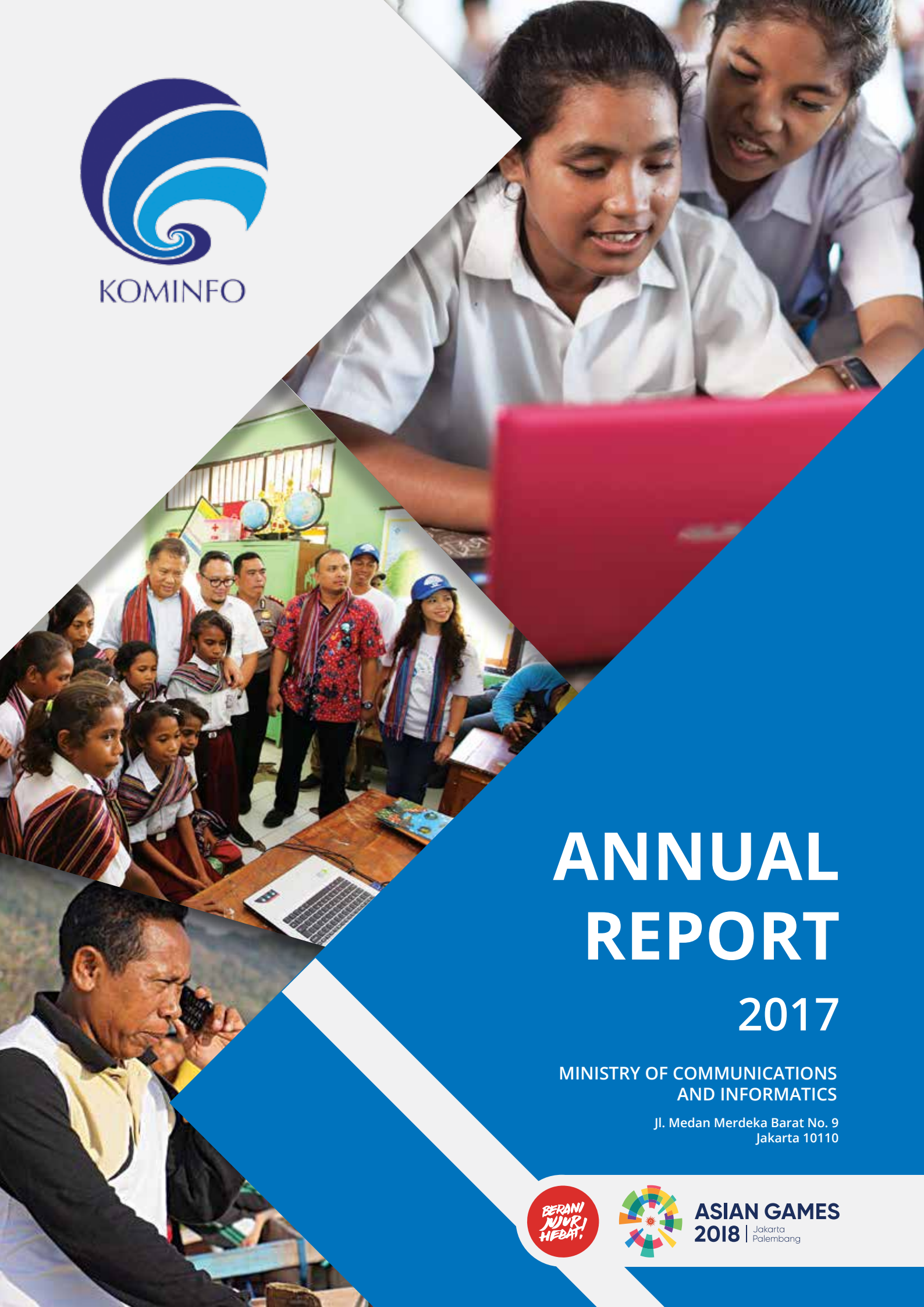
KOMINFO



ANNUAL REPORT

2017

MINISTRY OF COMMUNICATIONS AND INFORMATICS

Jl. Medan Merdeka Barat No. 9
Jakarta 10110

BERANI JUJUR! HEBAT!

ASIAN GAMES 2018 | Jakarta Palembang

AYO KERJA
MARI
MELAYANI
DENGAN
PROAKTIF
Profesional - Akuntabel - Integritas - Inovatif

Preface

The development and advancement of Information and Communication Technology (ICT) has penetrated every walks of our life. In fact, Information and Communication Technology (ICT) has become an integral part of people's life. The rapid development of technology has put a new face to Indonesian economy, by transforming its conventional economy to digital economy.

In order to strengthen Indonesia's digital economy, the Ministry of Communications and Informatics (MCI) focuses on the development of infrastructures to fulfill its role in providing equal access to information in all regions in Indonesia. For the border areas in particular, the Ministry provides support to their startups, Micro Businesses, Small and Medium Enterprises (SMEs), farmers, and fishermen in efforts to increase their welfare by the use of ICT.

The digital era has also brought change in the licensing system.In this area, the Ministry of Communications and Informaticsbecomes the leading sector by putting forward fast, easy, and transparent service, through the one-stop integrated service (PTSP), registration of electronic system operators (PSE), and licensing in the area of Telecommunications.

The Ministry of Communications and Informatics plays the role of not only the regulator but also facilitator for the implementation of programs outlined in this Ministry of Communications and Informatics Annual Report 2017. It is expected that this report would serve its best at providing beneficial source of information for every party.

We hope that the Ministry of Communication and Informatics would maintain its commitment to put forward programs which have immediate benefits for the people as well as promote those of informatics society empowerment programs.

On behalf of the Minister of Communications and Informatics
Jakarta, July 2018

Secretary General of the
Ministry of Communications and Informatics

Farida Dwi Cahyarini

Table of Contents

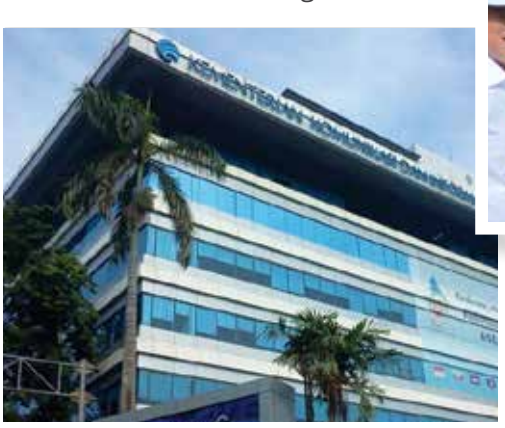
10 **Profil**

12 **Awards received by Ministry of Communications and Informatics in 2017**

14 **Highlight of Financial Report**

CHAPTER 1 Performance 2017 at a Glance

20 A. Performance of the Ministry of Communications and Informatics (MCI)
20 1. Policies
29 2. Infrastructure Development in the MCI Field
43 3. Internet Governance
50 4. Empowerment of Informatics Society
66 5. *Government Public Relation (GPR)*
71 6. MCI›s Internal Programs



CHAPTER 2 Profile of the Ministry of Communications and Informatics

88 1. Organizational Structure
89 2. Human Resources
90 3. Simplification and Deregulation on Licenses

CHAPTER 3 The Statistics in the Field of Communications and Informatics

94 1. Statistics of Internet Users in Indonesia
100 2. Telecommunications Network Subscribers
102 3. Telecommunications Traffic Data
104 4. Telecommunications Service Subscribers
105 5. Posts and Delivery Service Operators
108 6. Broadcasting Operator Data
114 7. SDPPI equipments testing
115 8. Registration of Electronic System Operators (PPSE)

CHAPTER 4 Outlook 2018

118 1. Broadcasting Industry Efficiency
118 2. *Feasibility Study and Procurement of Multi-function Satellites*
118 3. Palapa Ring
118 4. Launching of Financial Inclusion Pilot Project
119 5. Development of Last Mile 3T Village Access
119 6. Integrated Broadband Village Solution
120 7. Negative Content Mitigation
120 8. 1000-Digital-Startups National Movement
121 9. Farmers and Fishermen Go-Online
121 10. SIVION
122 11. National E-Government
122 12. 8 Million SMEs Go Online
123 13. Analog SwitchOff (ASO)
123 14. Public Service Automation
125 15. Government Public Relations (GPR)

List of Figures

23 **Figure 1.1** Main SupportingAspects of Television Broadcasting Digitalization

24 **Figure 1.2** Map of LPP TVRI'S42 Digital Transmitter Sites

25 **Figure 1.3** Map of Broadcast Coverage and Digital TV Broadcasting Trial

26 **Figure 1.4** Complaints onNegative Sites and Termination of Domain/site Access

27 **Figure 1.5** Implementation of Law No. 19 of 2016 onInformation and Electronic Transaction

30 **Figure 1.6** Map of Distribution of 4G in Indonesia Year 2017

31 **Figure 1.7** Presence of 4G Services by the Number of Covered Administrative Regions

33 **Figure 1.8** Map of the Development of National Fiber-Optic Network "Palapa Ring"

48 **Figure 1.9** Strategic Plan on the Implementation of SIVION

52 **Figure 1.10** Locations of Piloting Villages for the Integrated Broadband Village Program (DBT)

53 **Figure 1.11** Locations of Human resourcesassistance and development for Integrated Broadband Village

53 **Figure 1.12** 10 Programs of Integrated Broadband Village Solution (SDBT)

55 **Figure 1.13** The Stages of 1000 Digital Startups Initiative

List of Figures

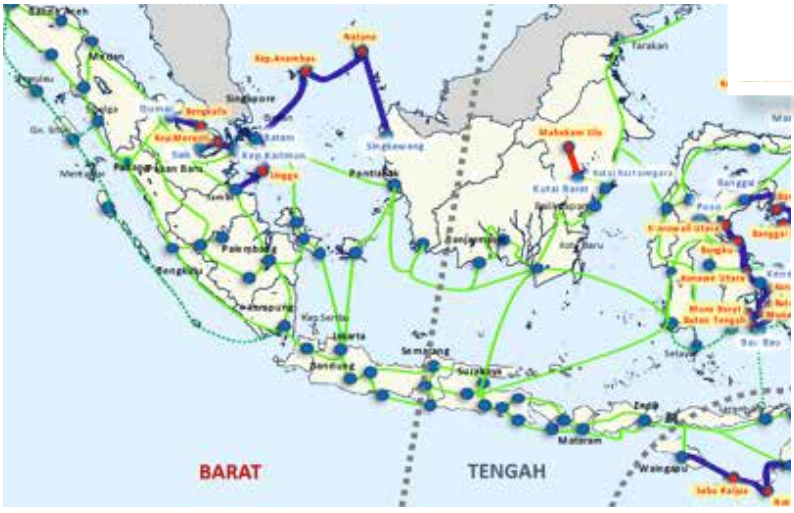
57 **Figure 1.14** The Stages of 1000 Digital Startups Initiative

58 **Figure 1.15** Landscape of Indonesia›s MSMEs

62 **Figure 1.16** Map of Agriculturel Households

63 **Figure 1.17** Number of Farmer Groups and Councellors by Province

64 **Figure 1.18** Fishery Household Density VS Sea Capture FisheriesProduction (Ton)



64 **Figure 1.19** Number of boats by Provinces VS Sea Capture FisheriesProduction (Ton)

66 **Figure 1.20** Government Public Relations Workflow

72 **Figure 1.21** Roadmapof the Ministry of Communications and Informatics Bureaucratic Reform 2015-1019

85 **Figure 1.22** Category of Information Applicant

88 **Figure 2.1** Organizational Structure and working Procedures of MCI

89 **Figure 2.2** Composition of MCI Employee per 31 December 2017

95 **Figure 3.1** Map of 2G Site Distribution Areas in Indonesia 2017

96 **Figure 3.2** Map of the distribution of 3G Site in Indonesia 2017

97 **Figure 3.3** Map of the distribution of BTS 4Gsites in Indonesia 2017

97 **Figure 3.4 2G** Signal Coverage in Indonesia until Q2 2017

List of Figures

98 **Figure 3.5** 3G Coverage In Indonesia Until Q2 2017

99 **Figure 3.6** 4G Coverage In Indonesia Until Q2 2017

100 **Figure 3.7** Market Share Of Mobile Network ByTotal Of Customers In 2016

104 **Figure 3.8** Isp Subscribers By Types

104 **Figure 3.9** Isp Subscriber By Media Type

105 **Figure 3.10** ISPsubscriber by Province

105 **Figure 3. 11** Operation Area of PT. Pos Indonesia (Persero)

106 **Figure 3.12** Comparing the Number of FM And AM Radio

108 **Figure 3.13** The Number of LPS Radio By Province

109 **Figure 3.14** Distribution of LPS Radio by Broadcast Service Area

110 **Figure 3.15** Distribution of Community Broadcasting Institutions Radio Broadcasting Services holding Broadcast Provider License (IPP) According to Region

111 **Figure 3.16** Distribution Of LPB TV Based on Types of Media

112 **Figure 3.17** Distribution of LPB TV by Province

113 **Figure 3.18** Distribution ofLPB TV by Island Regions

113 **Figure 3.19** Distribution of LPB TV by Islands

113 **Figure 3.20** Distribution of LPB TV by Province

115 **Figure 3.21** Number of Electronic Systems Operator Registered in MCI PSE

Daftar Tabel

34 **TABLE 1.1** Completion Progress of the Construction of Palapa Ring as of December 2017

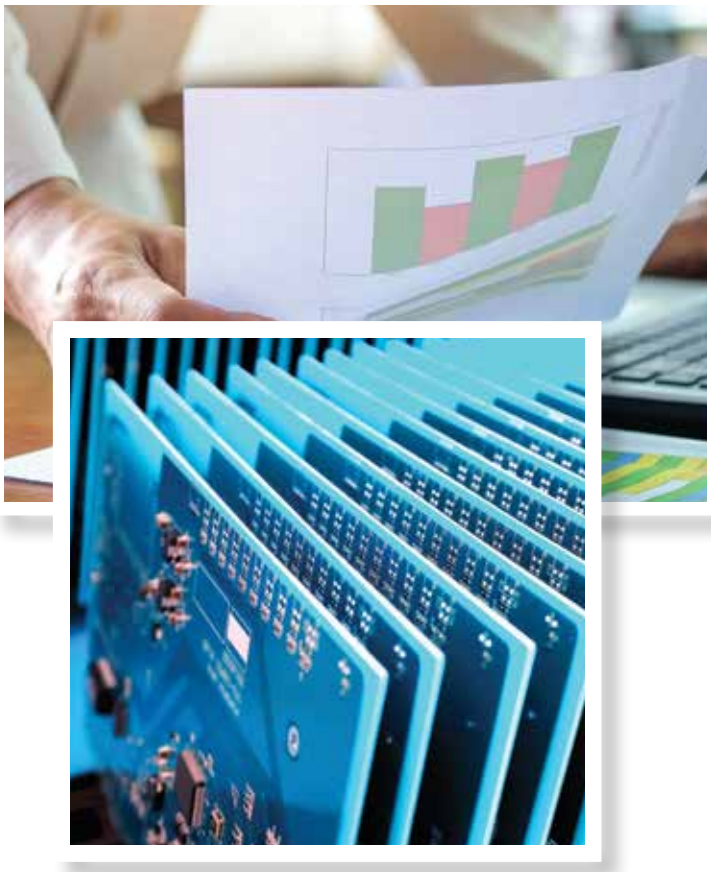
78 **TABLE 1.2** Total Number Of Children, Women, Persons with Disabilities and Students Obtaining ICT Literacy Training 2015 – 2017

99 **TABLE 3.1** Network Operators That Have Commercial Satellite

107 **Table 3.2** Area Division of PT. Pos Indonesia (Persero)

114 **Table 3.3** Test Result Report (LHU) from semester-1 2013 until semester-1 2017.

114 **Table 3.4** Test Result Report (LHU) from semester 2 2013 until 2017.



Daftar Grafik

16 **Graphic 1** Comparison of MCI expenditure realization between 2014 and 2017
16 **Graphic 2** Achievement of of non-tax state revenue (PNBP) target 2012-2017
20 **Graphic 1.1** Registered Prepaid Simcard in the Period of 31 October to 31 December
42 **Graphic 1.2** Internet Access Provision
43 **Graphic 1.3** SMEs Positioning in Indonesia 2020 Digital Economy Vision
59 **Graphic 1.4** Msmes Positioning On Indonesia Digital Economy Vision 2020
63 **Graphic 1.5** Contribution Of Food Crops And Horticultural Production 2015
64 **Graphic 1.6** Boat Population In Focus Areas
83 **Graphic 1.7** Total Of Press Case Complaints Submitted To The Press Council 2014 - 2017
84 **Graphic 1.8** Application and Dispute Settlement 2010-2016
84 **Graphic 1.9** Application for Dispute Settlement 2017
85 **Graphic 1.10** Dispute Settlement 2017
85 **Graphic 1.11** Category of Plaintiff
94 **Graphic 3.1** Distribution of Base Transceiver Station (BTS) 2G
95 **Graphic 3.2** Distribution of Base Transceiver Station (BTS) 3G SItes
96 **Graphic 3.3** Development of the number of 4G BTS between 2015 and 2016
101 **Graphic 3.4** Customer Of Public Switched Telephone Network (PSTN)
102 **Graphic 3.5** Development Of Outgoing And Incoming Traffic Of Cellular Mobile Network 2011 – 2016
Graphic 3.6 PTSN Operators - Operational Activities Report (LKO) Traffic 2016
103 **Graphic 3.7** International Direct Dialing (IDD) Operators - Operational Activities Report (LKO) Traffic 2016
103 **Graphic3.8** NUMBER OF LPS TELEVISION BROADCAST SERVICES PROVIDERS 2011-2017
110 **Graphic 3.9** Distribution of LPS Television By Island
111

RUDIANTARA

Mnister of Communications and Informatics

FARIDA DWI CAHYARINI

Secretary General

ROSARITA NIKEN WIDIASTUTI

Director General of Public Information and Communications

PROFILE

AHMAD M.RAMLI

Director General of Posts and Informatics Operations

ISMAIL

Director General of Resources Management and Equipment of Posts and Informatics

BASUKI YUSUF ISKANDAR

Head of the Agency for Human Resources Development and Research on Communications nad Informatics

SEMUEL ABRIJANI PANGERAPAN

Director General of Informatics Applications

IVAN SANTOSO

Acting Inspector General

1

2

3

4

5

6

7

8

9

10

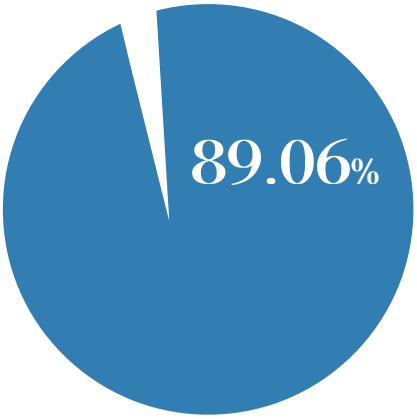
11

12

Awards received by Ministry of Communications and Informatics in 2017

NO	AWARD
1	Award given by the Ministry of Finance to the Ministry of Communications and Informatics for its success in formulating and presenting Financial Report 2016 with highest standard achievement
2	Award given by the Ministry of Finance to the Ministry of Communications and Informatics as Ministries/Institutions with the highest contribution to non-tax state revenue (PNBP) to National State Budget (APBN) 2016
3	Award given by the Ministry of Finance to the Ministry of Communications and Informatics for the second best Ministries/Institutions to manage PNBP within the Revenue Group of above 1 trillion rupiah
4	Award given by the Ministry of Finance to the Ministry of Communications and Informatics for the Best Category of Government Contracting Agency (PJPK) with Business Entities with thefastest transaction process.
5	Award from the Ministry of Home Affairs for the Ministry of Communications and Informatics for a national-scale policy with wide effect towards the increased quality of citizenship data and document for the category of "DUKCAPIL SELARAS"
6	Award from the Ministry of Transportation for the Ministry of Communications and Informatics for providing full and active support towards the provision of Lebaran transportation 2017
7	Award from the presidential working unit for the implementation of the state ideology of Pancasila (UKP-PIP) for the Ministry of Communications and Informatics for its positive performance in the security, control and smooth organization of the Lebaran agenda 2017, on Idul Fitri 1438H
8	Award from the National Law Development Agency for Ministry of Communications and Informatics' Head of the Bureau of Legal Affairs for the cooperation and active role in fostering and developing Legal Documentation and Information network (JDIH) in the Ministry of Communications and Informatics in accordance with 6 (six) aspects of JDIH in the framework of realizing a legal information integrated system.
9	Award from the Minister of Health for the Minister of Communications and Informatics for its participation and support in the development program in the field of health
10	Award from the State Administration Institute for the Minister of Communications and Informatics for its participation in the "Policy Analysis Utilization" survey
11	Award from ITECH to Ministry of Communications and Informatics' Directorate General of Resources Management and Equipment of Posts and Informatics as TOP IT implementation on Ministry 2017
12	Award from the Chief of The National Polices Criminal Investigation Department (Kabareskrim) for civil servant investigators (PPNS) for their active role

Highlight of Financial Report



MCI received the
Unqualified Opinion (WTP)
in 2017

Realization of Ministry of Communications and Informatics' expenditure in budget year 2017 was

Rp.4,409,473,919,346.-

from the the self-blocking Budget Implementation List (DIPA) ceiling of

Rp.4,951,278,581,000.-

In 2017, the Ministry of finance issued Presidential Instruction

Number 4 of 2017

on the Budget Efficiency Measures in Ministries/Institutions Expenditures on Goods in the Implementation of the 2017 State Budget.

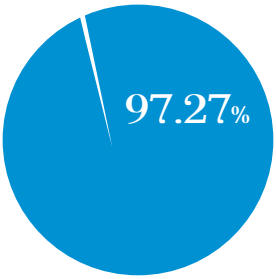
During which period the Ministry of Communications and Informatics received a cut of

Rp.100.000.000.000,-

and within the same period received additional budget for Goverment Public Relations program of

Rp.250.000.000.000,-

The detail realization of Expenditures for each program is laid out as follows:



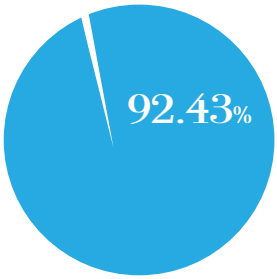
Management and implementation of MCI's other technical tasks Supporting program

Budget

269,027,744,000.00

Realization

287,938,009,469.00



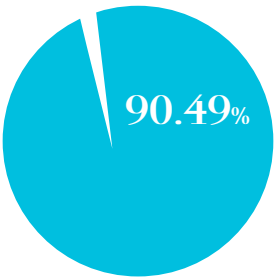
MCI Apparatus infrastructure and facilities development Program

Budget

500,000,000.00

Realization

462,154,100.00



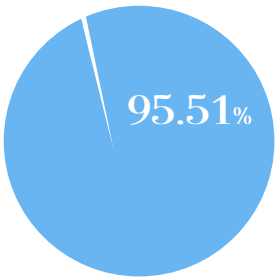
MCI Apparatus accountability development and monitoring program

Budget

24,409,497,000.00

Realization

22,087,030,023.00



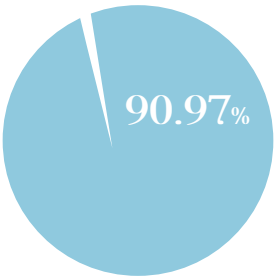
Communications and informatics research and development program

Budget

246,005,068,000.00

Realization

234,963,182,466.00



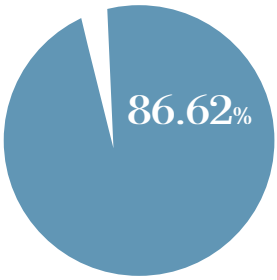
Posts and informatics resource and equipment management program

Budget

768,727,418,000.00

Realization

699,297,737,853.00



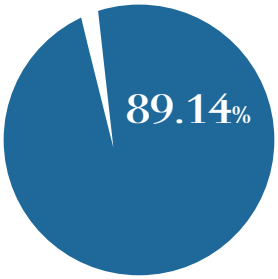
Posts and informatics operations program

Budget

2,846,293,020,000.00

Realization

2,465,335,948,413.00



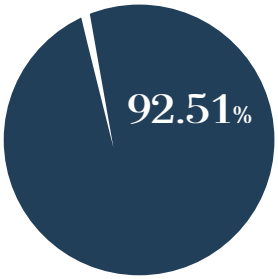
Informatics application development program

Budget

364,593,660,000.00

Realization

324,995,725,488.00



Public information and communications development program

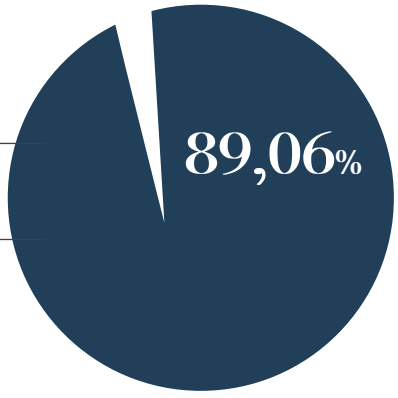
Budget

404,722,174,000.00

Realization

374,394,131,534.00

Total



Budget

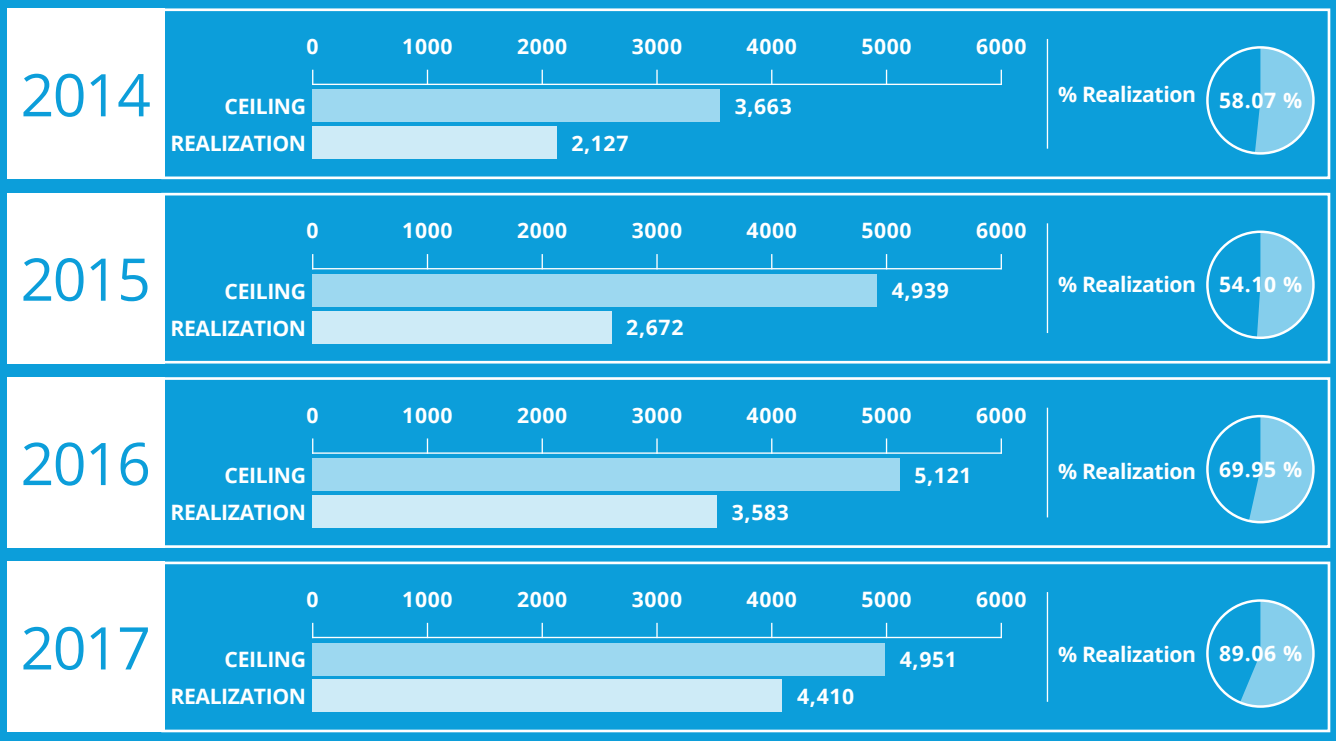
4,951,278,581,000.00

Realization

4,409,473,919,346.00

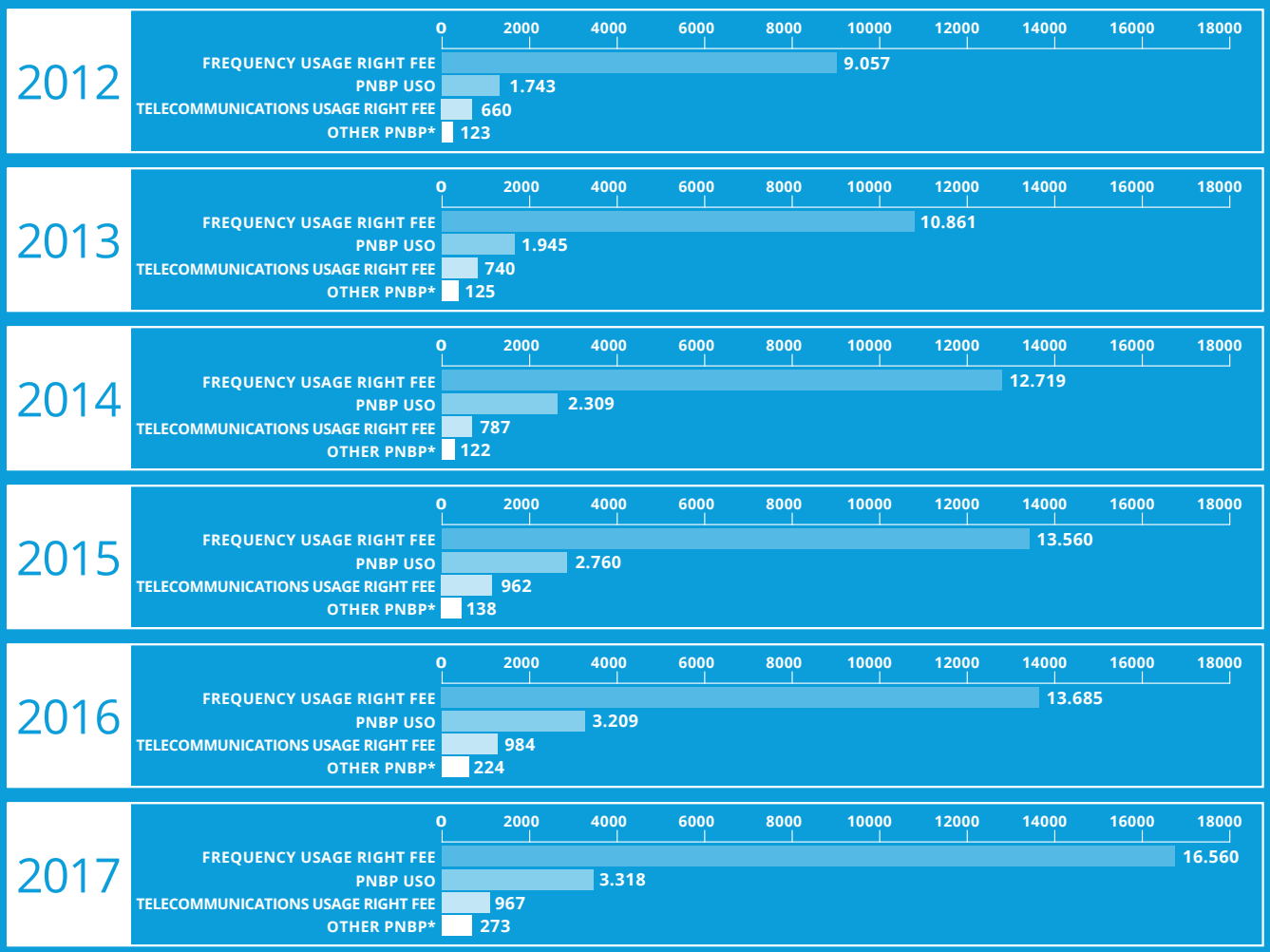
Source: Bureau of finance, MCI, 2017

Graphic 1 Comparison of MCI expenditure realization between 2014 and 2017
National State Budget and Realization (in billion rupiah)

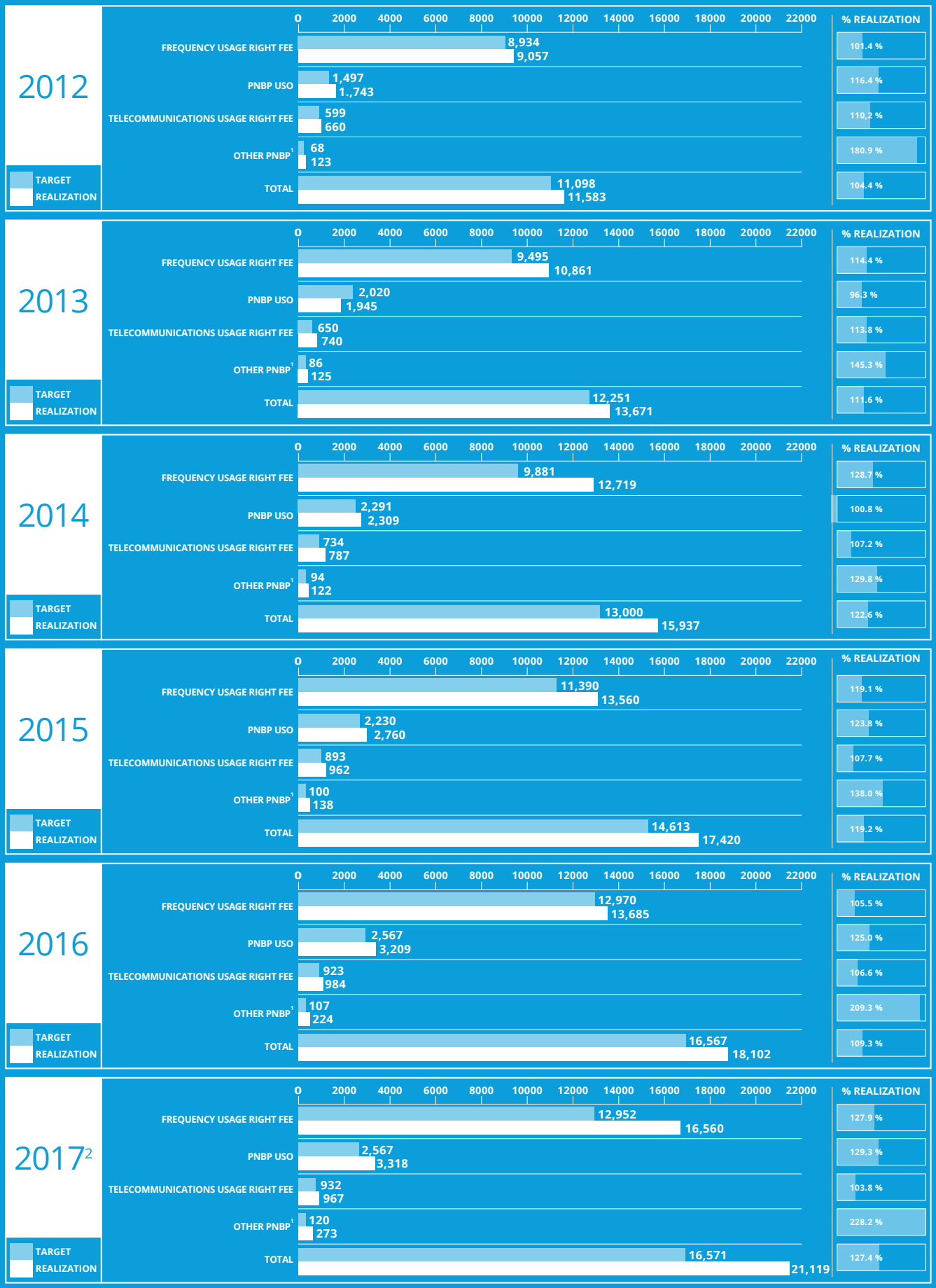


Source: Bureau of finance, MCI, 2017

Graphic 2 achievement of of non-tax state revenue (PNBP) target 2012-2017



Source: Bureau of finance, MCI, 2017



[1]Other PNBP includes among other: equipment certification fee, official housing rental, radio amateur license (IAR), citizen radio communication (KRAP), ElectronicaRadio and Radio Operator (REOR), Radio operator proficiency certification (SKOR), posts operations license, broadcasting operations license, Yogyakarta Institute of Multi-media (STMM), employee center for education and training, state asset usage, and other revenues.

[2]Realization of PNBP per December 2017

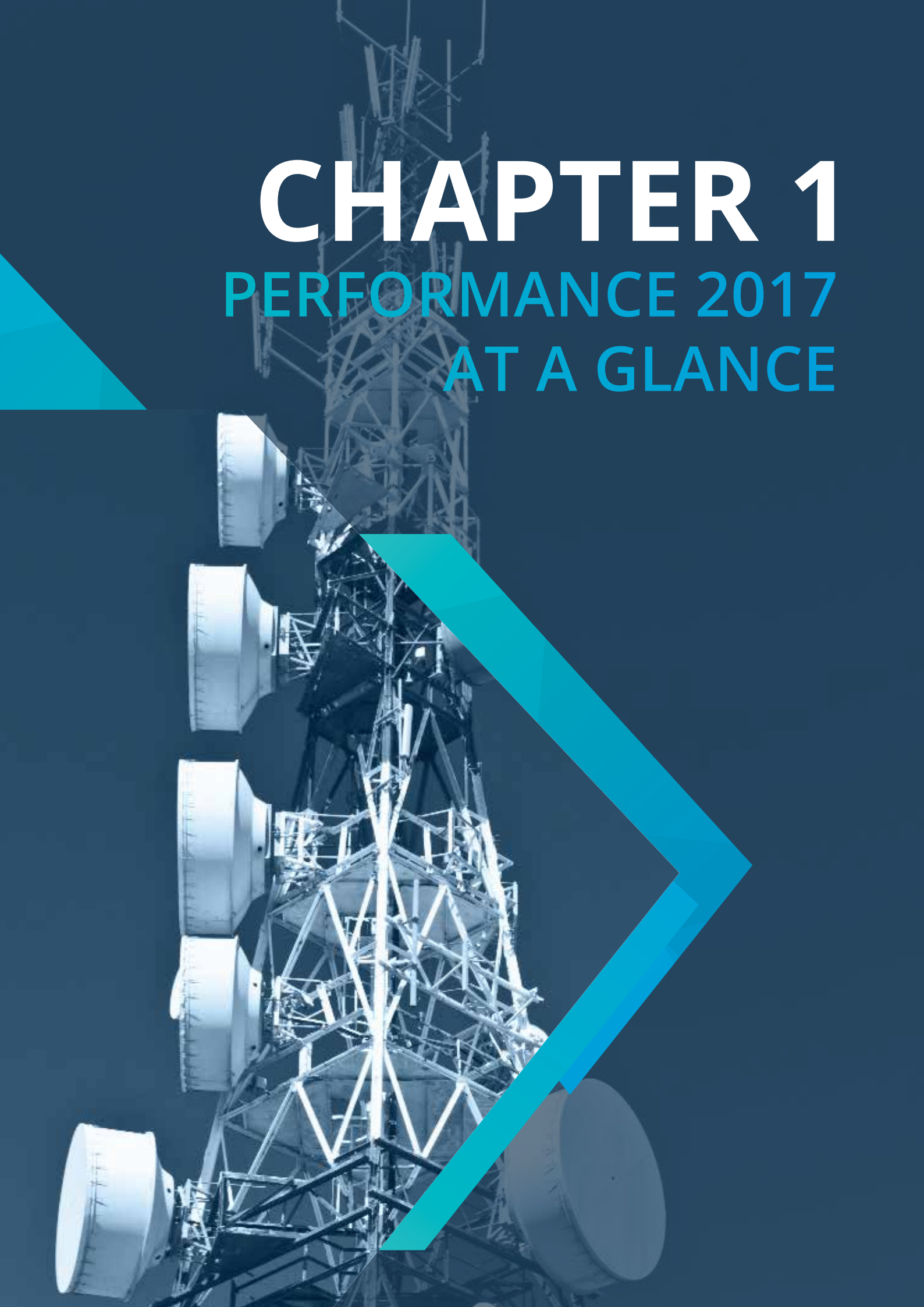
Source: Bureau of finance, MCI, 2017

"Palapa Ring Unites Indonesia"

is a government's effort in building the availability of fiber optic network services that connect all municipalities/cities in Indonesia.

