ICT for Development Initiatives in Asia and the Pacific

Towards a more effective Utilisation of the USO Fund
The Case of Indonesia

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Asian Development Bank (ADB) and International Telecommunication Union (ITU)

Manila, Philippines,

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Indonesia – Background Information

The largest archipelago state comprising 17,508 islands

- The distance from Sabang (East) to Merauke (West) is around 5,236 km.
- Same distance from London to Teheran (around 5,300 km)
- Same distance from Lisbon to Boston (around 5,128 km) across the Atlantic Ocean

Election Committee (2013)

- Population : 251,857,940
  - 4th largest population in the world
  - More than 55% younger than 30 years old
  - Population of Euro zone : 330 million
  - By 2030 : 280 million
- Eligible voters : 185,827,507

Per Capita Income

- 2013 : USD   4,150
- 2030 : USD 18,000

Middle Class

- 2013 :   45 million
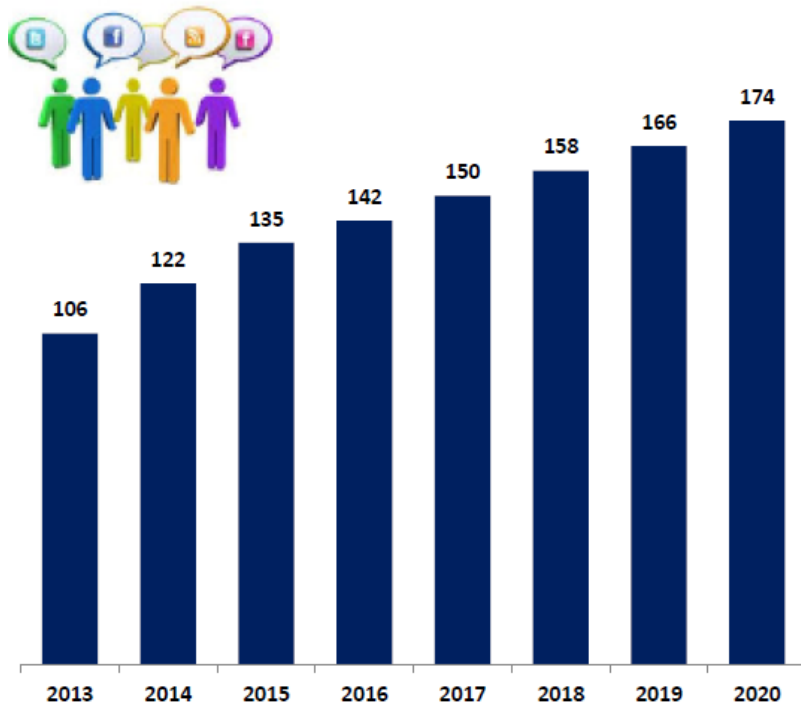- 2030 : 135 million

Gross Domestic Product (GDP)

- 2013 : USD 0.7 Trillion; 16th largest economy
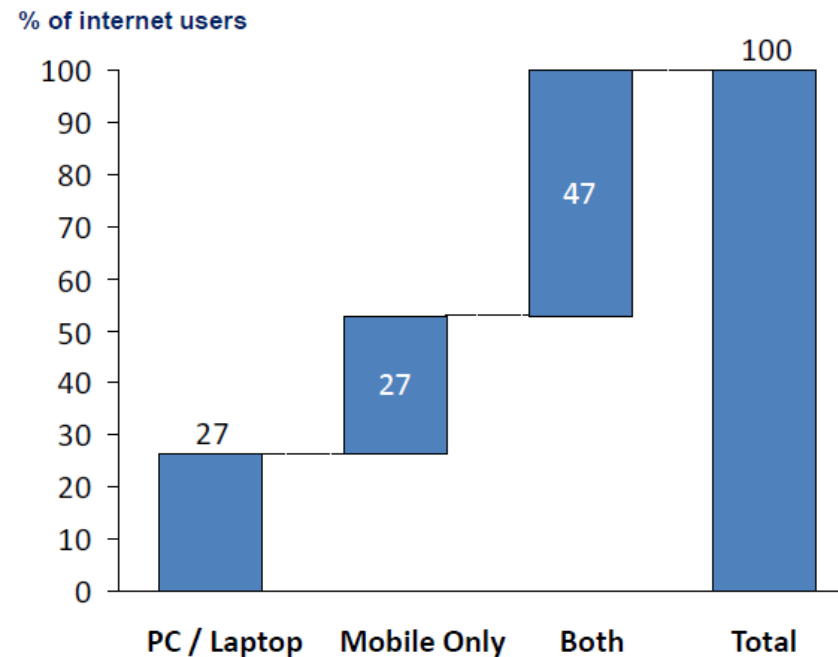- 2030 : USD 5.1 Trillion; 5th largest economy

Social Media

- Facebook Nation : 4
- Twitter Republic : 5

INTERNET USERS

Significant increase in projection of internet users.

