

LEVERAGING INDONESIA BROADBAND PENETRATION

BENYAMIN SURA

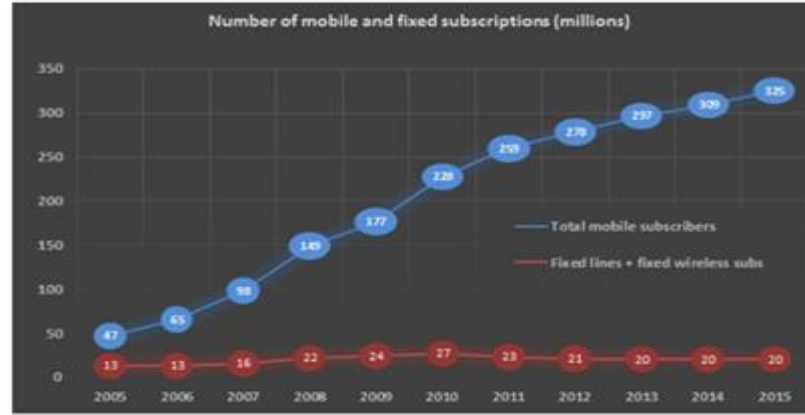
DIRECTOR OF TELECOMMUNICATION, DITJEN PPI



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Indonesian Telco Outlook

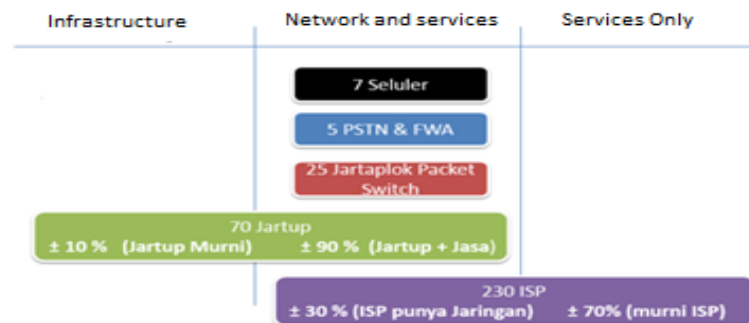
Data and facts



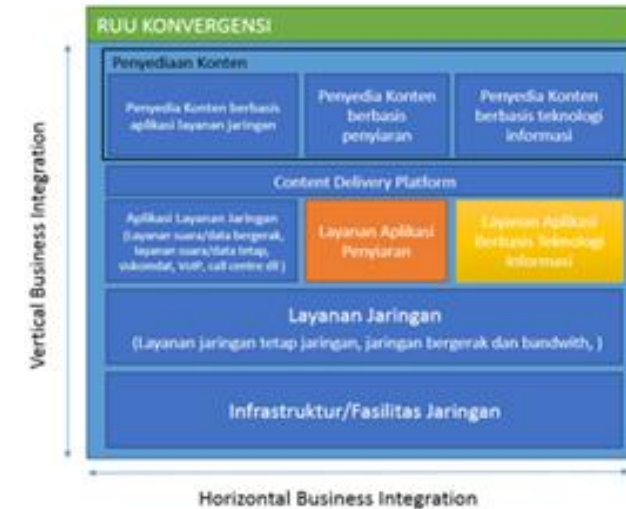
Sumber: redwing-asia

1. The communications sector, which consists of postal services, information technology services and telecommunication services, accounted for 6.8% of GDP (total ~ 216 Trillion Rupiah) in FY13. The total output of the communications sector grew at a CAGR of 21% in 2004-2014.
2. Mobile network grew 7.7% YoY in FY13 which increases penetration to 121.5%
3. The fixed line network grew 2.5% YoY in FY13, compared to 1.6% to FY12
4. The mobile service ARPU trend continued in 2013, with a market weighted average blended ARPU fell by 5% for this year