CHAPTER 1

PERFORMANCE 2017 AT A GLANCE



A. Performance of Ministry of Telecommunication and Informatics (MCI)

1. Policies

a) Prepaid SIM Card Registration

The increased number of fraud cases through sms or phone has encouraged the Ministry of Communications and Informatics to improve the regulation on telecommunication subscriber registration and initiate the prepaid SIM Card Registration program utilizing population database of Resident Identity Card Number and Family Card Number (KK) for validation of prospective subscriber data.

Prepaid SIM card Registration program was carried out from

31 OCTOBER 2017
to
28 FEBRUARY 2018

Up to
DECEMBER 2017 MOUNTH
a total of users have successfully registered their prepaid SIM card

131,401,651

with details as follows:

Telkomsel : 63,762,706

Indosat : 36,958,186

XL : 20,208,183

H3I : 8,031,165

Smartfren : 2,020,365

STI : 7,691

Graphic 1.1 Registered Prepaid Simcard in the Period of 31 October to 31 December

Source: Material from the House of Representative's meeting dated 22 January 2018

WHY PREPAID SIM CARD REGISTRATION

Customer convenience

Product upgrades and mobile operator services

HOW DO I REGISTER

EASY
(SMS, Resident Identity Card Number (NIK) and Family Card (KK) Number

FREE
(tarrif for SMS to 4444 is Rp0)

COMFORTABLE
(It only takes 1 minute)

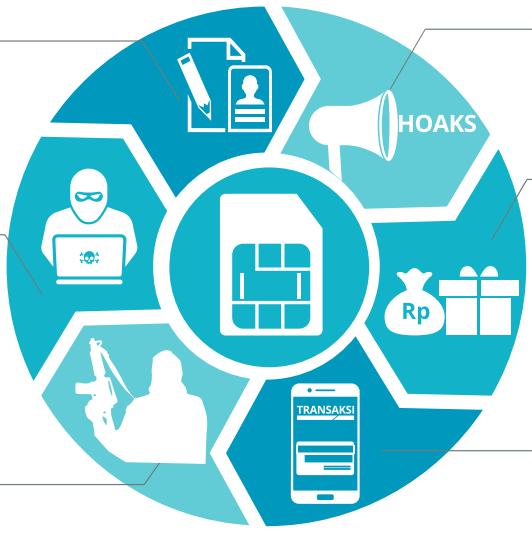
NIK-Checking Feature
(Provided by respective operators)

PROGRESS

As of **31 December 2017**, a total of **131,401,651** Prepaid SIM Cards have successfully been registered

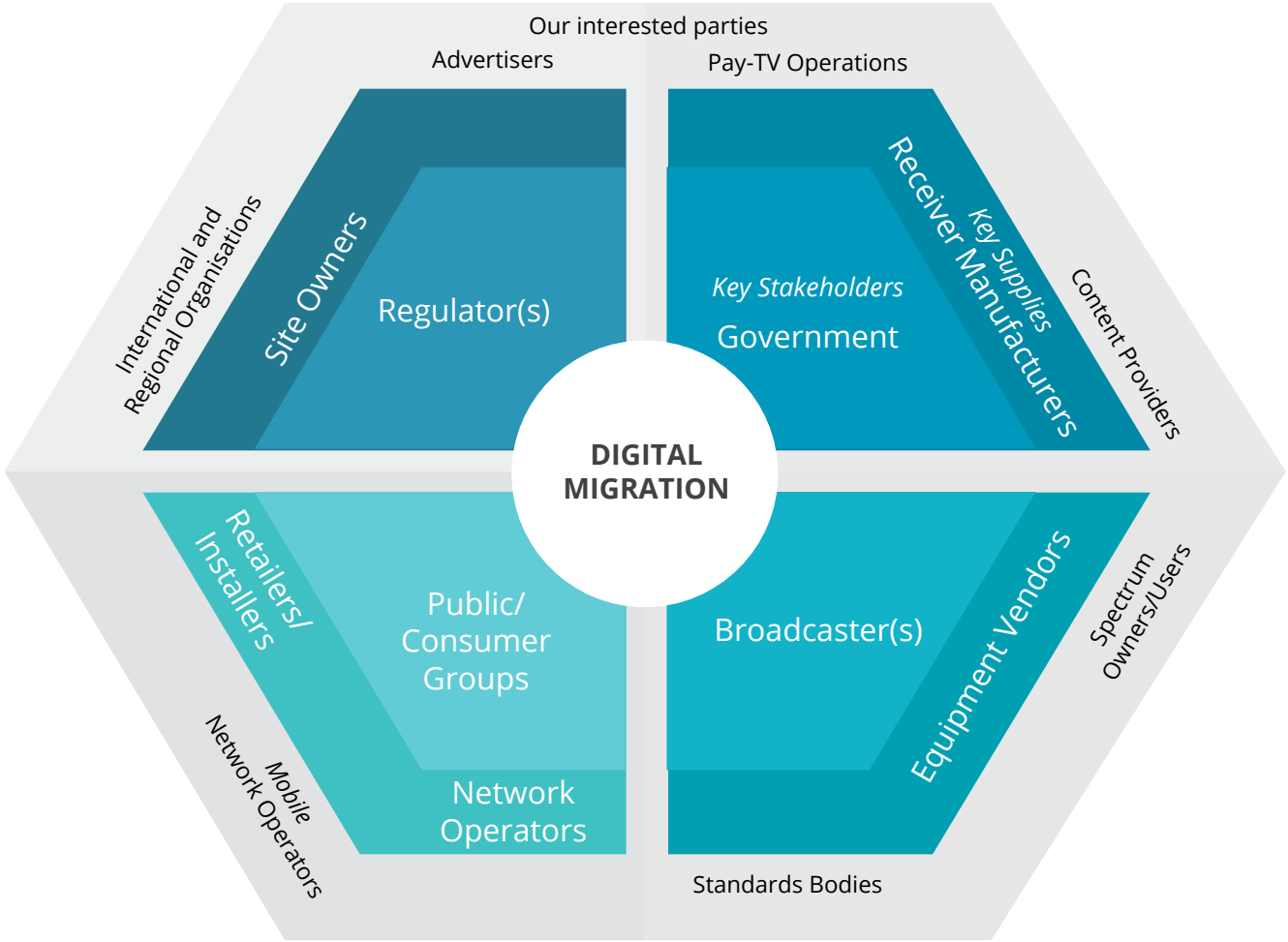
The benefits of prepaid SIM card registration include:

1. Regulating cellular subscriber data in accordance with the citizenship database
2. Preventing crimes such as fraud and spam
3. Preventing terrorism
4. Tackling fake news
5. Facilitating transactions process in the economic sector including providing ease of aid distribution for the less fortunate
6. Encouraging non-cash transactions through banks in order to be more secure and inclusive



b) Digitalization of Television Broadcasting (Analog Switch-Off)

One of the measures that has to be taken is to improve the quality of internet and mobile broadband. Considering the frequencies availability in Indonesia, the implementation of mobile broadband enhancements requires special initiatives such as digital terrestrial TV and Analogue Switch Off ("ASO") that serve to provide space frequency through frequency spectrum release as a result of terrestrial TV digitalization process (Digital Dividend). With the Digitalization of Television Broadcasting program, it is expected that there will be more efficient allocation of frequency, so that there is sufficient space to develop technology for mobile broadband and to reach the foremost, outermost, and lagging regions ("3T"). Thus, Indonesia can enjoy substantial economic benefits.



There are 5 (five) main components of the implementation of broadcasting digitalization/ Analog Switch Off (ASO), namely: (1) Legal Basis, (2) Infrastructure and Frequency Management, (3) Broadcasting Industry Operation, (4) Dissemination, and (5) Digital Dividend Realization, as illustrated in Figure 1.1 below. The implementation of the five main components is done in parallel.

Figure 1.1 Main Supporting Aspects of Television Broadcasting Digitalization

Source: the Term of Reference (TOR) for TV Broadcasting Digitalization Program byDirectorate of Broadcasting, Directorate General of Posts and Informatics, MCI, 2017

Law Number 32 of 2002 on Broadcasting

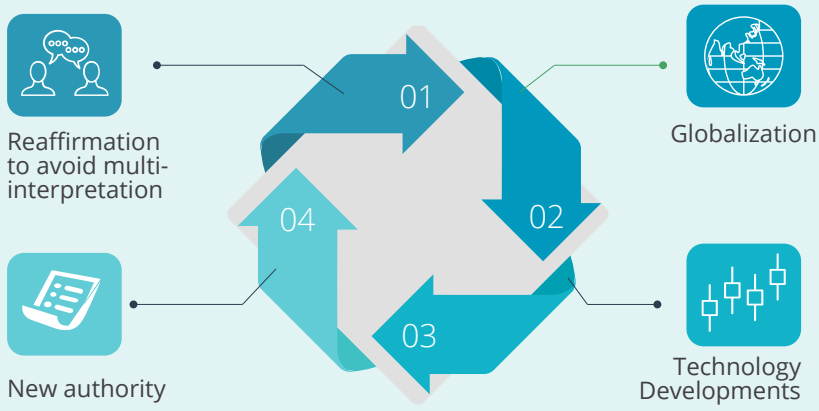
Guidelines for Broadcasting Industry

Legal Basis

To realize Analog Switch Off (ASO) in Broadcasting field, the Government stipulated Broadcasting Law Number 32 of 2002 as its legal basis. This law was to replace Law Number 24 of 1997 as a consequence of the emergence of local televisions and community radios in Indonesia. Law Number 32 of 2002 has a mission to reform broadcasting industry operation from centralization to decentralization. Centralization violates the principle of broadcasting democratization which is attempted to be introduced by the Broadcasting Law.

Bill of amendment to Law number 32 of 2002 on Broadcasting is a national legalization program initiated by the Indonesian House of Representatives.

There are 4 (four) main points behind the revision of the Broadcasting Law, namely:



Infrastructure and Frequency Management

To support the expansion of digital TV broadcast coverage and to support LPP TVRI in its effort to strenghten broadcast quality as well as screen display through digital broadcasting

MCI ASSISTED LPP TVRI TO PROVIDE

42

TRANSMITTERS

EXPECTATION FOR 2019:

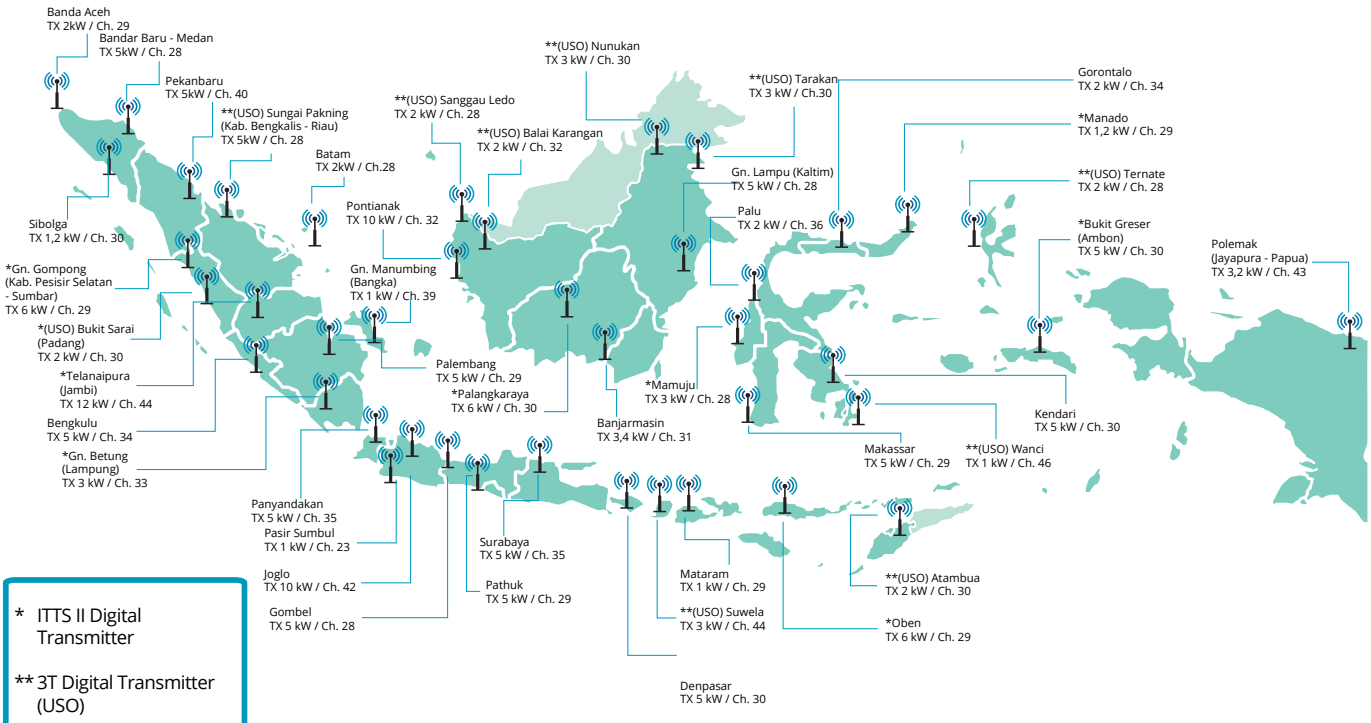
78%

DIGITAL BROADCAST COVERAGE

88%

POPULATION COVERAGE

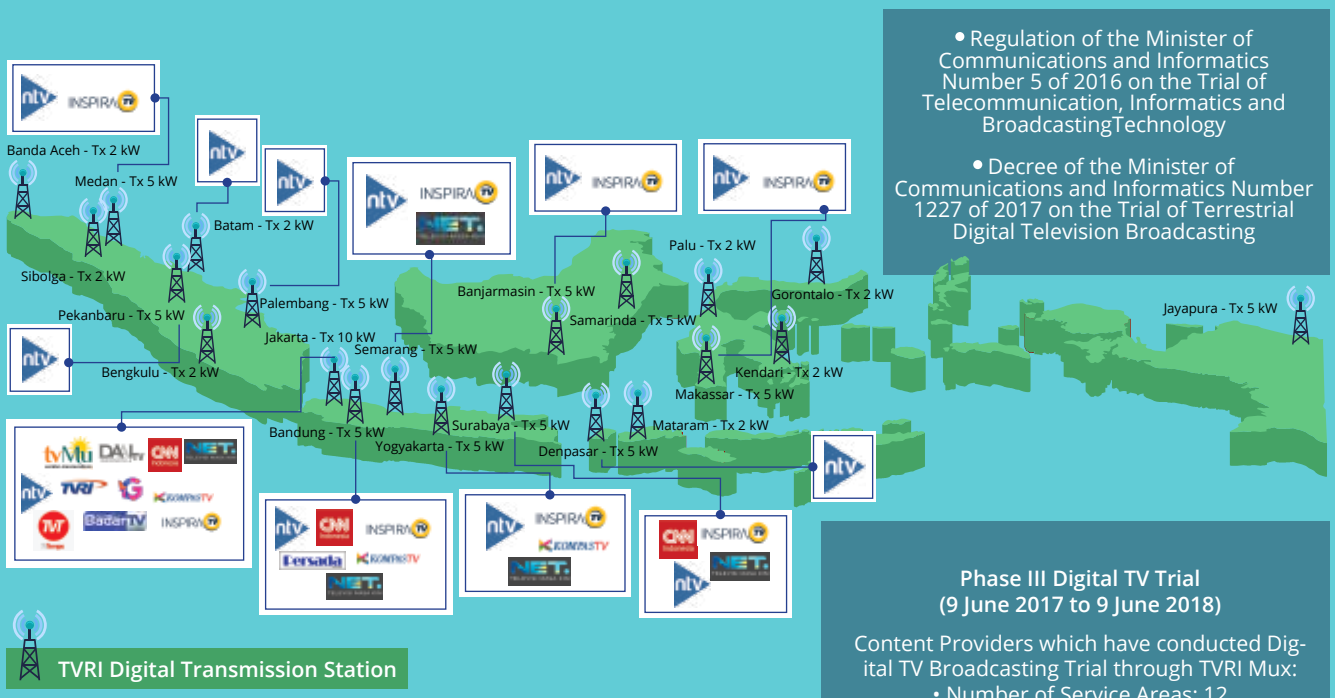
Figure 1.2 Map of Lpp TVRI's 42 Digital Transmitter Sites



Source: Directorate of Broadband, Directorate General of Post and Informatics, MCI, 2017

Digital TV broadcasting trial gets underway and is participated in by Private Broadcasting Institution (LPS) Content Providers in 12 cities (service areas), namely Jakarta, Bogor, Depok, Tangerang, Bekasi, Bandung, Yogyakarta, Medan, Batam, Surabaya, Semarang, Denpasar, Palembang and Makassar. LPP TVRI is also ready to conduct Digital TV broadcasting trial in 42 service areas (table of service area attached). Broadcast coverage map and trial location of Digital TV Broadcasting can be seen in Figure 1.3 below.

Figure 1.3 Map of Broadcast Coverage and Digital TV Broadcasting Trial



Source: Directorate of Broadcasting, Directorate General of Posts and Informatics, MCI, 2017

Trial Participants

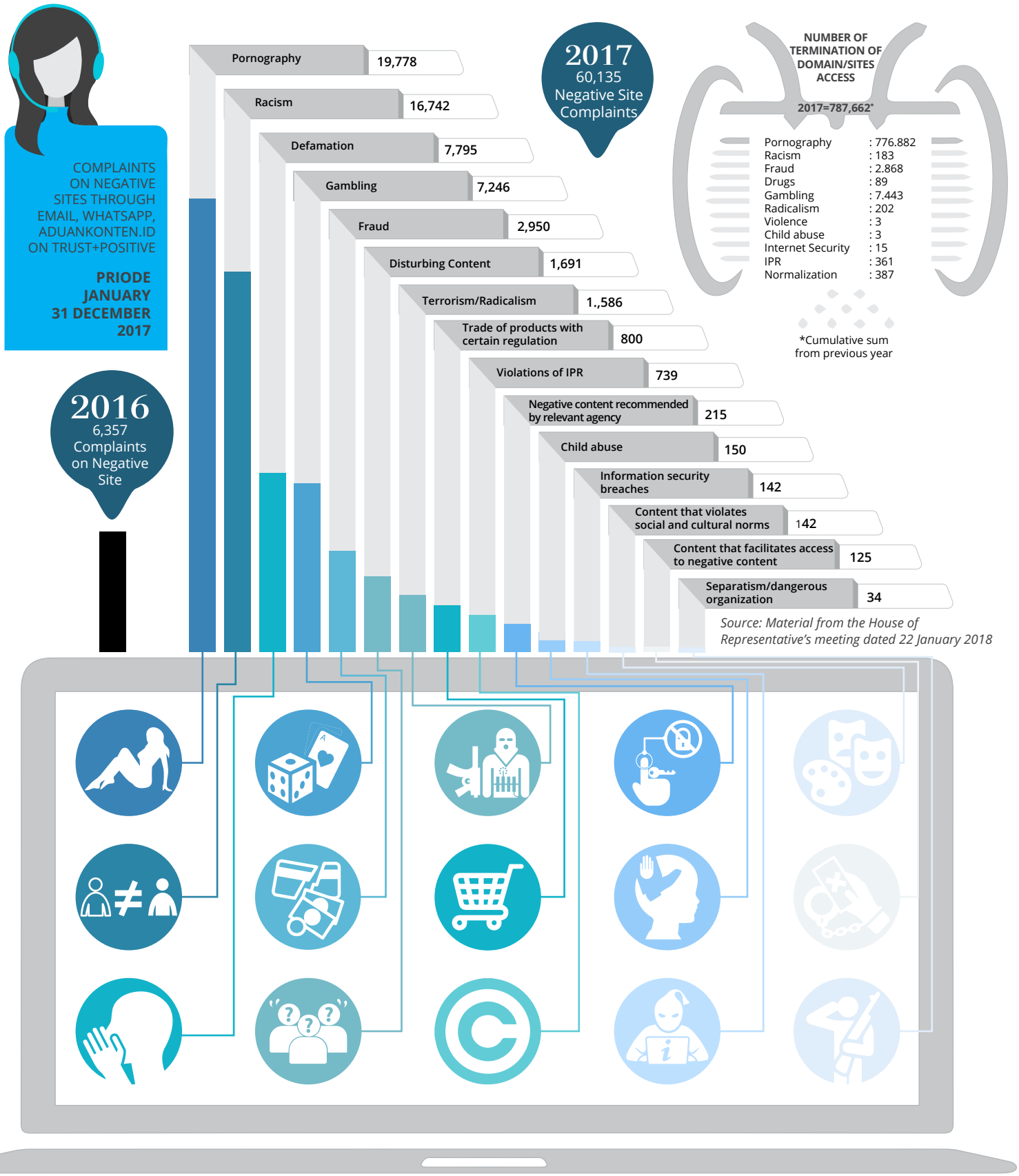
The trial agreement between LPP TVRI and Private Broadcasting Institution (LPS) Content Provider is set forth in a Memorandum of Understanding (MoU) and Cooperation Agreements.

A total of 39 Private Broadcasting Institution (LPS) Content Providershave participated in the Phase III Digital TV Broadcasting trial and have gone on air in their respective service area. The trial was conducted with LPP TVRI as multiplexer provider.

c) Negative Content Mitigation Negatif

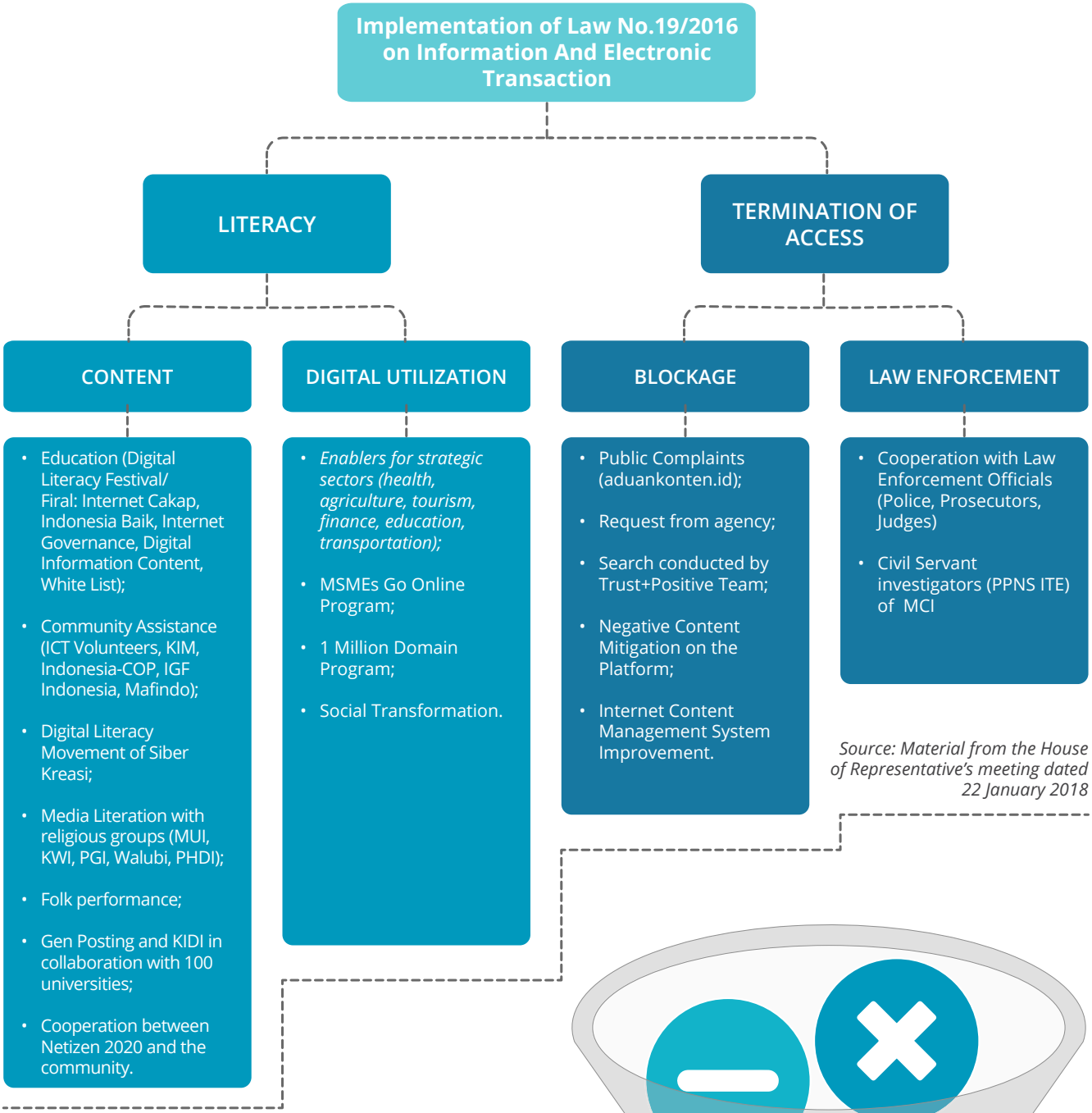
Ministry of Communications and Informatics is the main axis in filtering various information, particularly negative content and fake news, spreading in cyberspace. The rapid spread of information is inseparable from its negative impacts. The following is a list of blocked negative sites and negative content as complained by the public

Figure 1.4 Complaints on Negative Sites and Termination of Domain/Sites

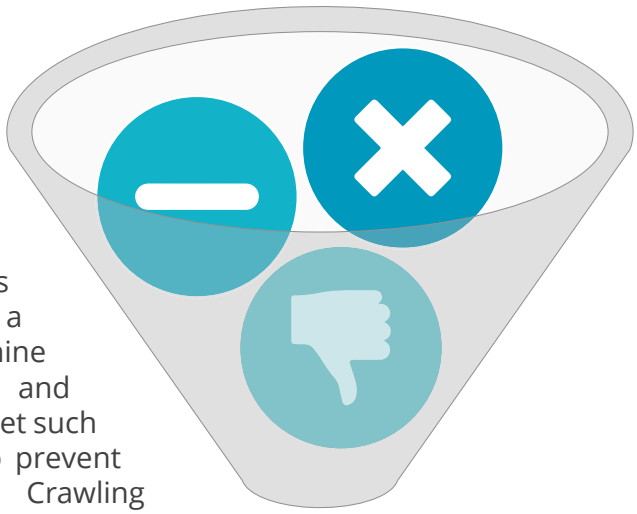


A rise in total public complaints about negative content has encouraged MCI to make a breakthrough in 2017. MCI has conducted preventive and repressive measures as an implementation of Law Number 19 of 2016 on Information and Electronic Transaction, as illustrated in the following programs:

Figure 1.5 Implementation of Law Number 19 of 2016 on Information and Electronic Transaction



Source: Material from the House of Representative's meeting dated 22 January 2018



CYBER DRONE 9

The Ministry of Communications and Informatics has operated a negative content crawling machine as a way to detect negative and inappropriate content on the internet such as pornography and block them to prevent form spreading. Negative Content Crawling Machines is operating in Cyber Drone 9 room.

Negative Content Crawling Machine (AIS)

The provision of this machine aims to provide convenience to the public when accessing internet content in Indonesia (safe, reliable, and trustworthy). Government's effort in mitigating negative content on the Internet is expected to help create a situation that is condusive which in turn will ensure public order. The said negative content refers to Law Number 19 of 2016 amendment to Law Number 11 of 2008 on Information and Electronic Transactions (ITE) Article 2 and Article 40 paragraph (2). Internet users throughout Indonesia as well as agencies/institutions that need assistance in mitigating negative content according to their authority can be benefited from the provision of this machine.

2. Infrastructure Development in MCI field

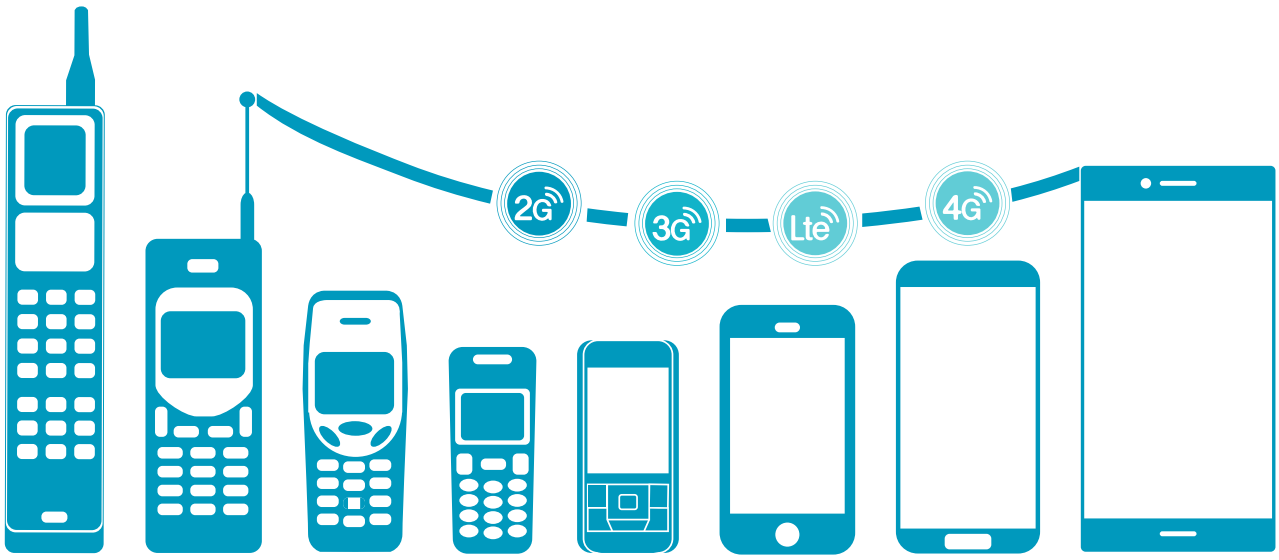
a) Refarming for 4G Broadband Service

In line with the rapid advancement of the modern era, more people around the world are in need of cellular communications technology, more than ever before. This is also evident in telecommunications technology and mobile communication services development. The development of telecommunication technology, especially in the field of cellular takes place very rapidly due to the need for communication and exchanging data in an immediate, convenient, and portable way.

4G Speed 100Mb/sec and 1Gb/sec

4G is the fourth generation of broadband cellular network technology.

4G is the acronym for the fourth generation of broadband cellular network Technology, replacing 3G technologies. The official name of 4G technology according to the IEEE (Institute of Electrical and Electronics Engineers) is "3G and beyond. The term 4G is generally used to describe the development of mobile phone technology.

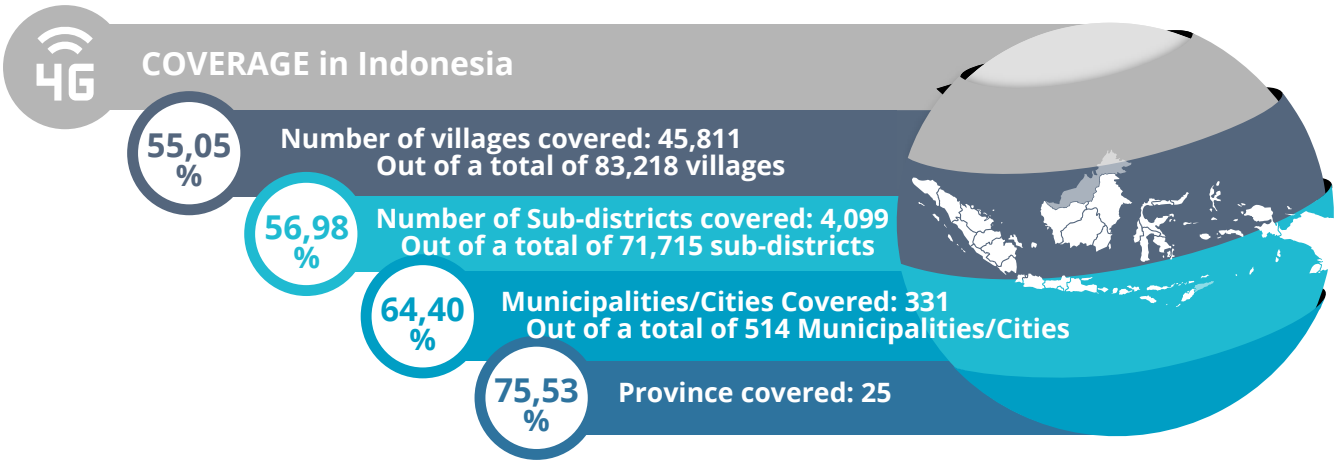


The 4G system provides a comprehensive IP solution whereby voice, data, and multimedia streams can reach users anytime and anywhere, and offers faster data transfer speeds than previous generations. Indonesian people have enjoyed the 4G fast internet service. As of the second quarter of 2017, the construction of 4G BTS in Indonesia has reached 55,701 eNodeB. The number of Indonesian villages covered by 4G sites has reached 12,002 villages out of a total of 83,218 villages throughout the country. The number of Indonesian sub-districts covered by 4G sites has reached 3,394 sub-districts out of a total of 7,175 sub-districts. The number of municipalities/ cities in Indonesia covered by 4G sites has reached 481 municipalities/cities out of a total of 514 municipalities/cities. All provinces in Indonesia have been covered by 4G sites.

Figure 1.6 Map of distribution of 4G in Indonesia Year 2017

4G services provided by telecommunication operator as of the third quarter of 2017 (Q3 2017) have reached 331 municipalities/cities out of a total of 514 municipality/cities as shown in in Figure 1.7 below.

Figure 1.7 Presence of 4G Services By the Number of Covered Administrative Regions



Source: Cellular Industry Profile 2017, Directorate Of Posts And Informatics Control Of Directorate General of Posts And Informatics Operations, Mci, Third Quarter Of 2017

b) Palapa Ring

The government is well aware that telecommunication operators rarely target remote and border areas for its fast internet services. Therefore the government initiated the Palapa Ring project which later can be utilized by operators to provide fast internet service. Palapa Ring, a national project of fiber optic telecommunication infrastructure development, is aimed at reaching rural areas or villages that have not been covered by fast internet service. In 2018, one of the project packages will be able to operate. With the target to be completed in 2019, it is hoped that there will be no digital divide between one region and another.