Note: illustration from XL FY2013 presentation.

SUBSCRIPTIONS

Penetration (SIM Card)
- Total Cell Subs >325 mn
- Total BIG 3 Subs: 251.6mn

FY 2013 Subscriber Market Share

Tsel 40%
XL 19%
Isat 18%

Legend:
- Tsel
- Isat
- XL
- Hutch
- Mobile 8
- Smart/Fren
- Natrindo
- Ceria
- Flexi
- Esia
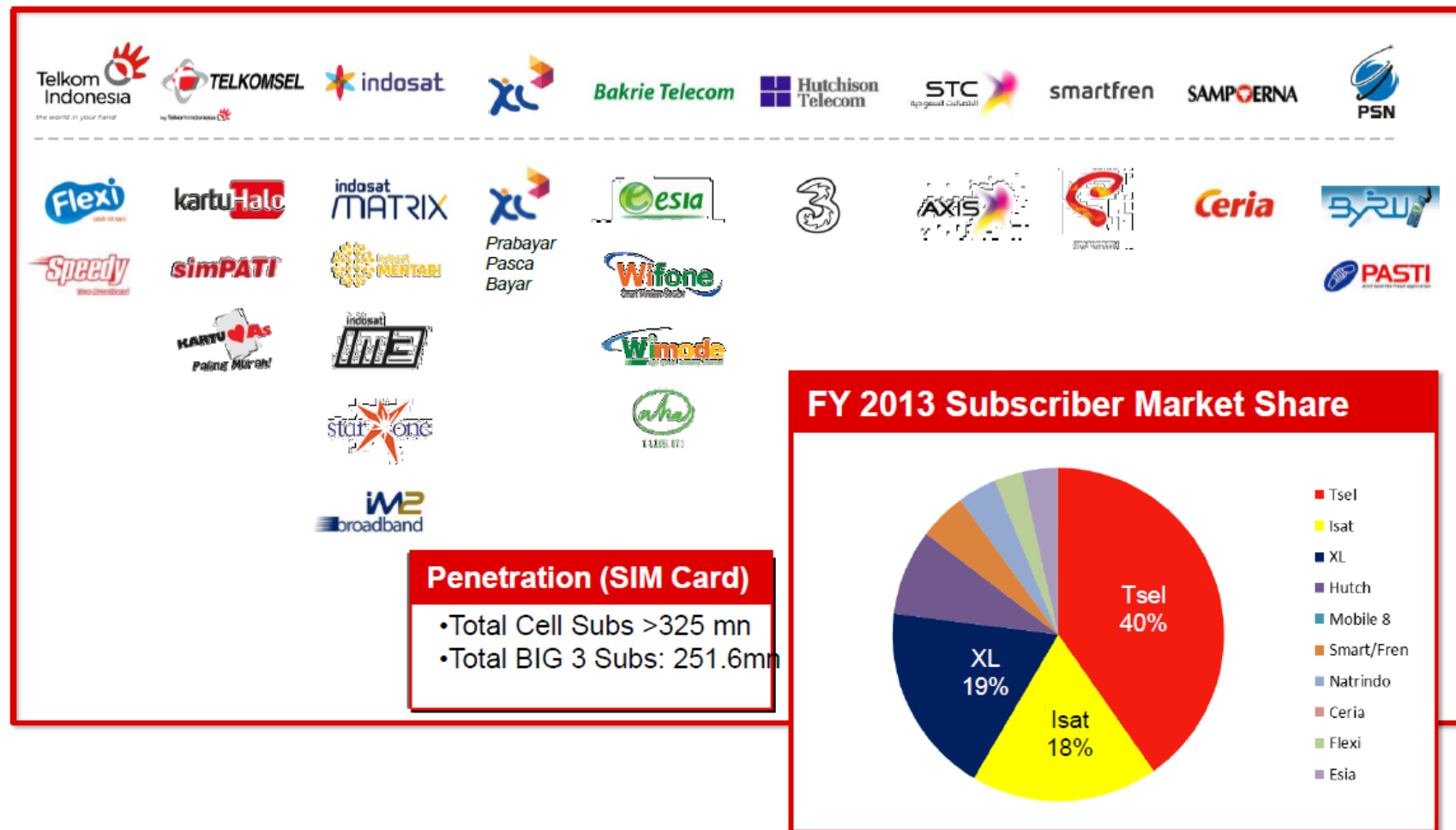
Subscriptions per population ratio: 134%