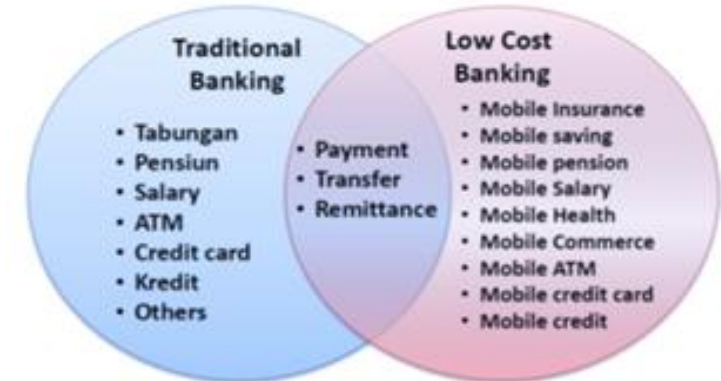
Industry Composition



Future Trends



Digital Financial Services

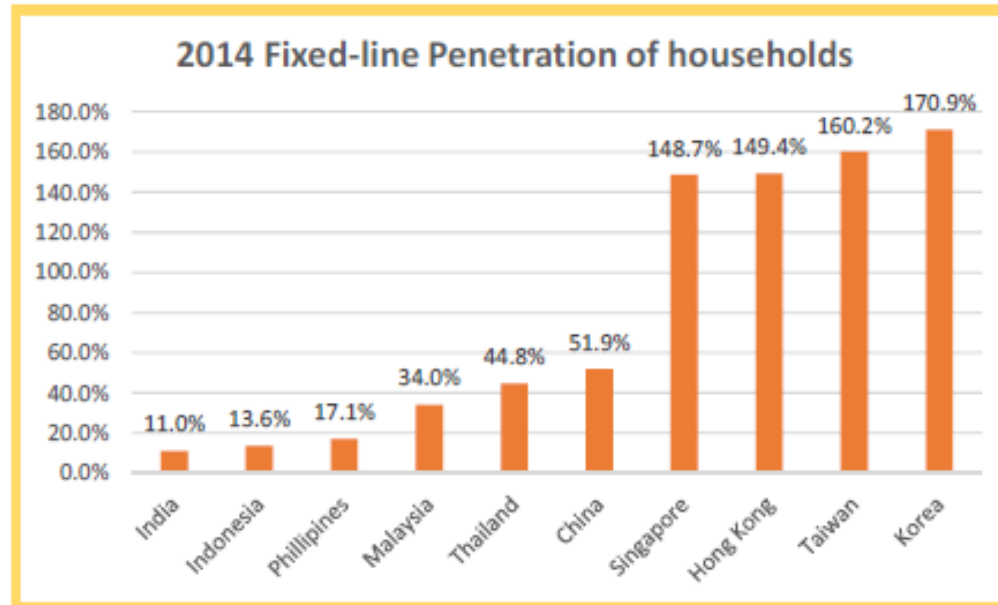
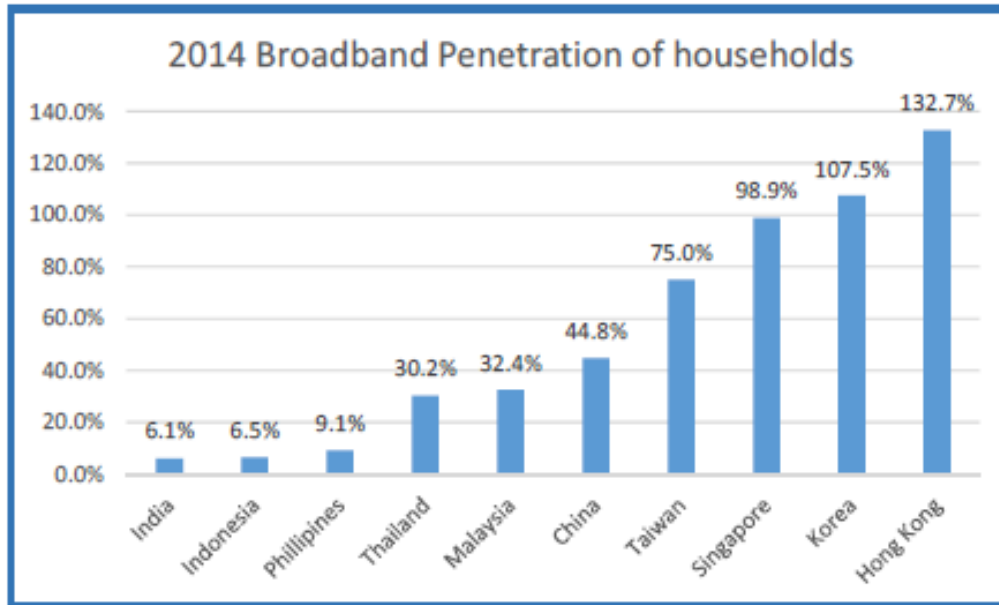