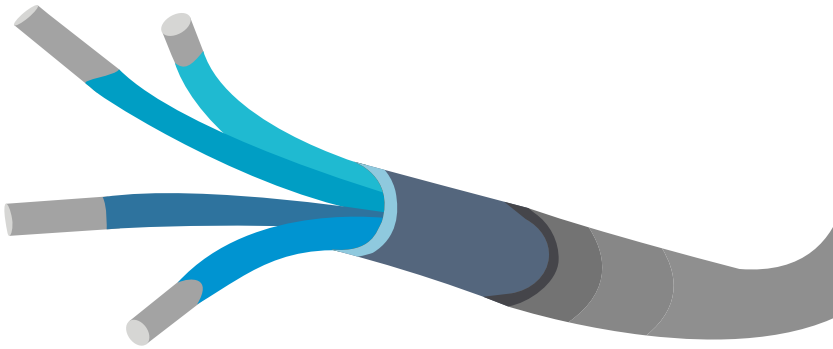
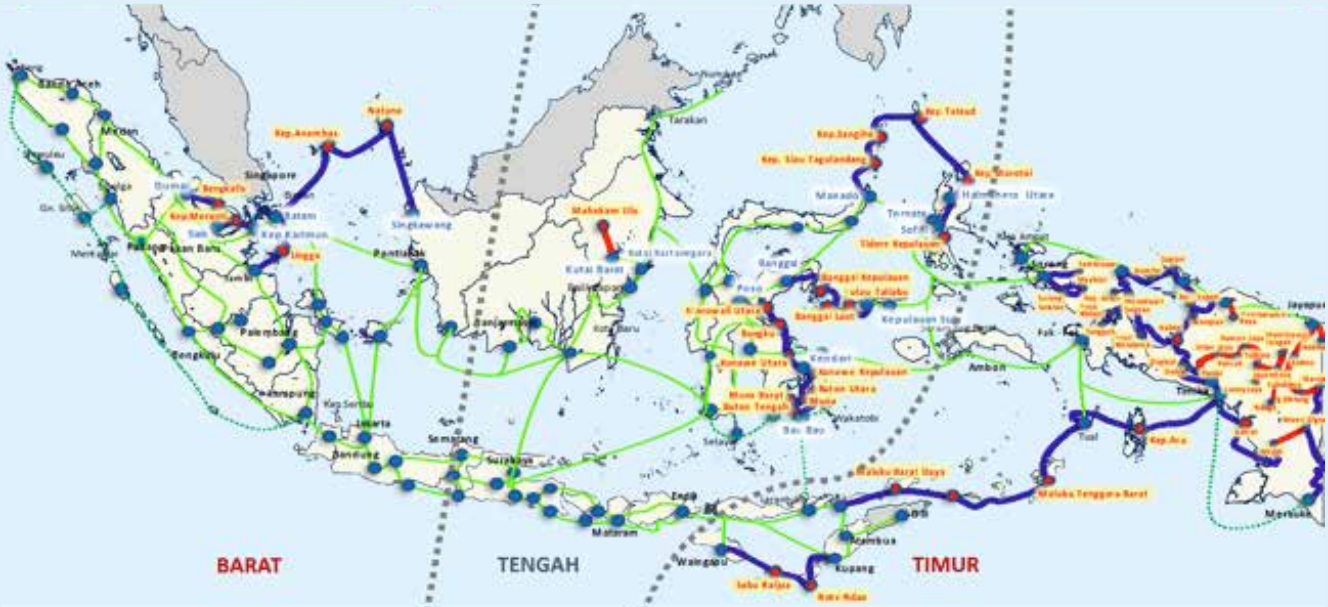


Figure 1.8 Map of the Development of National Fiber-Optic Network "Palapa Ring"



WEST

Network Length :
2,275 Km

Contractor :
PT. Palapa Ring Barat

Contract Date :
29 February 2016

Financial Closing :
11 August 2016

Completion of Construction Work :
11 February 2018

Number of Municipalities/ Cities :
5 Municipalities/Cities

Number of Municipalities/ Cities Interconnection :
7 Municipalities/Cities

CENTRAL

Network Length :
2,995 Km

Contractor :
PT. LEN Telekomunikasi Indonesia

Contract Date :
4 March 2016

Financial Closing :
29 September 2016

Completion of Construction Work :
29 March 2018

Number of Municipalities/ Cities :
17 Municipalities/Cities

Number of Municipalities/ Cities Interconnection :
10 Municipalities/Cities

EAST

Network Length :
6,878 Km

Contractor :
Palapa Timur Telematika

Contract Date :
29 September 2016

Financial Closing :
29 March 2017

Completion of Construction Work :
29 September 2018

Number of Municipalities/ Cities :
35 Municipalities/Cities

Number of Municipalities/ Cities Interconnection :
16 Municipalities/Cities

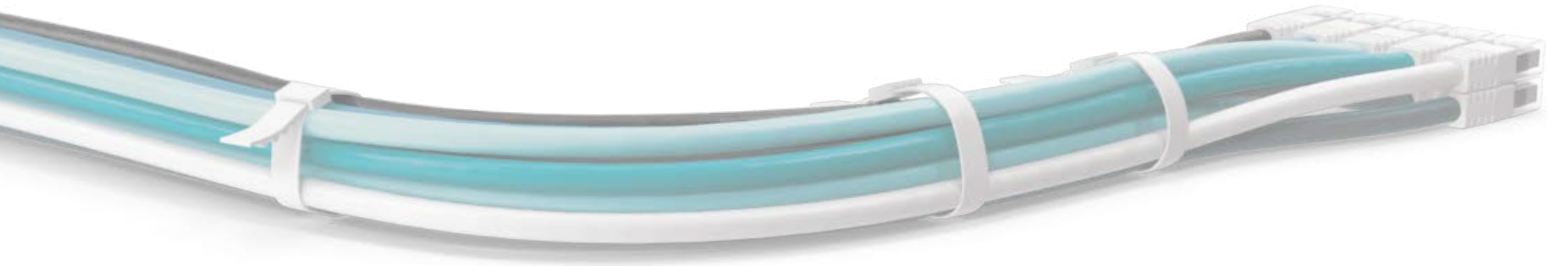
Source: the Telecommunications and Informatics Funding Provision Management Agency (BP3TI), MCI, 2017

The Palapa Ring project is the first government-to-business (public private partnership/PPP) cooperation scheme within Indonesia's telecommunication sector. The project is divided into 3 (three) packages: West, Central and East, where the government plays a role in providing guarantees to serve nonfinancially feasible regions. It is expected that by 2019, broadband Networks will cover all municipality/cities in Indonesia.

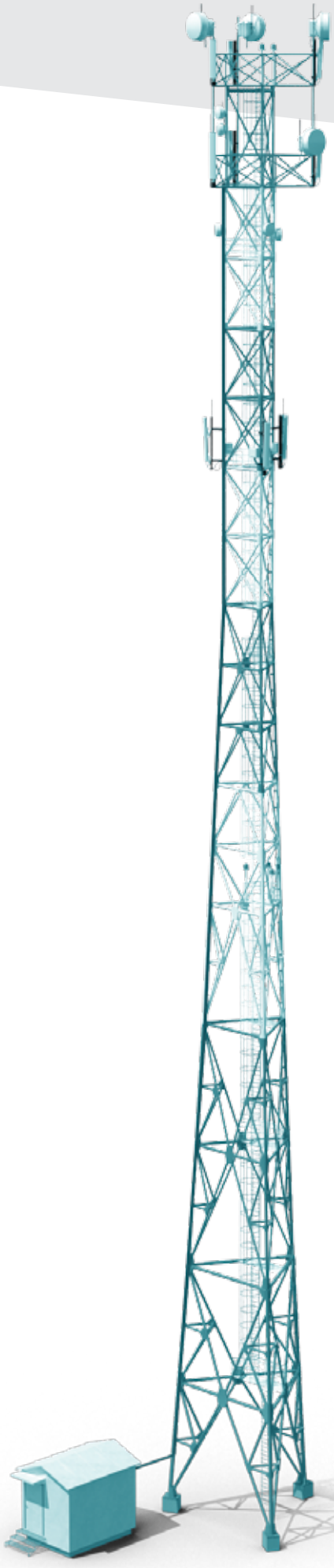
By 2017, the construction of Palapa Ring has reached 89.47% for the West Package, 70.82% for the Central package, and 31.19% for the East package. Below are the progress of Palapa Ring construction in 2017:

Table 1.1 Completion Progress of the Construction of Palapa Ring As of December 2017

Description	West Package of Palapa ring	Central Package of Palapa ring	East Package of Palapa ring
Network Length	2,275 Km	2,995 Km	6,878 Km
Contractor	PT. Palapa Ring Barat	PT. LEN Telekomunikasi Indonesia	PT. Palapa Timur Telematika
Contract Date	29 February 2016	4 March 2016	29 September 2016
Financial Closing	11 August 2016	29 September 2017	29 March 2017
Completion of Construction Work	11 February 2018	29 March 2018	29 September 2018
Number of Municipalities/ Cities	5 Municipalities/Cities	17 Municipalities/Cities	35 Municipalities/Cities
Number of Interconnected Municipalities/Cities	7 Municipalities/Cities	10 Municipalities/Cities	16 Municipalities/Cities
Overall Progress	89,47%	70,82%	31,19%



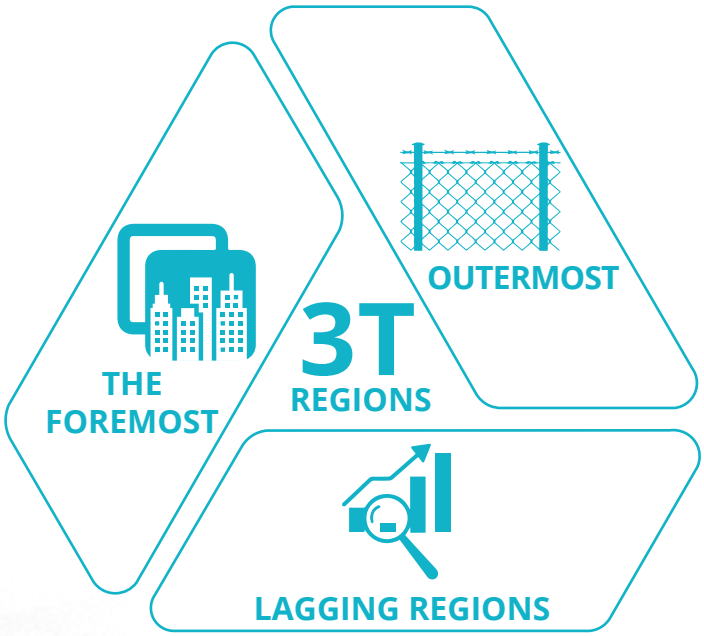
Photos of the Palapa Ring



c) Construction of Base Transceiver Station (BTS)

Provision of Base Transceiver Station (BTS) in the 3T Region (the Foremost, Outermost, and Lagging Regions) as well as Border Areas is one of programs within the Universal Service Obligation (USO) implemented by the Ministry of Communications and Informatics through the Telecommunications and Informatics Funding Provision Management Agency(BP3TI). This program is one of MCI/BP3TI's strategies in narrowing telecommunication gap by providing basic cellular telephony services in areas where mobile signal has yet available. This program is part of the Ministry of Communications and Informatics Strategic Plan Year 2015-2019. In 2017, the provision of BTS has given access for 393 vilages were to telecommunication.

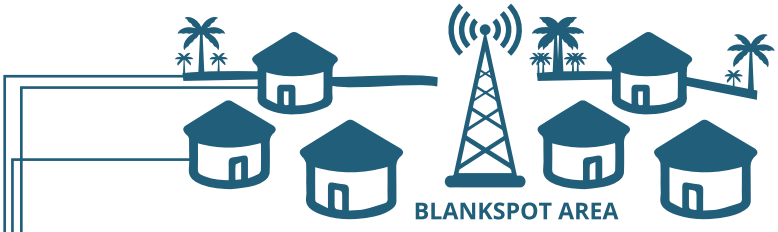
The objective of Base Transceiver Station (BTS) provision in 3T and Border Areas is to fulfill the State's obligation to the public in meeting the public's need for telecommunication and informatics access, as well as strengthening national unity and resilience. This program falls in line with "Nawacita" nine development agenda declared by the President of the Republic of Indonesia point 3, namely to build Indonesia from its periphery and strengthen the rural areas within the framework of a unitary state of Indonesia.



BTS
KPU

Based on Operations Performance Report and confirmation with mobile cellular telecommunication operators in October 2017, out of 83,218 villages, 22,521 villages are located in 3T region and 60,697 villages are located in non 3T region. Of the 22,521 villages located in the 3T regions, 7,314 still have no telecommunication access; 518 villages with signal strength <50%, and the remaining 6,796 villages receive no signal at all. Of the 60,697 non-3T villages, 1,261 villages still have no telecommunication access[1].

[1]*Source: Directorate of Posts and Informatics Control of Directorate General of Post and Informatics Operations, 2017*

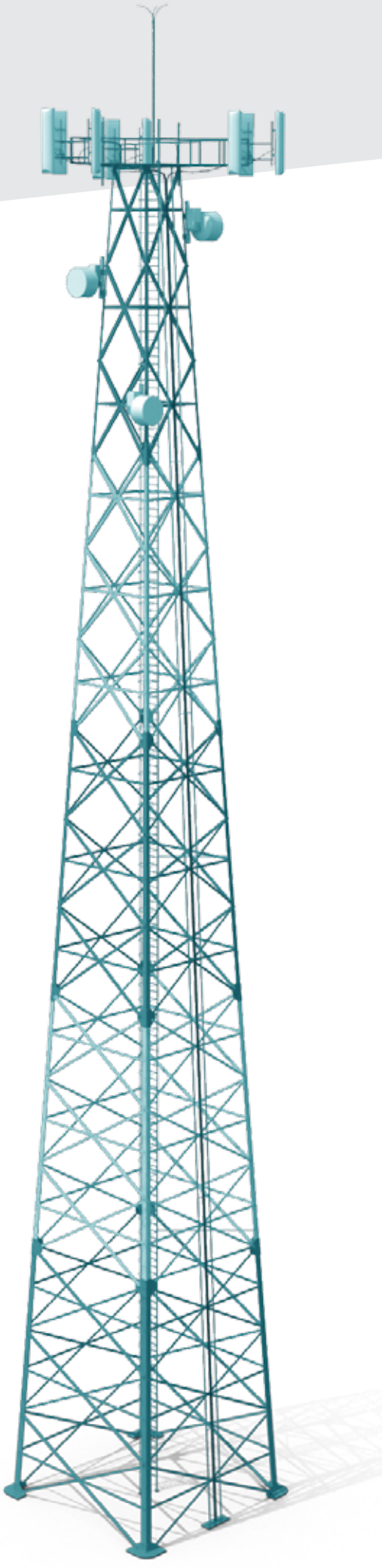


Determination of locations targeted for BTS construction is referring to the locations set forth in the following regulations:

a. Presidential Regulation Number 131 of 2015 on the Determination of Disadvantaged Regions Year 2015-2019;

b. Regulation of the Head of National Border Management Authority (BNPP) Number 1 of 2015 on the Master Plan of State Border Management Year (2015-2019); and

c. Presidential Decree Number 6 of 2017 on the Determination of the Outermost Small Islands.



Based on Presidential Regulation Number 131 of 2015 on Determination of Disadvantaged Regions 2015-2019, the total villages in the lagging/3T and border areas/prioritized locations are 19,386, where 5,520 of which are categorized as lagging/3T and border areas/prioritized location without signal. For this reason, those 5,520 villages are set to be the priority target of MCI in terms of BTS construction.

Border areas have strategic values for a country in supporting the development. It is also a main manifestation of its territorial sovereignty. Therefore, the Government through MCI is present to overcome the digital divide by expanding the infrastructure of BTS construction, especially in areas categorized as border area based on Regulation of Head of National Border Management Authority (BNPP) Number 1 Year 2015 on the Master Plan of State Border Management Year 2015-2019 which have determined 187 sub-districts as an object of Indonesia's border region management. The provision of telecommunication access services through the provision of BTS has reached 8.02% (15 Subdistricts out of a total of 187 sub-districts in border priority location).

Communicty Health Center (Puskesmas)

Schools

Training Centers Kerja

Tourist attractions

Productive Centers

The provision of internet access aims to provide an evenly distributed information network especially in the public services location.

d) Broadband Internet Access

The provision of broadband internet access aims to expand broadband internet accessibility, improve people's adaptive capabilities to Information and Communication Technology (ICT), reduce digital divide, and increase empowerment of community e-literacy. The targets of the provision of broadband internet access are, among others, the public, communities, central government and local governments at both provincial and regent/ municipal levels, and particularly those living in priority areas of the outermost, foremost, and lagging regions, as well as nonfinancially feasible areas.

The provision of internet access is aimed at providing an evenly distributed information network especially in the prioritized public services location such as community health centers (Puskesmas), Schools, Training Centers, Tourist attractions, Productive Centers in underdeveloped villages/3T and border regions. The provision of Internet access in the framework of an even distribution of information is made by the Directorate General of Posts and Informatics Operations through BP3TI by considering the proposals from the Ministries/ Institutions. The flow of the proposal of internet access provision are as follow:

a. Proposal from Ministries/Institutions and Local Governments

b. Carrying out site readiness assessment

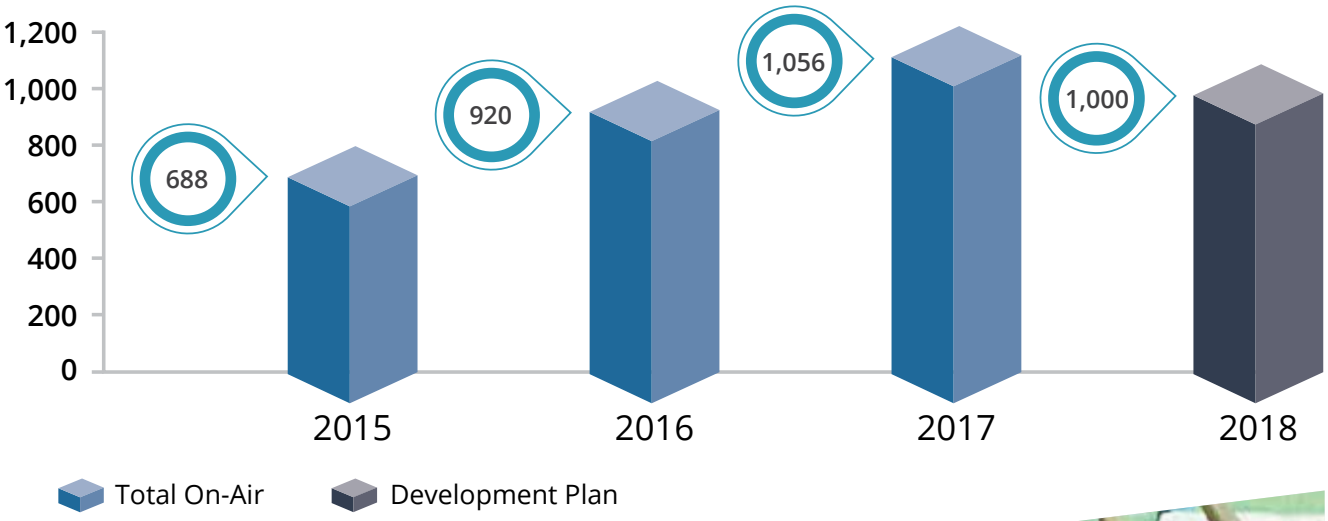
c. Collecting data on location of internet access provision from other Ministries/Agencies and Local Governments

d. Verifying internet access proposal

e. Purchasing the internet access service

Graphic 1.2 Internet Access Provision

Internet Access	At Schools, Community Health Centers, Vocational Training Centers, Public Spaces, Bus Stations, Cross-Border Post (PLBN)



Source: Directorate General of Posts and Informatics Operations

3. Internet Governance

a) Implementation on e-Commerce Road Map E-Commerce

The definition of e-commerce is a process of buying and selling goods electronically by consumers and company to company through computerized business transactions (source: Laudon & Laudon, 1989). According to AT Kearney, the global e-commerce transaction value in 2015 has reached USD 1 trillion with growth rate of 18%(source: idEA). In 2014, the transaction retail value in ASEAN countries was less than 1%, while in US, China, Europe and Singapore, the e-commerce retail value has reached 5%-8%.

According to data from the Central Bureau of Statistics (BPS), the total population of Indonesia has reached 255 million in 2015 and the number will grow to 268 million in 2020 (Source: EIU). The large number of population, growingnumber of internet penetration and increasing per capita national income from 41.92 million rupiahs in 2014 to 47.96 million rupiahs in 2016 will continue to be the driving force of the national e-commerce market.

Graphic 1.3 SMEs Positioning in Indonesia 2020 Digital Economy Vision

Information

POSITIONING UMKM IN INDONESIA 2020 DIGITAL ECONOMY VISION

Benefit of digital technologies for Indonesi SME
1. Up to 80% higher growth in revenue
2. One and half times more likely to Increase employment
3. 17 times more likely to be innovative
4. SMEs with higher digital engagement are more competitive internationally

Source: Stancambe Research & Planning, Delatte Acces Economics, 2015.

Mc Kinsey Global Institute Report: SMEs heavily using web technologies grow 2x as much as others

Source: McKinsey Research

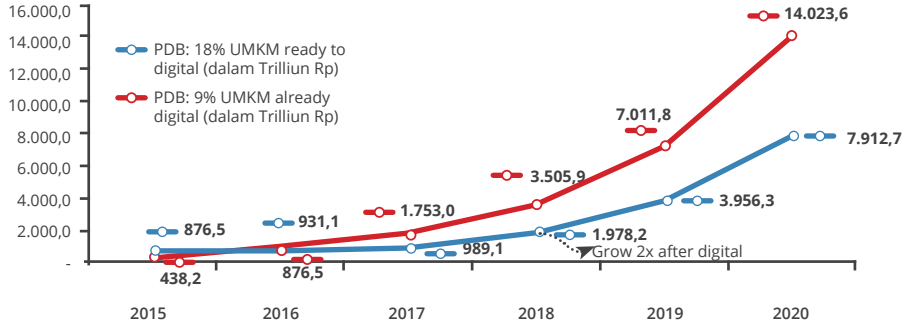
Boosting SMEs digital engagement could increase Indonesia's annual economic growth by 2%

Source: World Bank Research

Assumptions

Using McKinsey research: SMEs heavily using web technologies grow 2x as much as others → the 2015 calculation based on PDB 2012

- 9% of SMEs (Advanced online/ already digital)
- 18% of SMEs (Intermediate online/ ready to digital) → digital started on 2017 → 2015 - 2017 GDP growth of 6,23%/ year (source: BPS, GDP growth data in 2012



Sumber: Stancombe Research & Planning, Deloitte Access Economics, 2015; BPS, 2012; Mc Kinsey Research, World Bank Research

Based on Presidential Regulation no. 74/2017, E-commerce Road Map is one of Government's efforts to increase e-commerce market share through 31 initiatives in whichMCI is involved in 17 initiatives. MCI has collaborated with more than 8 relatedministries/institutions and ecosystem actors to develop the National E-commerce Road Map. This roadmap aims to make Indonesia as the largest e-commerce industry ecosystem in Southeast Asia in the next 5 years. This is also in line with the Presidential Instruction to actualize the Indonesia Go Digital vision, which is targetedto achievee-commerce transaction value of US$130 billion in 2020. This National E-commerce Roadmap 2017 - 2019 has been discussed among ministries/ institutions and launched in Economic Policy Package XIV on 10 November 2016. The policy will prioritize and protect the national interest, especially SMEs and startup business actors.

b) Implementation of e-Government in MCI

1. WBS.layanan.go.id

MCI has created a Whistle Blowing System as one of the effortsto have early detection and prevention on potential violations as well as to facilitate reports regarding corruption that may happen within the ministry. WBS is intended as a tool for public to report information about violations and/or dissatifactions with services provided by MCI's officials/employees, in order to prevent and eradicate corruption, to stop abuse of authority and also to improve supervisory system that provides protection to whistleblowers.

Ministry of Communications and Informatics has built and run WBS application, which is https://wbs.layanan.go.id.

It was reported that up to December 2017, there were no reports of violations or indicators of corruption or abuse of authority within the ministry through MCI's wbs website.

Up to December 2017
No reports of corruptions
in MCI in the application

2. Posts Operations Licenses

With the automation of licensing process services in the Directorate General of Post and Informatics Operations (DG PPI), changes occur in the business process for licensing service which become faster and simpler. This online licensing process reduces the duration needed by industry or business entities who are applying for posts operations license into 1-2 working days. The following is simplification of the DG PPI licensing process:

Type of License

Posts Operations

Before

5-10 Working Days

After

1 Working Days

3. Telecommunications Operations Licenses

With the automation of licensing process services in the Directorate General of Post and Informatic Operations (DG PPI), there are changes in the licensing service bussiness process which make them faster and simpler. This online licensing process reduces the duration needed by industry or business entities applying for telecommunications operations license into 1-2 working days. The following is simplification of the DG PPI licensing process:

Type of License

Principles & Operations for Telecommunications Networks and Services

Before

14 Working Days

After

1 Working Days

Jenis Izin

Telecommunications Operational Eligibility Assessment

Before

30-56 Working Days

After

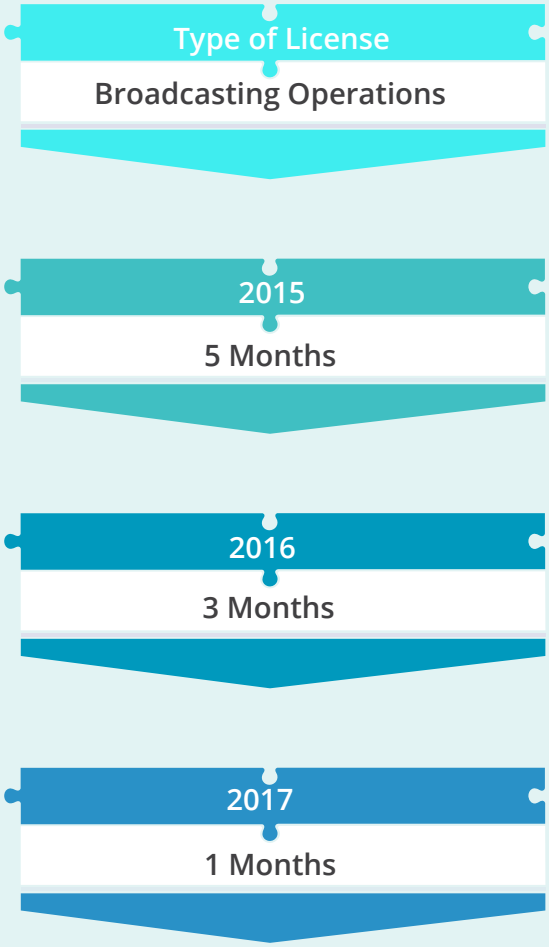
14 Working Days

4. Broadcasting Operations Licenses

Licensing process in 2015 and 2016 refered to Ministerial Regulation No. 28 of 2008 on Procedures and Requirementsfor Broadcasting Operations Licensing,in which the the licensing process durationwas not regulated in detail. The average licensing process in 2015 was completed within 5 months period and in 2016 is within 3 months period. Meanwhile, the licensing process in 2017 is carried out in reference to Ministerial Regulation No. 18 of 2016 where the duration for each licensing process is clearly regulated. The average licensing process in 2017 is completed within 30 days (1 month) period.

The following is the diagram of the broadcasting operations licensing processduration from 2015 to 2017.

Duration of Licensing Process for Broadcasting Operations from 2015 to 2017.



5. Lapor.go.id

The www.lapor.go.id website is a public complaint service administered by the Office of Presidential Staff (KSP) in cooperation with the Ministry of Administrative and Bureaucratic Reform (PAN/RB)and the Ombudsman. This channel accommodates broader scope of complaints.In 2017, MCI has received several complaints related to telecommunications network signal, internet signal, equitable access to telecommunications, re-registration of prepaid cards, television shows, regulations and policies.

The number of complaints submitted in 2017 was 97 complaints with the following details:

6. DG PPI Service Excellence

The www.pelayananprimaditjenppi.go.id website is a channel for public to report their complaints for issues related to licensing such as licensing for posts, telecommunications, and broadcasting.

The number of complaints submitted in 2017 were 32 complaints with the following details:

7. Call Center 159

The number of complaints in 2017 was 1,288 with the following details:

Incoming complaints	1288
Complaints that have been followed up	1197
Complaints still in process	91

8. One-Stop Integrated Service (Ptsp)

The number of community complaints through this portal in 2017 was 39 with the following details:

Incoming complaints	39
Complaints that have been followed up	39
Complaints still in process	0

c) SIVION

The vision of Indonesia to fully implement e-government and to become a digital economy giant in ASEAN may be hampered by the high rate of fraud and the low level of integrity in Indonesia digital ecosystem. The Government needs to be present to improve security and integrity in Indonesia digital ecosystem. This SIVION program is to provide the public key infrastructure mechanism that becomes the root of digital certification industry in Indonesia. Therefore, the spirit of this program is to build digital identity infrastructure and to create digital certification industry and demand in Indonesia. The objective of SIVION is to carry out a national digital certification infrastructure and a national digital identity verification system that is interoperable, efficient and secure, and guaranteed by the Indonesian Government.

As the main strategy, MCI has prepared a strategic plan by taking into account:

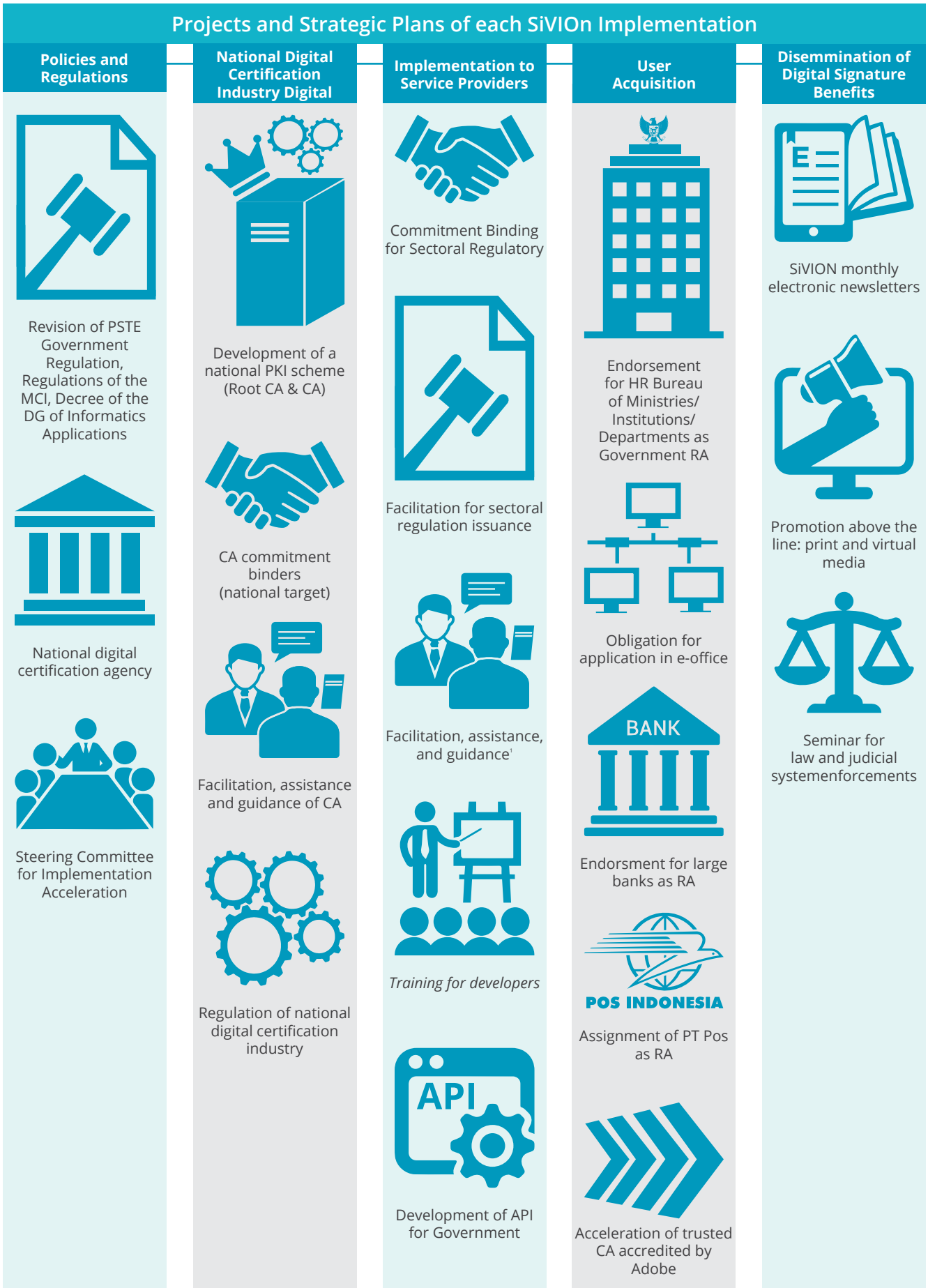
- Achievement in the digital signature implementation building blocks

- challenges resulted from implementation

- Identified Risks

The following figure shows projects and their strategic plans of SiVION implementation

Figure 1.9 Strategic Plan on the implementation of SIVION



[1]Techniques, regulations and procedures

Source: DG of Informatics Applications, MCI, 2017

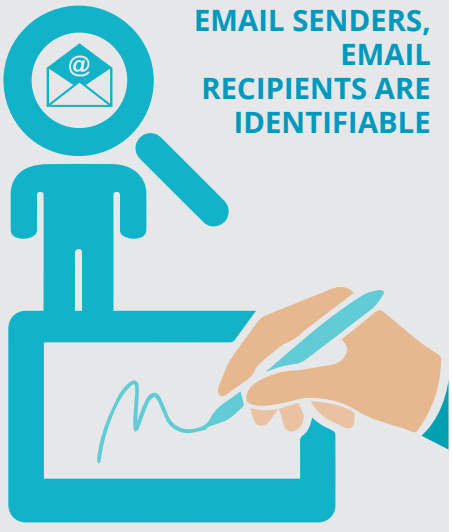
2017

109,317

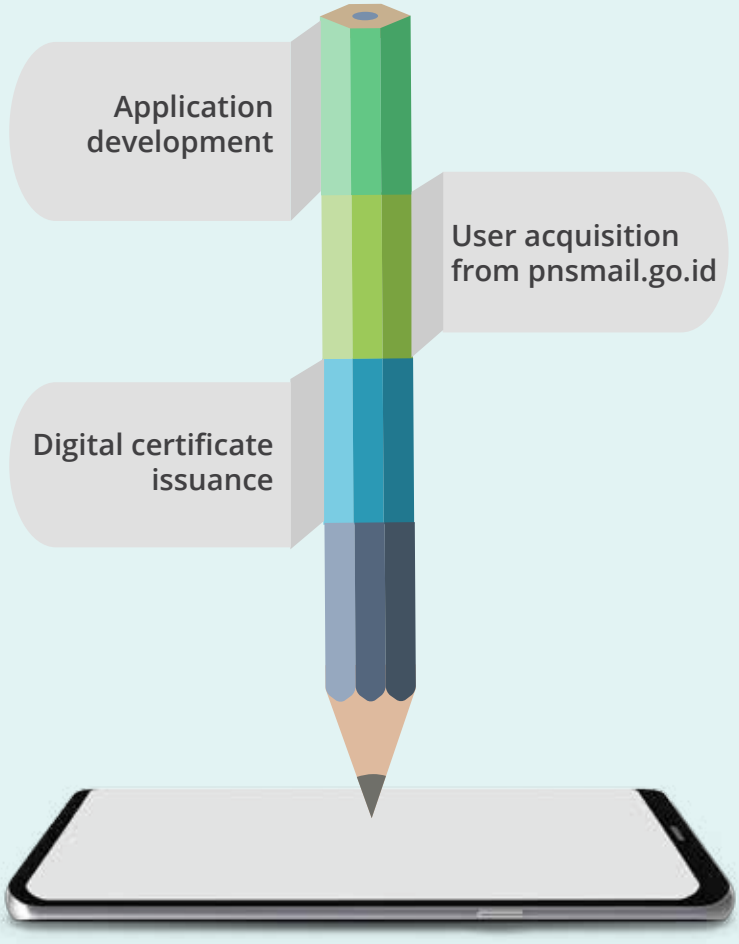
DIGITAL CERTIFICATES

DIGITAL SIGNATURES

EMAIL SENDERS, EMAIL RECIPIENTS ARE IDENTIFIABLE



In 2017, a series od dissemination program were held disseminations regarding the benefits of digital signatures and had reached the set target of 109,317 Digital Certificates. One example of the implementation of the use of digital certificates was PNS mail that has been completed by digital certificate feature and changed into mail.go.id. The mail.go.id was launched on 11 December 2017 and inagurated by the Minister of Communications and Informatics.Mail.go.id is a migration of pnsmail.go.id as well as email development of go.id. The development was done by adding a function for digital certificate, thus go.id email has digital signature and encryption feature. This development was intended to ensure confidentiality, authentication, integrity and non-repudiation of the go.id email system. The development activities were:



Therefore, the utilization of digital signatures and encryption has made email senders and email recipients identifiable to avoid any fake emails. In addition, it will also add security to email sniffing.

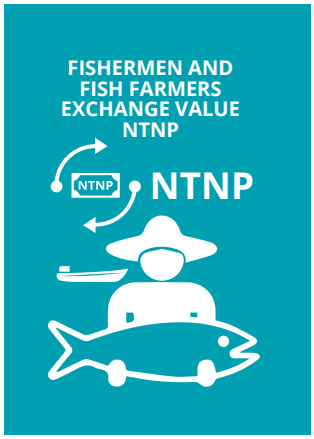
4. Empowerment of the Informatics Community

a) Integrated Broadband Village Solutions (SDBT)

One indicator that can be used for assessing the levels of welfare of farmers and fishermen is Farmers Exchange Index (NTP) and Fishermen and Fishery Cultivation Exchange Value (NTNP). NTP and NTNP are the comparison between the received price index (It) and paid price index (Ib) of farmers and fishermen. These indicators are useful to measure the welfare of farmers and fishermen as it measures the exchange ability of commodities produced/sold by farmers and fishermen to the products needed by farmers and fishermen, both for the production process (business) and for household consumption. If the NTP or NTNP is higher than 100 , it means that the purchasing power of farmers or fishermen in that period is relatively better than the base year period. On the contrary, if NTP or NTNP is less than 100, it means there are a decline in farmers or fishermen purchasing power.

In this regard, the Ministry of Communications and Informatics has a role to provide an appropriate integrated solution for communities in foremost, outermost and lagging (3T) and Priority (LokPri) areas so as to increase productivity and provide access to the online market/marketplace.

In order to improve the welfare of farmers and fishermen, we need to utilize information and communication technology (ICT) infrastructure



to acquire the best selling price. Integrated Broadband Village Program means to provide infrastructure and access to information services (broadband) in non-commercial areas supported by CPE as well as productive application content for community empowerment. After the implementation of the Integrated Broadband Village Program in 50 villages in 2015, a comparative method is required, which is individual method, to give the device directly to the villagers. Therefore, in 2016, the development target of 100 Integrated Broadband Villages (DBT) was postponed, for mapping and testing the comparator method, to give directly to individuals. To implement the individual method, a further mapping on needs of application, content, and human resource empowerment technique so that people in those area are able to adjust to the presence of broadband. Through the mapping, it is expected that the community receives applications and contents that are in accordance with their needs.

500

3T VILLAGES AND PRIORITY AREAS

TARGETS OF SDBT PROGRAM

BROADBAND

ACCESS TO ALWAYS-ON INTERNET CONNECTION

TRIPLE-PLAY SERVICE

SDBT Program aims to provide an integrated solution that includes the providing of Network, Device, Application and Capacity building (NDACb) in 500 3T villages and selectedpriority areas selected for improving community welfare. The implementation process of the SDBT program was preceded by 3 pilot villages, to examine technological solution options in order to meet the needs of farmers and fishermen. The provision of NDACb for SDBT program were made in three stages, namely; Piloting phase in 3 villages that has been completed in 2017, implementation phase in 300 villages to begin in mid 2018, and implementation phase in 200 villages which is to be implemented in 2019.

MCI has conducted trials in three areas, namely:

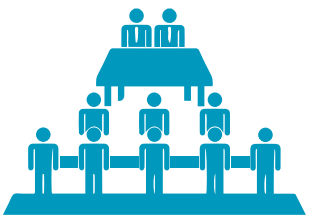
1) Meskon Village,
Bengkalis subregency, Bengkalis regency, Riau Province (Fishing Village)

2) Fatukbot Village,
South Atambua subregency, Belu regency, East nusa Tenggara (NTT) Province (Farming Village)

3) Panca Karsa 1 Village,
Taluditi subregency, Pohuwato regency, Gorontalo province (remote areas)

This trial has went well. The integrated application have been disseminated to the community in simultaneous with training on promotion and mentoring.