Note: illustration from TLKM FY2013 presentation and country population approximate of 242 million.

The Big Three Operators – 2013

- **Subscriptions : 325 million**

-	Telkomsel	:	132 million (40%)
-	XL Axiata	:	61 million (19%)
-	Indosat	:	60 million (18%)
			253 million

- **Radio Area Network (RAN)**

	2G	**3G**	**Total**
1. Telkomsel	43,000	27,000	70,000
2. XL Axiata	30,000	15,000	45,000
3. Indosat	19,000	5,000	24,000
	92,000	**47,000**	**139,000**

- **Capital Expenditure (Capex)**
  - Telkomsel   : USD 950 million
  - XL Axiata   : USD 918 million
  - Indosat   : USD 737 million

- **Revenue and Profit (USD Million)**

	Revenue	**Profit**
- Telkomsel	4,915	1,420
- XL Axiata	1,627	85
- Indosat	1,586	228

- **ARPU**
  - Telkomsel   : USD 3.0
  - XL Axiata   : USD 2.3
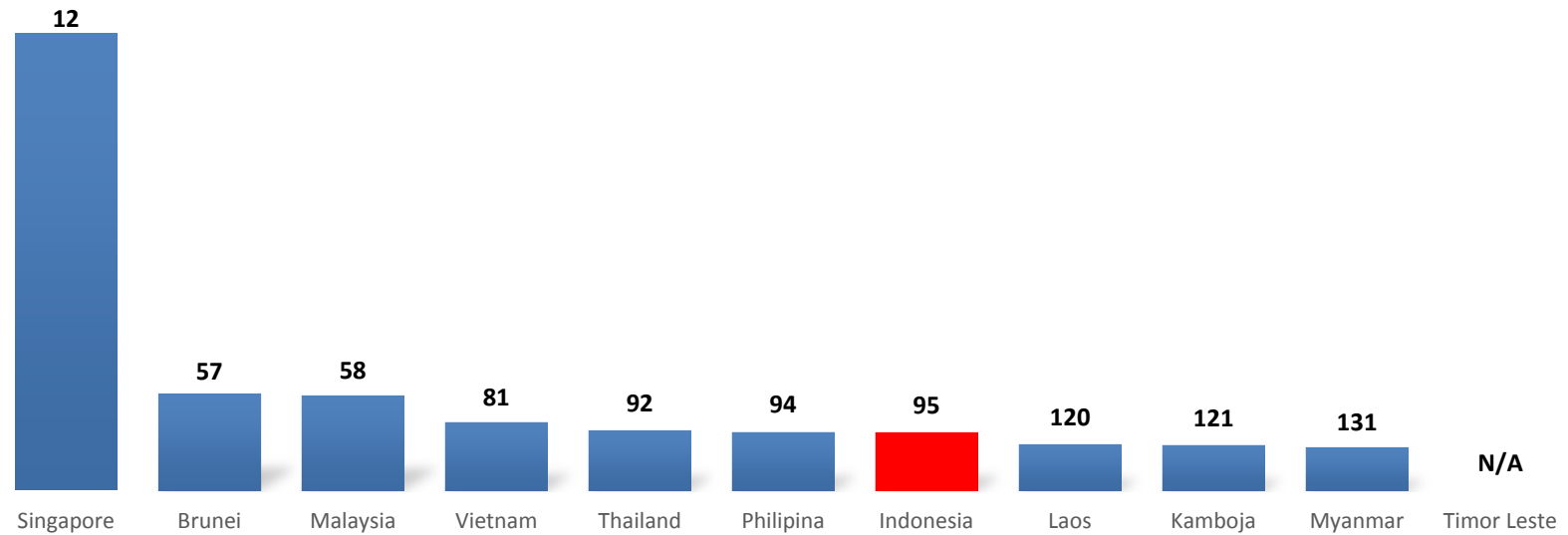 - Indosat   : USD 2.2