Including financial inclusion



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Broadband Indicators

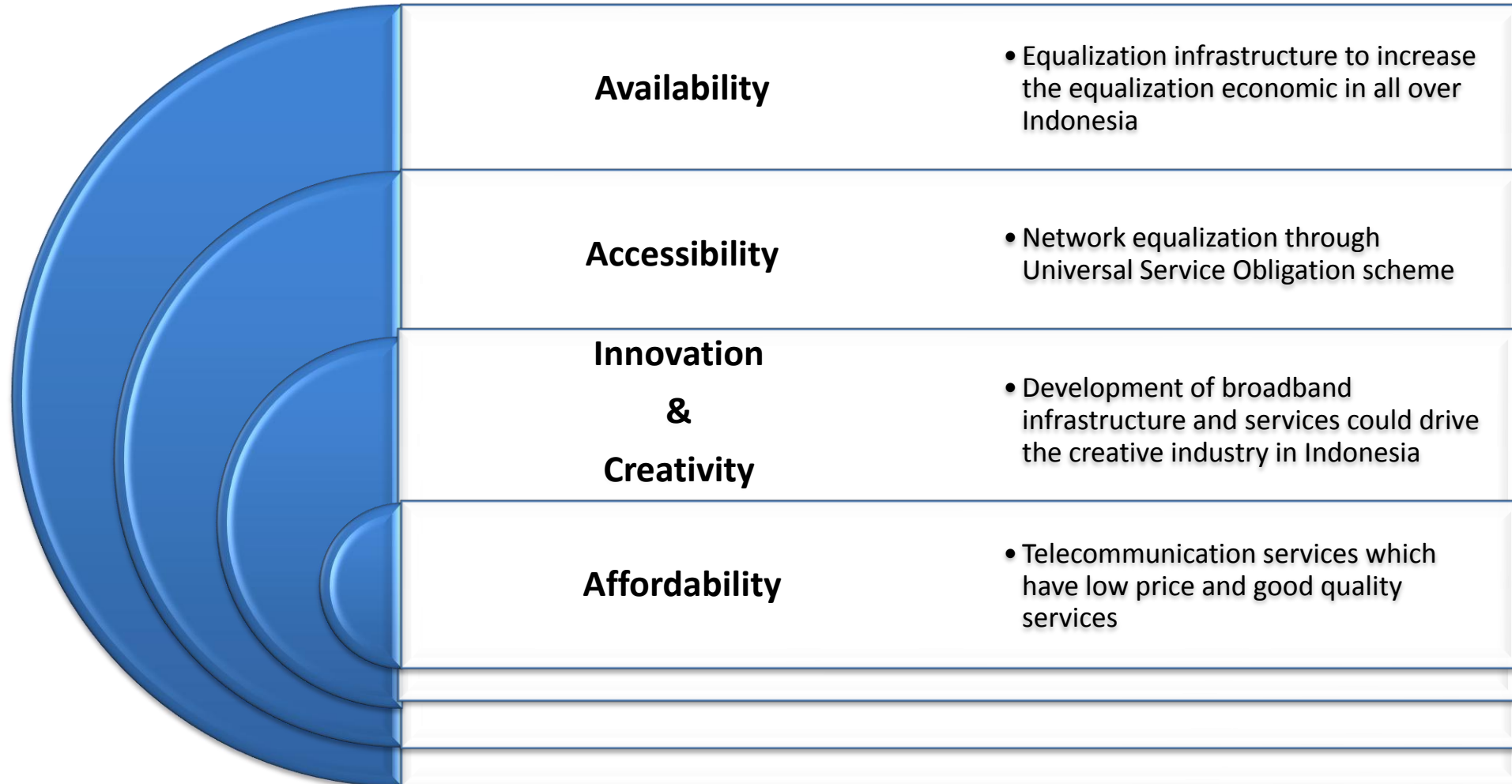


Source: company data and Credit Suisse estimates

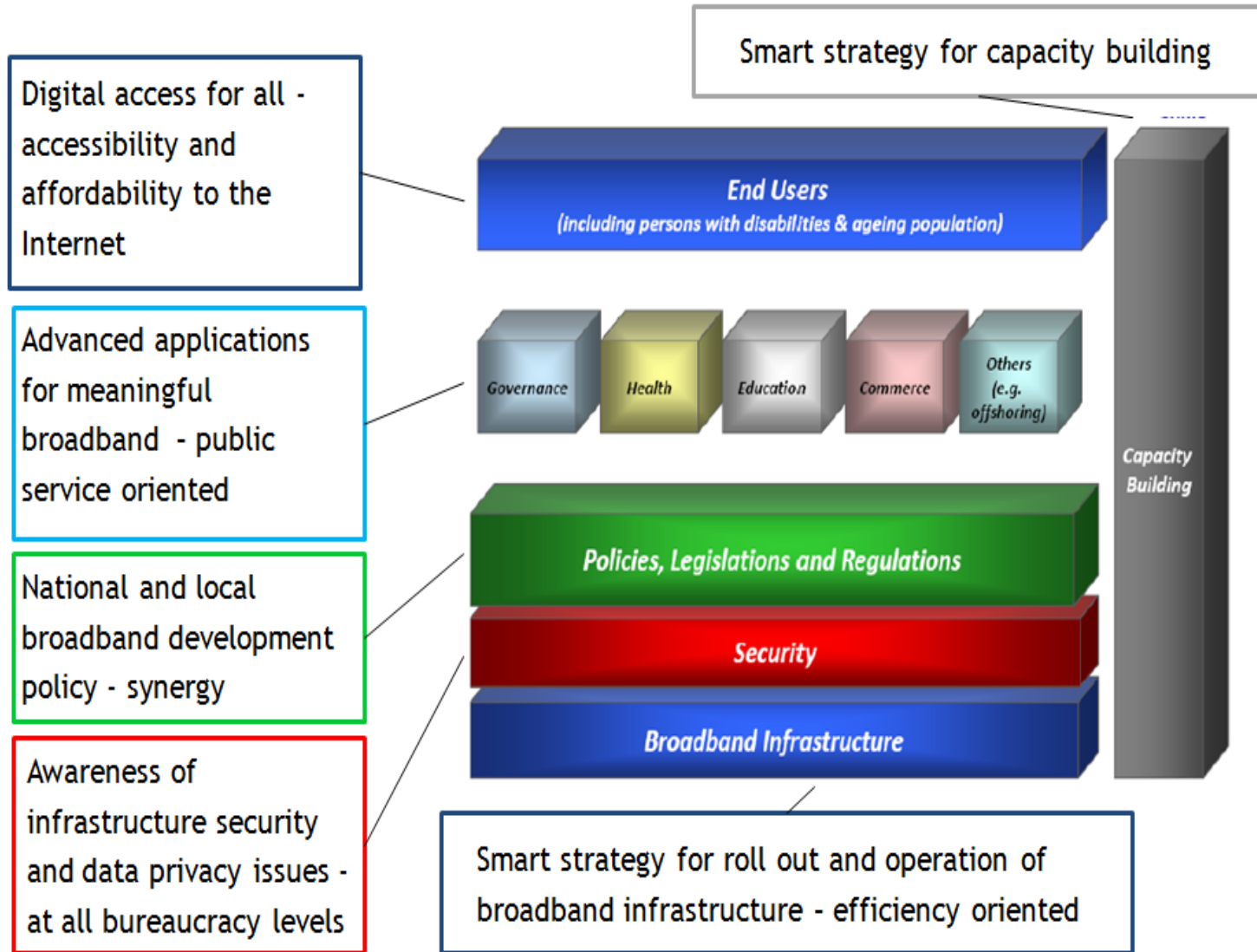
- Very big potential. There are many untapped segments.
- Penetration of broadband is still far from those of other benchmarked countries.
- We believe penetration of fixed line will increase that of broadband.



Government Goals



Indonesia Broadband Ecosystem Development



Access Network Penetration

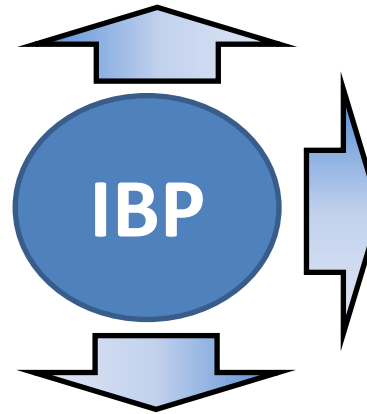
➤ PENETRASI JARINGAN AKSES URBAN

Penetrasi Broadband (Urban)	2012	2013	2014	2015	2016	2017	2018	2019
Penetrasi broadband (fixed) ke rumah	27%	31%	38%	42%	49%	53%	60%	71%
Penetrasi Broadband (fixed) ke penduduk	11%	13%	16%	18%	21%	23%	25%	30%
Penetrasi Mobile broadband ke penduduk	73%	82%	93%	100%	100%	100%	100%	100%
Gedung	30%	30%	40%	70%	85%	100%	100%	100%
Sekolah	15%	20%	40%	60%	85%	100%	100%	100%
Hotel	N/A	40%	55%	65%	80%	100%	100%	100%
Rumah Sakit	N/A	50%	50%	80%	95%	100%	100%	100%
Puskesmas	N/A	20%	30%	65%	80%	100%	100%	100%
Dinas pemerintah daerah	N/A	50%	75%	85%	90%	100%	100%	100%
Kantor polisi	N/A	40%	55%	65%	80%	100%	100%	100%
Ruang Publik, seperti Bandara, Mall,dll	N/A	35%	50%	75%	85%	100%	100%	100%