DISSEMINATION TO COMMUNITY



TRAINING ON PROMOTION

ASSISTANCE

Figure 1.10 Locations of Piloting Villages for the Integrated Broadband Village Program (DBT)

Meskom Village

Pilot Fishing Village

Panca Karsa Village

Pilot remote areas

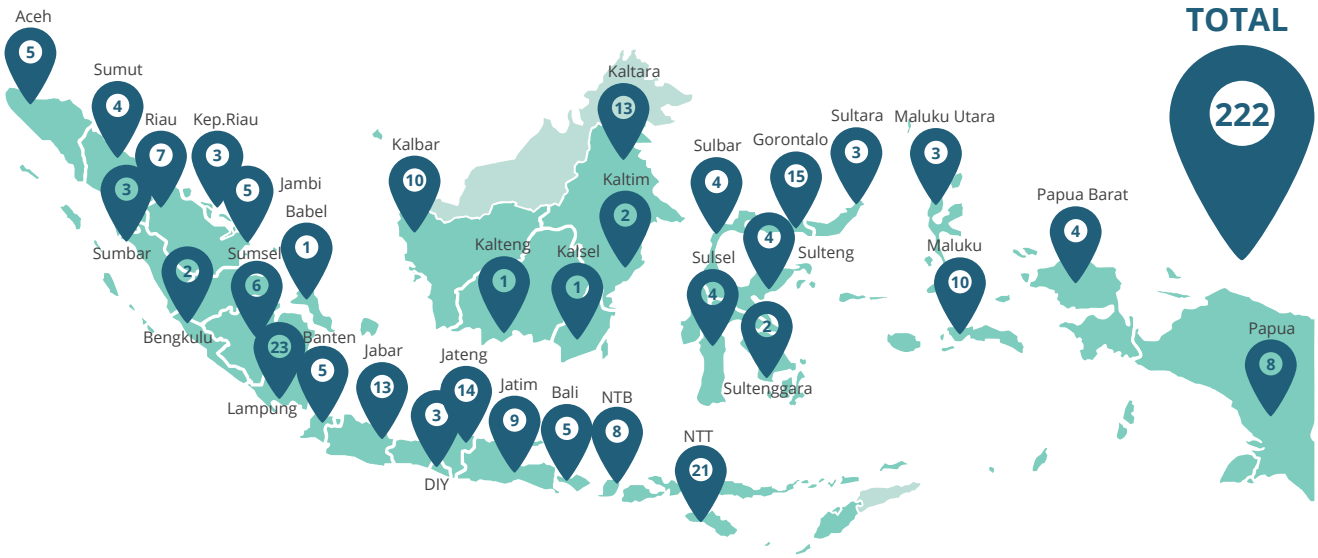
Source: Telecommunications and Informatics Funding Provision Management Agency (BP3TI), MCI, 2017

Fatukbot Village

Pilot farming village

In 2017, the Integrated Broadband Village (DBT) program has been re-implemented targeting villages in 3T areas to be internet literate. The implementation of human resources assistance and development is targeted to be implemented in 150 villages. However, in its implementation, the program was successfully implemented in 222 villages as follows:

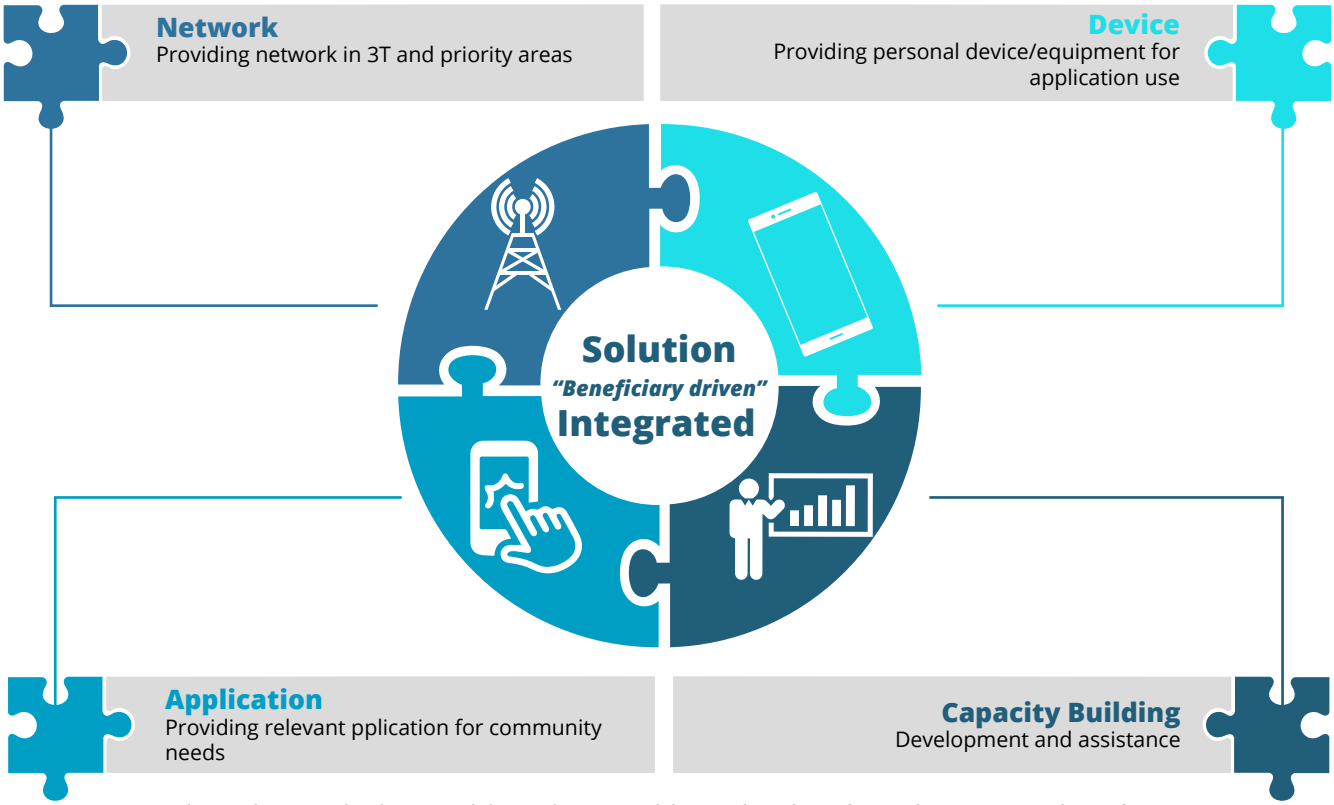
Figure 1.11 Locations of Human Resources Assistance and Development for Integrated Broadband Village Program



Source: Telecommunications and Informatics Funding Provision Management Agency (BP3TI), MCI, 2017

In 2017, theconsept of Integrated Broadband Village Program waschanged into Integrated Broadband Village Solutions (SDBT) by the provision of appropriate Network, Device, Application, and Capacity Building (NDACb) for communities in 3T and priority areas, which are divided into farm, villages and remote villages so as to increase productivity and provide access to market/ marketplace as well as to get the best selling price in order to improve their welfare.

Figure 1.12 10 Programs of Integrated Broadband Village Solutions (SDBT)



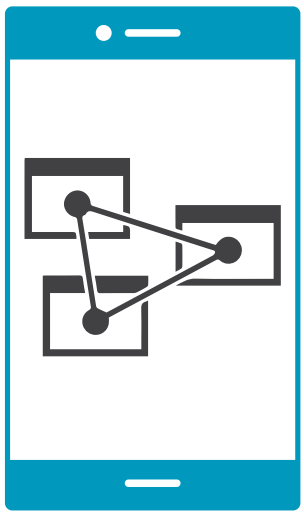
Sumber: Balai Penyedia dan Pengelola Pembiayaan Telekomunikasi dan Informatika (BP3TI), Kemkominfo, 2017

In 2017, the Integrated Broadband Village (DBT) program has been re-implemented targeting villages in 3T areas to be internet literate. The implementation of human resources assistance and development is targeted to be implemented in 150 villages. However, in its implementation, the program was successfully implemented in 222 villages.

FARMING VILLAGES

FISHING VILLAGES

REMOTE VILLAGES



INTEGRATED MOBILE APPLICATION

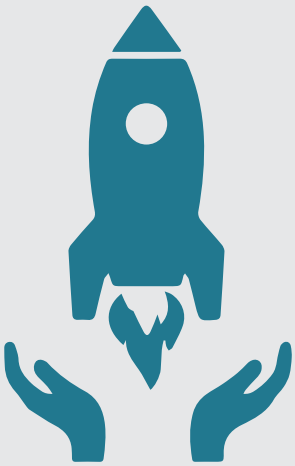
b) 1,000 Digital Startup National Movement Nasional

The 1000 Digital Startup National Movement is a movement to manifest Indonesia's potential becoming The Digital Energy of Asia in 2020 by forming 1000 startupsthat can become a solution against various challenges by utilizing digital technology. This movement was initiated by the Ministry of Communications and Informatics, supported by other institutions and communities such as KIBAR. KIBAR is a company that aims to build technological ecosystem in Indonesia through capacity building initiatives, mentoring, andincubation in various cities.

The potential of digital industry in Indonesia can not be underestimated. Data from APJI survey in 2016 shows thatinternet users in Indonesia has reached 132.7 million. This is a valid ground for Indonesia to develop e-commerce and digital technology based business in the country. The volume of e-commerce business in Indonesia is predicted to reach USD 130 billion with annual growth rate of about 50 percent.

The goal of this program is the development of human resource capacity in the field of information and communication technology within the age range from 18-40 years who have the intention and spirit to build a digital business/teknopreneur.

GERAKAN NASIONAL 1000 STARTUP DIGITAL



MOVEMENT TO MANIFEST INDONESIA'S POTENTIAL BECOMING THE DIGITAL ENERGY OF ASIA IN 2020

2016

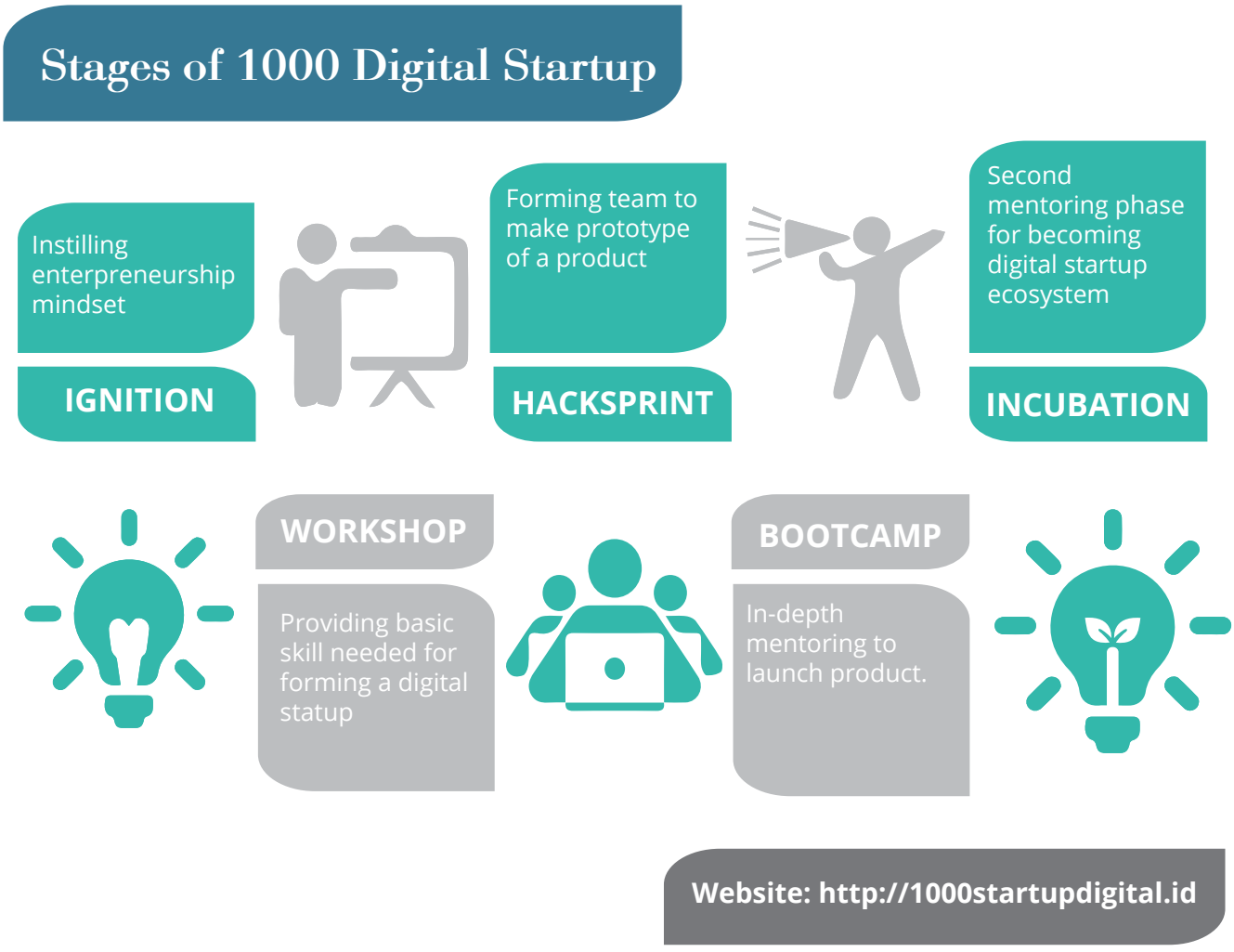
132,7 JUTA

INTERNET USERS IN INDONESIA

To create 1,000 digital startups, the strategy is intensive mentoring and coaching through systematic stages in 10 cities: Medan, Jakarta, Bandung, Jogyakarta, Semarang, Malang, Surabaya, Bali, Makassar, and Pontianak that have a strong infrastructure and digital foundations.

The first step began with ignition, which is a seminar to instill entrepreneurial mindset targeting 8,000 participants annually. Then, 4,000 participants were selected to proceed to the workshop stage, to be given briefing on skills neededto make a digital startup. With the knowledgefrom the workshop, 2,000 participants will proceed to the hackathon stage to produce a product prototype of application solution. After that, 1000 participants will enter the bootcamp stage, which is an in-depth mentoring session to prepare stategy on product launching. Finally, 200 selected participants will be incubated for approximately 3 months in each city per year, so in 5 years, 1,000 digital startups will be created.

FIGURE 1.13 STAGES OF 1000 DIGITAL STARTUPS INITIATIVE



Source: Directorate General of Informatics Applications, MCI, 2017

After completing the incubation process, we had a number of potential startups:

1 Karapan (Surabaya)

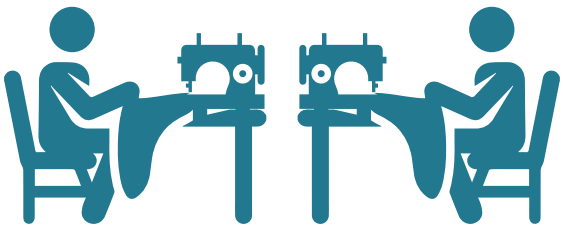
Karapan empowers and connects local livestock farmers with stakeholders throughout the beef supply chain.

+200 livestock farmers from
+33 groups of livestock farmers

+822M IDR of total transaction in 3.5 months

2 Jahitin (Surabaya)

Jahitin empowers mothers who work as tailors and earn less than 3 million/month by connecting skilled tailors to consumers who want to have the right clothes.

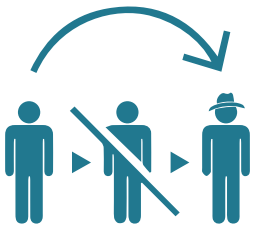


+30 tailors

Add income for tailors up to **Rp 18 mio** after it was launched in the end of 2017

3 Tumbasin (Semarang)

A platform that connects consumers directly to farmers in traditional/wet markets.



+2500 transactions

+5 local markets in Semaran

4 Camp on Farm (Bandung)

Camp On Farm is an online vacation plan management platform that targets urban communities to spend vacations in agricultural areas, guided by local farmers.

+200 people are joining

+15 trips

5 Shushi (Bali)

An e-commerce that sells seaweed and connects farmers to consumers.

+20 seaweed farmers

+650 products sold

6 Ajarin (Jakarta)

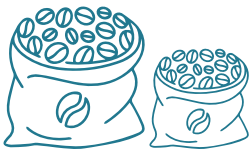
A mobile app that can help parents discover, develop, and channel their children's talents aged four to sixteen.

+370 private teachers

+30 transactions

7 Kopi Tani (Makassar)

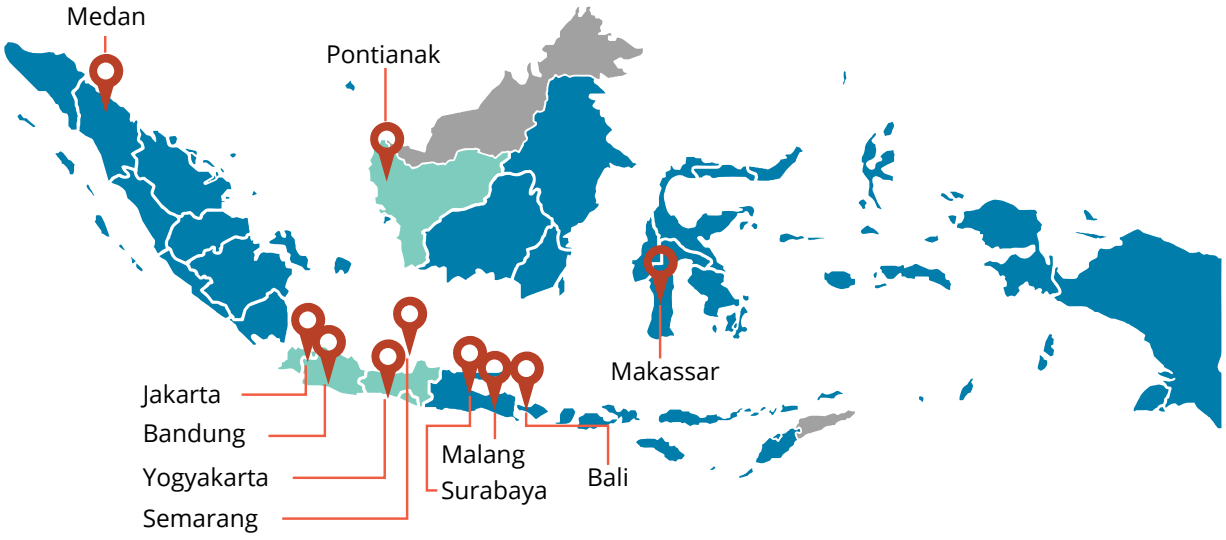
A platform that sells coffee directly from farmers



+100 coffee farmers

+5 coffee farms in Makassar

Figure 1.14 The Stages of 1000 Digital Startup Initiative



Number of registrants **30,667**

Number of participants **6,546**

Number of mentors and coaches **370**

Number of partners **165**

Number of Media Coverage **710**

GERAKAN NASIONAL 1000 STARTUP DIGITAL

1000 Digital Startup National Movement

Benefits

1) To reduce welfare gap by sharing economy, financial, inclusion and workforce digitalization models

2) To increase product marketing coverage areas for business actors;

3) *Multiplier effect: to provide employment opportunities (direct or indirect)*

Beneficiary

1) Indonesian people who are the target user of the application

2) Central and regional governments

3) Digital startup actors who participate in this program

Implementation time

Start **2016**

End **2020**

Target of Locations

- Jogjakarta
- Surabaya
- Bandung
- Semarang
- Malang
- Denpasar
- Makassar
- Pontianak
- Medan

Development

Until Desember 2017:

30,667 people have registered

6,546 participants were selected

121 teams from **10** cities have participated in the incubation program

36 digital startup companies were created from this movement in 2017

Until the end of 2017

121 teams of technopreneur candidates

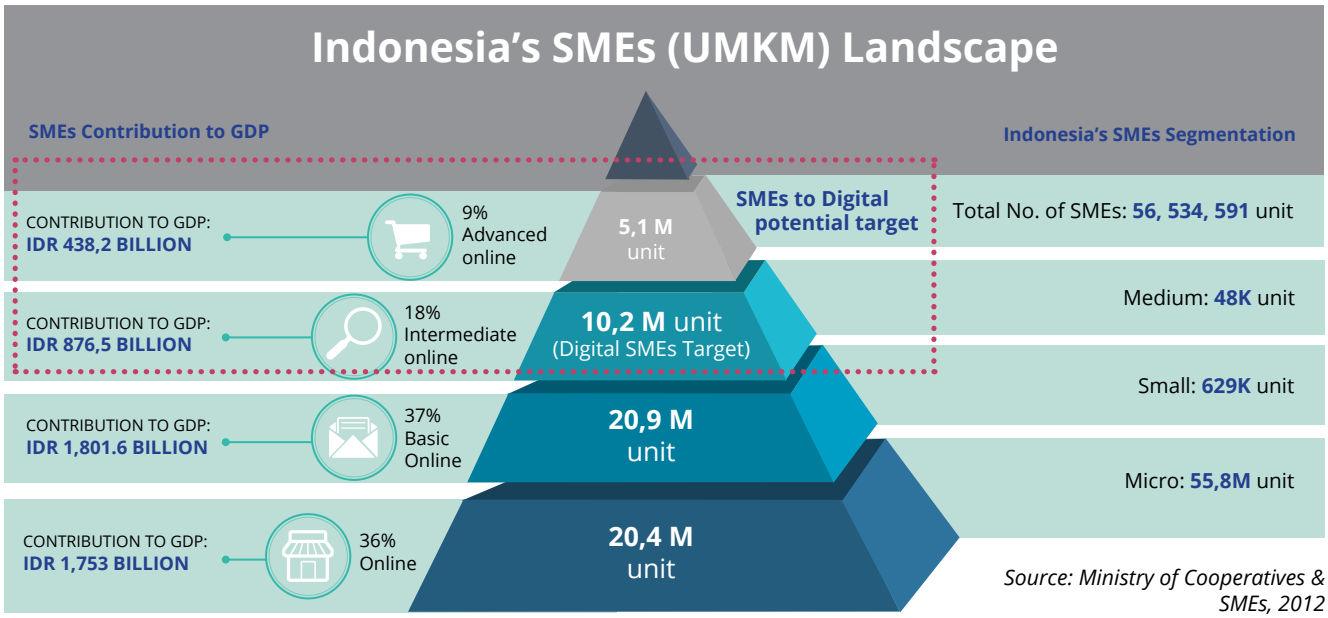
85 *teams in incubation stage*

36 teams have completed all the stages

c) MSMEs Go-Online

The vision of the Government is to make Indonesia a country with the largest digital economic growth in 2020. President Joko Widodo himself has stated that digital economy can bring great benefits to the people, especially for Micro, Small and Medium Enterprises (MSMEs). According to the President, the form of government support to MSMEs is through policy deregulation, capacity building training for MSMEs, and the provision of adequate telecommunications infrastructure.

Figure 1.15 Landscape Of Indonesia›s MSME



Sumber: Stancombe Research & Planning, Deloitte Access Economics, 2015; Kementerian KUKM, 2012, BPS, 2012

SMEs contribution to GDP 2012:

- 59,08% equal to IDR 4.869,3 Billion (National GDP 2012: IDR 8.241,9 Billion)
- Internet had contributed 1.6% (IDR 131,8 Billion) to the National GDP;
- SMEs online (5,08 M unit) had contributed 0,14% (IDR 11,87 Billion) to the National GDP

Offline businesses
36%
Based on analysis of the data, office businesses are defined as those who do not have access to *broadband*, do not have a computer or smartphone and do not have a website.

Basic online businesses
37%
Basic online businesses have *broadband* access and a digital device such as a computer or smartphone and have a website. However, the businesses are not involved in social media (only email) and do not have *e-commerce* capabilities for ordering or payment.

Intermediate online businesses
18%
Intermediate online businesses have digital connectivity and were also immersed in social media by integrating websites with social media, live chat or customer threads. These businesses do not have full *e-commerce* capabilities.

Advanced online businesses
9%
Advanced online businesses 9% Advanced online businesses have connectivity, social web integration and *e-commerce* capabilities. We note that beyond this level of digital engagement, there are many other ways in which businesses can embrace digital technology but these are not a focus for this research.

> Based on the records of Deloitte firm that has conducted a poll to 437 MSMEs in Indonesia in 2015, it was found that MSMEs who are actively using the internet will be able to earn 80 percent higher revenues than those who are still conventional. It is also believed that Indonesia's economic growth which remains at 4.6%, will be able to increase another two percents.

Graphic 1.4 MSMEs Positioning On Indonesia Digital Economy Vision 2020

Information

POSITIONING UMKM IN INDONESIA 2020 DIGITAL ECONOMY VISION

Benefit of digital technologies for Indonesian SME
1. Up to 80% higher growth in revenue
2. One and half times more likely to increase employment
3. 17 times more likely to be innovative
4. SMEs with higher digital engagement are more competitive internationally

Mc Kinsey Global Institute Report: SMEs heavily using web technologies grow 2x as much as others

Source: Mc Kinsey Research

Boosting SMEs digital engagement could increase Indonesia's annual economic growth by 2%

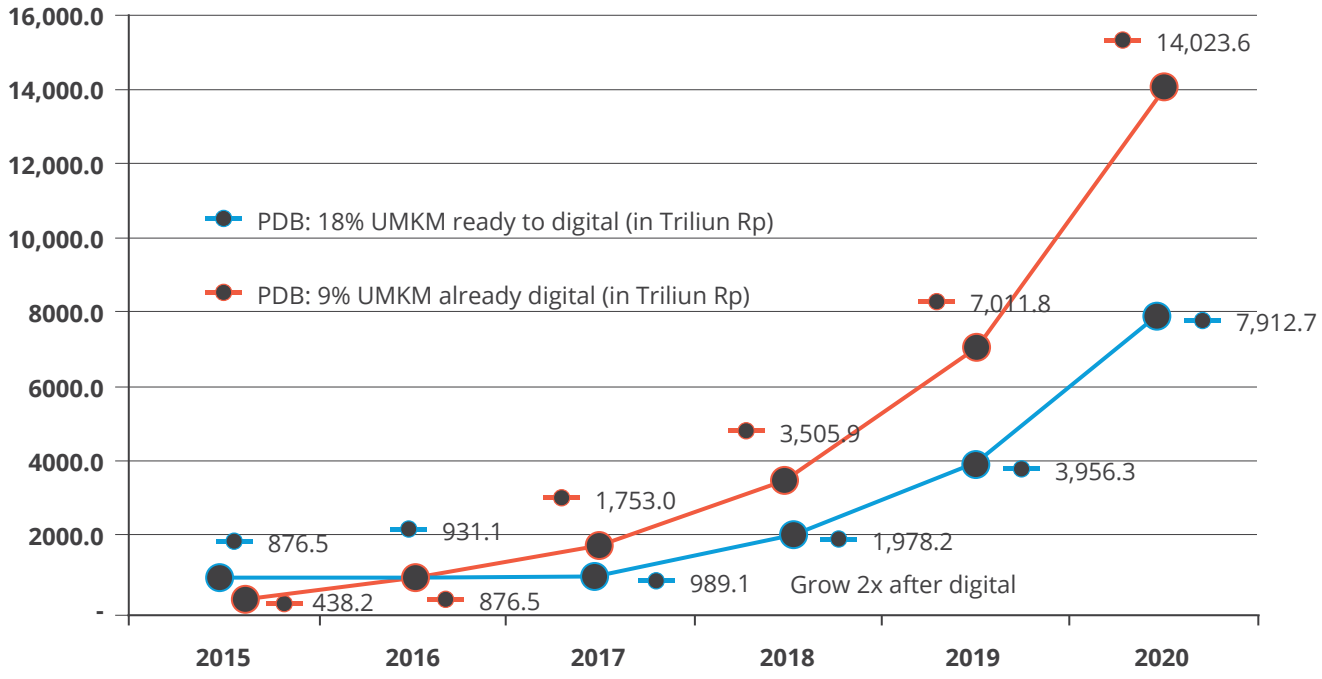
Source: World Bank Research

Source: Stancombe Research & Planning, Deloitte Access Economics, 2015

Assumptions

Using McKinsey research:
SMEs heavily using web technologies grow 2x as much as others
Perhitungan Tahun 2015 berdasarkan PDB Tahun 2012

- 9% of SMEs (Advanced online/ already digital)
- 18% of SMEs (Intermediate online/ ready to digital) - digital started on 2017 - 2015-2017 GDP growth of 6.23% / year (source: BPS, GDP growth data in 2012)



Source: Stancombe Research & Planning, Deloitte Access Economics, 2015; BPS, 2012; Mc Kinsey Research, World Bank Research

Program Facilitation 8 Million Micro, Small and Medium Enterprises (SMEs) Go Online aims to create 8 Million Indonesian MSMEs to enter the online market platform starting in mid 2017. MCI as Government representation must initiate this movement in cooperation with all relatedstakeholders to increase public awareness including MSMEs on the use of online market platform and support online market platform program in making MSMEs as merchant in their own online market. The purpose of this program is to open new market opportunities and new consumers for Indonesia's MSMEs both in regional and global market. From this program, MCI expects benefit of "Improving people's productivity and competitiveness in international markets" which is in line with the mandate of Nawacita

6. Tahapan yang dilakukan mencakup:

a

To disseminate and coordinate with relatedstakeholders internally and externally in preparing the implementation through Coordination Meeting/Focus Group Discussion and submission of Cooperation Agreement (CA) with stakeholders to establish cooperation;

b

To formulate communication strategy to increase awareness to the Facilitation program for 8 million MSMEs Go Online that will be done until 2019;

c

To educate and assist MSMEs to market their products online;

d

To monitor the implementation of MSMEs conversion into e-MSMEs in collaboration with e-commerce players;

e

To evaluate activities implementation with executive team to be able to adjust with the most effective Term of Reference.

To implement this program, the following activities must be carried out:

a) Formulation of Educational Materials

The formulation of educational materials is conductedby composing and gathering inputs from related stakeholders and the materials will be disseminated through: Public Service Announcement (PSA), Instagram, Facebook, Video Animation, and Website (http://umkmgoonline.id). The materialsare made by Marketplace, ICT Volunteers and Directorate General of Information and Public Communications MCI.

b) MSMEs Go Online Education

MSMEs Go Online Education in 2017 has been conducted in cooperation with Local Government and Marketplace in 61 locations with 12,507 participants and incoordination with Ministry of SMEs, Ministry of Industry, Ministry of Trade, Ministry of Coordinating Economy, and PT. Komunikasi Indonesia.

c) Cooperation Agreements are conducted with various related stakeholders to make MSMEs online. The CAs are made with: IdEA, Marketplace, and Nurbaya Initiatives.

d) Farmers and Fishermen Go-Online

To encourage the Government's development focus 2015 – 2019 and to support the achievement of Nawacita 3 and Nawacita 7, MCI has designed Digital Based Economy Program in 2017, including "Farmers and Fishermen Go Online" program which is expected to provide solutions to the agricultural and fisheries sectors with the use of information and communication technology (ICT).

The objective is to provide solutions to challenges faced by agriculture and fisheries sectors, by facilitating the use of appropriate applications to support the business of farmers and fishermen and the performance of agriculture and fisheries sector. Educational assistance to farmers and fishermen was also conducted to add insight into the ICT utilization. The benefits are:

- Increased productivity and welfare of farmers and fishermen;
- Increased revenues in agriculture and fisheries;
- Better and more productive business activities for farmers and fishermen;
- Farmers and fishermen can gain knowledge needed to improve theirbusiness productivity;
- Farmers and fishermen can sell their products or commodities to direct buyers without intermediaries;

Farmers and fishermen receive educational assistance on the use of ICTs as a means to obtaining information that can supports their employment and business.

Achievementof this fishermen and farmers go online program is 110% with the realization of 333,515 farmers and fishermen who are registered in applications specifically related to the agricultural and fishery sectors. Further explanation about the farmers and fishermen who became the target of this program and the selection criteria are as follows:

1. Farmers

Farmers mean farmers of food crops and horticulture in South Sumatra, West Java, and South Sulawesi. The main focus of the FarmersGo Digital program is a roll-out project to West Java, while in South Sumatra and South Sulawesi pilot projects will be undertaken. These three provinces are selected to be targeted areas of the program based on the following considerations:

Number of agricultural business households (area with farming business households ranging from 300,000 upto 1,327,000 household unit)

Number of farmer groups and trained agricultural extension workers (areas with farmer groups ranging between>25,000 upto<50,000 and areas with workers ranging between>2,000 upto 6,000 people).

The high volume of food crops and Horticultural production

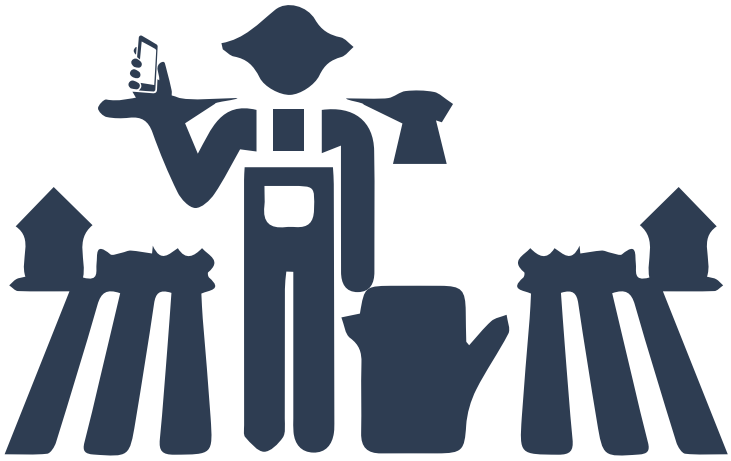
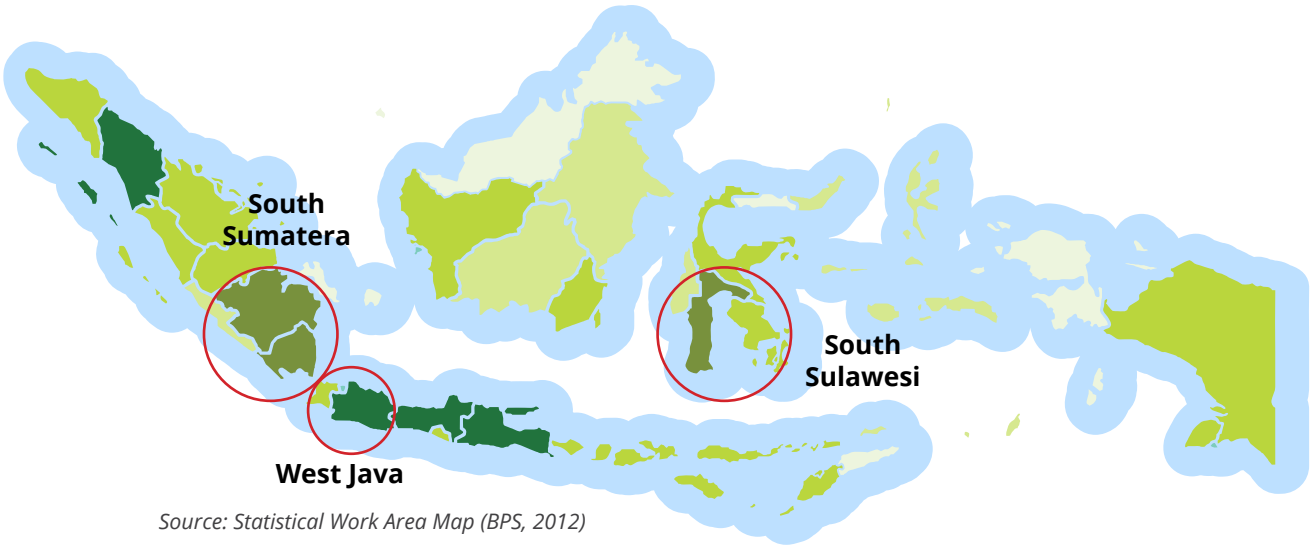


Figure 1.16 Map of Agricultural Households



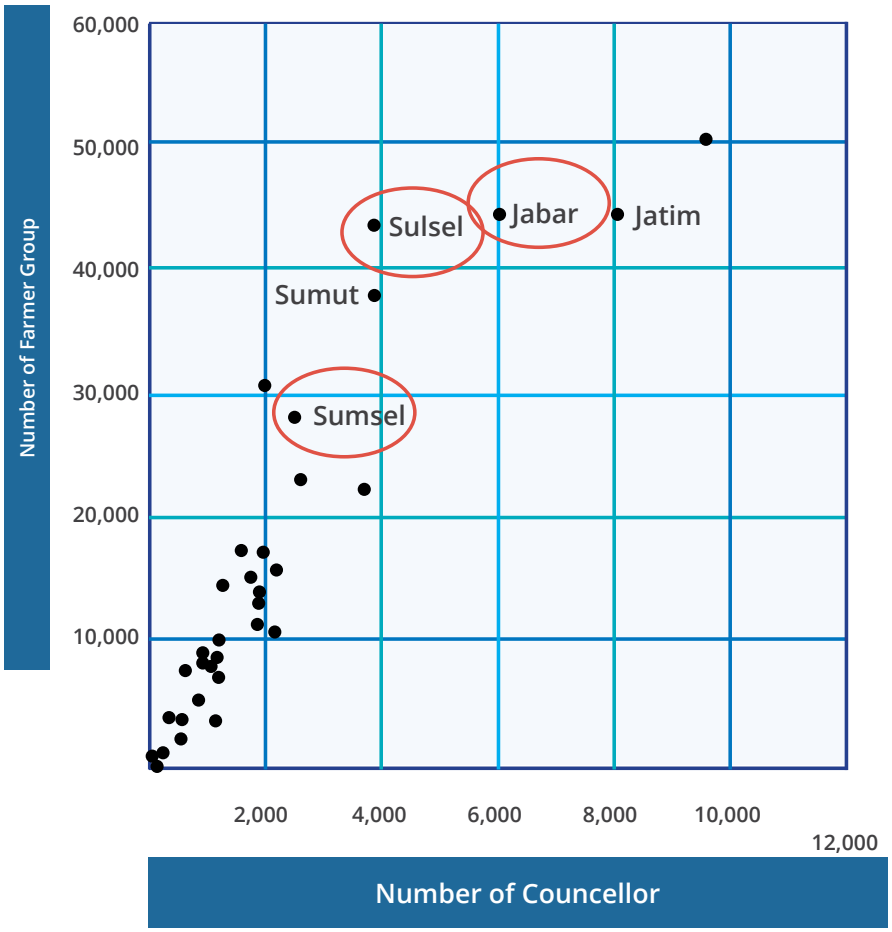
Source: Statistical Work Area Map (BPS, 2012)