ICT Development

- **All the development are driven by the private sectors**
- **RAN are concentrated mainly in the urban areas**
- **Development of ICT is still lacking in the rural areas**
- **Indonesia wants to achieve "World Summit on the Information Society (WSIS)" targets, among others, to connect all villages with ICTs and establish Community Access Point**
- **Indonesia in 2012 have :**
  - **33 Provinces**
  - **501 Regency (Kabupaten)**
  - **6,493 Districts (Kecamatan)**
  - **76,655 Villages /sub-districts (Kelurahan)**
- **The Government have limited fund in their budget**
- **The Government offers the private sectors to develop both the "backbone" as well as the "Last Miles"**
- **Due to the size and geographic condition of the country, it is difficult for the private sector to cover the development of ICT in all areas of the country.**

  The Report Indonesia 2012 by Oxford Business Group :

  "Getting the masses on-line might be harder in Indonesia than almost any where else in the world, given the size of the population and the geographical obstacles presented by its dispersion across an archipelago of 17,500 islands".
- **Several ICT Index shows that Indonesia still need to intensively develop ICT infrastructure especially in the rural area.**

ICT Development in Asean

12										
	57	**58**								
			81	**92**	**94**	**95**	**120**	**121**	**131**	**N/A**
Singapore	Brunei	Malaysia	Vietnam	Thailand	Philipina	Indonesia	Laos	Kamboja	Myanmar	Timor Leste

Rank

UN E-Government Development Index
Indonesia Ranking

70

85

96

106

109

97

Year

2003   2004   2005   2008   2010   2012
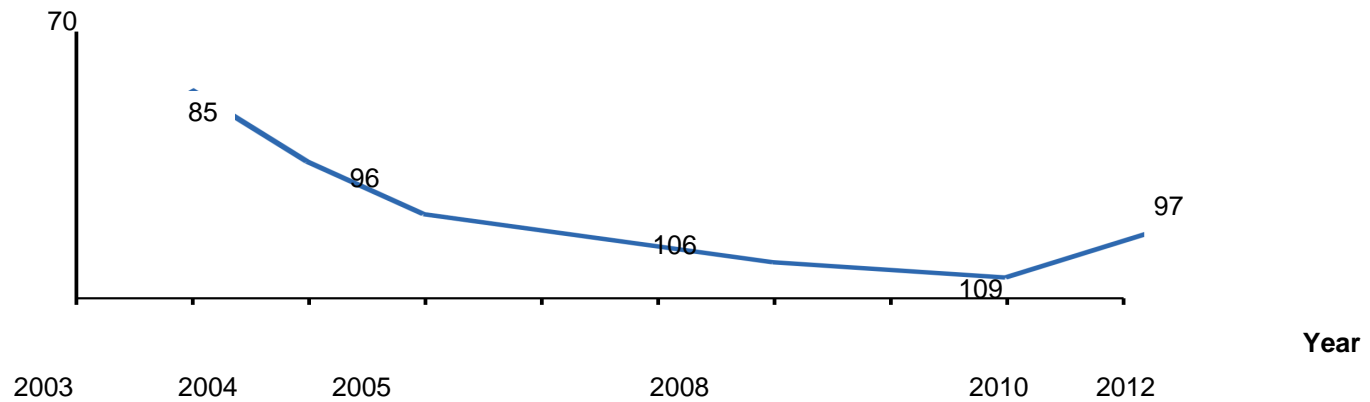
Sources : Detiknas

GOVERNMENT STRATEGIC PLAN 2010 – 2014
Ministerial Degree no. 2 year 2010

Indicator	Unit	2010	2011	2012	2013	2014
Optical Fiber Network	% Province Capital connected	10%	30%	50%	70%	100%
Broadband Network	% District Capital connected	25%	30%	50%	60%	75%
Regional Internet Exchange	% Province Capital connected	10%	30%	50%	80%	100%
International Internet Exchange	% Province capitals installed	10%	30%	50%	80%	100%
Radio for Community	No of Villages covered	15	76	200	350	500
Telecommunication Access	% villages with telephony access	100%	100%	100%	100%	100%
Internet Access	% villages with internet access	5%	20%	40%	60%	80%