➤ PENETRASI JARINGAN AKSES RURAL

Penetrasi Broadband (Rural)	2012	2013	2014	2015	2016	2017	2018	2019
Penetrasi broadband (fixed) ke rumah	17%	21%	26%	29%	34%	37%	41%	49%
Penetrasi Broadband (fixed) ke penduduk	2%	2%	3%	3%	4%	4%	5%	6%
Penetrasi Mobile broadband ke penduduk	21%	24%	27%	31%	35%	40%	45%	52%
Gedung	10%	15%	20%	35%	50%	70%	75%	80%
Sekolah	7%	15%	25%	40%	50%	70%	100%	100%
Hotel	N/A	30%	50%	65%	80%	80%	100%	100%
Rumah Sakit	N/A	30%	40%	60%	75%	80%	100%	100%
Puskesmas	N/A	10%	20%	30%	45%	50%	100%	100%
Dinas pemerintah daerah	N/A	30%	45%	65%	80%	90%	100%	100%
Kantor polisi	N/A	30%	40%	55%	70%	80%	90%	100%
Ruang Publik, seperti Bandara, Mall,dll	N/A	20%	40%	60%	75%	80%	100%	100%

Indonesia Broadband Plan Target



➤ KECEPATAN JARINGAN AKSES

URBAN

Kecepatan	Akses	2013	2014	2015	2016	2017	2018	2019
Fixed	Rumah	1 Mbps	3 Mbps	3 Mbps	3 Mbps	5 Mbps	10 Mbps	20 Mbps
	Gedung	100 Mbps	100 Mbps	384 Mbps	512 Mbps	1 Gbps	1 Gbps	1 Gbps
Mobile		128 kbps	512 kbps	512 kbps	1 Mbps	1 Mbps	1 Mbps	1 Mbps

* fixed: termasuk fixed wireless

RURAL

Kecepatan	Akses	2013	2014	2015	2016	2017	2018	2019
Fixed	Rumah	1 Mbps	1 Mbps	2 Mbps	2 Mbps	3 Mbps	5 Mbps	10 Mbps
Mobile		128 kbps	128 kbps	256 kbps	512 Mbps	512 Mbps	1 Mbps	1 Mbps

* fixed: termasuk fixed wireless

➤ PENETRASI BACKHAUL DAN BACKBONE

BACKHAUL

Jaringan Backhaul	2013	2014	2015	2016	2017	2018	2019
Urban							
Link Serat Optik	50%	75%	80%	85%	100%	100%	100%
Rural							
Link Serat Optik	30%	45%	60%	70%	80%	100%	100%

BACKBONE

Jaringan Backbone	2013	2014	2015	2016	2017	2018	2019
Kota kabupaten terhubung optik							
	40%	75%	85%	100%	100%	100%	100%
Kota daerah rural terhubung optik							
	30%	50%	75%	85%	100%	100%	100%

Backbone and Backhaul Penetration

To increase broadband services adoption by the public society, affordability of services becomes important. The price of broadband services is targeted maximum 5% of the average income per month.

Access Network Speed



IBP as Acceleration Reference of Broadband Access

Expected Condition :

Government Policy as a “booster”

- Infrastructure Policy (Smart Ducting, Palapa Ring, IBP/ broadband ecosystem)
- DSO Plan, Frequency Spectrum Re-Regulating
- USO Policy to increase society capacity building

Strong Regulator

- Infrastructure Regulation, QoS and Price
- Regulation on Operation (simplification and industry restructuring)
- Handicap Existing Regulation Completion

