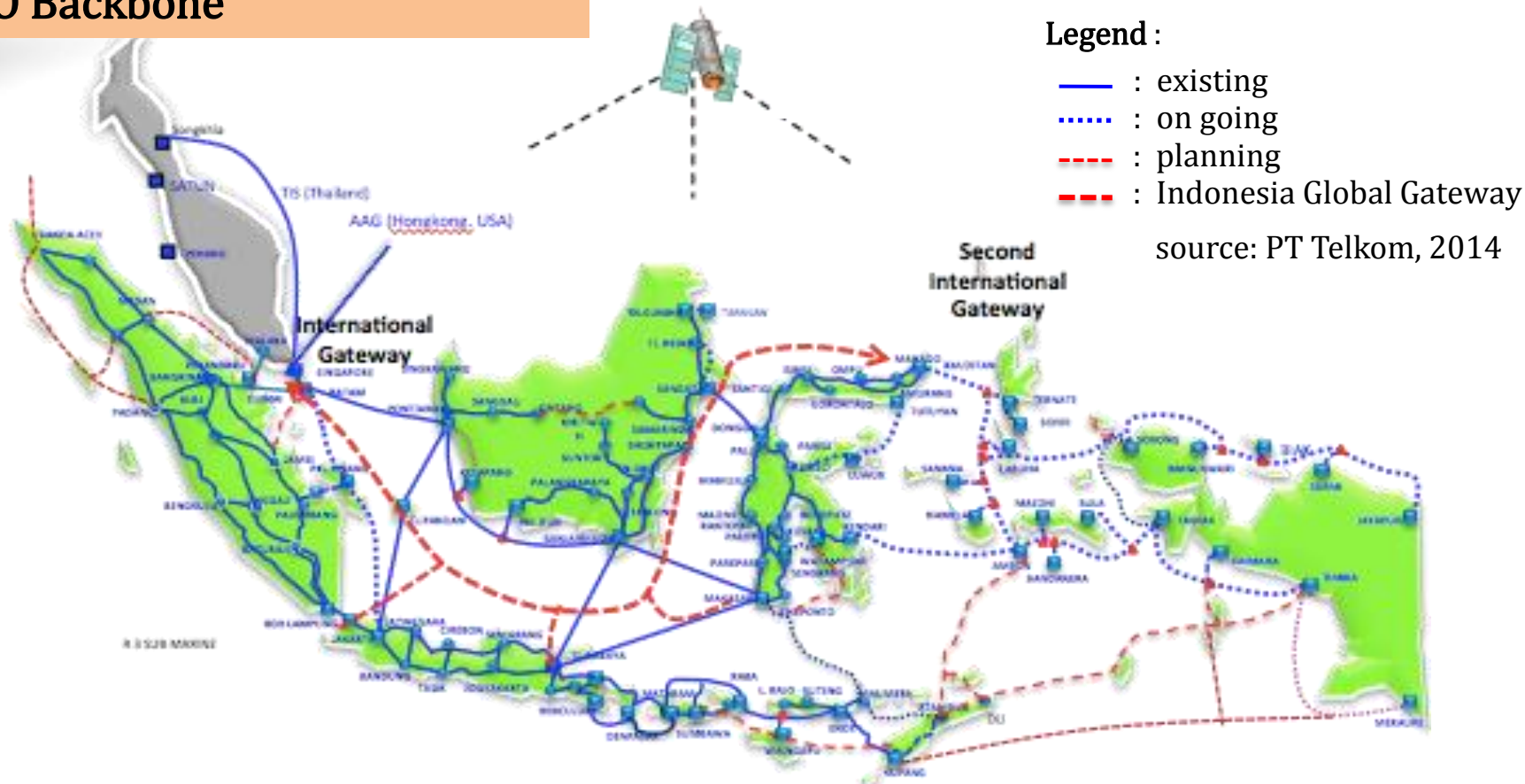
\$1.8 trillion
market opportunity in consumer services, agriculture and fisheries, resources, and education