Broadband Network

National Coverage :
- Optical Transport of 75.000 Km in year 2015 to cover 90% District (Kabupaten) Capital
- Express Super Core for 2nd Gateway Internasional 2015
- Launching of Satelit Telkom 3S in 2016

Satelite TELKOM 3S

Songkhla
SATUN
PENANG
TIS (Thailand)
AAG (Hongkong. USA)

R 1B Y-2009
R-1A Y-2006
R-2 Y-2006
R-3 TERESTERIAL Y-2006
R 3 SUB MARINE Y-2006

International Gateway

Singapore

R-8 TERRESTERIAL Y-2009
R-8 SUBMARINE Y-2010
Watampone-Kolaka Y-2013

Guam Y-2017

Second International Gateway

PALAPA RING 10 Y-2013
Sorong-Fakfak Y-2014

Express Super Core Batam - Manado

R-4 Y-2010
R-5 Y-2004
R-6 Y-2004
R-7 SUBMARINE Y-2008
R-9 SUBMARINE Y-2009
BALI-LOMBOK-KUPANG Y-2013
MKCS SUBMARINE Y-2011
MKCS TERRESTERIAL Y-2011
KUPANG-ATAMBUA Y-2012
Atambua-Maumere-Makasar Y-'13-14
Atambua-Ambon Y-2017
Atambua-Timika Y-2020
Timika-Merauke Y-2020

Map labels: BANDA ACEH, MEDAN, MALAKA, PKANBARU, BANGKINANG, KLRJ, PADANG, DUMAI, BATAM, SINGAPORE, SINGKAWANG, SANGGAU, SINTANG, MR.T WH, PONTIANAK, KETAPANG, M.BNG, JAMBI, PKL.PINANG, BENGKULU, TANGGAU, PALEMBANG, BATURAJA, TJ.PANDAN, PKL BUN, PALANGKARAYA, U.TABLONG, BANJARMASIN, BDR LAMPUNG, JAKARTA, MATINEGARA, CIREBON, SEMARANG, SURABAYA, BANDUNG, TASIK, JOGYAKARTA, BENCULU, DENPASAR, SUMBAWA, WAINGAPU, MATARAM, RABA, L. BAJO, RUTENG, MAUMERE, ATAMBUA, KUPANG, ENDE, TN.GUNING, TARAKAN, TJ. REDEB, SANGATA, ISIMU, OMPU, MANADO, KAUDITAN, AMURANG, TUTUYAN, GORONTALO, SAMARINDA, BALIKPAPAN, BUNTOK, TN.GRGT, DONGGALA, PALU, PARIGI, LUWUK, MAMUJU, MAJENE, RANTEPAO, PALOPO, KOLAKA, KENDARI, BONEPUTE, PAREPARE, WATAMPONE, SENGKANG, MAKASAR, JENEPONTO, SANTIGUN, SANANA, NAMEL, AMBON, BANDANERA, MASOHI, BULA, SORONG, LABUHA, TERNATE, SOFIFI, MANUKWARI, FAKFAK, KAIMANA, TIMIKA, BIAK, SARMI, JAYAPURA, MERAUKE