Strong Operator

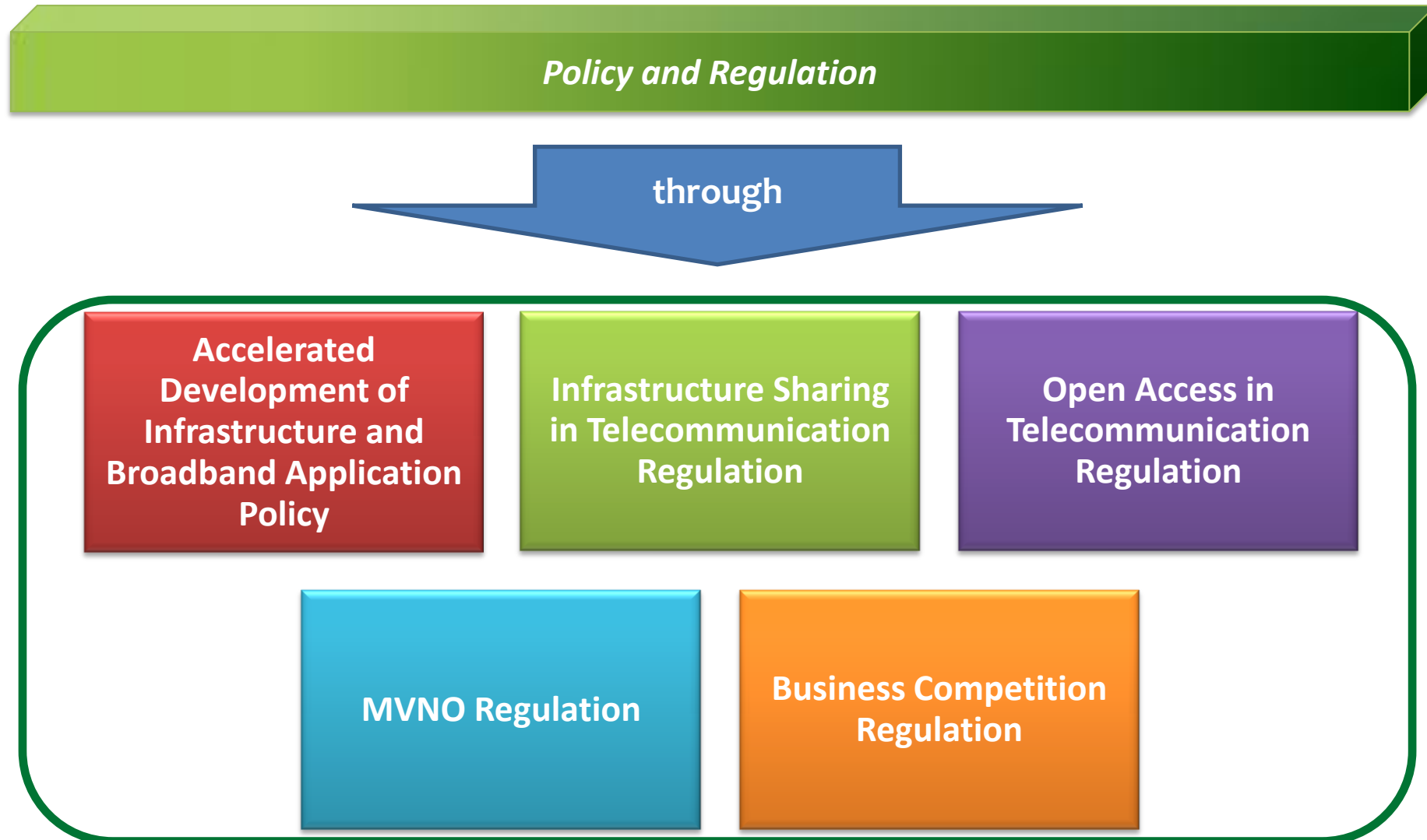
- Good growth of business performance
- Effective Investment Ability to push the price in good economic scale
- Ability to attract the productive and interested content

Demanding User (Market Based)

- User education to switch into data by operator
- Data services transparency (QoS and Price)
- Capacity building for society by government and industry