Source: McKinsey Global Institute, September 2012

ICT Infrastructure Profile

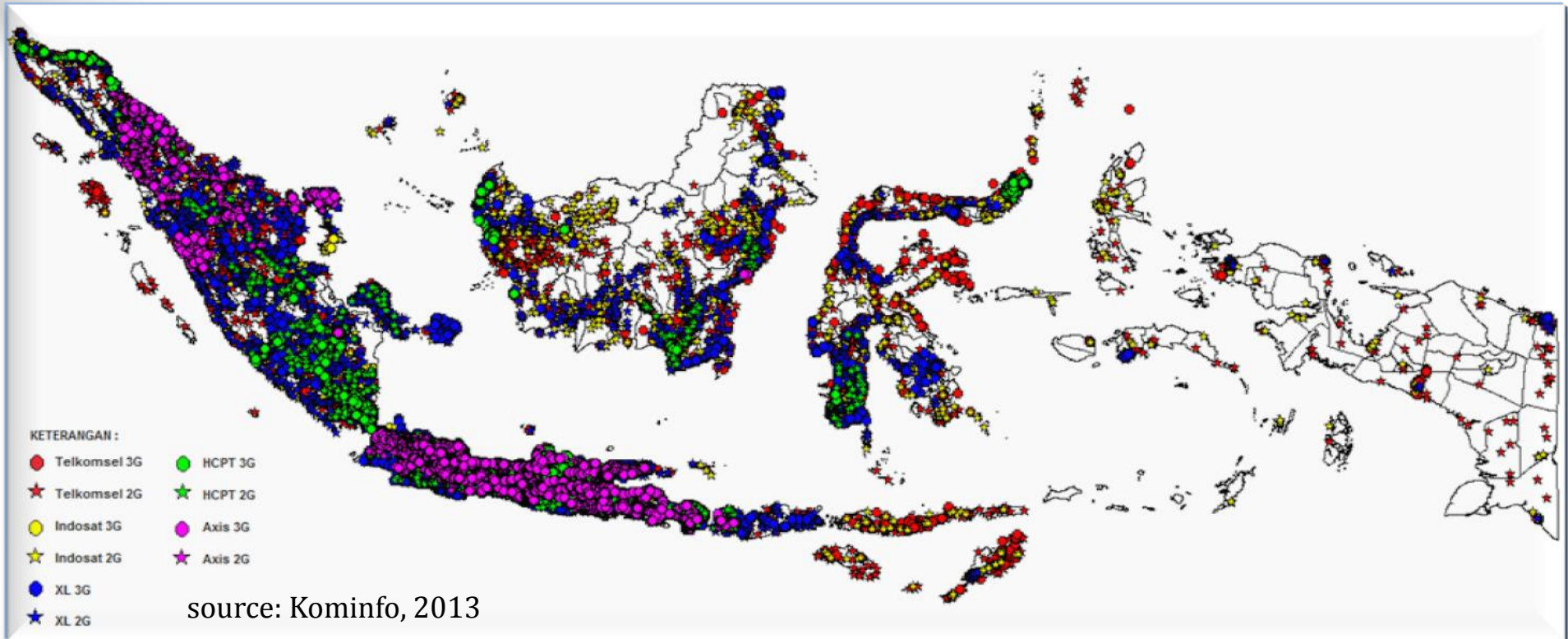
FO Backbone



FO backbone covers 72% of districts. FO systems in Maluku and Papua (the eastern part of Indonesia) will be ready for service in 2015.

ICT Infrastructure Profile (contd)

Cellular BTS Coverage

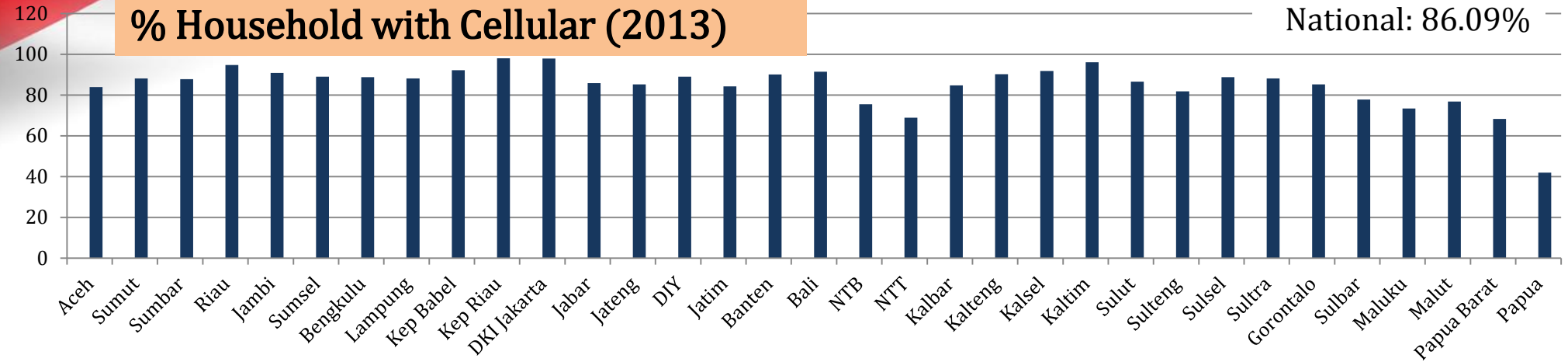


2G and 3G BTS cover all provinces providing 90% coverage of cellular.