Number of Households in Agriculture Businesses

≤ 130,000 | 130,001 - 316,000 | 316,001 - 779,000 | 779,001 - 1,327,000 | ≥ 1,327,000

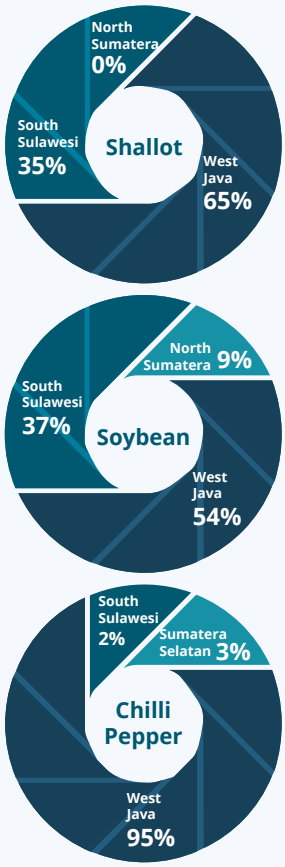
source: Agricultural Census 2013, Central Statistic Agency

Figure 1.17 Number of Farmer Groups and Councellors by Province



Source: Ministry of Agriculture

Graphic 1.5 Contribution 0f Food Crops and Horticultural Production 2015



Source: www.pertanian.go.id, 2015

2. Fishermen

Fishermen mean fishermen with boats under 10 GT in North Sumatra, East Java, and South Sulawesi. The main focus of the fishermen program is a roll-out project to East Java, while in North Sumatra and South Sulawesi pilot projects will be undertaken. These three provinces are selected to be the targeted areas based on the following considerations:

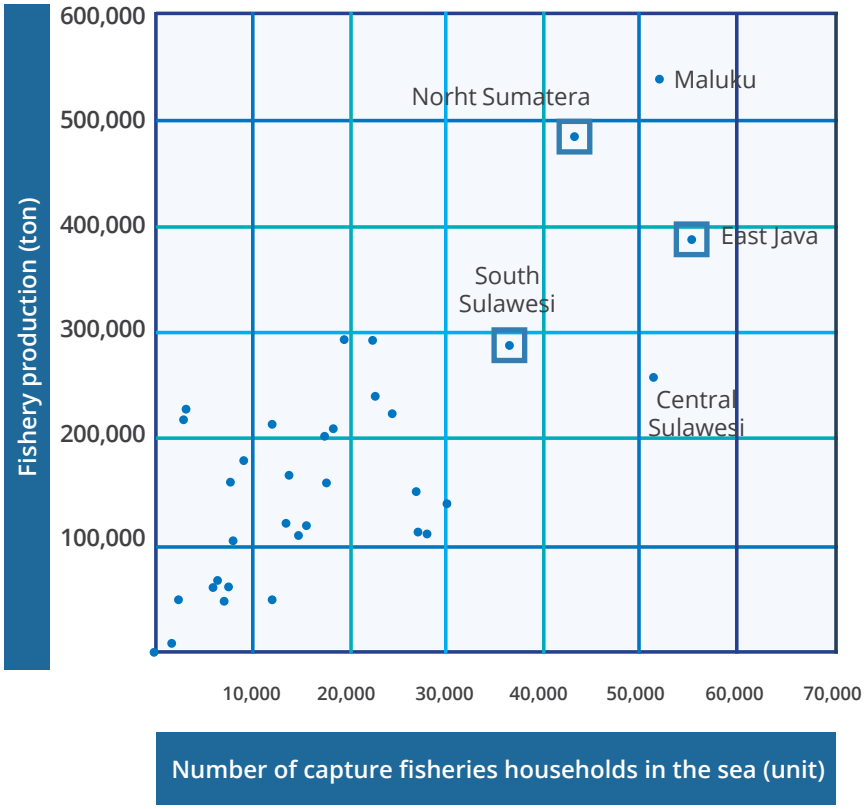
- Number of fishing households (area with fishing business households ranging from 30,000 upto60,000 household unit)
- Number of fishing production (areas with farmer fishing production 300,000 upto 500,000 tons).
- Number of boats in those selected provinces

Density of fishery household business

Capture fisheries production

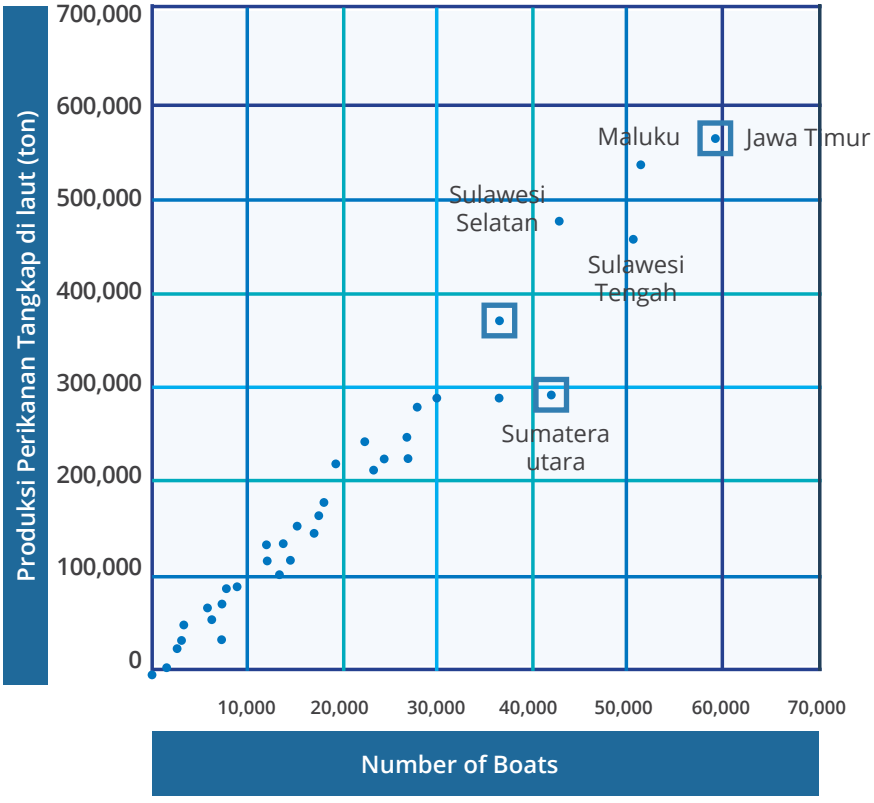
Number of boats

Figure 1.18 Fishery Households Density vs Sea Capture Fisheries Production (Ton)



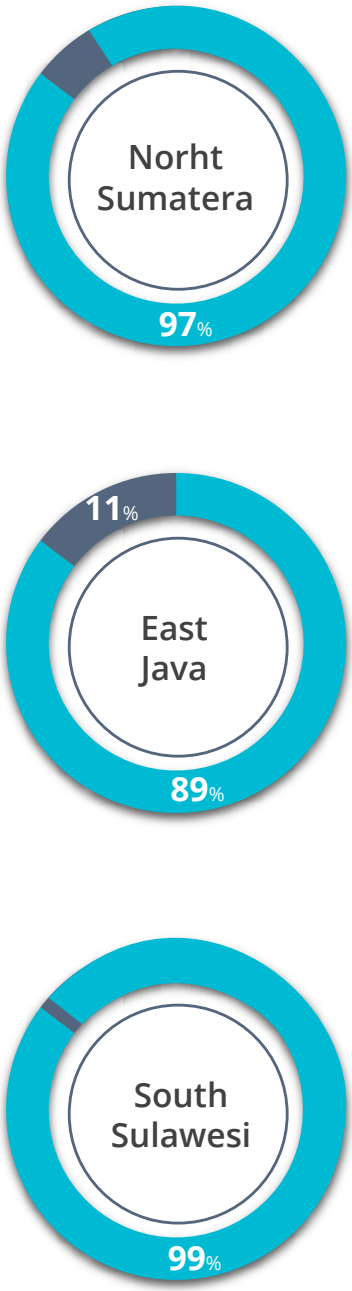
Source: Indonesia Statistics 2016

Figure 1.19 Number of Boats by Provinces vs Sea Capture Fisheries Production



Source: Indonesia Statistics 2016

Graphic 1.6 Boat Population in Focus Areas



Source: Data.go.id, 2016

Facilitation and Mentoring Programs for Farmers and Fishermen Go Online There are 6 supporting programs, namely:

1 Facilitation of National Stock Control Information Application

The program aims to provide information about national harvest stock, including information on planting and harvesting schedules, and information on national data collection that are useful to support farmers' decisions in agricultural processes.

2 Facilitation on Online Agricultural Dissemination Application

This program aims to encourage the development of online-based agricultural dissemination from industry players with accessible and valuable digital applications for farmers.

3 Facilitation onOnline Agricultural Marketplace Application

This program aims to encourage the development of online marketplace development for farmers so they can get buyers' assurance without any middle-man.

4 Facilitation on bAsic Information Application for Fishermen

The program aims to develop application that can provide information on fish markets, fishing gear prices, weather, fishing areas, nearest fuel locations (SPDN), fish prices, and logistics.

5 Facilitation on Online Fishery Marketplace Application

The program aims to encourage the development of online marketplace for fishermen so they can get buyers'assurance without any intermediaries.

6 Facilitation onFarmers Education and FishermenGo Online

Educational assistance program related to the use and utilization of applications mentioned in points 1-5. This is very important in ensuring that thebenefitsof these applications are channeled to the targeted farmers and fishermen.

In providing solutions of agricultural challenges, several facilitations are provided to utilizethe appropriate applications to support farmers' business and agricultural sector performance, including: Facilitation onUtilization Marketplace Application, Online National Stock Information and Agricultural Extension. In order to present a digital solution to resolve issues related to farmers, the Ministry of Communications and Informatics identifies industry actors engaged in the agricultural sector, including:

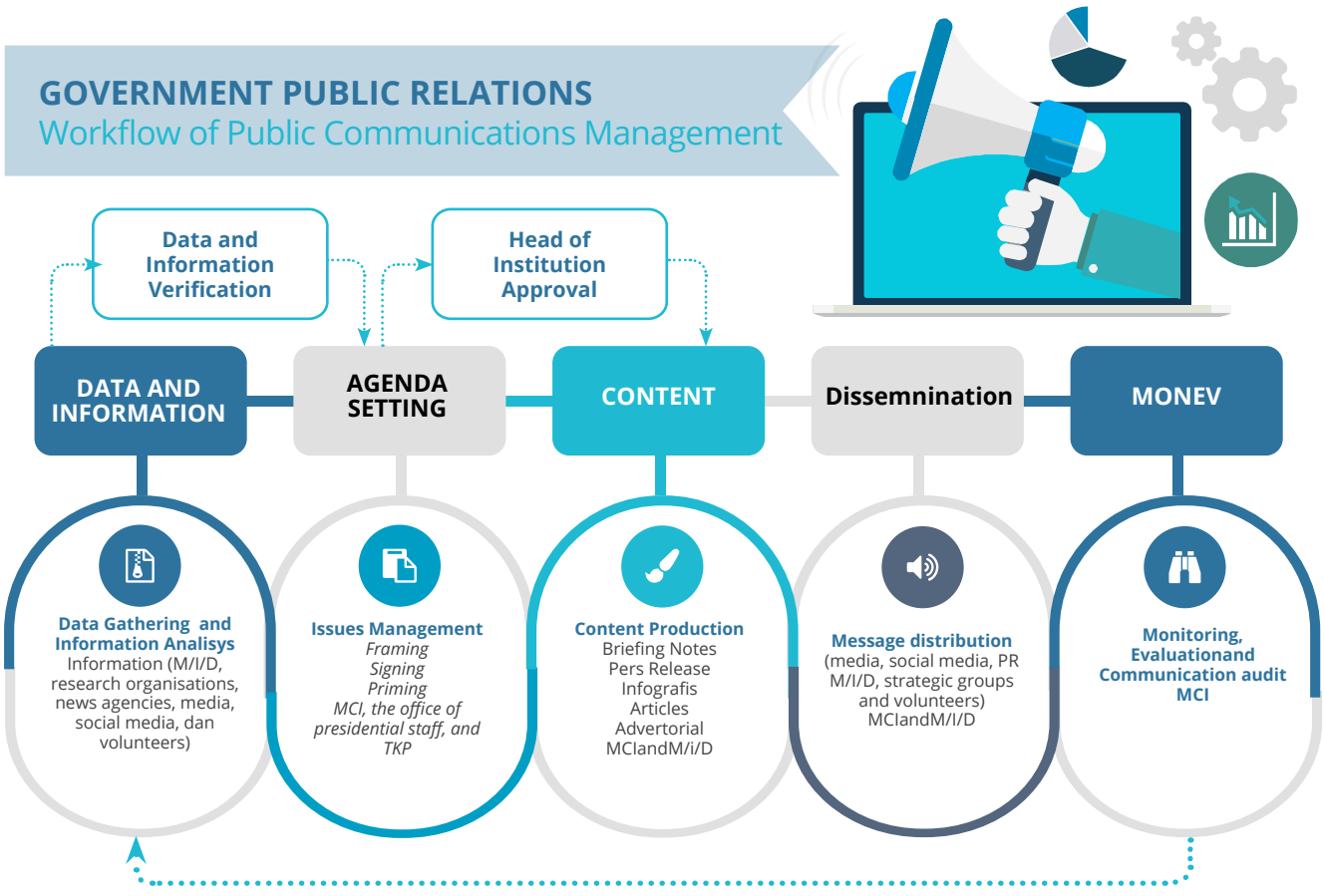
Eragano	purchase of agricultural production needs, cultivation assistance, access to capital, agricultural insurance, agricultural marketplace
TaniHub	purchase of agricultural production needs, cultivation assistance, access to capital, agricultural insurance, agricultural marketplace
limakilo	Agricultural Marketplace
8villages	Agricultural extension

5. Government Public Relations

The issuance of Presidential Instruction Number 9 of 2015 has instructed MCI to carry out Government Public Relation (GPR) tasks and functions, expecting that the delivery of information to the public can done quickly, accurately and in good quality.

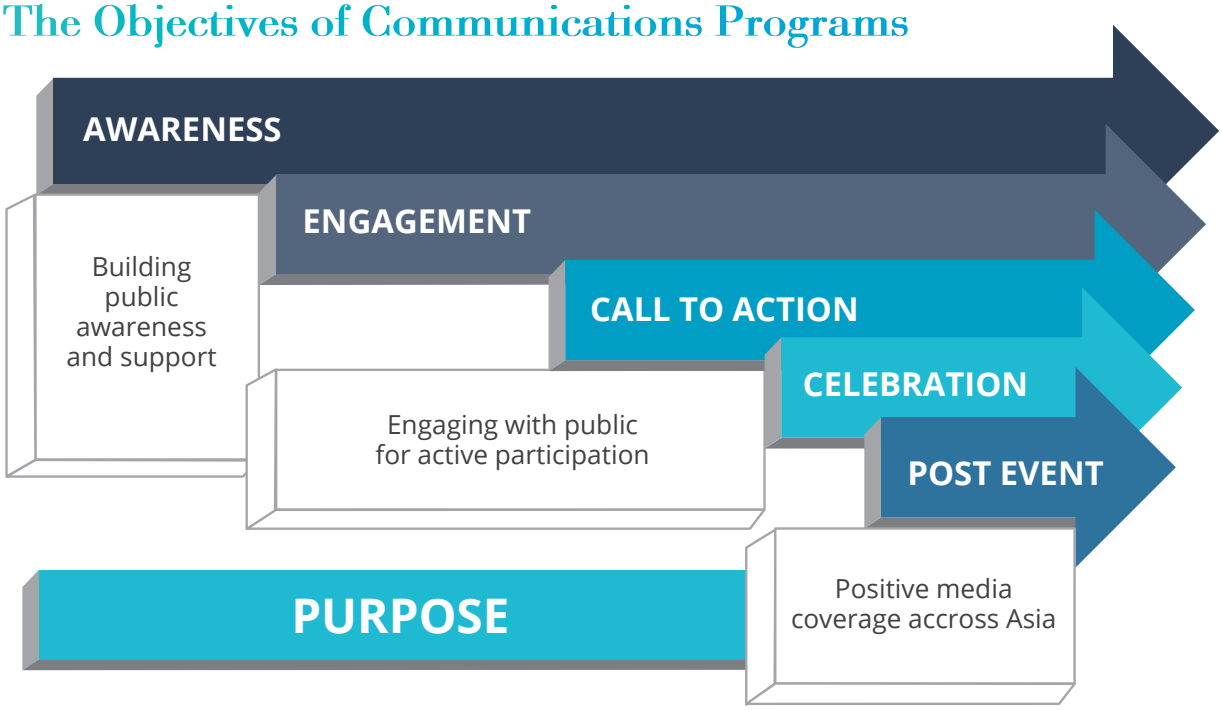
In addition, the preparation of a single narrative as the agenda setting will provide a consistent government information, so that there is a balanced information on government performance against media coverage that tend to be critical (negative) to the government.

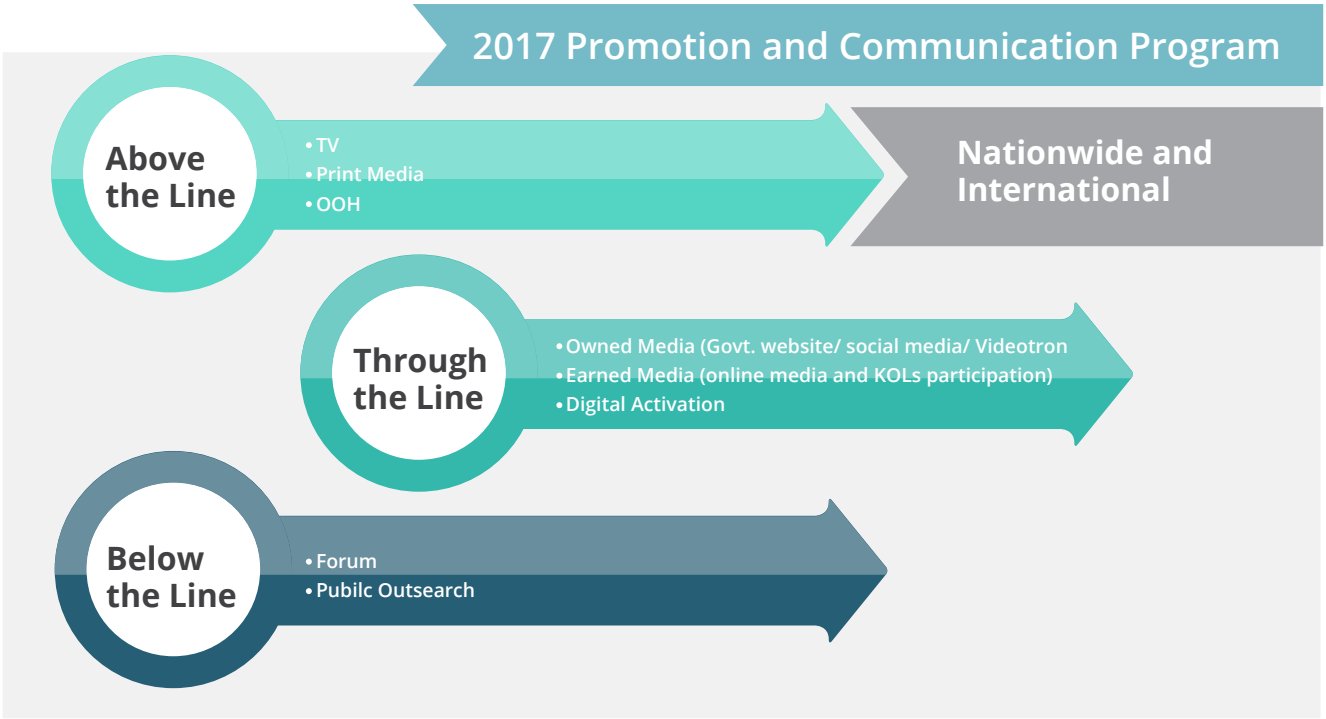
Figure 1.20 Governmetn Public Relations Workflow



Source: DG of Informations and Public Communications, 2016

The Objectives of Communications Programs





Variety Shows and Sport Documentary

Print Media Cooperation

International Placement

Branding and Outdoor Media

Digital Campaign

3037
Contest Subsmission

150
Average Engagement

7523
Total Subsmissions

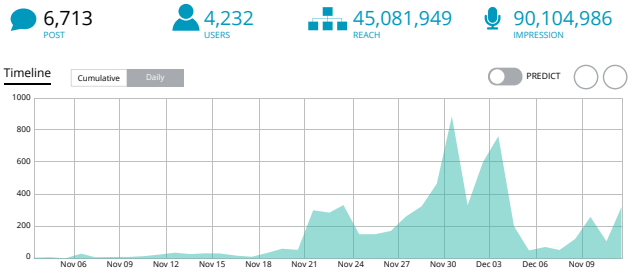
Aktivitas Influencer

6
Activity

74
Influencers Joined the Movement

86
Instagram Posts Generated

75.131.400
Total Followers



Blog, Video and Photo Contests are monitored via hashtags **#EnergiAsia with 3037 participations and #DukungBersama with 7523 participations.**

Digital Information Content

9 series Partnership Program Workshop Roadshows in 70 Campuses

ROADSHOW WORKSHOP 9 SERI

- 200 Participants (Design Students as the Main Target) from 70 Campuses
- Workshop on how to create Infographics and Video graphics
- Provide Issues or Theme to Participants
- Creating Infographics according to the Theme

COMPETITION INFOGRAPHICS & VIDEOGRAFIS

- Participants are Required to make Viral and Submit their Infographics and Video graphics Competed in the competition
- 1 (one) Winner will be determined every month in accordance with the tailored themes
- Prices are prepared for winning Infographics and video graphics

GRAND FINAL

- A Great Event will be Held as a closing ceremony for this Roadshow in the Metro TV Grand Studio
- The Community will be Invited to the closing ceremony as participants for a Talk show Event
- A winner for each Infographics and Video graphics Competitions will be determined

6. MCI's Internal Programs

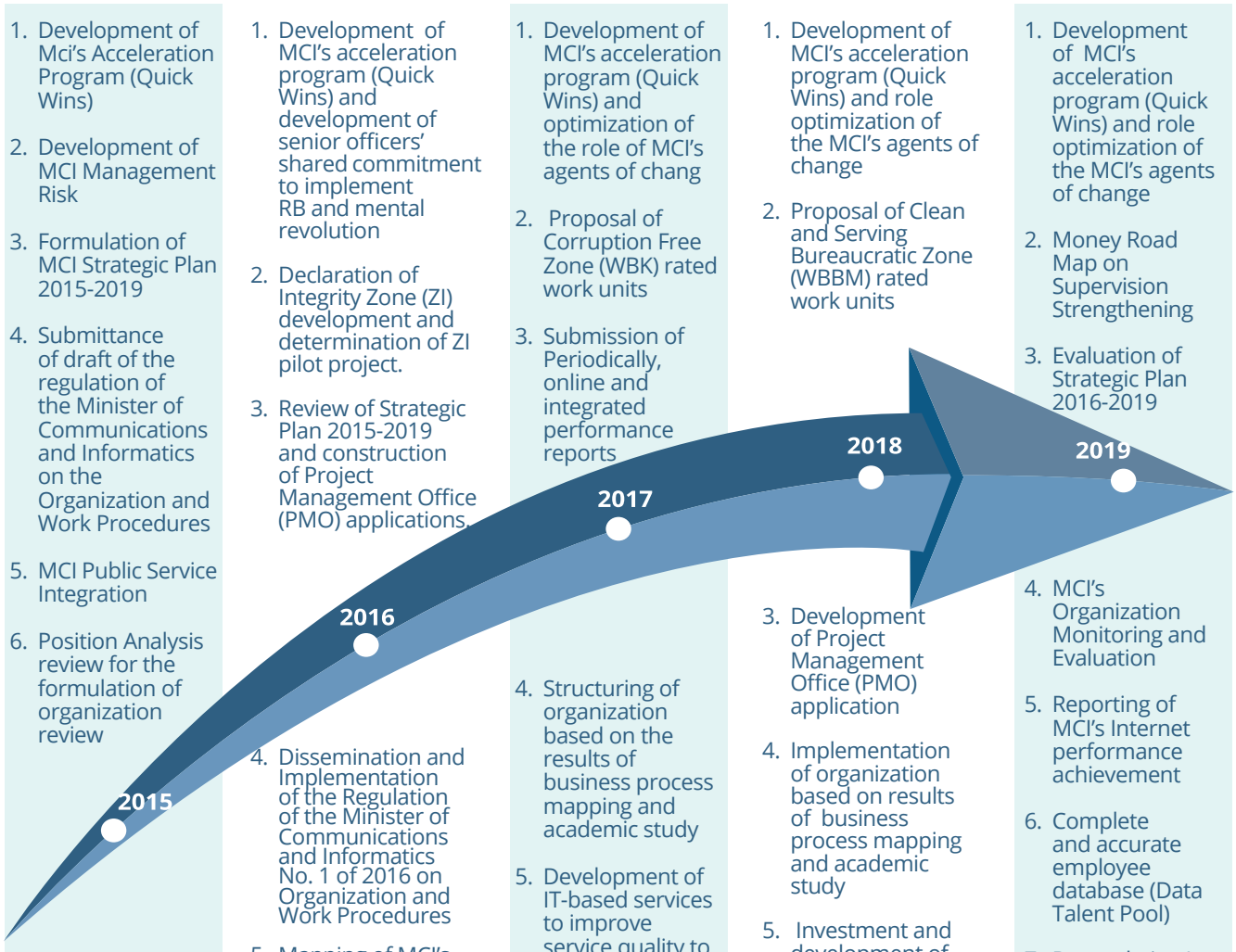
a) MCI's achievements in the field of Bureaucratic Reform (RB)

The process of Bureaucratic Reform has been implemented in MCI since 2010 following the issuance of the Presidential Regulation No. 81 of 2010 on the grand Design of Bureaucratic Reform 2010 - 2025. In order to maintain the changes on course and measurables, guidelines that serve to establish and run macro, meso and micro programs, and provide common understanding to all levels within the Ministry of Communication and Informatics are required. Bureaucratic Reform working groups are also established to facilitate coordination in accordance with the area of amendment mandated by Presidential Regulation No. 81 of 2010 on the Bureaucratic Reform Grand Design.

The process of Bureaucratic Reform has been implemented in MCI since 2010 following the issuance of the Presidential Regulation No. 81 of 2010 on the grand Design of Bureaucratic Reform 2010 - 2025. The implementation of the Grand Design on Bureaucratic Reform is translated into a 5-Year Bureaucratic Reform Roadmap, and 2017 is included in the second period of 5 year roadmap (2015-2019).

Some of the main issues related to bureaucracy reform include mindset and innovation, quality of public services, organization, business processes and working procedures, laws and regulation, management of human resources apparatus, and authority. To solve these issues, the Ministry of Communications and Informatics established 9 Working Groups, each of which has developed annual action plan and activities based on the Bureaucratic Reform Roadmap of the Ministry of Communication and Informatics as shown in Figure 1.20 below.

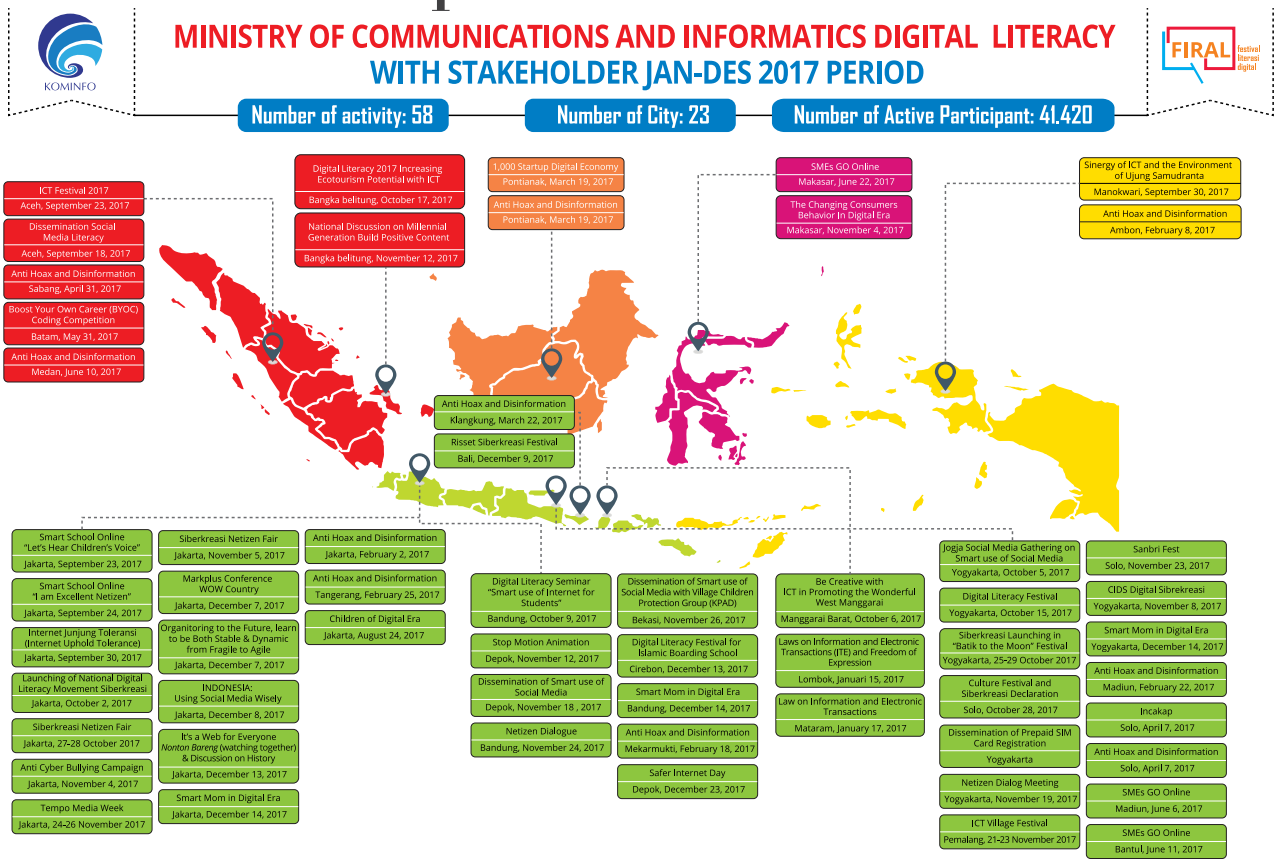
Figure 1.21 Roadmap of The Ministry of Communications and Informatics Bureaucratic Reform 2015 – 2019



Source: Ministry of Communications and Informatics, 2015

b) National Digital Literacy Movement

Recap of Activities 2017



Litercy Book 2017

21

books are ready for download and the number is increasing periodically

Online Presence Support

Situs literasidigital.id

Situs siberkreasi.id

Instagram Siberkreasi

#Firal Activity Support

Jogja

Bandung

Padang

#Firal Literacy Documentation

Documentation of MCI Activities

Documentation of Literacy for Law Enforcement

Documentation of Literacy for School/Islamic Boarding School

Documentation of Literacy for Interfaith

Documentation of Literacy Content Creator

c) ICT Literacy Training for Persons with Disabilities

Nowadays, Information and Communication Technology (ICT) has regarded as a necessity. The transition to digitalization in various areas of life has changed many business patterns.

The acceleration of information and communication technology innovation is expected to increase economic growth and social welfare. The Ministry of Communication and Informatics (MCI) is responsible for organizing government affairs in the field of communications and informatics needs to have public policies which are adaptive to the existing development through ICT literacy. This is in order to meet the challenges of building a strong digital future and assist the President in organizing state government.

ICT literacy is the ability to use digital technology, communication tools and/or networks to define, access, manage, integrate, evaluate, create and communicate information properly and legally in order to build a knowledgeable society. ICT literacy is an important means to compete in the working world. Ministry of Communications and Informatics present to provide solutions for the human resources improvement to be able and ready to become reliable human resources in the field of ICT.

The goal of the ICT Literacy program is to provide ICT knowledge and expertise inclusively and equitably for all levels of society, especially children, women, disabled people and students. In implementing ICT Literation, the Ministry of Communications and Informatics conducts various activities that includes various training as follows:

a) Microsoft Office Excel
b) Microsoft Office Word
c) Microsoft Office Power Point
d) Internet
e) Graphic Design
f) Public Speaking

In 2017, the Ministry of Communications and Informatics has introduced ICT literacy to 7,291 people including school-age children, women, and disabled people. Physical realization of this activity reached 137.56% of the total target of 5,300 people with the following details:

Table 1.2 Total Number of Children, Women, Persons with Disabilities and Students Obtaining ICT Literacy Training 2015 – 2017

Category	2015 Realization	2016 Realization	2017 Realization
Housewives	100	1.121	2.099
Children	6.001	9.415	4.862
Persons with Disabilities	455	1.771	330
SMEs	108	-	-
Teachers/Instructors	-	59	-
Others	-	209	-
TOTAL	**6.664**	**12.575**	**7.291**

Source: Agency for Research and Development of Human Resources, MCI, 2017

The Ministry of Communications and Informatics has provided trainings for 499 teenage with dissabilities (15-24 y/o) and adults with disabiliies (25-35 y/o) in ICT Jamboree for Disabled Youths and Adults 2017. The Jamboree was held in five major cities in Indonesia namely Jayapura, Balikpapan, Manado, Palembang and Yogyakarta.

Implementation of ICT Jamboree for Disabled Youths and Adults

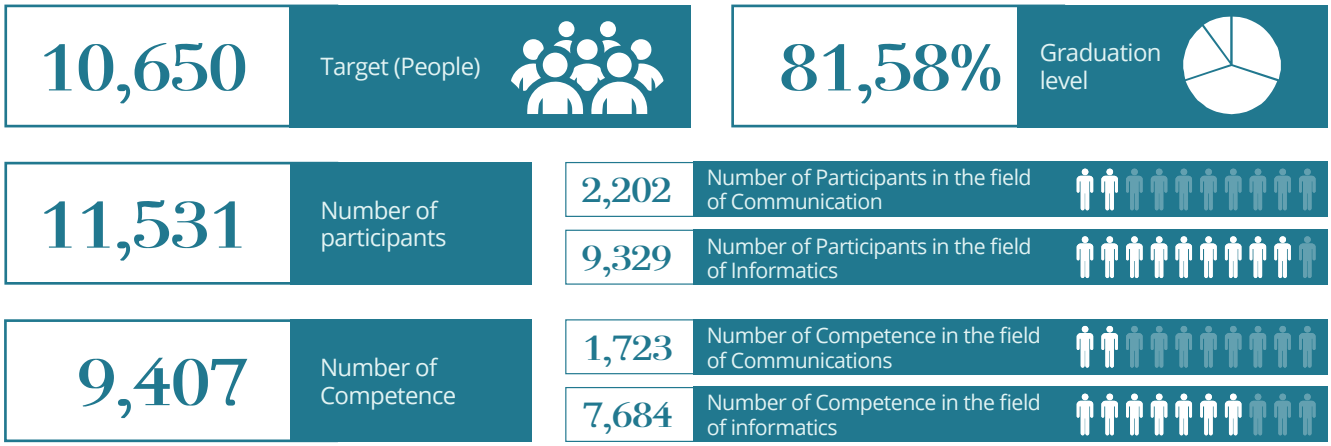
Women's Bimtek Documentation

d) National Working Competency Standards (SKKNI) Certification in the Communications and Informatics Field for Young Work Force

One of the priority agenda of development in the employment sector is the acceleration of improvement of labor competencies. Management of training and provision of support for strategic training programs are also included in the labor market policy of 2025. To prepare for this, increasing the number of skilled workers to face market openness is an unavoidable necessity.

There is a growing need to continuously promote such effort is considering that Indonesia has entered the ASEAN Economic Community (MEA) single market, which creates free flow of goods, services, capital, investment and skilled manpower in Southeast Asia. In line with the government's focus on vocational education in preparing ready-to-use skilled labor, the Ministry of Communications and Informatics intensify the provisions of SKKNI-based communication and informatics training and certification. The trainings are aimed especially for the young workforce, i.e. vocational high school graduates (SMK), collage graduate (D1, D2, D3)with ICT major. The goal is to have competence recognition in gaining employment and improve competitiveness in the working world.

Skkni Certification For The Indonesian Work Force In 2017



Source: Agency for Human Resources Development and Research on Communications and Informatics, Ministry of Communications and Informatics, 2017

Certification for young work force is expected to shape qualified young workforce to improve the ratio of skilled workers and increase their competitiveness with workers from other countries. SKKNI trainings and certification in communications field include Public Relations (PR) and multimedia. SKKNI training and certification in informatics field include digital imaging, Helpdesk, Multimedia, Practical Office Advance, Computer Operator, Graphic Design, Programming, Network Technician, Office Operator, and Network Administrator.

SKKNI-based National Certification in the Informatics Field in Mataram

SKKNI-based National Certification in the Informatics Field in Semarang

e) Change Management Training in Ministry of Communications and Informatics

Background

Article 70 paragraph (1) and (2) of Law No. 5 of 2014 on State Civil Apparatus (ASN) state that ASN employees have rights and obligations in developing competence, which can be achieved through various means, one of which is through education and training.

ICT industry with its characteristics of dynamic, creative and innovative, short life cycle, competitive, network has potential to become a remarkable instrument of change. Infrastructure industry is capital intensive, while content industry (creative destruction) is idea intensive and demands creative & innovative people, long life learning, open minded, forward looking, risk taker and speculative, persistence, nationalist, and humanist.