Legend :
- ——— : eksisting
- ········ : on going
- – – – : planning

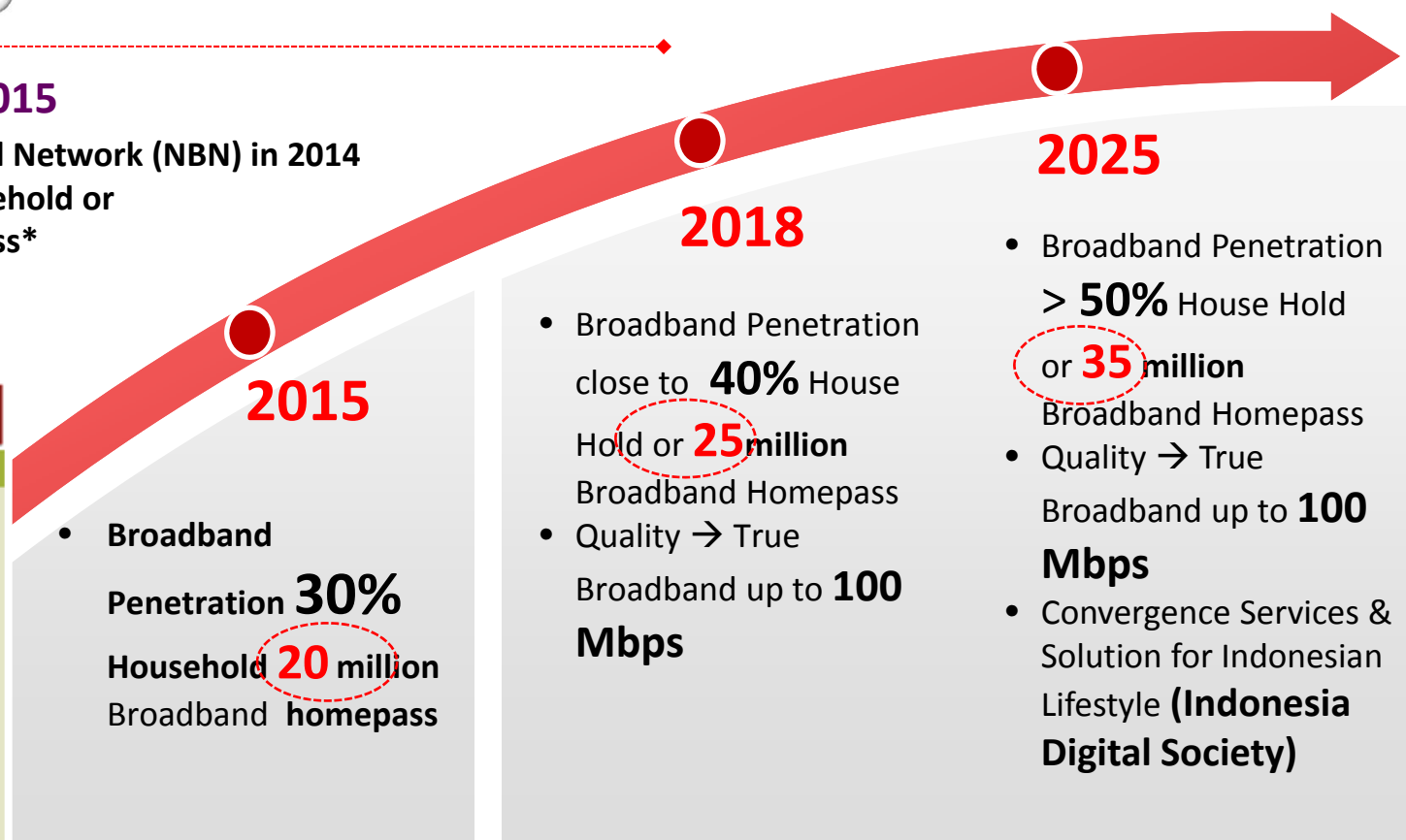Source : Telkom Indonesia

Milestone

MP3EI 2025

- **Per capita income USD 14,250 – USD 15,500 (increase >3 times from 2013 sebesar USD 4,000)**
- **Size of economy (GBP) around USD 4,0-5,0 Trilion**
- **NBN coverage >60% house Hold or 42million Homepass**

MP3EI 2012 - 2015

National Broadband Network (NBN) in 2014 coverage 30% household or
20 million homepass*

MAIN STRATEGY MP3EI -Strengthening National Connectivity

NATIONAL CONNECTIVITY FRAMEWORK

2025

- Broadband Penetration **> 50%** House Hold or **35** million Broadband Homepass
- Quality → True Broadband up to **100 Mbps**
- Convergence Services & Solution for Indonesian Lifestyle **(Indonesia Digital Society)**

2018

- Broadband Penetration close to **40%** House Hold or **25** million Broadband Homepass
- Quality → True Broadband up to **100 Mbps**

2015

- **Broadband Penetration 30% Household 20 million Broadband homepass**

Sources : Detiknas

Set-up of "USO Fund"

- In 1999, no more monopoly by PT. Telkom. Full competition in the telecommunication industry as per Law no 36 year 1999.
- Before 1999, PT. Telkom was obliged to do the Universal Service Obligation. With full competition, the burden to finance USO becomes too heavy for the company.
- In 2004, the Government issued tender for Network Operators to build public phones in villages, using state budget. It was not sustainable as the Government have limited fund.
- Government Regulation no. 28 year 2005 required all Network Operators to contribute 0.75% of their Gross Revenue for the "USO Fund".
  - The fund is collected as "Non-Tax Revenue"
  - It is part of the Government Budget
  - Disbursement follow Government Regulation on projects in the public sector
- This USO contribution is on top of the 1% (from Gross Revenue) for Licensing Fee paid annually to the State Treasury.
- Governement Regulation no. 7 year 2007, redefine the contribution and fee paid by the Network Operators

	Before	Current
- Licensing Fee	1.00%	0.50%
- USO Contribution	0.75%	1.25%
	1.75%	1.75%

To speed-up the development of ICT Facilities in the rural areas.