ICT Infrastructure Profile (contd)

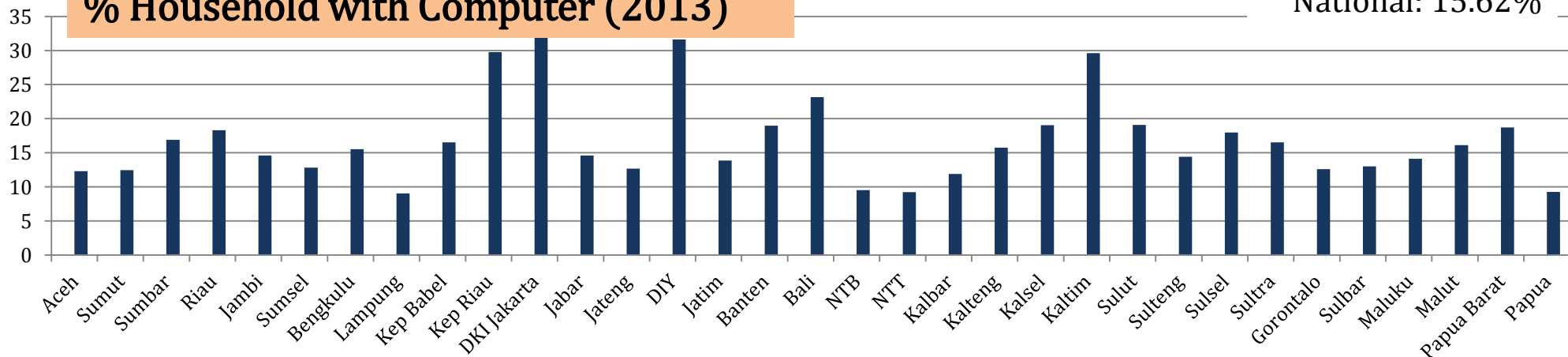
% Household with Cellular (2013)

National: 86.09%



% Household with Computer (2013)

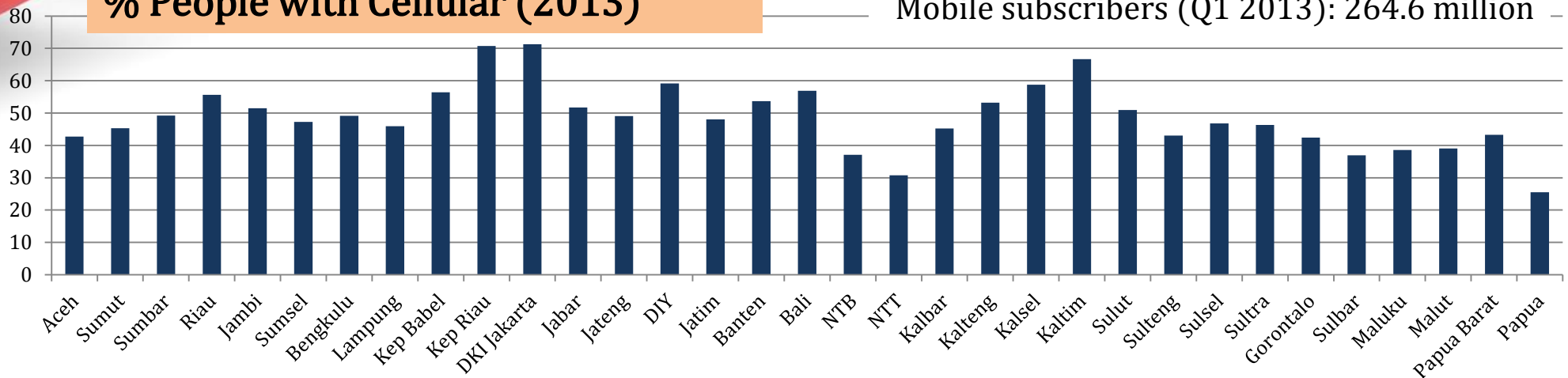
National: 15.62%



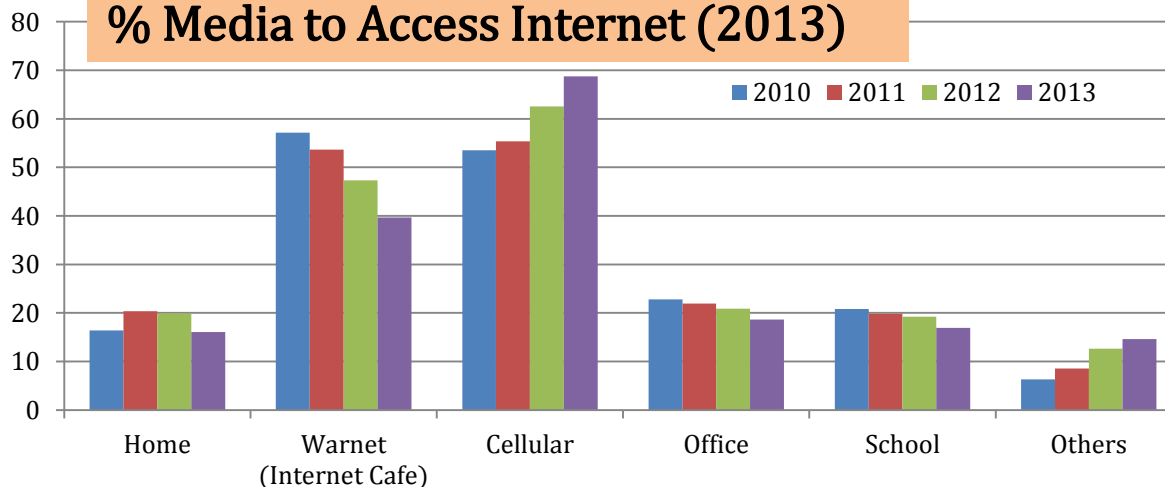
ICT Infrastructure Profile (contd)