Objectives

1. MCI's Human Resources will experience changes in mindset, skillset, and toolset which form the nature, culture, and work structure from silo-attitude to collaborative-attitude, effective, efficient, community-oriented and forward looking;
2. MCI's Human Resources will understand the implications of technological developments on the national economy and community social behavior so as to have a sharpness in the public policy process that has broad impact for the community;
3. MCI's Human Resources will have the skills in managing priority programs which have massive impacts with innovative and out of box approaches within accountable deadlines;
4. MCI's Human Resources have the ability to explore the diversity of the nation as a source of competitive advantage;
5. MCI's Human Resources have the ability in mapping and risk mitigation/anticipatory/risk-based planning;
6. Organization that is flexible and adaptable to change;
7. Service oriented organization

f) Complaints in the Field of Press

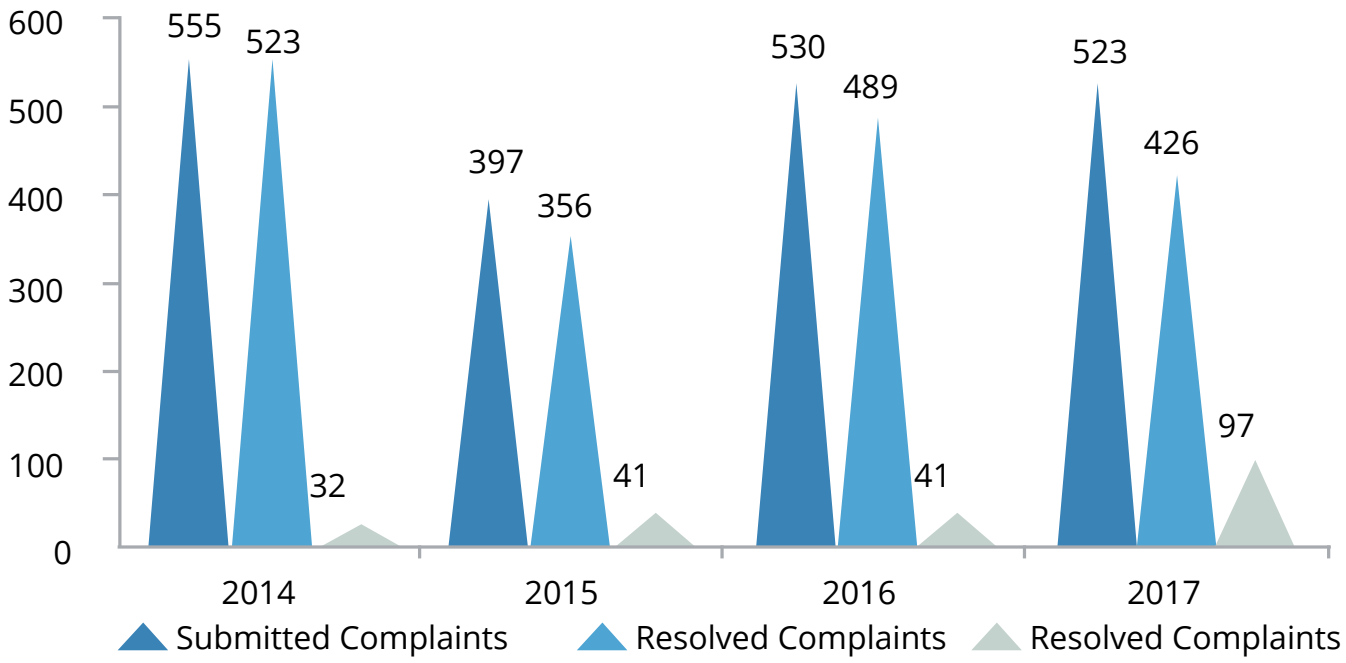
During 2017, the Press Council handled a total of 523 journalistic case complaints coming from communities, government/private institutions and other organizations. From these cases, 482 cases were received in 2017 and 41 cases were received at the end of 2016. By the end of 2017, the number of complaints completed was 426 cases (81%). The remaining 97 cases (19%) will be completed by 2018.

Cases of complaints are generally about violations of the Journalistic Code of Ethics by the media, either printed, electronic or cyber. The reported news faild to confirm the facts confirmation and clarification so that they tend to be herding opinion and being judgmental. Other complaints include the coverage on violence against children and women (violation of Article 5) and racist news (violation of Article 8). The settlement of the complaint cases were conducted through:

1. Mediation by generating Minutes of Agreements (51 cases);
2. Statement of Assessment and Recommendation (PPR) (40 cases) when agreement was not reached after attempting mediation;
3. Correspondence with complainants and complainers (334 cases);
4. Minutes of Meeting (1 case)

The dispute resolution of the press case took place in Jakarta and in some other areas of Indonesia

Graphic 1.7 Total of Press Case Complaints Submitted to the Press Council 2014 - 2017



Source: The Press Council, 2017

Photos of Complaint Resolution

Source: The Press Council, 2017

g) World Press Freedom Day 2017

In 2017 Indonesia gained an honor from the UNESCO to host the World Press Freedom Day on 1 - 4 May 2017 at Jakarta Convention Center (JCC), Jakarta. The theme was "Critical Minds for Critical Times: Media's Role in Advancing Peaceful, Just and Inclusive Societies". The event was attended by 438 journalists and 1,081 participants from domestic and foreign country. World Press Freedom Day 2017 produced Jakarta Declaration that has 74 major points. Jakarta Declaration appealed to UNESCO member states, journalists, media industry, social media practitioners, internet users and all communities to jointly support and maintain the press' independence.

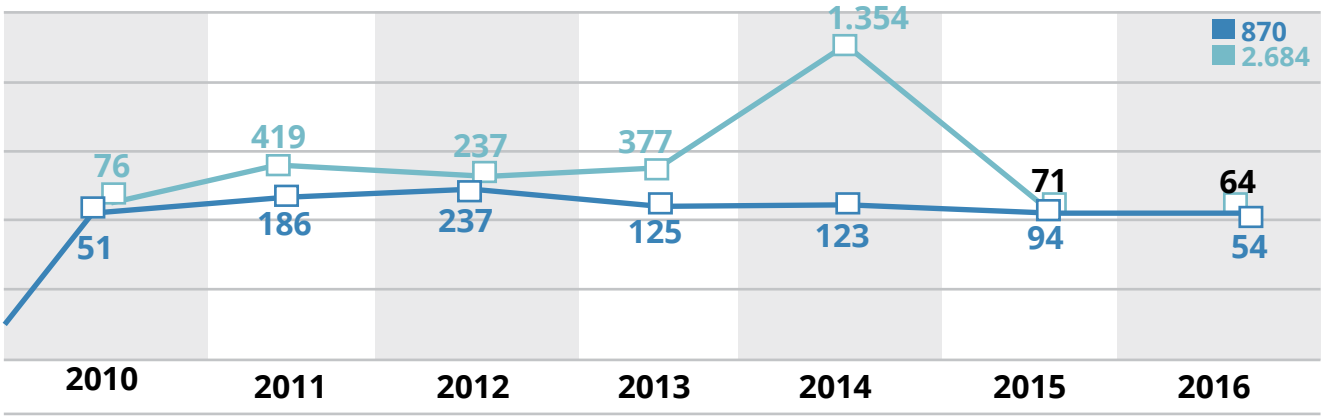
World Press Freedom Day 2017 officially opened with Gong beating by Vice President of the Republic of Indonesia

h) Public Information Dispute Settlement Publik

Based on Law No. 14 of 2008 on Public Information Openness, The Information Commission has the duty as the provisions of Article 26 paragraph (2), that is to stipulate the procedure for the implementation of dispute settlement through Mediation and/or Non-litigation adjudication as well as to receive, examine and decide upon the Public Information Dispute and report on the performance of its duties pursuant to this Law to the President and House of Representatives of the Republic of Indonesia in once a year or at any time requested, as Applicant and Plaintiff. With the development of the types of cases handled, it is necessary to develop knowledge and skills related to the implementation of settlement of public information dispute to the parties mentioned above.

The following is the graphic on dispute settlement from 2010 to 2017:

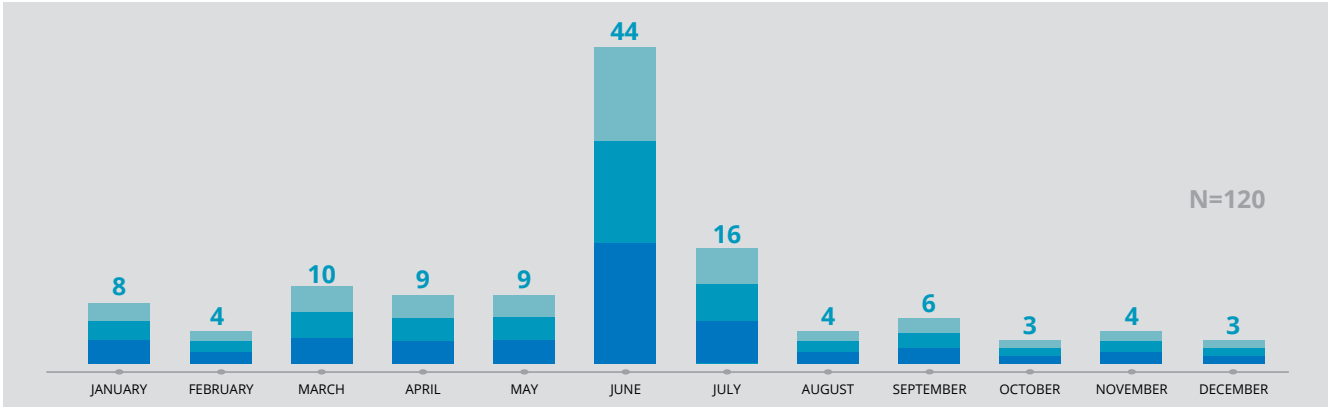
Graphic 1.8 Application and Dispute Settlement 2010-2016



Source: The Central Information Commission 2017

On the period of January - December 2017, the number of dispute settlement applications was 120 cases, with details as follows:

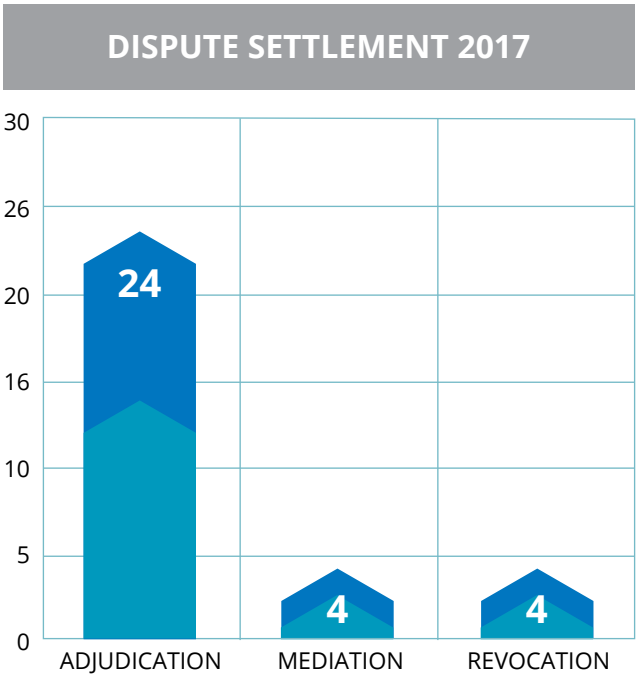
Graphic 1.9 Application for Dispute Settlement 2017



Source: The Central Information Commission 2017

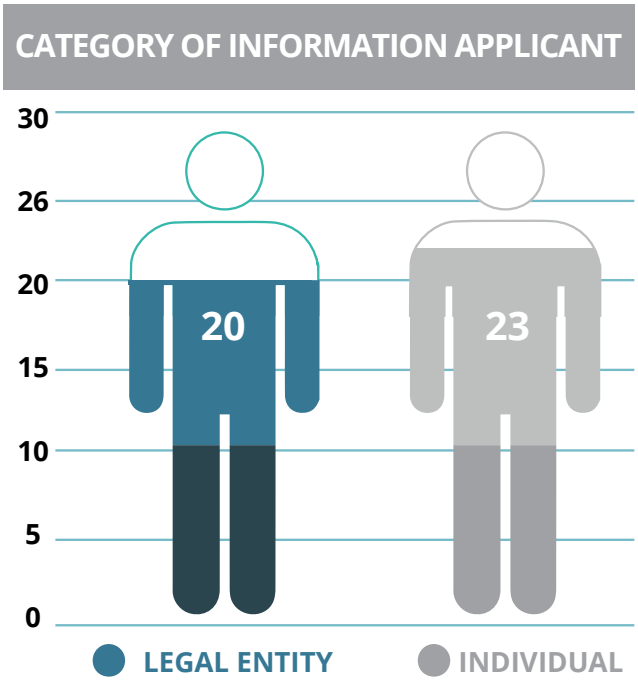
In 2017, the Central Information Commission only resolved 32 cases of information disputes with the following recapitulation:

Graphic 1.10 Dispute Settlement 2017



From the 120 applications on public information dispute settlement received, the applicants are categorized as as individual and legal entit, in accordance with the Central Information Commission Law. Number of applications by category of aplicants are shown in the following figure:

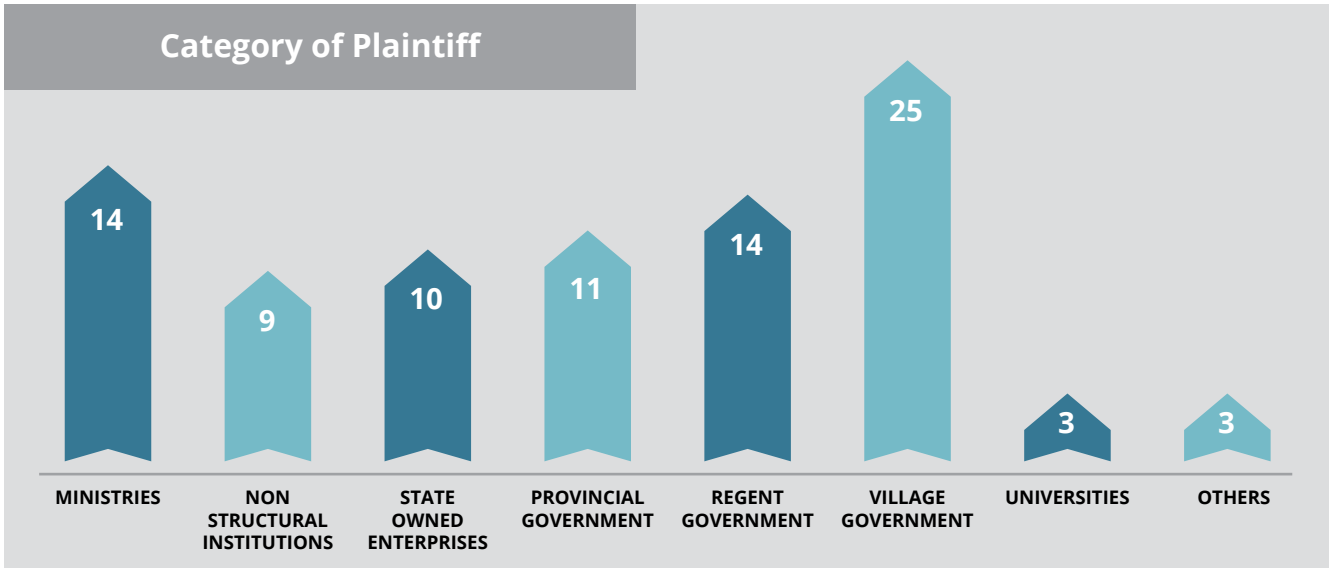
Figure 1.22 Category of Information Applicant



Source: The Central Information Commission 2017

Public institutions that becamePlaintiff in the Public Information dispute are identified based on the category shown in table 5. The data shown that the most disputed Plaintiff to the Central Information Commission is Village Government, as many as 25 cases. The second most disputed Public Institution are ministries, as many as 14 cases, as shown in graphic below:

Graphic 1.11 Category of Plaintiff



Based on the data above, dispute settlement application received in 2017 was 120; 7 have been resolved and 113 have not been resolved.

In carrying out its duties and functions, the Ministry of Communications and Informatics is supported by 3,201 employees from various work units consisting of 2,070 men and 1,131 women.

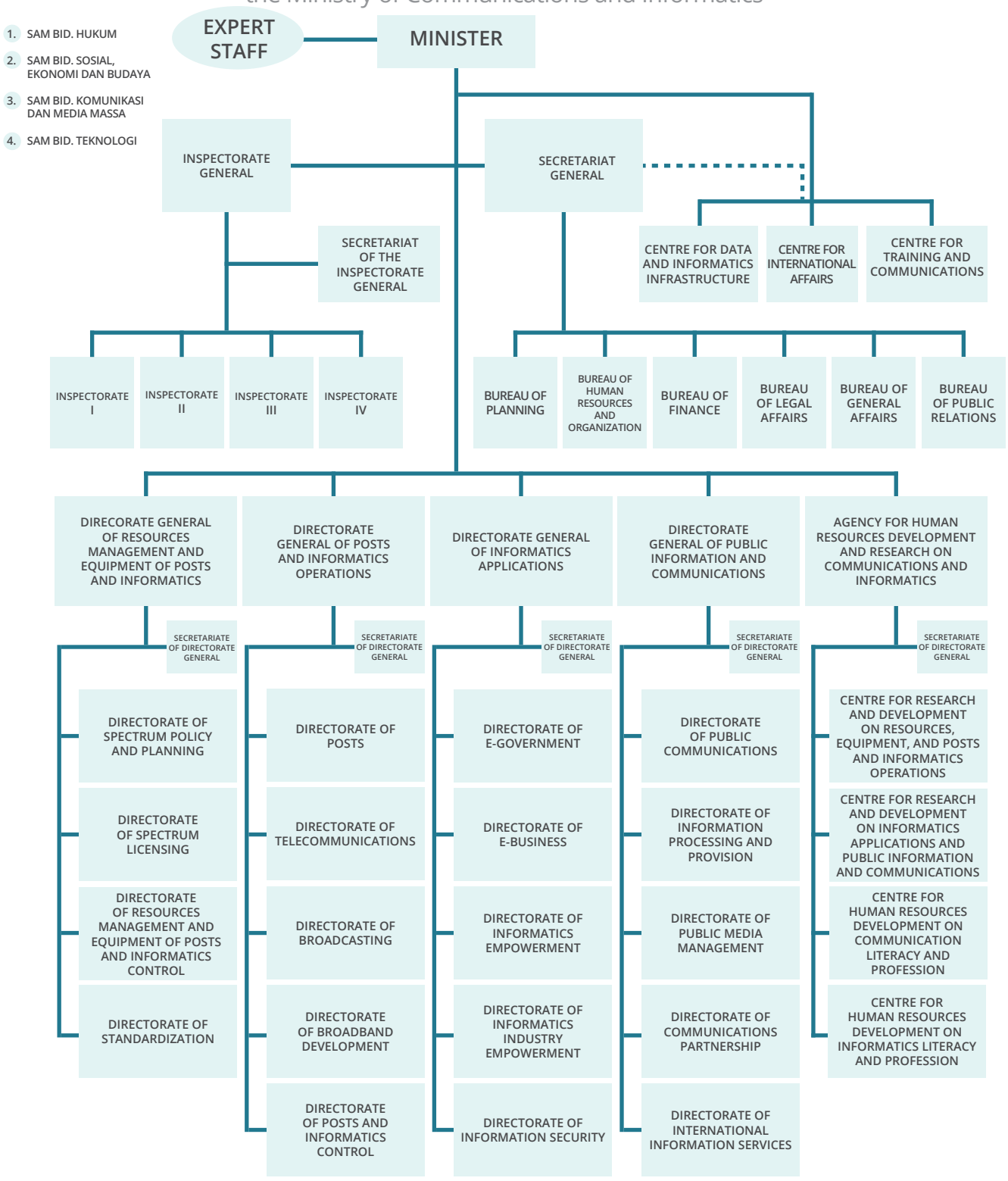
CHAPTER 2

PROFILE OF THE MINISTRY OF COMMUNICATIONS AND INFORMATICS

1. Organizational Structure

Based on the Regulation of the Minister of Communications and Informatics No. 1 of 2016, the Organizational Structure of the Ministry of Communications and Informatics is as follows:

Figure 2.1 Organizational Structure and Working Procedures of the Ministry of Communications and Informatics

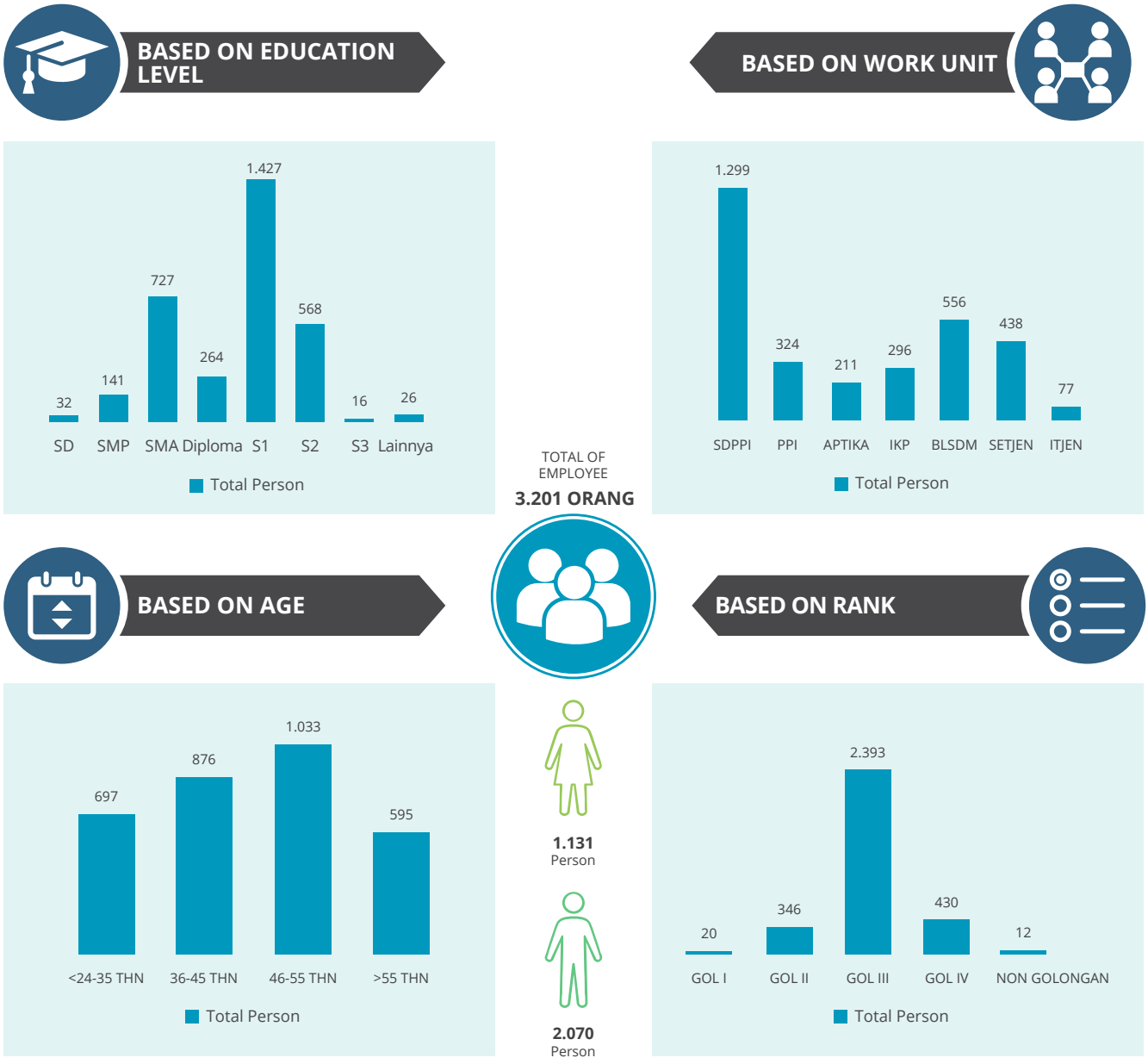


Source: Regulation of the Minister of Communications and Informatics No. 1 of 2016

2. Human Resources

In carrying out its duties and functions, the Ministry of Communications and Informatics is supported by 3,201 employees from various work units (data as of 31 December 2017) consisting of 2,070 men and 1,131 women . The employees are spread over seven Echelon I units with the following composition: (1) Secretariat General (431 employees), (2) Directorate General of Resources Management and Equipment of Posts and Informatics (1,299 employees), (3) Directorate General of Posts and Informatics Operations (324 employees), (4) Directorate General of Informatics Applications, (5) Directorate General of Public Information and Communications (296 employees), (6) Inspectorate General (77 employees), (7) Agency for Human Resources Development and Research on Communications and Informatics (556 employees), 4 expert staffs and 3 special staffs.

Figure 2.2 Composition of the Employee of Mci per 31 December 2017



Source: Bureau of Human Resources and Organization, MCI, 2017

The above figure shows that based on education level, the composition of MCI's employees are as follows: (1) 32 elementary school graduates, (2) 141 junior high school graduates, (3) 727 high school graduates, (4) 264 hamployees have Associate's Degree (5) 1,427 have Bachelor's Degree, (6) 568 have Master's Degree, (7) 16 PhDs, and (8) 26 non-degree. Based on ranks, the composition are as follows: (1) 20 rank I, (2) 346 rank II, (3) 2,393 rank III, (4) 430 rank IV, and (5) 12 non-rank.

3. Simplification and Deregulation on Licensing

The results of simplification of regulation up to 2017 are as follows:

No	Name of Regulation before Simplification	No.	Name of Regulation after Simplification	Information
1.	Regulation of the Minister of Communications and Informatics No. 11 of 2010 on Operation of Internet Protocol Television Service (IPTV)	1.	Ministerial Regulation No. 6 of 2017 on Operation of Internet Protocol Television Service (IPTV)	Enacted on 7 Februari 2017
2.	Regulation of the Minister of Communications and Informatics No. 15 onthe Revision of Regulation No. 11 of 2010 on Operation of Internet Protocol Television Service (IPTV)			
3.	Regulation of the Minister of Communications and Informatics Regulation No. 32 of 2014 on the requirements and Procedures for the Issuance of Posts Operation License	2.	Ministerial Regulation No. 7 of 2017 on the requirements and Procedures for the Issuance of Posts Operation License	Enacted on 7 Februari 2017
4.	Regulation of the Minister of Communications and Informatics No. 9 on the Revision of Regulation No. 32 of 2014			

No	Name of Regulation before Simplification	No.	Name of Regulation after Simplification	Information
5.	Decree of the Minister of Transportation No. 23 of 2002 on Implementation of Internet Telephony Service for Public Interest	3.	Ministerial Regulation No. 8 of 2017 on Operation of Telephony Internet Service for Public Purposes	enacted on Februari 7, 2017
6.	Decree of the Minister of Transportation No. 31 of 2004 on Revision of Decree of the Minister of Transportation No. 23 of 2002 on Operation of Internet Telephony Service for Public Purposes			
7.	Regulation of tge Minister of Communications and Informatics No. 07/PM.Kominfo/5/2005 on the Second Revision of the Decree of the Minister of Transportation No. 23 of 2002 on Operation of Internet Telephony Service for Public Purposes			
8.	Regulation of the Minister of Communications and Informatics No. 21 of 2013 on Implementation of Content Provision Services Operation on Mobile Cellular Network and Local Fixed Wireless Network with Limited Mobility	4.	Ministerial Regulation No. 9 of 2017 on Content Provisioning Services Operation on Mobile Cellular Network	enacted on Februari 7, 2017
9.	Regulation of the Minister of Communications and Informatics No. 10 of 2014 on Revision of Regulation No. 21 of 2013 on Content Provision Services Operation on Mobile Cellular Network and Local Fixed Wireless Network with Limited Mobility			
10.	Regulation of the Minister of Communications and Informatics No. 24 of 2014 on the Second Revision of Regulation No. 21 of 2013 on Content ProvisionServices Operation on Mobile Cellular Network and Local Fixed Wireless Network with Limited Mobility			
11.	Regulation of the Minister of Communications and Informatics No. 6 of 2015 on the Third Revision of Regulation No. 21 of 2013 on Content Provision Services Operation on Mobile Cellular Network and Local Fixed Wireless Network with Limited Mobility			

In 2017, 11 Ministerial Regulations have been simplified into 4 Ministerial Regulations, namely, Ministerial Regulation No. 6 of 2017, Ministerial Regulation No. 7 of 2017, Ministerial Regulation No. 8 of 2017, and Ministerial Regulation No. 9 of 2017.

MCI always able to maintain reliable, safe, and responsible electronic transaction system operation through Electronic Systems Operators (PSE) registration program

CHAPTER 3

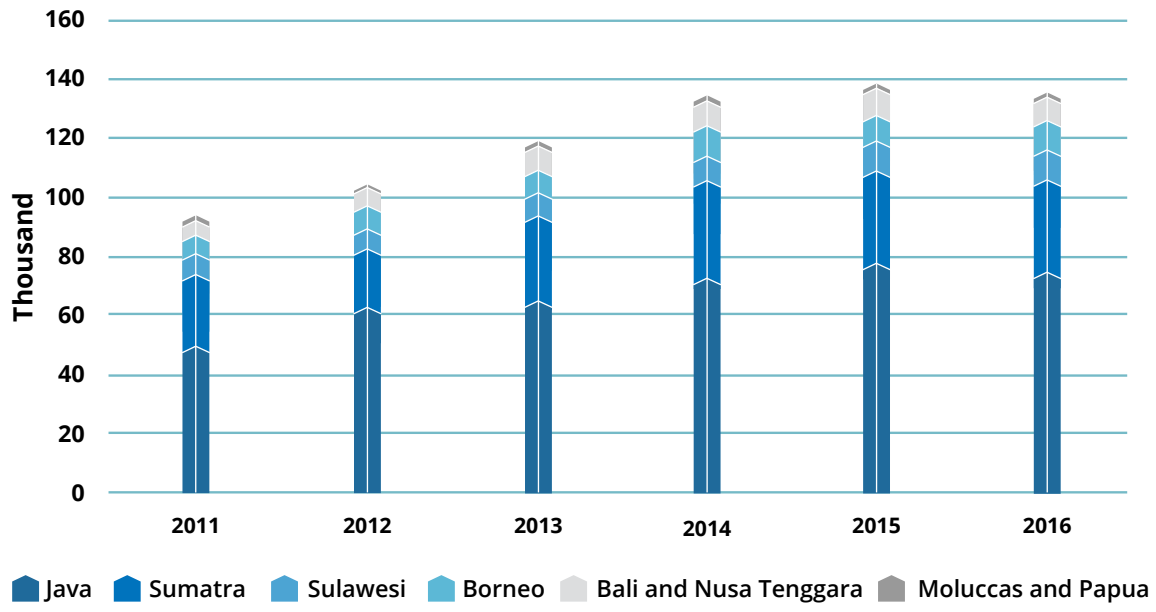
THE STATISTICS IN THE FIELD OF COMMUNICATIONS AND INFORMATICS

1. Statistics of Internet Users in Indonesia

a) Distribution of Site Base Transceiver Station (BTS) 2G

The influx of the new 4G technology in Indonesia since a few years ago made mobile cellular networks providers switch from Base Transceiver Station (BTS) 2G to the latest BTS generation construction. This is indicated by the average growth of 2G BTS development which is only by 8% per year. The following is 2G BTS growth data from 2011 to 2016 based on region:

Graphic 3.1 Distribution of Base Transceiver Station (BTS) 2G



The data above shows that the development of 2G BTS from year to year is insignificant . The number of BTS 2G construction experienced increase and decrease from year to year. The following is map of the distribution of BTS 2G in Indonesia 2017:

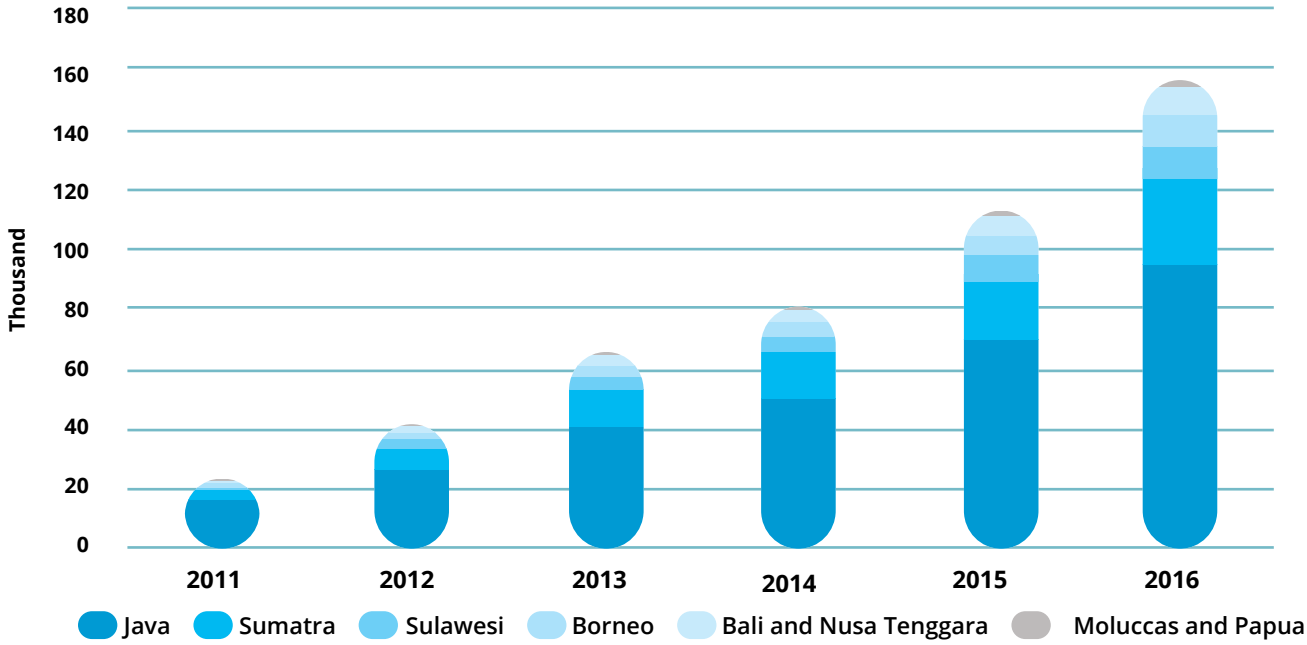
Figure 3.1 Map of 2G Site Distribution Areas in Indonesia 2017

The above picture shows that BTS 2G construction in Indonesia is 133,903 BTS with signal-covered location in 31,361 villages, 6,172 sub-districts, 511 regencies/municipalities, and 34 provinces.

b) Distribution of Base Transceiver Station (BTS) 3G Sites

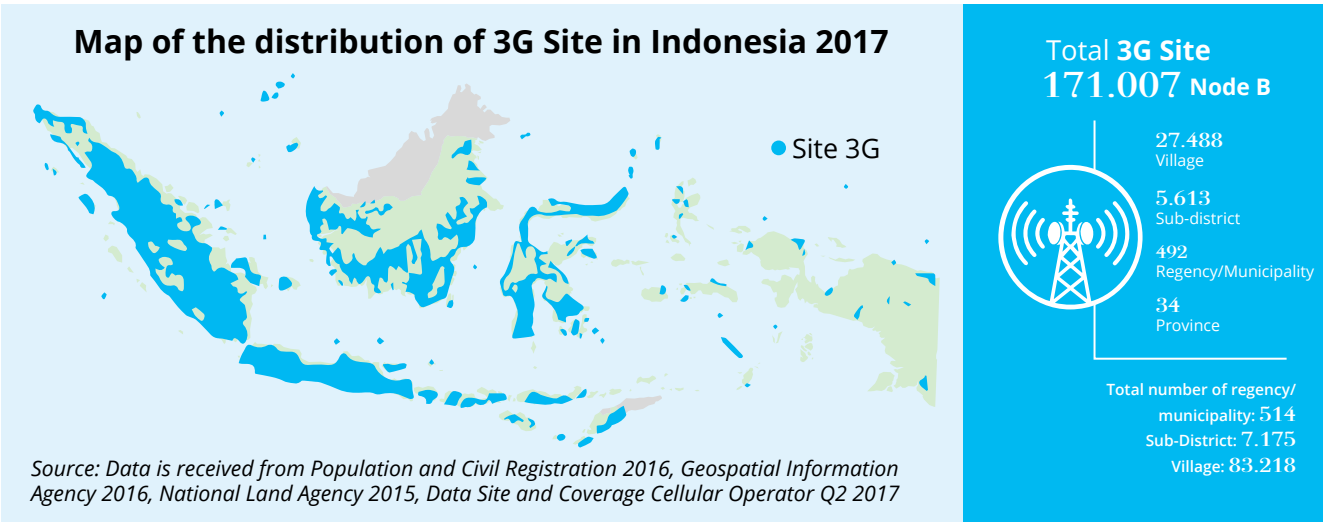
Indonesia experienced a fairly significant growth of 3G BTS, especially in the eastern part of Indonesia such as Sulawesi, Bali, Nusa Tenggara, Maluku and Papua. The following graphic shows data on the development of the number of 3G BTS between 2011 and 2016 by region:

Graphic 3.2 Distribution of Base Transceiver Station (BTS) 3G SItes



The data shows that the development of 3G BTS is increasing every year. The number of BTS in always increases in every region. The following is a map of BTS 3G distribution area in Indonesia 2017:

Figure 3.2 Map of the distribution of 3G Site in Indonesia 2017



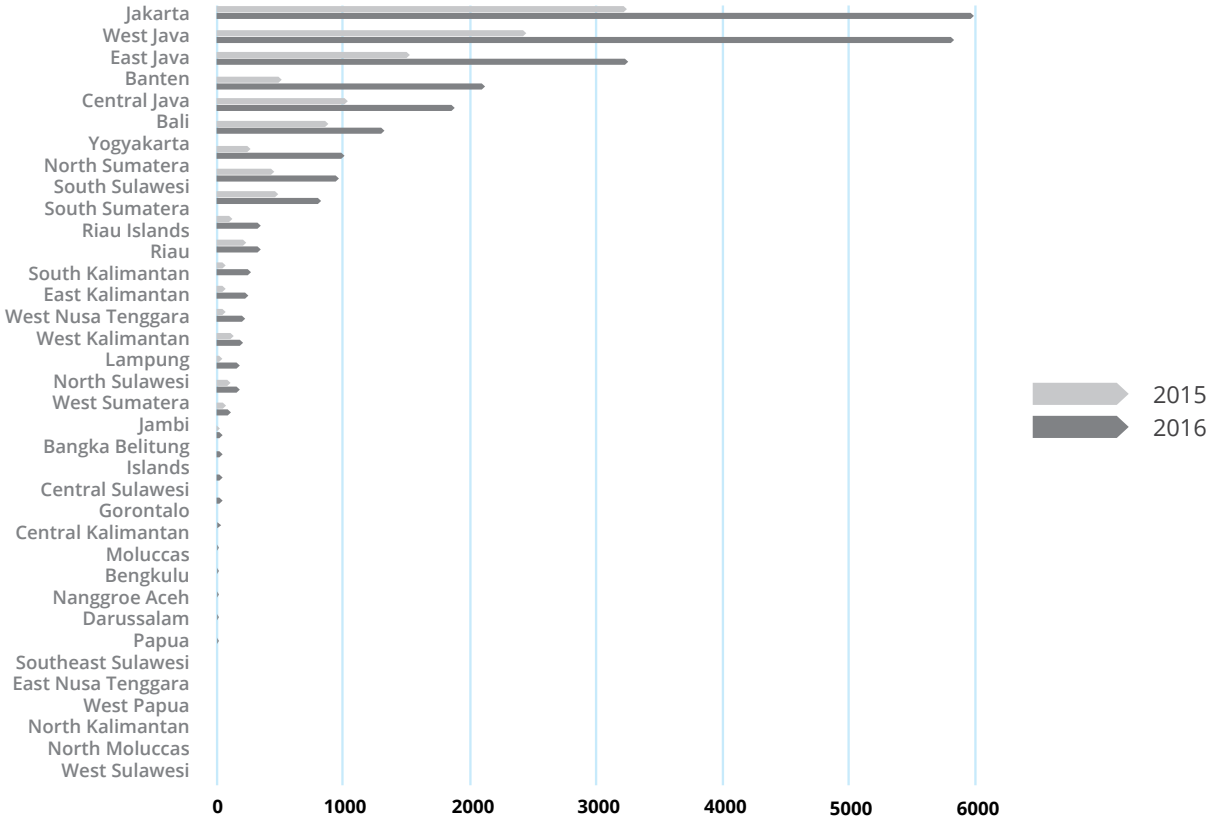
Source: Data is received from Population and Civil Registration 2016, Geospatial Information Agency 2016, National Land Agency 2015, Data Site and Coverage Cellular Operator Q2 2017

The figure shows that there are 171,007 3G BTS developed in Indonesia, which have provided signal coverage for 27,488 villages, 5,613 sub-districts, 492 regencies/municipalities, and 34 provinces.

c) Distribution of of Base Transceiver Station (BTS) 4G Sites

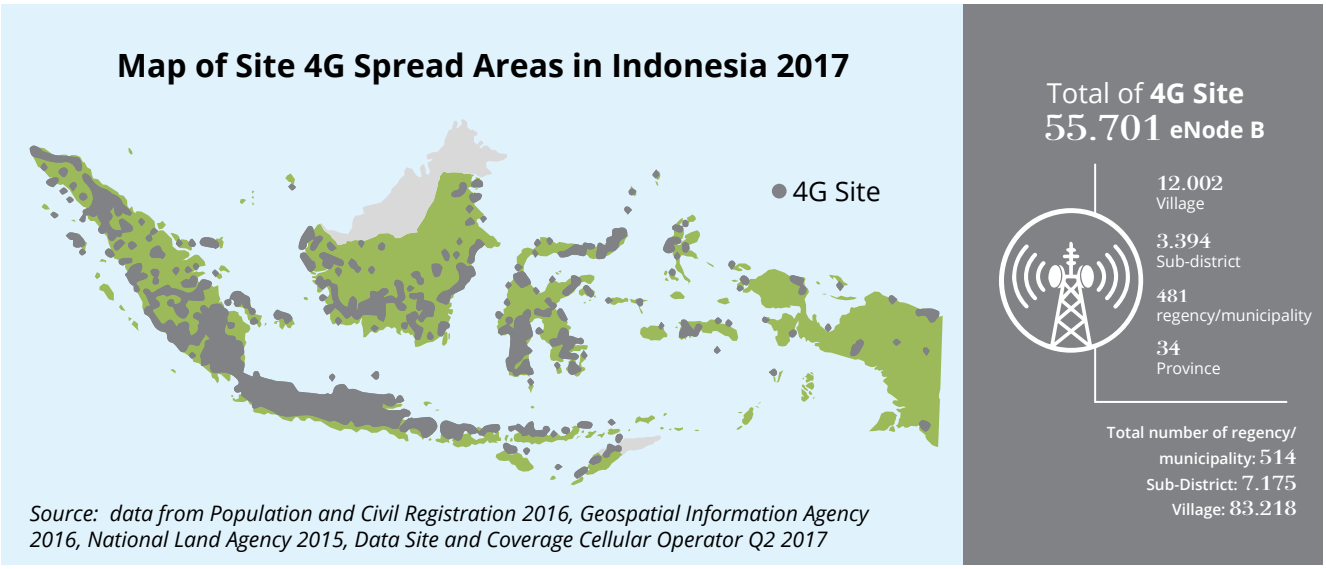
Nowadays, fast internet service 4G LTE is available for Indonesian people, although the coverage is still limited. Until the end of 2016, six mobile operators have provided 4G LTE service. This number increased by 115% compared to 2015. The following is graphic on the development of the number of 4G BTS between 2015 and 2016 by region:

Graphic 3.3 development of the number of 4G BTS between 2015 and 2016



The data above shows that there is an increasing number of 4G BTS development from 2016 until 2016. The largest number of BTS 4G LTE developments is in DKI Jakarta. The following is map of the distribution of BTS 4Gsites in Indonesia 2017:

Figure 3.3 map of the distribution of BTS 4Gsites in Indonesia 2017



Source: data from Population and Civil Registration 2016, Geospatial Information Agency 2016, National Land Agency 2015, Data Site and Coverage Cellular Operator Q2 2017

The figure shows that Indonesia has 55,701 BTS 4G which have signal coverage for 12,002 villages, 3,394 sub-districts, 481regencies/municipalities, and 34 provinces.

d) Number of BTS 2G, 3G, and Node 4G Ownership

Until Q2 2017, 59.07% or 1,122,099 km2 of Indonesian territory has been covered by 2G signal. Based on Indonesia's residential areas, 98.13% or 43,730 km2 areas has been covered by 2G signal. Based on data presented by the seven cellular operators, up to Q2 2017, the number of Indonesia's villages that have been covered 2G signal are 73,466 villages (88.28%).