Policy and Regulation Development

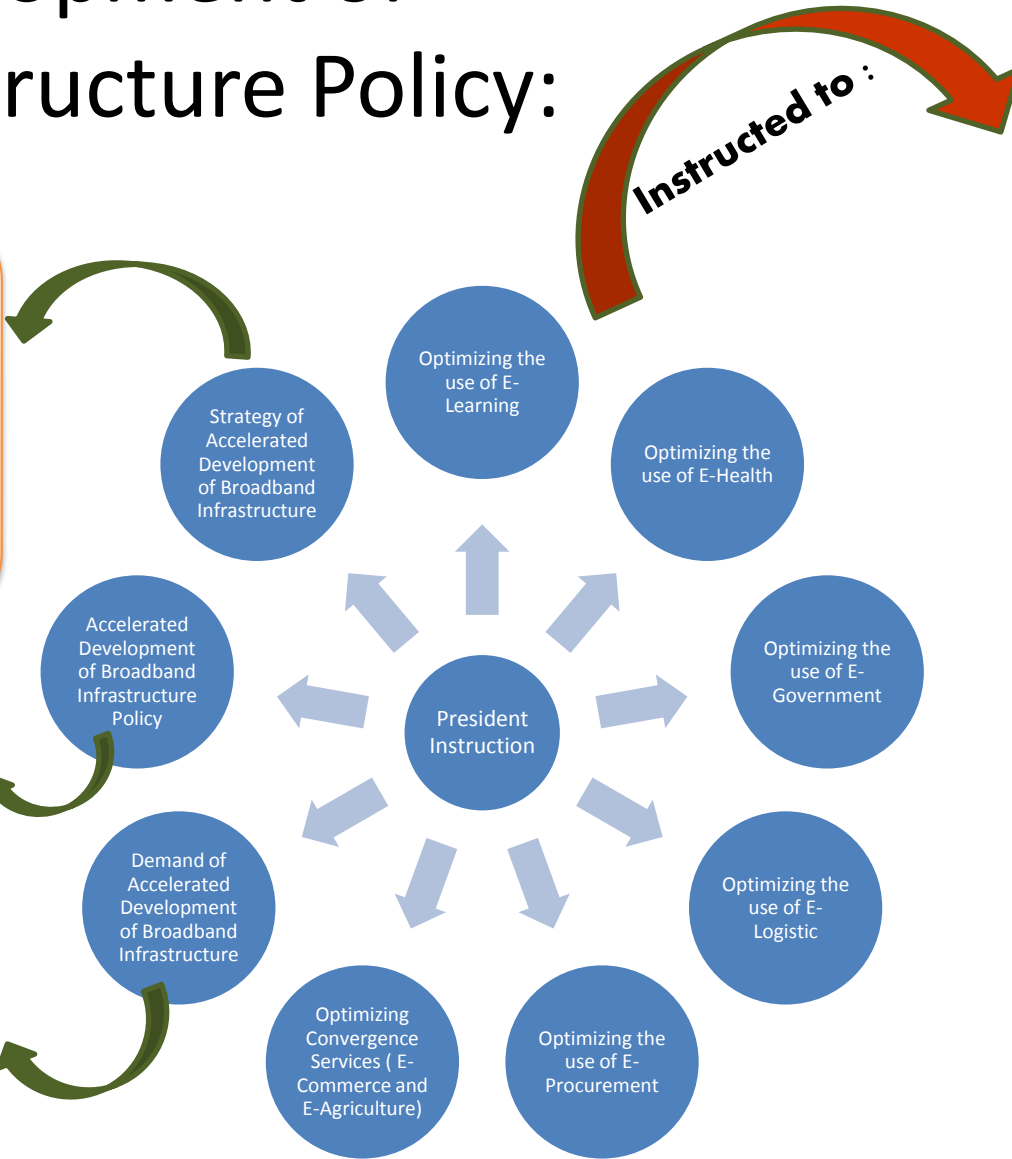


Accelerated Development of Broadband Infrastructure Policy:

- a. Broadband Zone Mapping;
- b. Regulatory Determination of Broadband Utilization and Zone Protection;
- c. Security Coordination of Broadband Infrastructure;
- d. Broadband Infrastructure Sharing;
- e. Regulatory Development of Open Access to the Building ;
- f. Regulatory Development of Crossing Permit of Land, Building and Area.

Policy and Regulation Development by Central Government and Local Government (Province, City/ Regency)