% People with Cellular (2013)

Mobile subscribers (Q1 2013): 264.6 million



% Media to Access Internet (2013)



- Warnet (internet cafe) was the main media to access the internet (57.16% in 2010).
- With a high rate of mobile phone ownership, accessing internet now becomes more personal through cellular (68.76% in 2013).

Strategic Issues in Infrastructure 2015-2019



Water, Food,
and Energy
Resilience



National
Connectivity



Urban Mass
Transportation
System



Basic
Infrastructure



Infrastructure
Funding



Call for Broadband Acceleration

National Agenda

Article 28F of Constitution
1945

Long-Term Development Plan
2005-2025 and Medium-Term
Development Plan 2015-2019

Economic Master Plan 2011-
2025

Connectivity,
Competitiveness, and
Economic Transformation

International Commitment

MDG and WSIS

ASEAN Masterplan on
Connectivity

Broadband Commission

Connectivity and
Broadband

Global Trends

Globalization

Shifting of Government's
Roles

Technology Innovation

Required Adjustment

Broadband as a driver in national development.

Need for a systematic, comprehensive, dan integrated broadband development plan

Presidential Decree Number 96 of 2014 on Indonesia Broadband Plan 2014-2019

Definition

- always-on internet connectivity with triple-play capability;
- resilient and secured information;
- 2 Mbps (fixed), 1 Mbps (mobile)

Objective

To give direction and guidance for acceleration of Indonesia broadband development in a comprehensive and integrated manner for the period of 2014-2019

Function

- A reference/guidance for ministries and local governments to prepare policies and action plans
- A reference for private sectors to invest

They are required to consult and coordinate with Minister of National Development Planning/Bappenas in doing so

Priority Sectors

e-Government; e-Health, e-Education, e-Logistic, e-Procurement

IBP Staging

2010 - 2014
CONNECT



2014 Targets, among others:

- FO backbone connects all big islands
- BB in 88% districts
- e-gov index: 3.0 out of 4.0

Long-term Vision 2025
Prosperous Indonesian
society

2020 - 2025
TRANSFORM



RPJMN
III

2015 - 2019
INNOVATE

- Providing broadband services to all districts, schools, and other public facilities;
- Strengthening government connectivity by improving government secured network and consolidating data center/warehouse;
- Promoting adoption and effective use of broadband

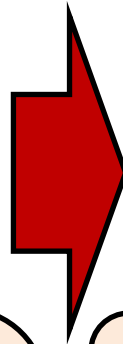
IBP Targets



2013

Fixed Broadband:
15% HH (1Mbps) and 5% population;

Mobile Broadband:
12% population (512 kbps)



2019

Urban:

Fixed Broadband: 71% HH (20Mbps);
Mobile Broadband: 100% pop (1 Mbps)

Rural:

Fixed Broadband: 49% HH (10Mbps);
Mobile Broadband: 52% pop (1 Mbps)

Utilization:

- Broadband service price: max 5% of average monthly income
- Priority Sectors: e-Government; e-Education; e-Health; e-Logistic, e-Procurement

IBP Targets (contd)

Infrastructure	2014	2015	2016	2017	2018	2019
ACCESS						
Urban						
Fixed (HH)	3 Mbps	3 Mbps	3 Mbps	5 Mbps	10 Mbps	20 Mbps
Mobile	512 kbps	512 kbps	1 Mbps	1 Mbps	1 Mbps	1 Mbps
Rural						
Fixed (HH)	1 Mbps	2 Mbps	2 Mbps	3 Mbps	5 Mbps	10 Mbps
Mobile	128 kbps	256 kbps	512 kbps	512 kbps	1 Mbps	1 Mbps
FO BACKHAUL						
Districts	75%	80%	85%	100%	100%	100%
Rural	45%	60%	70%	80%	100%	100%
FO BACKBONE						
Districts	75%	85%	100%	100%	100%	100%
Rural	50%	75%	85%	100%	100%	100%

The Challenges : Sosio-Economic Impact of ICT

Indonesia ranks in the middle on most key ICT metrics.