The number of Indonesia's sub-districts that have been covered 2G signal are 6,400 sub-districts (89.20%). The number of Indonesia's regency/municipality that have been covered 2G signal are 488 districts/cities (94.94%). All provinces of Indonesia have been covered by 2G signals.

Figure 3.4 2G Signal Coverage in Indonesia until Q2 2017

Source: Population and Civil Registration 2016, Geospatial Information Agency 2016, National Land Agency 2015, Data Site and Coverage Cellular Operator Q2 2017

until Q2 2017, as many as 33.5% of Indonesian territory (or 636,390 km2) has been covered by 3G signal. However, according to residential areas, 3G coverage in Indonesia has reached 41,406 km2 or 92.91% of the residential area of Indonesia.

Figure 3.5 3G Coverage in Indonesia Until Q2 2017

Data source: Home Ministry's Population and Civil Registry (Dukcapil) 2016, Geospatial Information Agency (BIG) 2016, National Land Agency (BPN) 2015, Data Site & Coverage of Mobile Operator Q2 2017

Based on data coverage from 7 mobile operators, until Q2 2017, the number of villages in Indonesia covered by 3G signal has reached 62,466 (or 75.09%) villages, 5,557 (or 77.45%) sub-districts, 447 (or 86.96%) regencies/ municipalities. All provinces in Indonesia has been covered by 3G signals.

Until Q2 2017, as many as 14.15% of Indonesian territory (or 268,905 km2) has been covered by 4G signal. However, based on residential areas in Indonesia, the area covered by 4G signal reached 33,019 km2 or 74.09% of residential areas of Indonesia.

Figure 3.6 4G Coverage in Indonesia until Q2 2017

Data source: Home Ministry's Population and Civil Registry (Dukcapil) 2016, Geospatial Information Agency (BIG) 2016, National Land Agency (BPN) 2015, Data Site & Coverage of Mobile Operator Q2 2017

Based on data from 7 cellular operators until Q2 2017 the number of villages in Indonesia that have been covered by 4G signal reached 423,496 (or 50.88%) villages, 3,805 (or 53.03%) sub-districts, and 297 (or 57.97%) regencies/municipalities. All provinces in Indonesia have been covered by 4G signals.

e) Satellite Services

Until 2016 there were 3 network operators that have commercial satellites:

Table 3.1 Network Operators that have Commercial Satellite

NO	ORGANIZER NAME	SATELLITE NAME
1.	PT Indosat, Tbk	PALAPA D
2.	PT Media Citra Indostar	INDOSTAR 2
3.	PT Telkom Indonesia Persero, Tbk	TELKOM 1, TELKOM 2

Palapa D Satellite is an Indonesian communications satellite owned and operated by PT Indosat, Tbk. The satellite was launched on August 31, 2009 and is predicted to expire in 2020. Palapa D serves coverage areas throughout Indonesia, ASEAN countries, parts of Asia, Middle East and Australia. The satellite is equipped with 24 standard C-Band Transponders, 11 Extended C-band transponders and 5 Ku-band transponders.

Indostar II satellite, launched by PT Media Citra Indostar on 16 May 2009, is in S-band Orbit and has a frequency of 2.5 GHz. The satellite has 32 S-band transponders and 12 Ku-band transponders directed to India and 10 will be directed to Indonesia.

Telkom-1 or A2100A is a geosynchronous satellite launched into space to replace the Palapa B2R satellite. The Telkom-1 satellite is a satellite that provides local television channels in addition to Palapa D and is configured with 24 C bands and 12 extended C-Band transponders. Telkom-1 is positioned at 108 degrees East Longitude covering all parts of Indonesia, Southeast Asia and northern Australia.

Telkom Satelite 2, which was launched on 16 November 2005, supports a backbone transmission communications system that includes long-distance telecommunications services (SLJJ), international direct connections (SLI), internet, and communication networks for military purposes. The Satellite that circulates in orbit 118 ° east has a capacity of 24 transponder C-band and weighs 1.975 kg. Its coverage reaches across ASEAN, India and Guam.

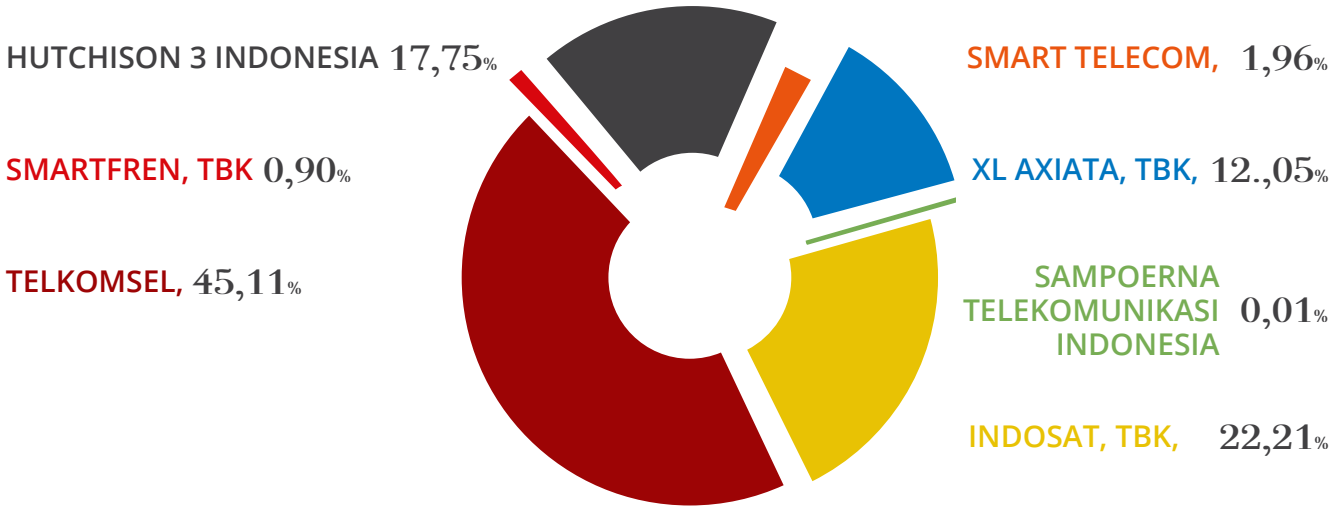
f) FO Distribution and Network

Network and optical developments in Indonesia are inseparable from the development of the telecommunication industry. Until 2016 there were 54 fixed network operational licenses and 46 switched-packet basedfixed network operation license with fiber optic technolgy owned by 85 telecommunication network providers. Until January 2018 from 82.68% of 514 regencies/municipalities in Indonesiahave been connected to national fiber optic backbone network.

2. Subscriber of Telecommunication Networks

Pada Tahun 2016 PT Telekomunikasi Seluler merupakan penyelenggara Jaringan bergerak seluler dengan pelangganggan terbanyak yaitu lebih dari 45% total pelanggan jaringan bergerak seluler di Indonesia. Sedangkan PT Indosat Tbk dan PT Hutchison 3 Indosia secara berturut-turut pada Tahun 2016 menduduki peringkat kedua dan ketiga dalam market share pelanggan jaringan seluler. Berikut adalah data jaringan bergerak seluler berdasarkan jumlah pelanggan Tahun 2016:

Figure 3.7 Market Share of Mobile Network by total of Customers in 2016

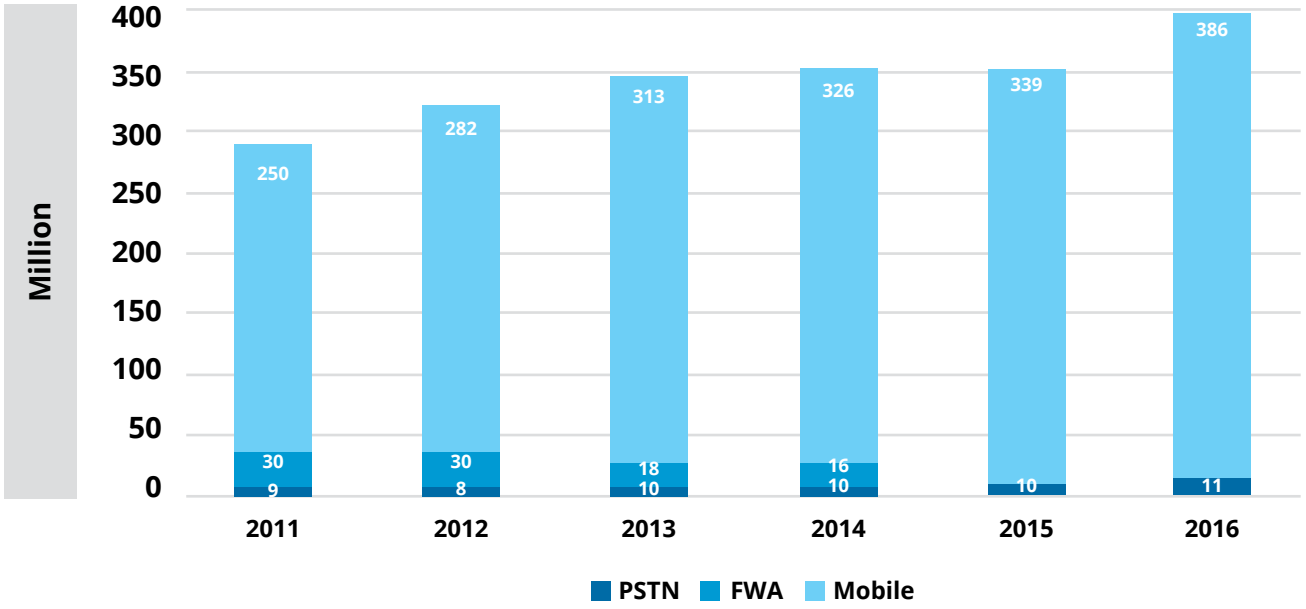


a) Subscriber of Public Switched Telephone Network (PSTN)

The current telephone industry structure consists of fixed lines and cell phones. The fixed telephone consists of fixed wireline (Public Switched Telephone Network/PSTN) and Fixed Wireless Access (FWA), while mobile phones are full mobile wireless phones. The increasing people mobility led to the development of telecommunications industry, especially telephone. In recent years, In Indonesia this development is dominated by the development of wireless phones, especially mobile phone.

Perkembangan pola aktivitas masyarakat yang semakin tinggi mobilitasnya menyebabkan perkembangan industri telekomunikasi, khususnya telepon, di Indonesia dalam beberapa tahun terakhir didominasi oleh perkembangan telepon nirkabel khususnya seluler.

Graphic 3.4 Customer of Public Switched Telephone Network (PSTN)



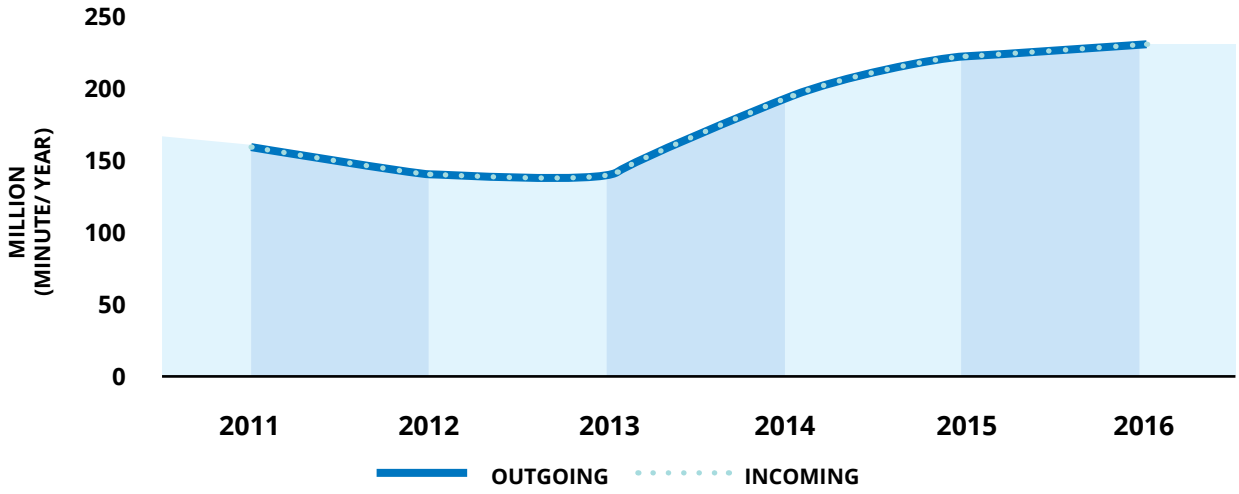
Initially, the FWA service became a successful alternative for the expensive GSM cellular fares. However, the tight competition in telecommunication industry makes FWA whose service is limited to one area code, no longer popular, because GSM cellular with national coverage is no longer synonymous with expensive tariffs. Therefore, in 2014, FWA license is officially revoked and replaced in the form of cellular license with neutral technology. With the demise of FWA services, FWA customers switched to mobile phone and cellular customers are increasing, while PSTN customers tend to be constant.

3. Telecommunication Traffic Data

a) Mobile Traffic Data

Total outgoing and incoming traffic from 7 operators in recent years continued to increase, although in 2012 and 2013 they experienced significant declines. The increase indicates the increasing needs for communication of Indonesian people.

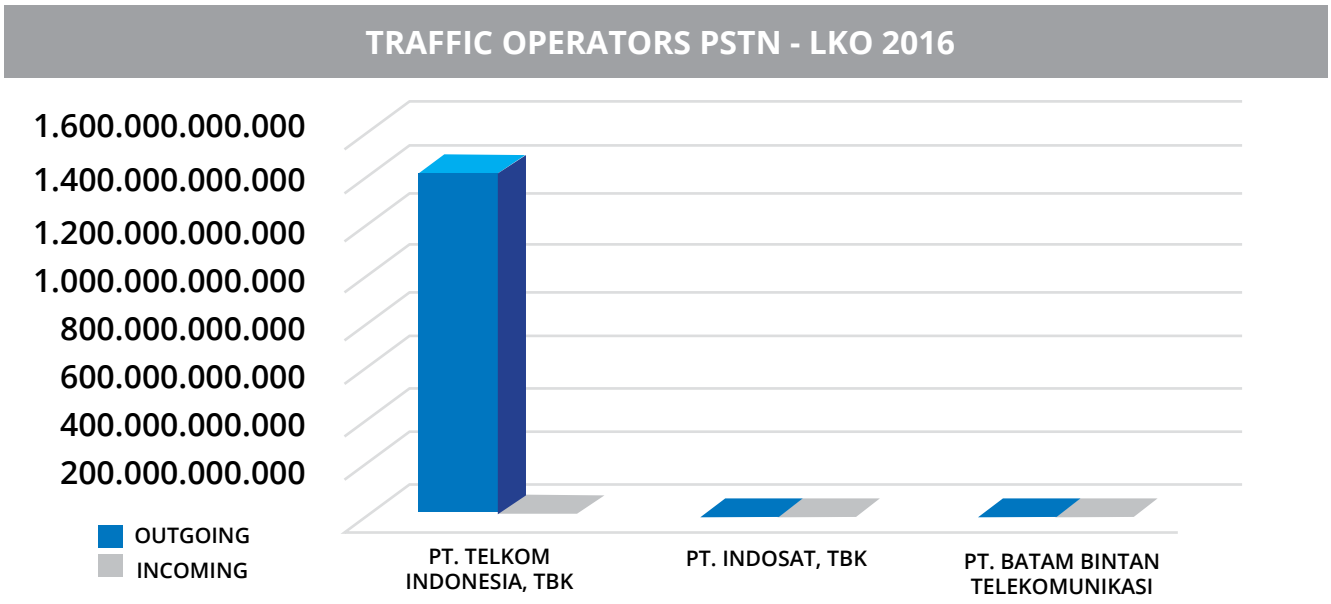
Graphic3.5 Development of Outgoing and Incoming Traffic of Cellular Mobile Network 2011 – 2016



If we look closer to this graphic, we can see that in each year, the volume of outgoing and incoming traffic are almost of equal amount. This means that the paid interconnection fee is almost the same as the one received, due to traffic situationthat always the same most of the times. The graphic above shows that in 2016 the volume of outgoing and incoming traffic had increased comparedto 2015 which amounted to 3.85% for outgoing and 3.02% for incoming.

b) Public Switched Telephone Network (PSTN) Traffic data

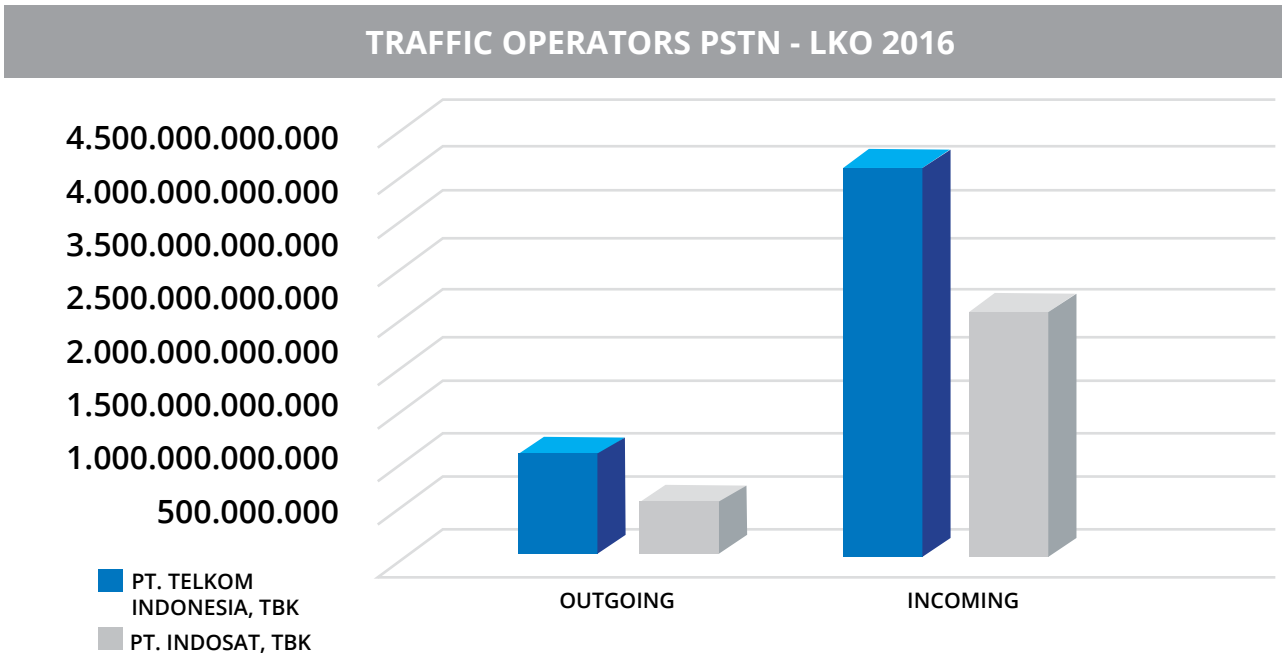
Graphic 3.6 PTSN Operators - Operational Activities Report (LKO) Traffic 2016



The data above shows that operator with the highesttraffic for outgoing PSTN is PT Telkom Indonesia, Tbk and for incoming PSTN the three operators have similar volume.

c) International Direct Dialing (IDD)Traffic Data

Graphic 3.7 International Direct Dialing (IDD)
Operators - Operational Activities Report (LKO) Traffic 2016



The above data shows that based on Operational Activities Report (LKO) 2016, PT Telkom Indonesia Tbk outgoing IDD reached 76.13% and PT Indosat, Tbk 23.87%, while for incoming IDD,PT Telkom Indonesia, Tbk 67.76 % andPT Indosat, Tbk. 32, 24%.

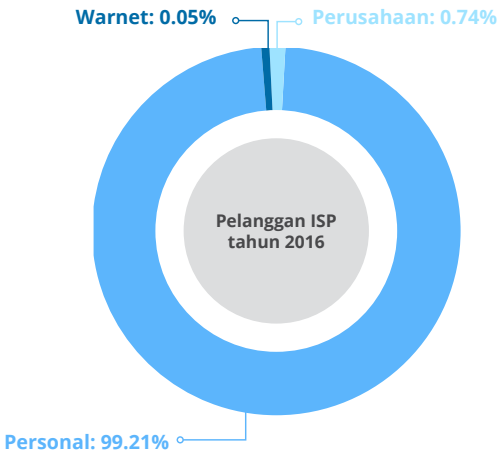
4. Subscriber of Telecommunication Services

a) Subscriber of Internet Service Provider (ISP)

ISP operator is a telecommunication service provider that sells internet access services to end customers and is not fo resale. ISP subscriber is a subscriber who has a written contract with the ISP provider and not a subscriber of access service using mobile network media.

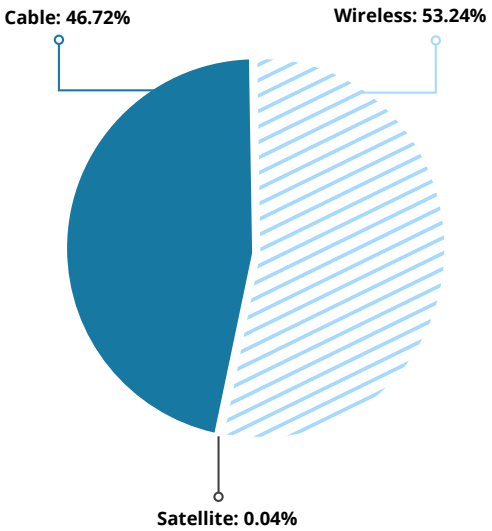
End subscribers who use Internet access services are divided into three types, namely: personal, corporate, and Internet cafes. In 2016 ISP has a total of 7,468,694 subscribers. According to customer type, The ISP subscriber is dominated by personal customers with percentage of 99.21%. Meanwhile, the internet café customer has the smallest number with percentage of 0.05%.

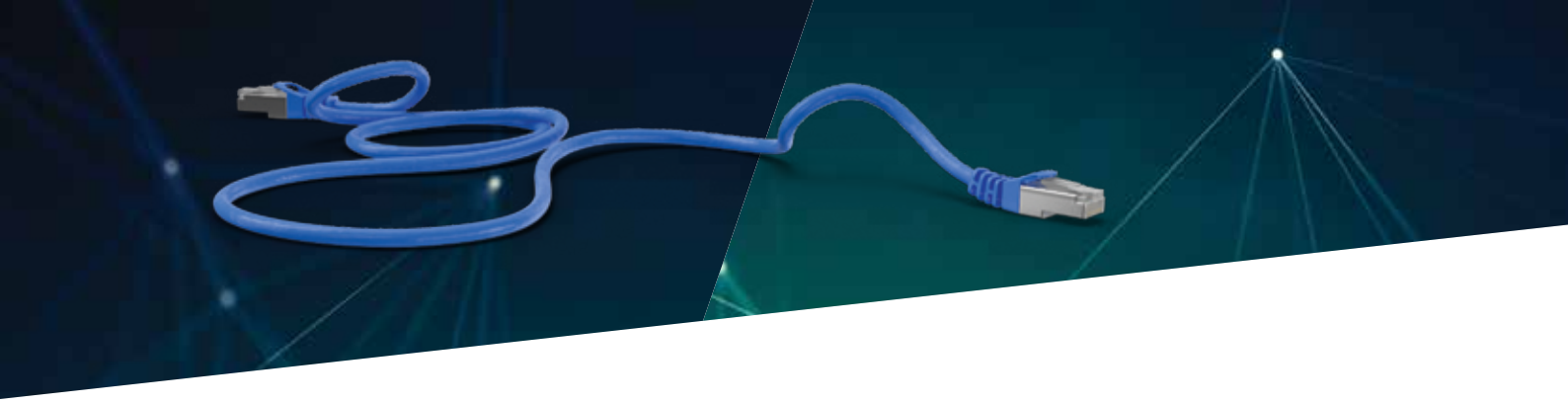
Figure 3.8 ISP Subscribers by Types



The number of ISP subscribers according to access media used can be seen in Figure 3.9. Most of ISP subscriber use Wireless media as their access media with a percentage of 53.24%, while satellite became the media that is used the least with a percentage of 0.04%.

Figure 3.9 ISP Subscriber by Media Type





The distribution of ISP subscriber in Indonesia in 2016 is shown in Figure 3.10. According to the figure, ISP subscriber is dominated by subscriber in Java region. The region has 61% of the total subscriber in Indonesia.

Figure 3.10 ISP Subscriber by Province

According to the figure, ISP subscriber is dominated by those residing in Java region which is amounted to 282,133 - 3,694,250 subscribers. The region has 61% of the total subscriber in Indonesia. The second biggest number of subcriber of ISP is in Sumatra island, followed by Borneo, Sulawesi, Papua, and other small islands.

5. Posts and Delivery Service Operator

According to Law of the Republic of Indonesia Number 38 of 2009 article 4 on Post, postal operation in Indonesia shall be conducted by business entities established under Indonesian law. The business entities shall comprise: state-owned enterprises; regional government-owned enterprises; private enterprises; and cooperatives.

To support the operation of PT Pos Indonesia as well as to provide postal services all over the country, PT. Pos Indonesia is spreading physical services to all over Indonesia to 11 area divisions.

Figure 3. 11 Operation Area of PT. Pos Indonesia (Persero)

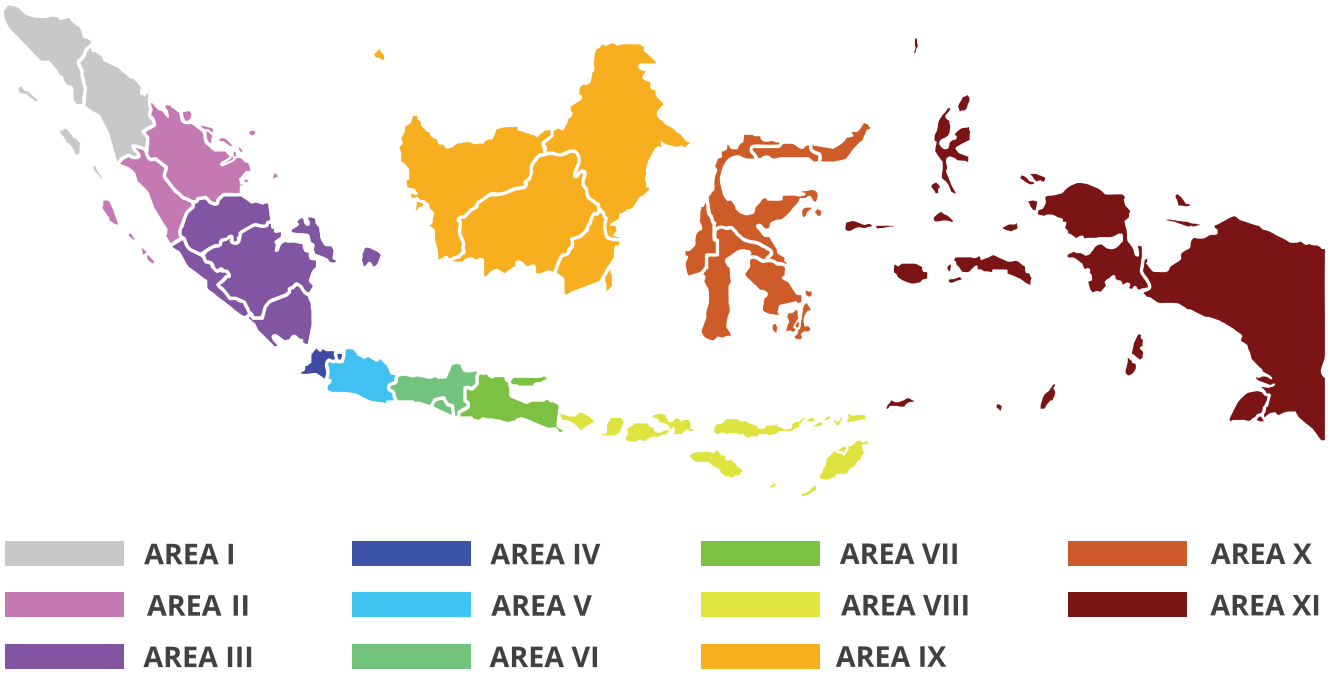


Figure 3.11 shows that PT. Pos Indonesia (Persero) operation area consists of 11 area divisions, which are divided according to geographic area. Sumatra island is divided into 3 areas, Java into 4 areas, Sulawesi and Kalimantan respectively into 1 area, and other islands merged into 2 areas. Details on the 11 area of PT. Pos Indonesia's divisions can be seen in table 3.2.

Table 3.2 Area Division of PT. Pos Indonesia (Persero)

AREA	REGION
I	Aceh and North Sumatra Provinces
II	West Sumatra, Riau, and Riau Islands Provinces
III	Bengkulu, Jambi, Lampung, South Sumatra, and Bangka Belitung Provinces
IV	Special Region of Jakarta and Banten Provinces
V	West Java Province
VI	Central Java and Yogyakarta Special Region Province
VII	East Java Province
VIII	Bali, West Nusa Tenggara, East Nusa Tenggara Provinces
IX	South Kalimantan, Central Kalimantan, East Kalimantan, West Kalimantan, and North Kalimantan Provinces
X	South Sulawesi, Central Sulawesi, Southeast Sulawesi, North Sulawesi, West Sulawesi, and Gorontalo Provinces
XI	Maluku, North Maluku, Papua and West Papua Provinces

Production data of PT. Pos Indonesia (Persero),

In carrying out its business, PT. Pos Indonesia (Persero), has three product categories, namely:

1. Mail Services, including corporate delivery, special express mail, and express mail.
2. Packet Services, including standard packet and special express packet.
3. International Postal services, including regular international post/, express international post, remailing and EMS.

During 2013-2016, delivery volume of PT. Pos Indonesia experienced up and down. As shown in Figure 3.8 in 2016 there is an increase in mail delivery by 31,010,996 letters and packet delivery increased by 29,865 packets.

6. Broadcasting Operator Data

a) Radio

Regulation of the Government of the Republic of Indonesia Number 50 of 2005 on Private Broadcasting Institution(LPS) Broadcasting Operation, states that LPS is a commercial broadcasting institution in the form of Indonesian legal entity, whose field of business is only to provide radio broadcasting services. In the provision of multiplexing broadcasting, LPS can only broadcast 1 (one) program.

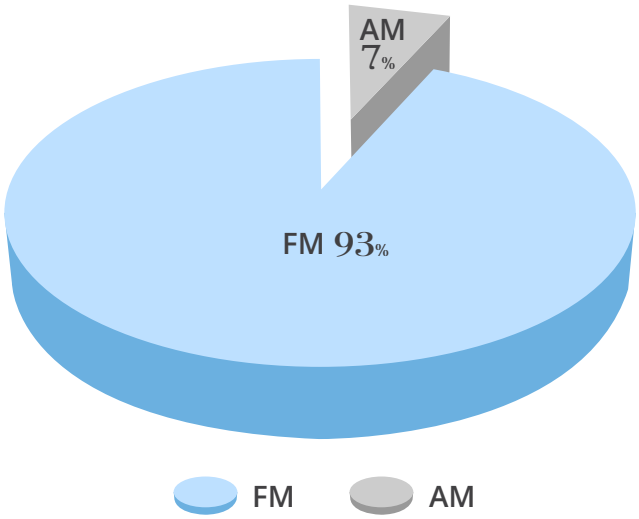
The regulation also states that Broadcasting Provision of LPS is operated through terrestrial systems and/or through satellite systems with the following classifications:

1. 3. Broadcasting through terrestrial systems, including:
   a. Analog or digita AM/MW radio broadcasting
   b. Analog or digital FM radio broadcasting
   c. Penyiaran *multiplesktring*

2. Operation through satellite system, including:
   a. Analog or digital Radio broadcasting
   b. Multiplexing broadcasting.

Until 2017, based on data from Directorate of Broadcasting on the number of radio broadcasting service providers, there are 1,317 radio stations in 33 provinces in Indonesia, with 93% FM-frequency radio, and other 7% AM-frequency radio.

Figure 3.12 Comparing the Number of FM And AM Radio



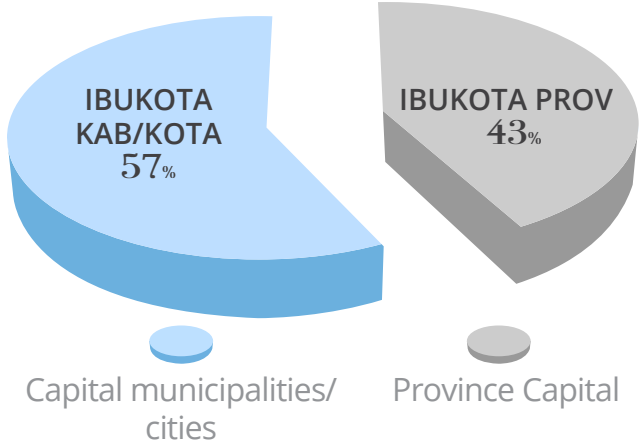
The distribution of LPS radio in 34 provinces in Indonesia is uneven,as most of LPS radios, FM and AM, are located in Java Island with a total of 681 radio or 51.71% of the total number of national radio stations. It is because the population in Java is higher than in other islands. Moreover, business centers and better economy levelin Java islands help LPS radio to support their business continuity. In contrast to the provinces in Java Island, eastern Indonesia, which includes the provinces of Sulawesi, Maluku and Papua, only have 7.41% (or 98 radio stations) of the total number of national radio stations.