- To facilitate the "USO Fund" and the implementation of the projects, the Government established a Public Service Agency ("Badan Layanan Umun / BLU) name : BTIP which later on change to BP3TI

  ("Balai Penyedia dan Pengelola Pembiayaan Telekomunikasi dan Informatika")

  – A semi-corporate Agency

  – Not-for-profit orientation

  – Allowed to receive fund directly to their account (do not have to put the fund in State Treasury)

  – Fund is used to develop ICT facilities in areas unreachable by all telecommunication operators due to financial feasibility

  – Since the development of Fiber Optic (FO) connecting the main islands still need funding, the Government is planning to use the USO Fund to develop part of the FO backbone.

- "USO Fund" around IDR 2.9 Trillion (approx. USD 250 million)

INCOME AND DISBURSEMENT FROM 2007-2012

Budget Realisation   EoY : 2007 s.d 2012
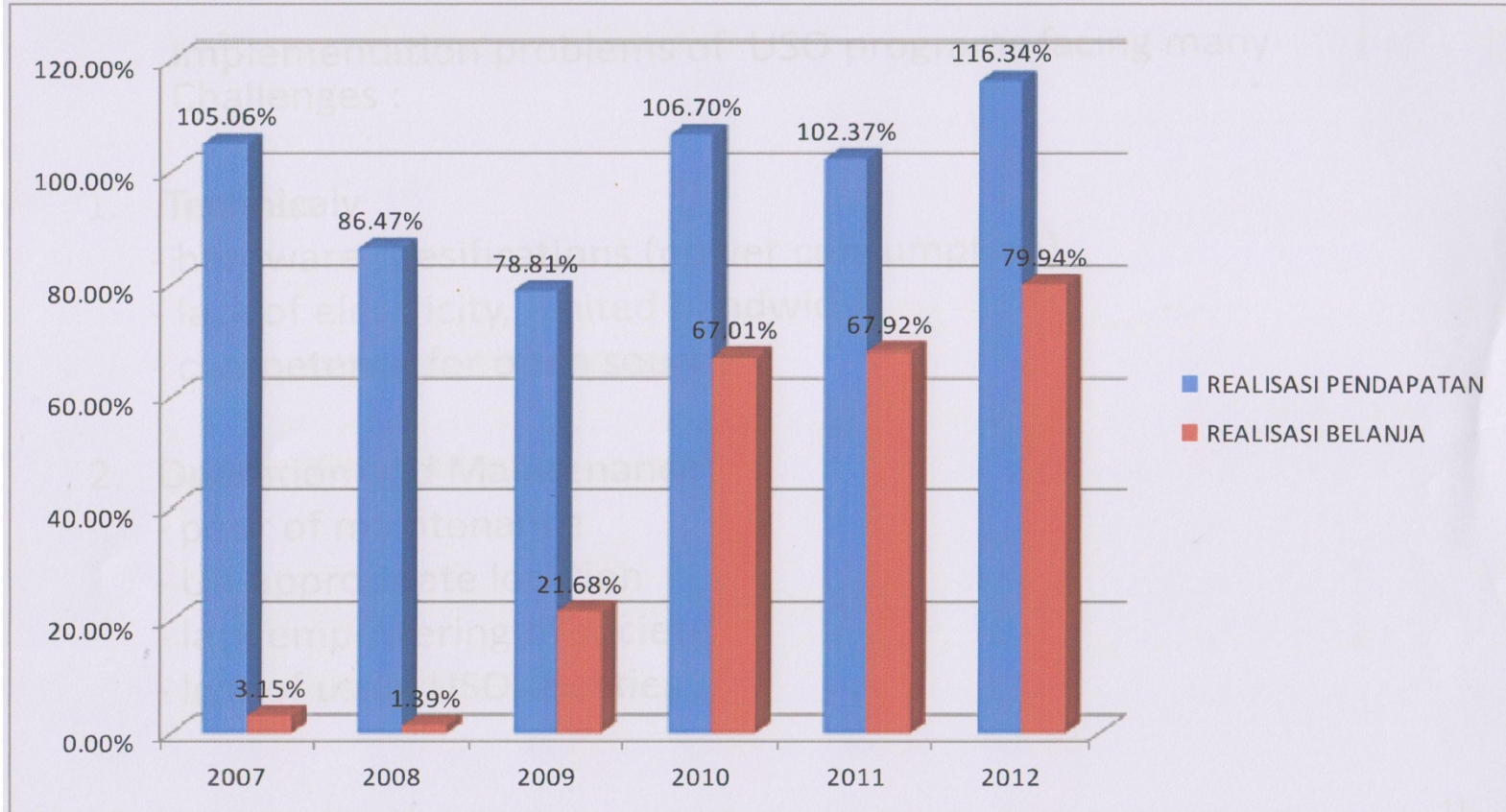
Development ICT facilities using "USO Fund" - 2013