Country	Network-readiness score		Infrastructure and digital content	Affordability	Skills	Individual usage	Business usage	Govern-ment usage	Eco-nomic impact	Social impact
	2014 rank ¹	2013 rank ²	2014 rank	2014 rank	2014 rank	2014 rank	2014 rank	2014 rank	2014 rank	2014 rank
Singapore	2	2	16	46	2	10	15	1	6	1
Malaysia	30	30	71	48	67	49	27	9	30	25
Russia	50	54	47	14	64	46	84	61	41	41
China	62	58	86	60	59	80	44	38	81	44
Indonesia	64	76	85	37	61	95	36	49	86	63
Thailand	67	74	73	47	74	85	59	84	104	68
Brazil	69	60	56	91	91	59	41	54	64	58
Philippines	78	86	89	75	69	91	43	67	48	76
India	83	68	119	1	101	121	51	41	50	73
Vietnam	84	84	121	8	88	84	88	58	96	62

¹2014 rank is out of 148 countries.

²2013 rank is out of 144 countries.

Source: Global Information Technology Report 2014, World Economic Forum, 2014

Maximizing the Socio-economic Impact of ICT

DEVELOPING A VIBRANT ICT ECOSYSTEM IN INDONESIA :

1. **Develop a national ICT agenda and road map linked to Indonesia's economic and social-development priorities**
2. **Work with the ICT industry** to resolve major infrastructure bottlenecks and improve reach, cost, and bandwidth
3. **Address the ICT digital divide** between urban and rural areas with more tailored policies and alternative supply models
4. **Ensure the regulatory environment** can address effectively a constantly changing ICT sector

USING ICT TO FOSTER ACCELERATED, EQUITABLE ECONOMIC GROWTH :

1. Develop **upstream and downstream ICT industries**
2. Increase **supply of skilled ICT workforce**
3. Encourage ICT adoption by **small and medium-size businesses**
4. Use ICT to **support priority sectors**

USING ICT TO ENABLE SUSTAINABLE SOCIAL DEVELOPMENT :

1. Use ICT to **improve citizen services**
2. **Improve the quality and efficiency of public service**

The Strategy Map : Transforming Vision into Action

4 Economic Transformation

Using ICT to foster accelerated and equitable economic growth

Selected Priorities :

- Upstream & Downstream Industry
- ICT Adoption for SMEs
- E-Financial Services

5 Sustainable Social Development

Enhance quality of life through affordable and equitable ICT

Selected Priorities :

- E-Government
- E-Healthcare
- E-Education
- E-KTP/KIS/KIP
- E-Budgeting
- E-Procurement
- E-Services
- Government Public Relation

6 National Development

Supporting national development priorities to contribute significant benefit for peoples and the Republic of Indonesia

Selected Priorities :

- Food Sovereignty
- Energy
- Maritime
- Tourism & Creative Industry
- Infrastructure
- HR Development
- National Border

3 NATIONAL ICT ECOSYSTEM DEVELOPMENT

To endorse **National ICT Ecosystem Development** (Device, Network, Application/Content) through resource synergy, efficiency and local development