Figure 3.13 shows the distribution of LPS radio in every province.The highest number of radio stations is in Central Java (213 radio stations) and the lowest number is in West Sulawesi which only has 1 radio station.

Figure 3.13 The Number of LPS Radio By Province

LPS Radio in 34 provinces in Indonesia spreads in the cities of the province, including the Provincial Capital, as the center of provincial government, as well as regencies and municipalities. Figure 3.14 shows that of 1,317 LPS radios spread over 33 provinces in Indonesia, 560 of which are located in provincial capital, and other 57% spread over regencies/ municipalities. A total of 757 radio stations in provincial capital indicate that LPS radio are concentrated in government/business centers with large population.

Figure 3.14 Distribution of LPS Radio by Broadcast Service Area



According to Government Regulation Number 51 Year 2005 on Community Broadcasting Institution Operation states that Community Broadcasting Institution is a radio or television broadcasting institution in the form of an Indonesian legal body, established by certain community, which is independent, and non-commercial, with low transmit power, limited range of territories and serves the interests of its community.

The Community Broadcasting Institute provides broadcasting services through a terrestrial system which includes:

a. analog or digital AM/MW radio broadcasting;
b. analog or digitalFM radio broadcasting;
c. analog or digital television broadcasting.

Until 2017, there are 62 community broadcasting radios spread over 33 provinces in Indonesia. Figure 3.15 describes the proportion of distribution in 33 provinces in Indonesia, with the highest number in Central Java at 24 radio stations (48%), followed by East Java.

At 14 stations (22.6%), East Kalimantan has 4 stations (6.5%), Lampung, andNorth Sulawesi 3 stations (4,8%), North Sumatera, Bali and South Kalimantan 2 stations (3.2%), and Nanggroe Aceh Darusalam, West Sumatera, Riau, Riau Islands, South Sumatera, West Java, West Nusa Tenggara and East Nusa Tenggara1 stations (1.6%). Different toLPS radioswhich commonly are located in the city center that hasgood economic condition, most of community radio stations are located in small towns.

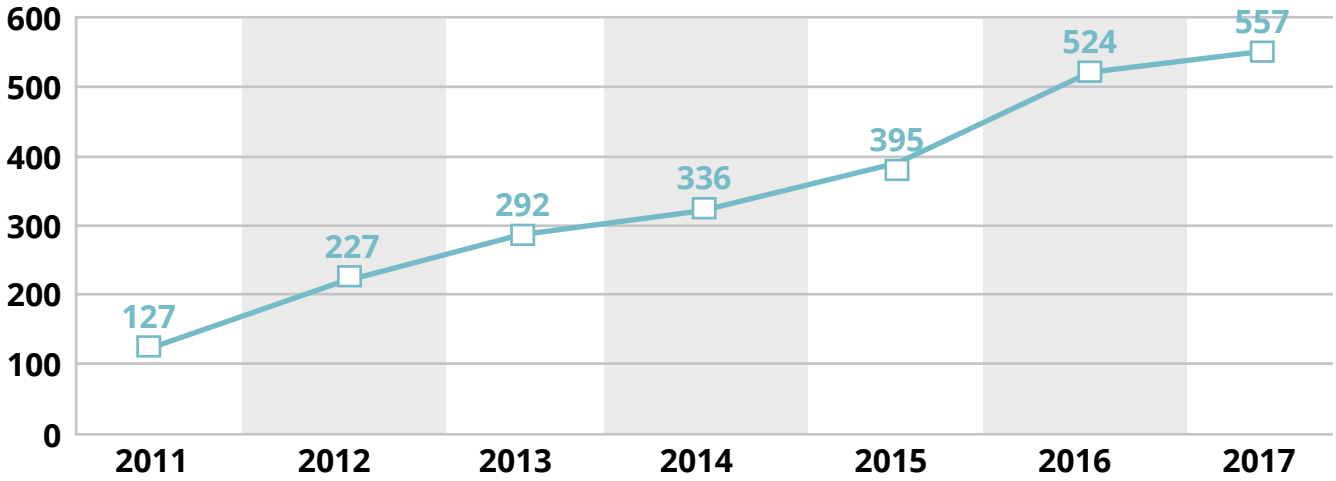
On average, 3 new community radiosemerge each year, except in 2014, there is no new communityradio in all provinces in Indonesia.

Figure 3.15 Distribution of Community Broadcasting Institutions Radio Broadcasting Services holding Broadcast Provider License (IPP) According to Region

b) Television

Based on Government Regulation Number 50 of 2005 on Private Broadcasting Institutions (LPS), LPS is organized through terrestrial and/ or satellite systems. Broadcasting through terrestrial and satellite systems consists of analog or digital television broadcasting and multiplexing broadcasting. Data regarding to number of LPS television broadcasting services can be obtained at Directorate of Broadcasting. During 2011-2017, there were a total of 127 LPS Televisions in Indonesia. The number has increased to 557 LPS Televisions in 2017.

Graphic 3.8 Number of LPS Television Broadcast Services Providers 2011-2017

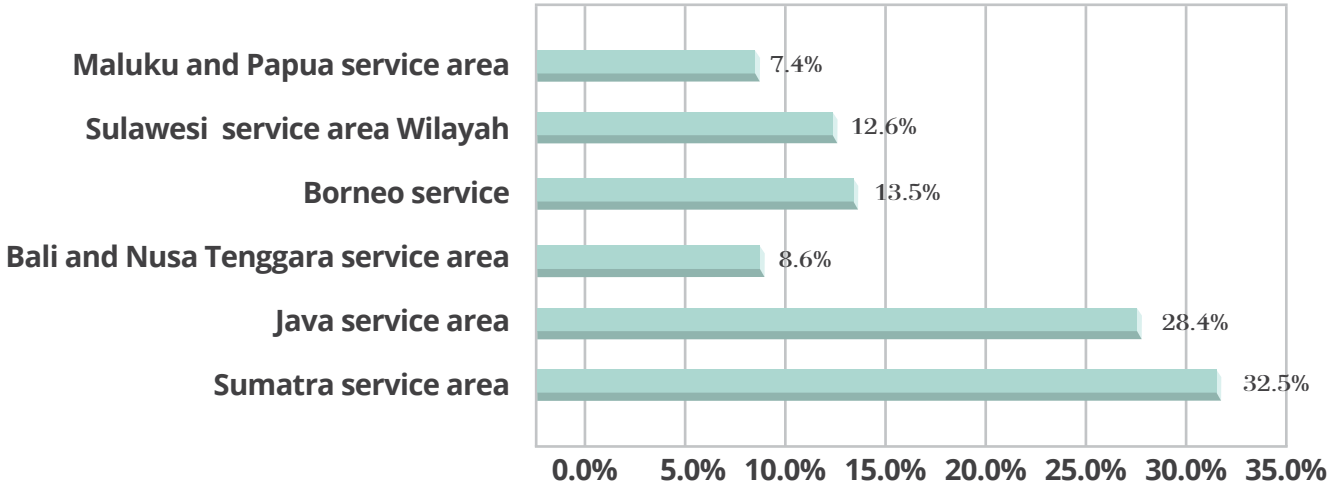


Based on data from Directorate of Broadcasting, in 2017 there were a total of 557 LPS Televisions which spreads over 34 provinces. Region with many LPS Television are those with good economy, large administrative districts and large populations with relatively high density, such as West Java, Central Java and North Sumatra. However, though Jakarta is not large, the province has a relatively high number of TV LPS.

The top 5 provinces with the highest number of LPS TV stations in Indonesia are East Java (41), West Java (38), Central Java (34), West Sumatra and East Kalimantan (22). These provinces have more than 20 LPS TVs. In addition, the number of LPS TVs in the first three provinces (East Java, West Java, Central Java) reached 28.3% of total LPS TVs in Indonesia. Whileless developed region and new urban areas such as North Maluku and West Papua have relatively small number of LPS TVs. According to data per 2017, both provinces has a percentage of about 1% of total LPS TVsthroughout Indonesia.

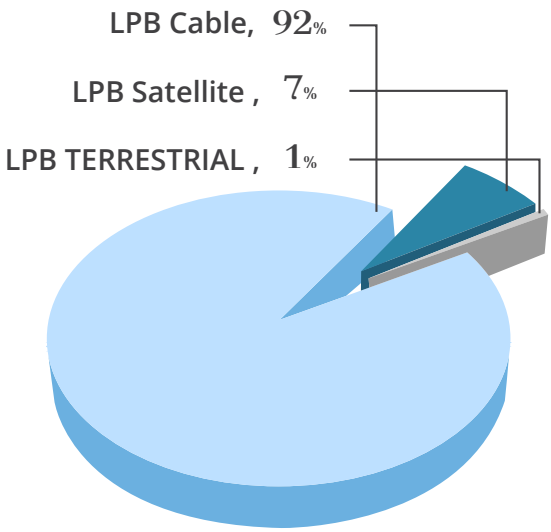
According to island region, LPS TV is mostly found in Sumatra and Java. LPS TV in both regions reached 60.86% of total LPS TVs throughout Indonesia. While the regions with the smallest percentage of LPS TV are Maluku and Papua.

Graphic 3.9 Distribution of LPS TVS by Islands



The distribution pattern of LPS TVs shows that the eastern region has the smallest number of LPS TVs. It indicates that an area with more advance economic level, higher population density, and larger area, will more likely have higher number of LPS TVs. The distribution pattern of LPS TV also shows that not all large islands with large land areas such as Maluku and Papua have many LPS TVs. Both regions only have about 7.4% of total LPS TVs in Indonesia. It indicates that the number of LPS TVsin a region is not determined by the large of itsland, but is more determined by the economic level, business activities,administrative areas, total population, and population density.

Figure 3.16 Distribution of LPB TV Based on Types of Media

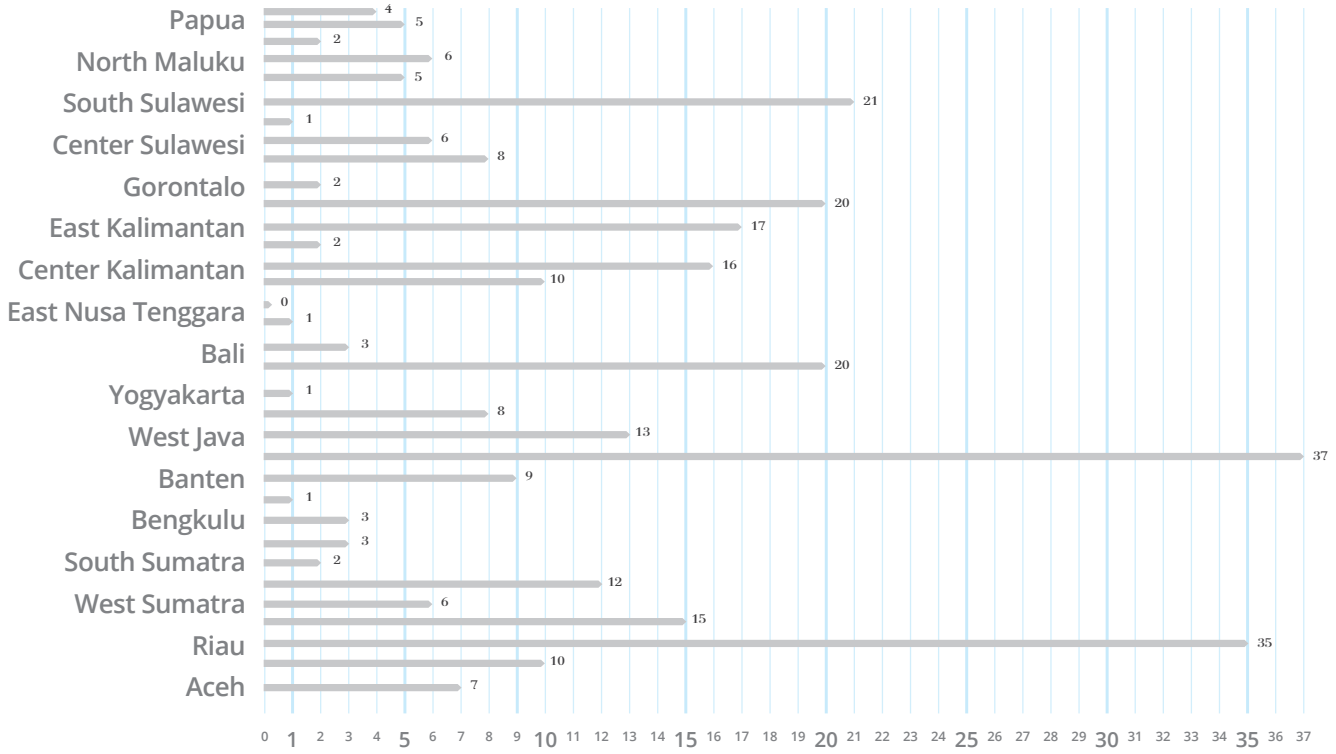


In addition to LPS, Subscription Broadcasting Institutions (LPB) TV also provides TV broadcasting services. The broadcasting operation by LPB TV shall be channelled to direct subscriber using subscription receiving system and only transmitted to the subscribers. Based on the provisions in Government Regulation No. 52 of 2005 on Broadcasting operation of Subscription Broadcasting Institutions, LPB TV consists of subscription broadcasting via satellite, cable, and terrestrial. In distributing broadcast programs to subscriber, LPB uses analog and/or digital systems.

Based on data from Directorate of Broadcasting, in 2017 there are a total of 311 LPB TVs in Indonesia with most of the subscribers (92 %) using LPB cable TV. While subscribers who use terrestrial and satellite LPB TV are no more than 8%.

Areas with high number of LPB TVs are generally areas with advance economy, large administrative areas and big population with relatively high population densities, such as in Java and Kalimantan. Distribution of LPB TV television broadcasting services by province can be seen in Figure 3.17.

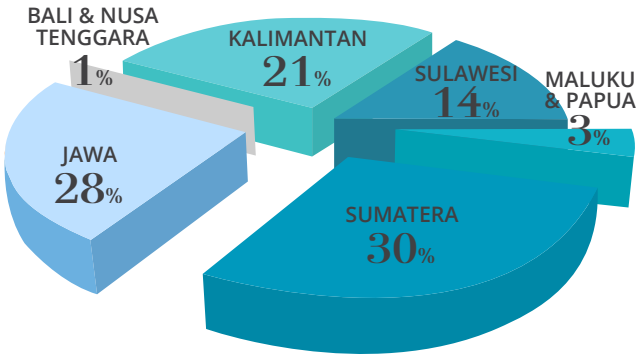
Figure 3.17 Distribution of LPB TV by Province



Based on the figure, the province with the highest number of LPB TV is Jakarta which has 37 LPB TV or 12% of total LPB TV in all regions in Indonesia. The second and third highest LPB TV numbers in Indonesia are Riau 11% and South Sulawesi 8%. While South Sumatra, Bangka Belitung, Bengkulu, Bali, North Kalimantan, Gorontalo, Maluku and West Papua have only 1% of the total number of LPB TVs in all regions in Indonesia for each province.

Figure 3.18 shows that according to islands regions, LPB TV is mostly found in Java (28%), Sumatra (30%) and Kalimantan (21%). The percentage of LPB TV in these three regions reached 79% of total LPB TVs throughout Indonesia. While the region with the lowest percentage of LPB TV is Bali and Nusa which respectively amounted to 3%, and 1%.

Figure 3.18 Distribution of LPB TV by Island Regions



If we look further, most LPB cable TV subscribers are found in Java, Sumatra and Kalimantan. The percentage of LPB cable TV providers in each of these three regions is more than 25% which sum to 78% of total LPB cable TV providers in all regions in Indonesia. Meanwhile, there is no LPB cable TV in Bali and Nusa Tenggara (Figure 3.19). In addition to cable media, LPB TV providers also use satellites. Based on data from Directorate of Broadcasting, there are a total of 19 LPB satellite TV. Almost all LPB satellite TV subscribers are in DKI Jakarta (96%).

Figure 3.19 Distribution of LPB TV by Islands

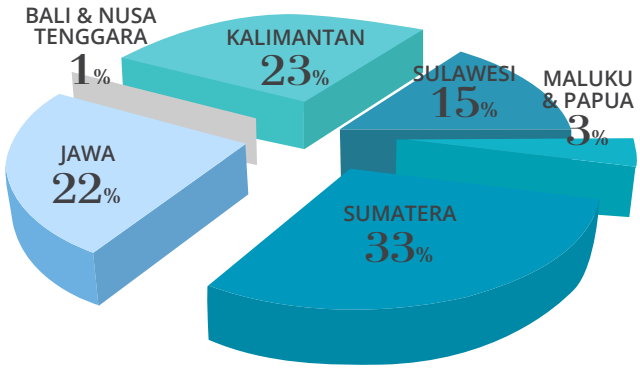
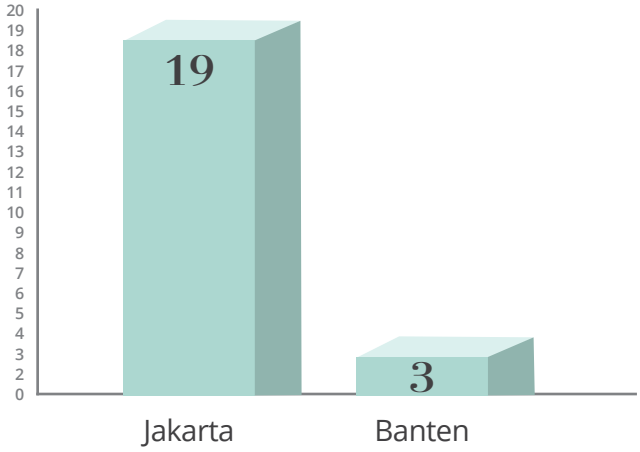


Figure 3.20 Distribution of LPB TV by Province



7. SDDPI Equipment Testing

The results of equipment testing carried out by House of Telecommunication Equipment Testing (BBPPT) is issued in the form of Test Result Report (LHU). The LHU document as test result data is submitted to Directorate of Standardization as a requirement for the issuance of Telecommunication Equipment Certificate. LHU of equipment testing by BBPPT from semester-1 2013 until semester-1 2017 can be seen in Table 3.3.

Table 3.3 Test Result Report (LHU) from semester-1 2013 until semester-1 2017.

NO	TAHUN	JAN	FEB	MAR	APR	MEI	JUNI	TOTAL	% NAIK (TURUN)
1	2013	327	232	174	285	280	235	1.533	
2	2014	258	217	279	313	239	333	1.639	0,07
3	2015	296	245	290	234	218	120	1.403	(0,14)
4	2016	37	114	132	196	179	275	933	(0,33)
5	2017	265	220	156	145	187	136	1.109	0,19

The results of equipment testing carried out by House of Telecommunication Equipment Testing (BBPPT) is issued in the form of Test Result Report (LHU). The LHU as test result data is submitted to Directorate of Standardization as a requirement for the issuance of Telecommunication Equipment Certificate. LHU of equipment testing by BBPPT from semester-1 2013 until semester-2 2017 can be seen in Table 3.4.

Table 3.4 Test Result Report (LHU) from semester 2, 2013 until 2017.

NO	TAHUN	JULI	AGS	SEPT	OKT	NOV	DES	TOTAL	% NAIK (TURUN)
1	2013	392	184	316	280	320	333	1.825	
2	2014	261	245	290	296	272	311	1.675	(8,22)
3	2015	237	271	268	155	352	340	1.623	(3,10)
4	2016	154	226	260	272	225	221	1.358	(16,33)
5	2017	228	208	286	266	314	223	1.525	12,30

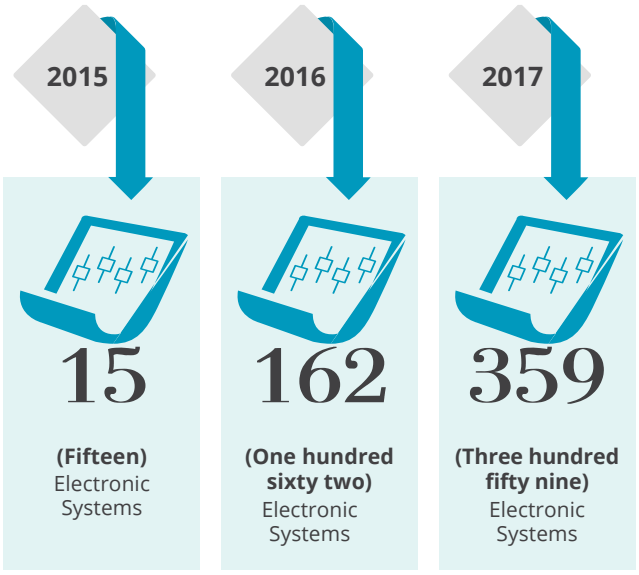
Table 3.4 shows that the Test Result Report (LHU) in the second semester of 2017 reached its peak in November 2017 with 314 LHU, while the lowest was in August 2017 with only 208 LHU. Overall, the total LHU issued by BBPPT in the 2nd semester of 2017 has increased compared to the 2nd semester of 2016 of 12.30%.

8. Registration of Electronic System Operator (PPSE)

The definition of PPSE is any person, state organizer, Business Entity, and public that provides, manages and/or operates the Electronic System individually or jointly for Electronic System Users for their own and/or other parties' purposes. PPSE is based on the provisions stipulated in Regulation of the Minister of Communication and Information Technology Number 36 of 2014 on Procedure of Registration of Electronic System and Transaction Operator (PSTE).

Figure 3.21 Number of Electronic Systems Operator Registered in MCI PSE

REGRISTRATION OF ELECTRONIC SYSTEM OPERATOR (PSE)



A total of:

536

(Lima Ratus Tiga Puluh Enam) electronic systems have been verified by MCI PSE.

Source: Directorate of E-business, Directorate General of Informatics Applications, MCI 2017

The objectives of PSE as follows:

1. To realize the implementation of reliable, secure, and accountable electronic systems and transactions (TRUSTED);
2. To provide prompt, responsive, accurate, transparent and accountable services to the public;
3. To promote the improvement of quality of electronic systems and transactions;
4. To increase the participation and public trust in the utilization of ICT.

Ministry of Communication and Informatics together with E-Commerce Association of Indonesia (idEA) signed a Memorandum of Understanding for the cooperation of Electronic System Registration (PSE) services. PSE registration is conducted at Ministry of Communications and Informatics and idEA.

By creating and building a Digital Startup ecosystem where operator can get new business, investor may have investment opportunity in potential Startup Digital company and new business network through branding/promotion. In 2018 government will also implement strategy of mentoring and intensive coaching through systematic steps in 10 cities.

CHAPTER 4
OUTLOOK 2018

1 Broadcasting Industry Efficiency

The development of broadcasting technology demands TV and radio industry for having strategy development. Therefore, the Government is developing innovation in efficiency of broadcasting industry so that broadcasting industry can adapt to technological developments. In 2018 , measures taken by Ministry of Communications and Informatics related to Efficiency of industry are as follows:

a. Regulating Licensing for Foreign Broadcasting Institutions that will operate in Indonesia.

b. Regulating Broadcasting Operation

c. Simplifying regulation related to Licensing Data, License Fee, Network Station System, and developed Area and Less developed Area in Broadcasting Operation

d. Mapping the broadcasting of Radio and Television Community Broadcasting Institutions

2 Feasibility Study and Procurement of Multi-Function Satellites

In order to provide broadband access services to areas that are listed in universal service obligations or Univeral Service Obligation (USO) Ministry of Communications and Informatics conducted procurement of multifunctional satellite. In order to support the implementation of the procurement, Ministry of Communications and Informatics made preparations related to procurement of multifunctional satellites through supporting activities such as:

a. final business case and market sounding In 2017

b. auction of business entities, determine the winner, and signing contract/agreement In 2018.

c. financial close and construction in 2019

3 Palapa Ring

In order to meet the needs of telecommunication access in Indonesia, especially high speed internet network, Ministry of Communications and Informatics is building national fiber optic backbone network that connects districts in the West, Central and East. In 2018, continuing the previous year, Ministry of Communications and Informatics will complete the project in 5 Capital of Regency and Municipality (IKK) for West Package and 17 Capital of District and Municipality (IKK)for Central Package. It is expected that the project in 22 Regencies / Municipalities will be completed in 2018.

4 Launching of Finansial Inclusion Pilot Project

In order to facilitate the recording of transactions and information on credit distribution to all communities in rural and remote areas in Indonesia Ministry of Communications and Informatics has launched the Pilot Project for Financial Inclusion. In 2018, the goverment will prepare Standard/Platform in the implementation of Digital Financial Inclusion (DFI) which will be applied to manage financing in ultra micro business.

5 Development of Last Mile in villages in 3T area

Preparing the auction process to determine the telecommunication infrastructure provider to perform the construction of 3,900 BTS in priority locations of 5,135 villages in 2018

Selecting infrastructure provider by adjusting the capacity needed to achieve BTS development targets by 2018

Signed a cooperation agreement with selected infrastructure provider in order to ensure the commitment of the provider in order to achieve the target of building 3,900 BTS at LocationPriorityof 5,135 villages.

The construction of 3,900 BTS at priority location of 5,135 villages will start in early 2018 and is targeted to be completed by the end of 2018. The construction is divided into 8 areas and will be monitored every year to improve the transmission and coverage.

6 Integrated broadband village Solution

Appropriate provision of network, device, application, and capacity building (NDACb) in communities in 3T areas and Prioritylocations (LokPri), which are divided into farmer villages, fishing villages and rural villages, can help increase productivity, provide access to markets/marketplace to get the best selling price in order to improve their welfare.

Those who benefited from this program are:

- Community in 500 3T areas and Priority locations (LokPri).
- Ministry of Communication and Informatics of the Republic of Indonesia.
- Ministries/institutions/agencies, Village Governments and Villagers.
- Telecommunication operator

The Integrated Broadband Village Solution (SDBT) program is expected to benefit communities in 3T area and Priority locations (LokPri) which consists of: farmer villages, fishing villages and rural villages, to improve productivity, quality and sales. Integrated Broadband Village Solutions (SDBT) program is implemented gradually i.e., the implementation of piloting process in 2017, the implementation in 300 villages in 2018 andthe implementation in 200 villages in 2019 which is divided into farmer villages, fishing villages and rural villages.

7 Negative Content Mitigation

MCI do not only passively receive complaint/ report about negative content in virtual domain. on 3 January 2018 MCI launched "Ais" crawling engine, an engine to actively accelerate the process of crawling negative content that was previously conducted manually.With artificial intelligence (AI) it is expected that more negative content would be blocked more massively and effectively. The Ministry will implement several work methods, such as:

1) Acceleration on screening of pornography and gambling

2) Cyber patrol

3) AIS joint use for all sector and law enforcement agencies.

The target for cyber patrol and acceleration of negative content blokcing in 2018 is 60 thousand contents.

8 1000 Digital Start-ups National Movement

In 2018, after the movement has been executed for 3 years, MCI will facilitate the implementation of four digital startup programs that will run in parallel until 2020, namely:

1) Create a Master Plan for the Establishment of Non-Profit Entities of 1,000 Digital Start-ups

2) Facilitate Single Operator Program

3) Facilitate Multi Operator Integrated Program

4) Facilitate Acceleration Corporate Program.

By creating and building a Digital Startup ecosystem where operator can get new business, investor can get investment opportunity in potential Startup Digital company and new business network through branding/ promotion. In 2018 will also be implemented strategy of mentoring and intensive coaching through systematic steps in 10 cities.

9 Farmers and Fishermen Go-Online

In Farmer Go Online, MCI is actively collaborating with ICT Industries in agricultural sector and related stakeholders to increase productivityand to boost economic growth opportunity in order to make Indonesia an independent nation with high competitiveness through the utilization of ICT, such as: online agricultural market application, Online Counseling application, and National Stock Information Application. Farmer Go Online in 2018 target farmers of corn feed, onion, chili and soybean in West Java, Central Java, East Java and West Nusa Tenggara.

For Fishermen Go Online MCIis actively collaborating with Ministry Of Marine Affairs And Fisheriesas well as developer of marine and fishery sector application to increase productivity in order to boost economic growth opportunity to make Indonesia an independent nation with high competitiveness through utilization of ICT (application for basic information on fishery and online marketplace).

Fishermen Activities Go Online in 2018 targets both capture and aquaculture fishermen in East Kalimantan, Lampung, Maluku, Riau Islands, West Java and Banten.

The target for 2018 is 400,000 farmers and fishermen.

10 SiVION

The implementation of Electronic Signatures andDigital Certificates can be realizedwith a secure Root CA that give trust to the CA as a trusted Digital Certificate publisher.

The output target of this program is the operation of root CA, as well as the certification of 2 (two) CA. While the target of digital certificate outcome issued in this program is 600,000 certificates, which will be granted to government officers and public.

National E-Government

11

National e-Government activities are focused on the implementation of e-Government Roadmap.

A nationally integrated online license service is established in 2018. Its integration is based on Online Single Submission by using Si Cantik. The benefit of this service for the community is to ease submitting applications at one online site for various public services.

Government internal office service is supported with e-office application, Maya. Cloud-based Maya application has been jointly used by 277 central and local government agencies by the end of December 2017. By 2018 it is expected that Si Maya users will increase by 80 agencies nationwide. The prospective user of this application is prioritized to be from local government in Sulawesi.

8 Million SMEs Go-Online

12

In order to reach 8 million MSMEs Go Online, In 2018 MCI again will conduct MSMEs Go Online Education in cooperation with Local Government and Marketplace. The government targets 15,000 MSMEs Go Online through the following steps:

a. Coordination on MSMEs Education Go Online with Marketplace, IDEA, Local Government, Ministry of Cooperative and MSMEs, Ministry of Industry, Ministry of Trade, Coordinating Ministry for Economic Affairs, PT Komunikasi Indonesia, and Ministry of State Owned Enterprises.

b. The Cooperation Agreement which is conducted with various relevant stakeholders to encourage MSMEs to go online.

c. MSMEs Go Online Education is conducted in cooperation with Local Government and Marketplace such as Blibli, shopee, Lazada, Nurbaya, Bukalapak, Tokopedia, and Mataharimall.

13

Analog Switch Off (ASO)

In order to support the Migration of Television Broadcasting System from analog to digital MCI will develop policy/ regulation as follow:

a. Guide on Digital blueprint

b. Opportunity for Digital TV broadcasting services operation.

c. Multiplexer implementation model as output of analog TV moratorium.

d. Draft regulation on MUX tariff

e. Adjustment of Broadcasting License from analog TV to Digital TV

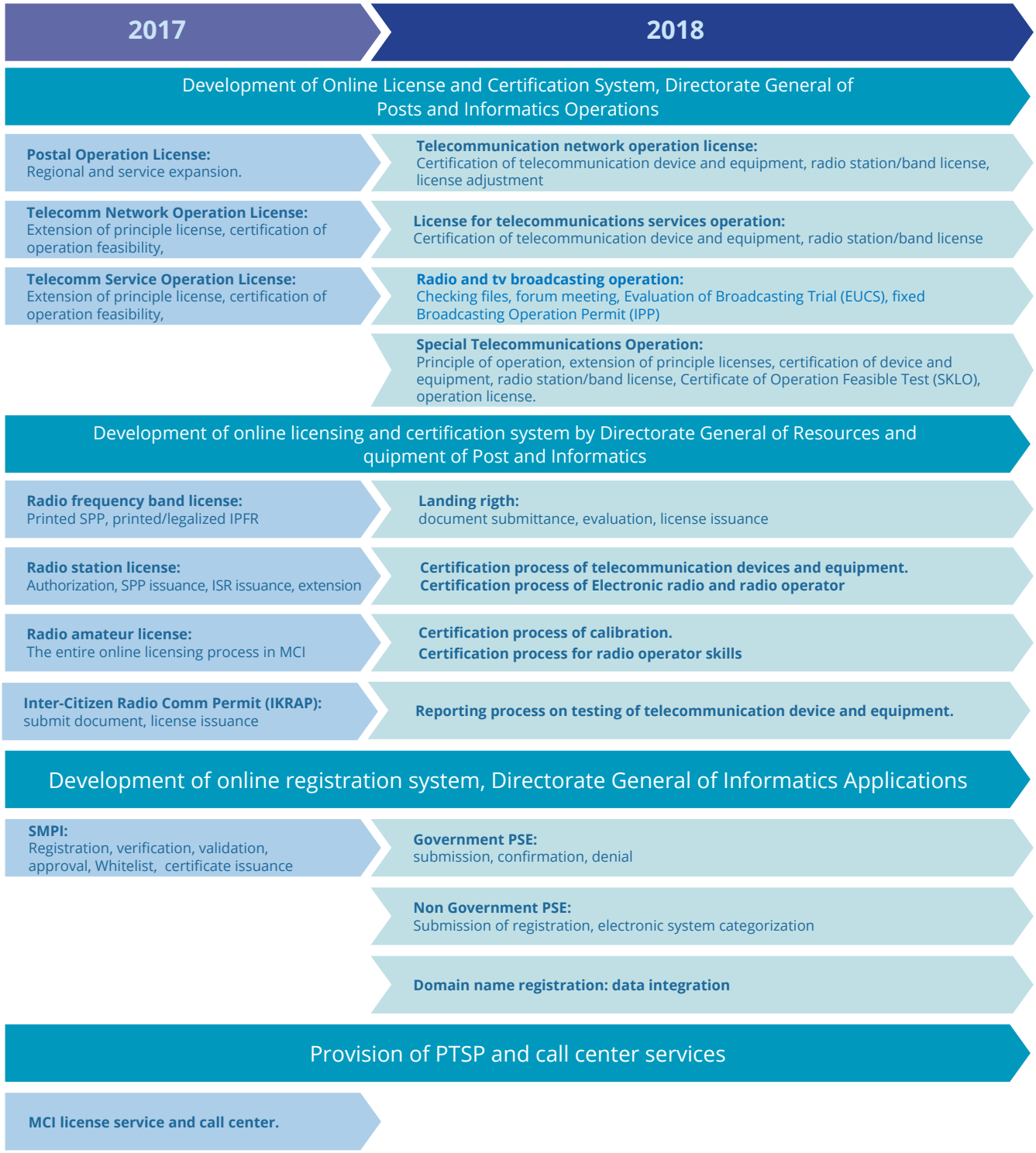
f. Draft of moratorium policy of Television Broadcasting Institution

g. Draft Policy on Television Service through cable network

14

Public Service Automation

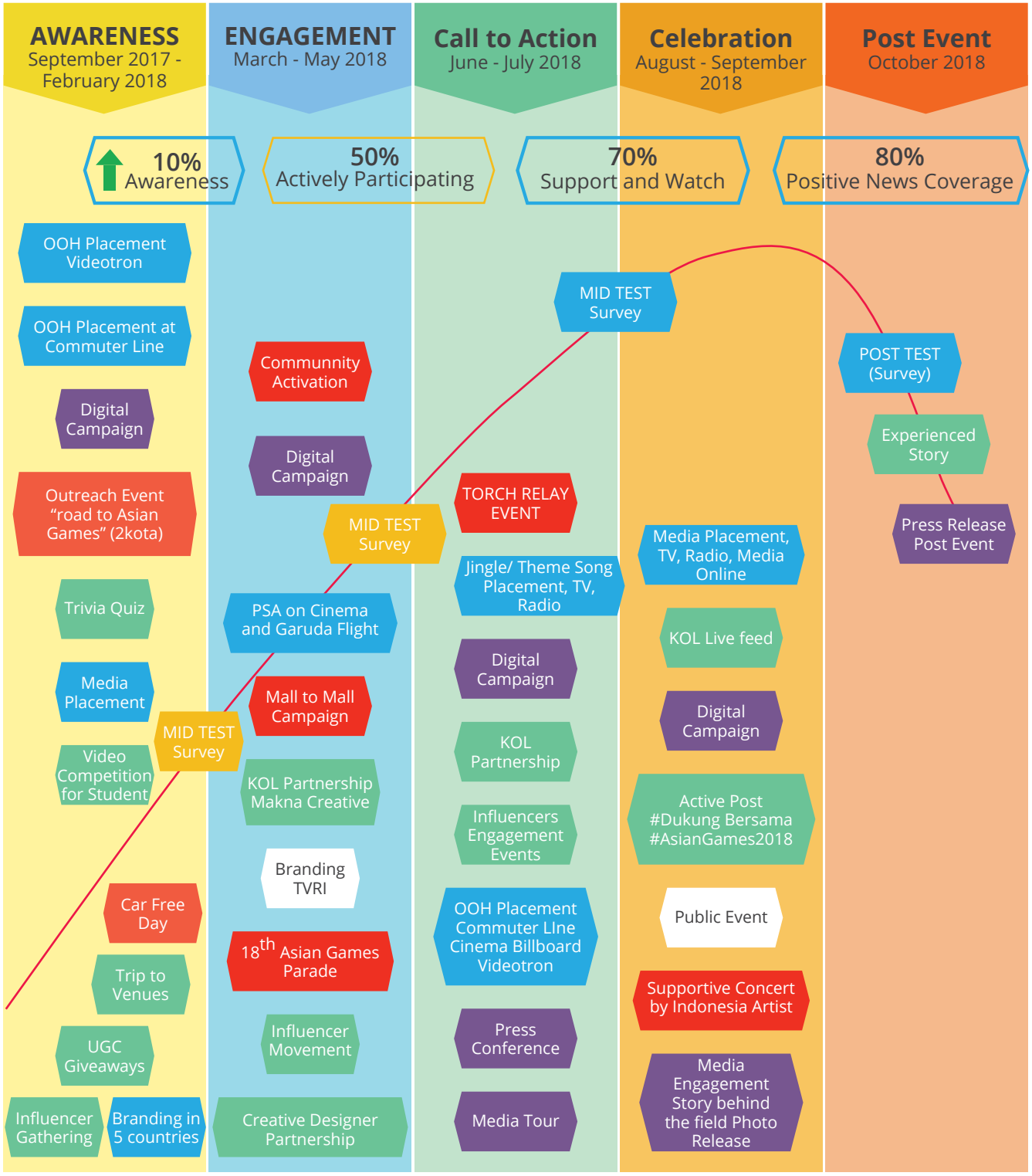
Public service automation consists of developing licensing systems, certification, and online registration for MCI public services, as well as public service infrastructure, such as the provision of one-stop integrated services and call center. The objective of this program is to create a prompt, simple and transparent service. In 2018 MCI will conduct several activities as follows:



It is expected that public service automation programs can promote an efficient, prompt, and transparent public service process and Increase non-tax state revenues ("PNBP").

15

Government Public Relations (GPR)



ANNUAL REPORT 2017

MINISTRY OF COMMUNICATION AND INFORMATICS
Jl.Medan Merdeka Barat No.-9 Jakarta 10110