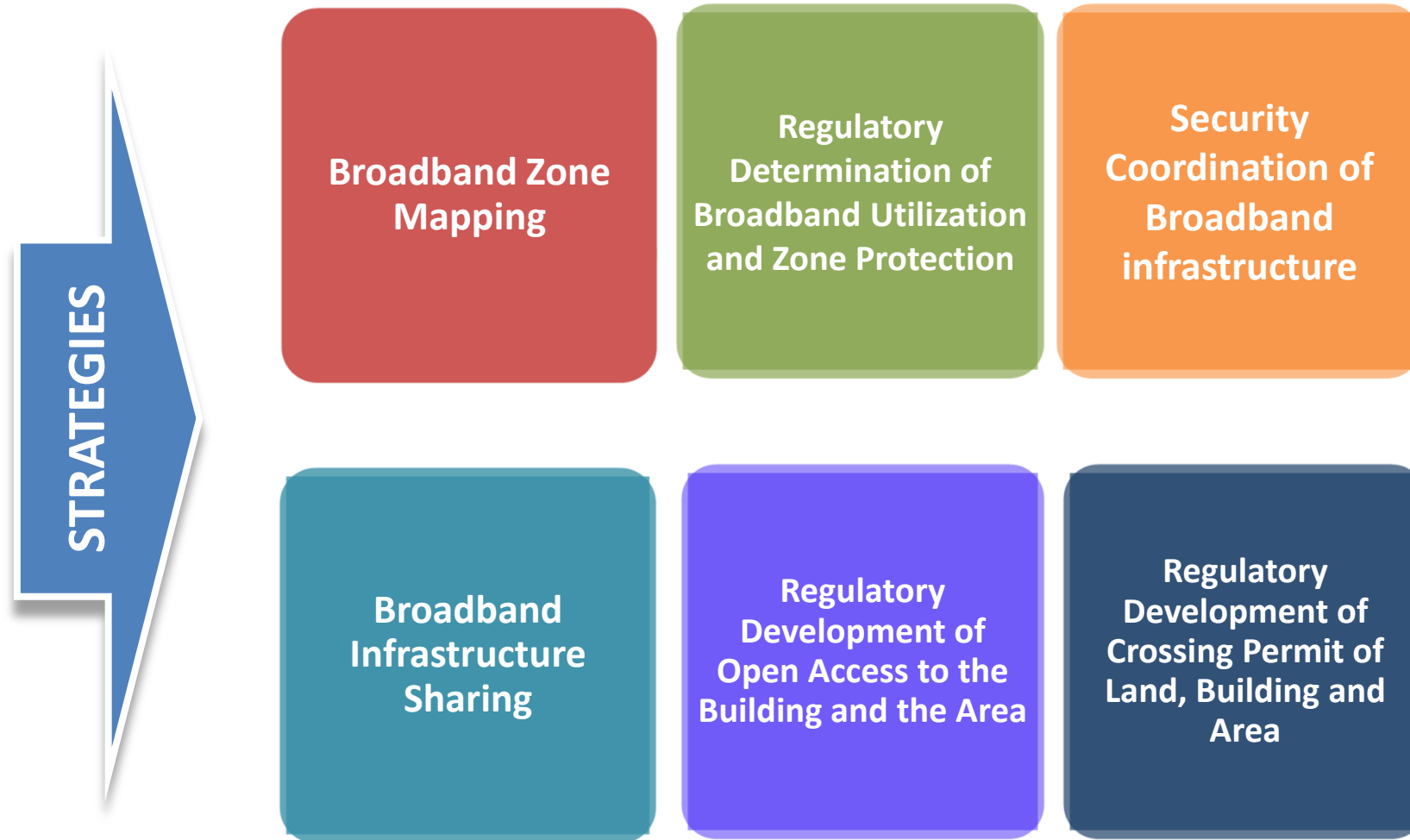
- a. Infrastructure indicator to support the ideal broadband model in Indonesia : rapidity, availability and price;
- b. Built Application : low price, able to use, easy to use, provide personal benefit both personally and community.



- Coordinator Minister of The Economic Field;
- Ministry of Communication and Informatics;
- Minister of Home Affairs;
- Minister of Education and Culture;
- Minister of Health;
- Minister of Transportation;
- Minister of Public Works and Housing;
- Minister of Forestry;
- Minister of Energy and Mineral Resources;
- Minister of State Owned Enterprises;
- Minister of State Apparatus Empowerment;
- Minister of National Development Planning;
- Head of the Non- Departmental Government Agencies
- The Highest Secretariat Management Institutions and High State;
- Indonesian National Army Commander;
- Chief Police of Republic of Indonesia;
- General Attorney of Republic of Indonesia;
- Governor ;
- Regent/ Mayor.



Policy Strategy of Accelerated Development of Broadband Infrastructure:



Infrastructure Sharing Regulation:



Infrastructure
Sharing by
Industry

➤ Purpose

- The efficiency of telecommunication infrastructure development by encourage the consolidation of infrastructure utilization;
- Efficiency include investment efficiency, the efficiency of the development process and the efficiency of operation and maintenance.

➤ Aim

- Increase the affordability of telecommunication services;
- Increase the availability of telecommunication service options;
- Equitable of telecommunication access nationally;
- Expansion and restructure of the urban area.



Open Access Regulation:



Open Access
by Industry

➤ Purpose

- Create more choices to the user of telecommunication services;
- Encourages the healthy competition in the provision of telecommunication services between network operators and service providers that do not have a network.

➤ Aim

- Service Affordability;
- Network Availability;
- Service Quality;
- Service Innovation and Creativity.



MVNO Regulation:



MVNO

➤ Purpose

- To regulate the operation of basic telephony services using the networks of cellular provider.

➤ Aim

- Encourages the efficiency in telecommunication network operation;
- Encourages the effective and efficient structure of telecommunication industry;
- Encourages the healthy competition in telecommunication services.



Business Competition Regulation:



**Business
Competition**

➤ **Purpose**

- Regulate level of telecommunication competition to ensure the sustainability of telecommunication operators.

➤ **Aim**

- Drive a healthy business competition in telecommunication industry;
- Determine the dominant operators and non-dominant operators as part of the build equality in business competition.



THANK YOU



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