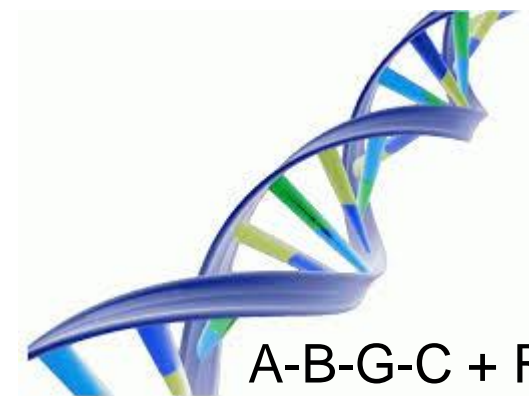
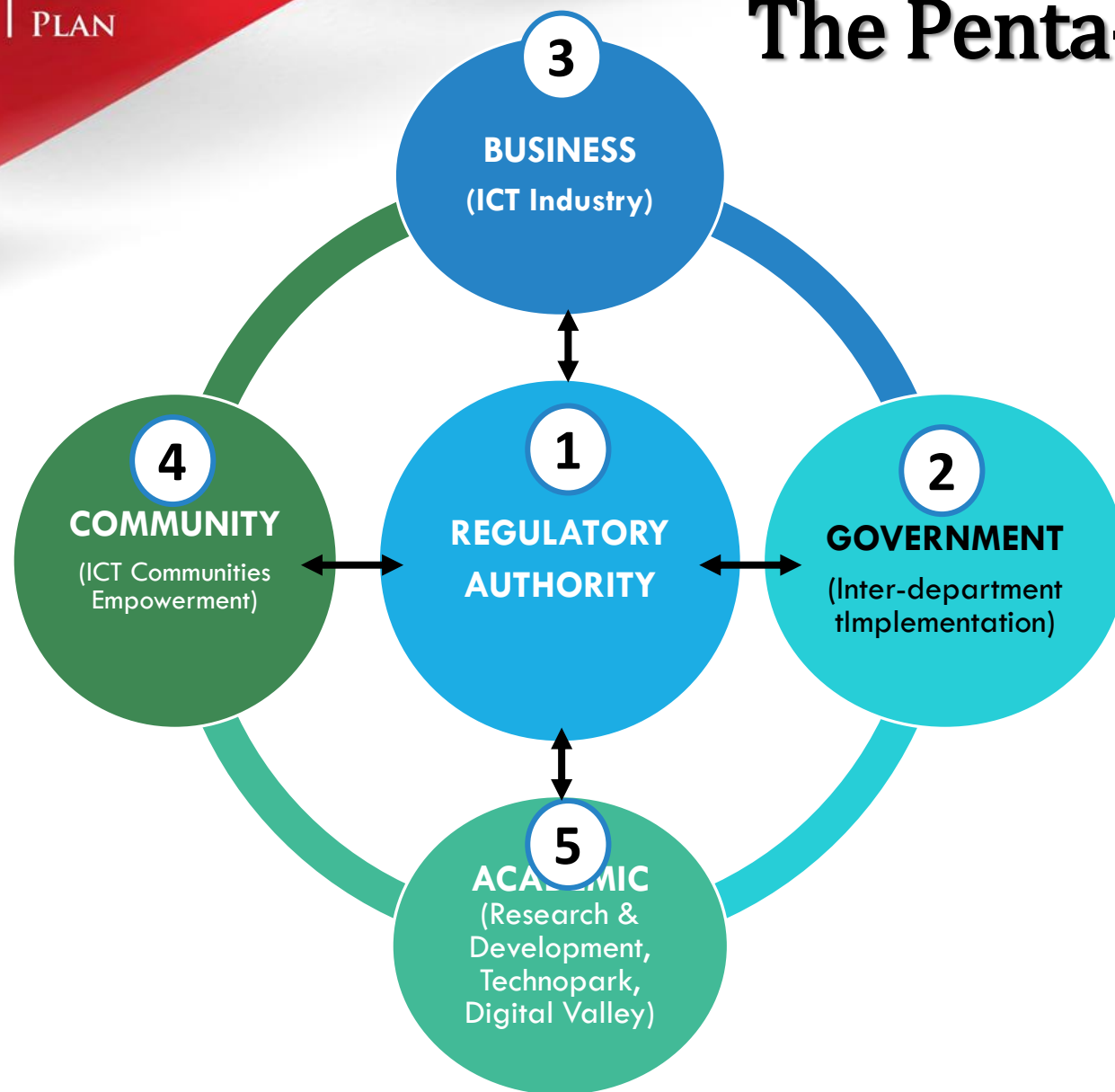
2 BROADBAND SUPRA-STRUCTURE DEVELOPMENT

To endorse a skillful ICT **Human Capital Development**, enable policies, harmonize legislation and **Convergence Regulation** and establish **Cyber Security & Governance**

1 BROADBAND INFRA-STRUCTURE DEVELOPMENT

To endorse the ICT infrastructure to support **Indonesia Broadband Plan & Digital Divide/Digitalization**

The Penta-Helix Approach



Conclusion

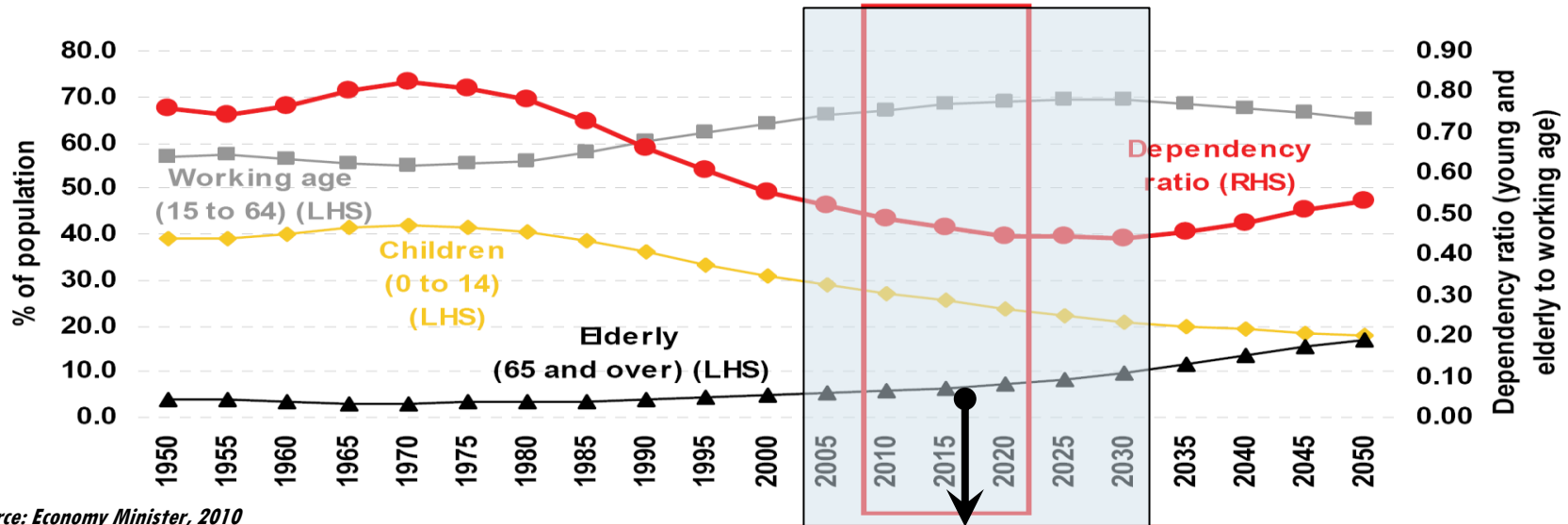
1. Broadband Network/Infrastructure is very important and critical for the country, but the people **expect more into the socio-economic impact.**
2. To have socio-economic impact successfully, we need to strengthening the broadband foundation (infrastructure, supra-structure, national ecosystem) to support the economic transformation, sustainable social development and national development priorities through the **multi-stakeholder participation.**
3. The **Penta-Helix Model** (Academic-Business-Government-Community + Regulatory/ABCG+R) is strongly recommended to increasing the sense of urgency as well as to accelerate the national broadband implementation.