- Connected 32,208 telephone lines for villages categorized as "non-commercial". Total villages in this category is 72,800.
- Set up 1,857 "Mobile Pusat Layanan Internet Kecamatan (M-Plik)" or Mobile Center for Internet Service in Districts.
- Set-up 5,956 "Pembangunan Pusat Layanan Internet Kecamatan (PLIK)" or Internet Service Center in Districts.
- Set-up 1,222 "PLIK Sentra Produktir" or Internet Center for Small and Medium Enterprises (SME)
- Build in 8 Provinces the "National Internet Exchange (NIX)".
  There are 33 provinces in Indonesia
- Build International Internet Exchange in 4 provinces capital
- Build 286 BTS for ICT coverage in border areas and outer islands
- Good progress, however :
  - Still a lot of rural areas that are not covered by ICT
  - Focus on constructing the facilities but there were no budget allocated for the operation and maintenance. As a result, most of the facilities are now not in operation.
  - Palapa Ring project that focuses on "back bone" is delayed.

Challenges in the Implementation

Operational

- Too much focus on constructing the facilities but not on the sustainability of the facilities
- There are room to increase competency in BP3TI
- Lack of involvement of provincial, districts and sub-districts official as
  - No budget allocated for operation and maintenance
  - Lack of information
  - Lack of co-ordination
- Lack of availability of power
- Limited bandwith
- Lack of competency on "Open Source"
- Technical specifications that cannot meet the fast development of ICT technologies
- Incompetency of small local operators in running a small business even after being subsidies using USO Fund
- Need to educate the users
- The need to empower the society

Bureaucracy

- The "USO Fund" is considered as a "Government Non-Tax Revenue" and integrated into the Government Budget
- Yearly, BP3TI submit "Propose Projects" for "USO Fund"
- Approval process yearly
  - Advisory Board BP3TI
  - MCIT
  - MOF
  - Parliament
- "USO Fund" and project implementation audited by
  - Government Internal Auditor (BPKP)
  - Independent Public Accountant Firm
- Cumbersome tender process; must meet the Government Regulation for tendering government projects.

Can "USO Fund" be used more effectively

- The "Fund" should not be integrated in the Government Budget
- The "Fund" can be administered by the Government but used directly by the operators.
  The 1.25% fund can be place in an "escrow account" open jointly with Network Operators and BP3TI whereby the release of the fund will need the approval from BP3TI, MCIT and MOF.
- BP3TI role redefine :
  - Set-up program priorities with two type of category :
    1. Build only i.e.: ducting for Fiber Optic
    2. Business Model i.e.: subsidies internet shops ("wartel")
  - Make detail project specifications :
    - Technical specifications
    - Training
    - Operation and maintenance
  - Focus on "backbone"
    - For example : USO Fund to build the ducting for Fiber Optic (FO) as it involve getting land access. The installation of FO can be done by the Network Operators as part of their Capex.
  - Allocate and negotiate the projects with the Network Operators.
  - Monitor the project implementation to ensure it is in accordance with project specification.
- Recommend that the Network Operators work on a "Build, Operate and Transfer" (BOT) arrangement with the Government. This is to ensure the sustainability of the ICT facilities as well as legal certainty. The Business case must be clearly define as this is normally a financially unfeasible project, therefore the need to use USO Fund.
- Another alternative is to administered the USO Fund like the Network Operators CSR Fund
- More thought will be needed to come up with a frame-work acceptable by the Government and the Operators.

Thank You