Twenty years from now you will be more disappointed by the things you didn't do than by the ones you did do. So sail away from the safe harbour. Catch the trade winds in your sails. Explore. Dream. Discover.

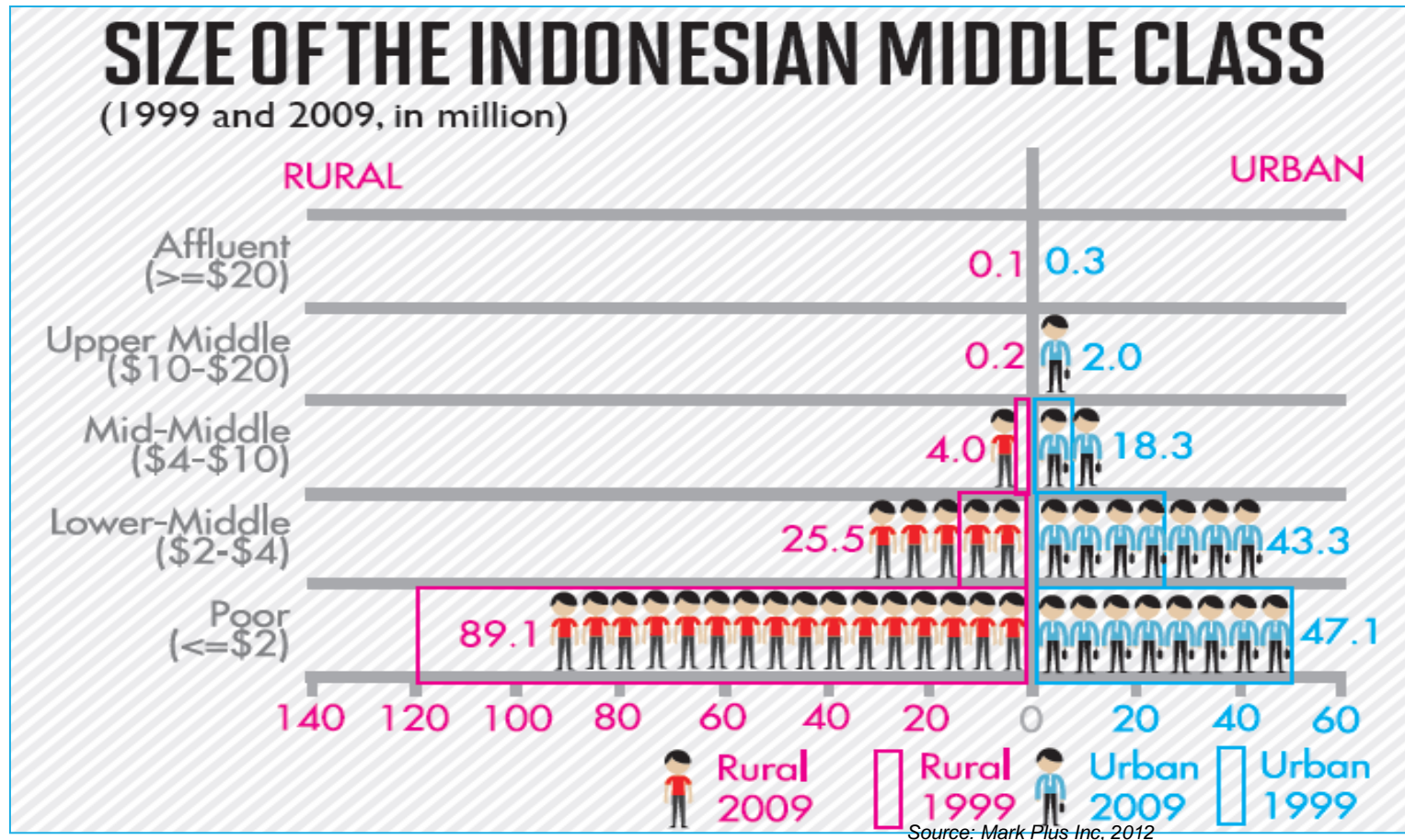
- Mark Twain

"The Demography Bonus"



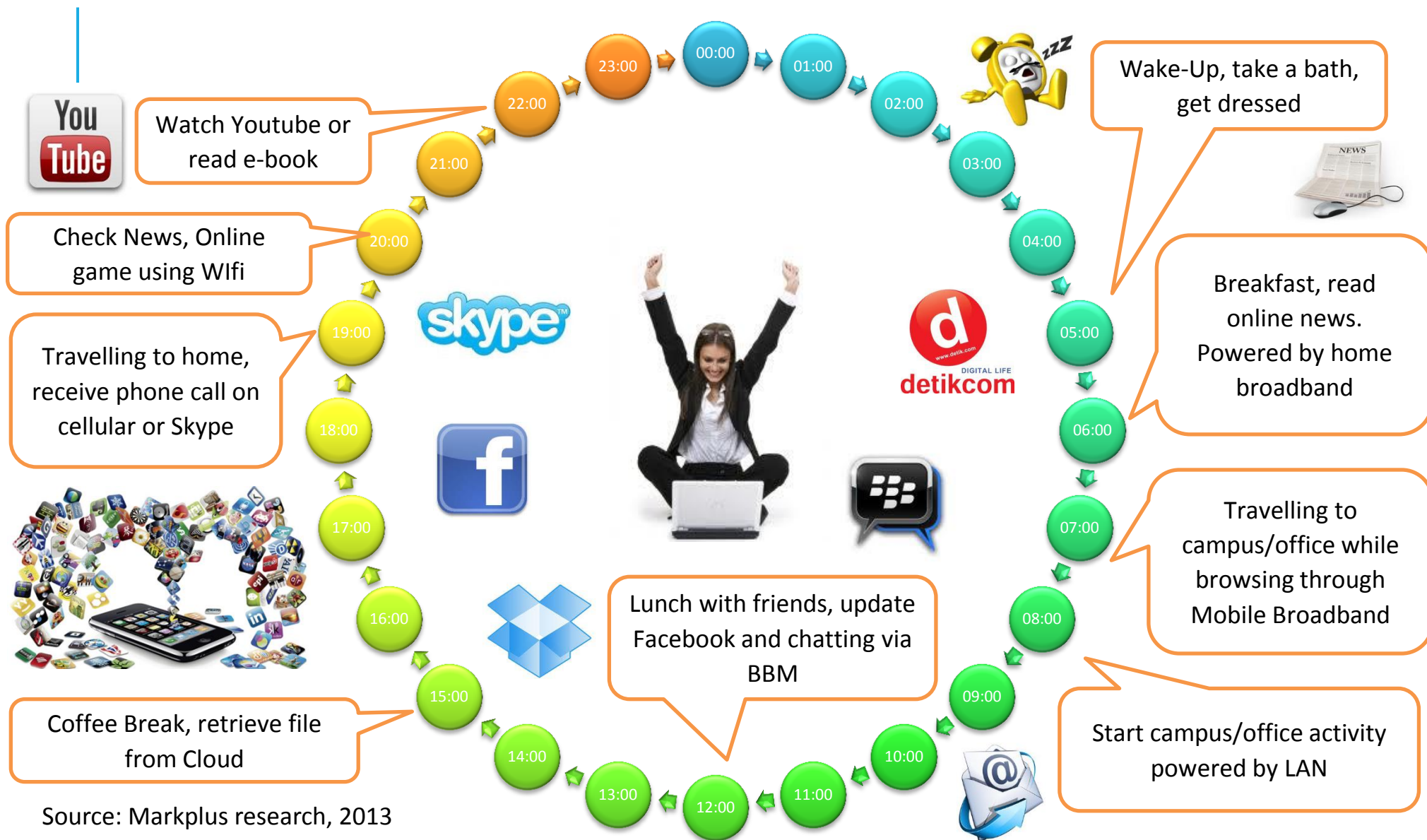
Source: Economy Minister, 2010

Lower Dependency Ratio → Higher productive age proportion → Higher economy productivity



The welfare of the people of Indonesia will increase rapidly in the next 8 years. It was predicted that in 2020 middle class people will increase to 250%. (Source: BCG, 2013)

2 The Drivers #3 : *Immersion of Digital lifestyle*



Source: Markplus research, 2013