Transforming Adversity into Opportunity for School Connectivity in Rural and Remote Areas in Indonesia

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About BAKTI KOMINFO

2021

Universal Service Obligation (USO)

BAKTI's main programs as the enablers to provide self-sufficient internet access to support sustainability in village areas, involving multi stakeholders

BAKTI KOMINFO

The mandate of BAKTI is provision of ICT infrastructure and ecosystem for the community which is funded from the contribution of telecommunication operator's USO funds

KEMKOMINFO

BAKTI is a non-echelon organization of Ministry Communication and Informatics that adopts special financing scheme for Public Service Agency (PPK-BLU)
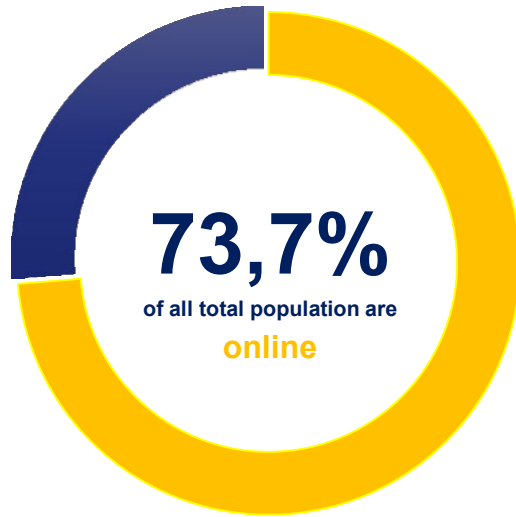
VISION

Bridging the digital gap and digital divide for a better future of Indonesia

MISSION

Providing quality and targeted universal communication and internet service obligations to address the digital divide in Indonesia
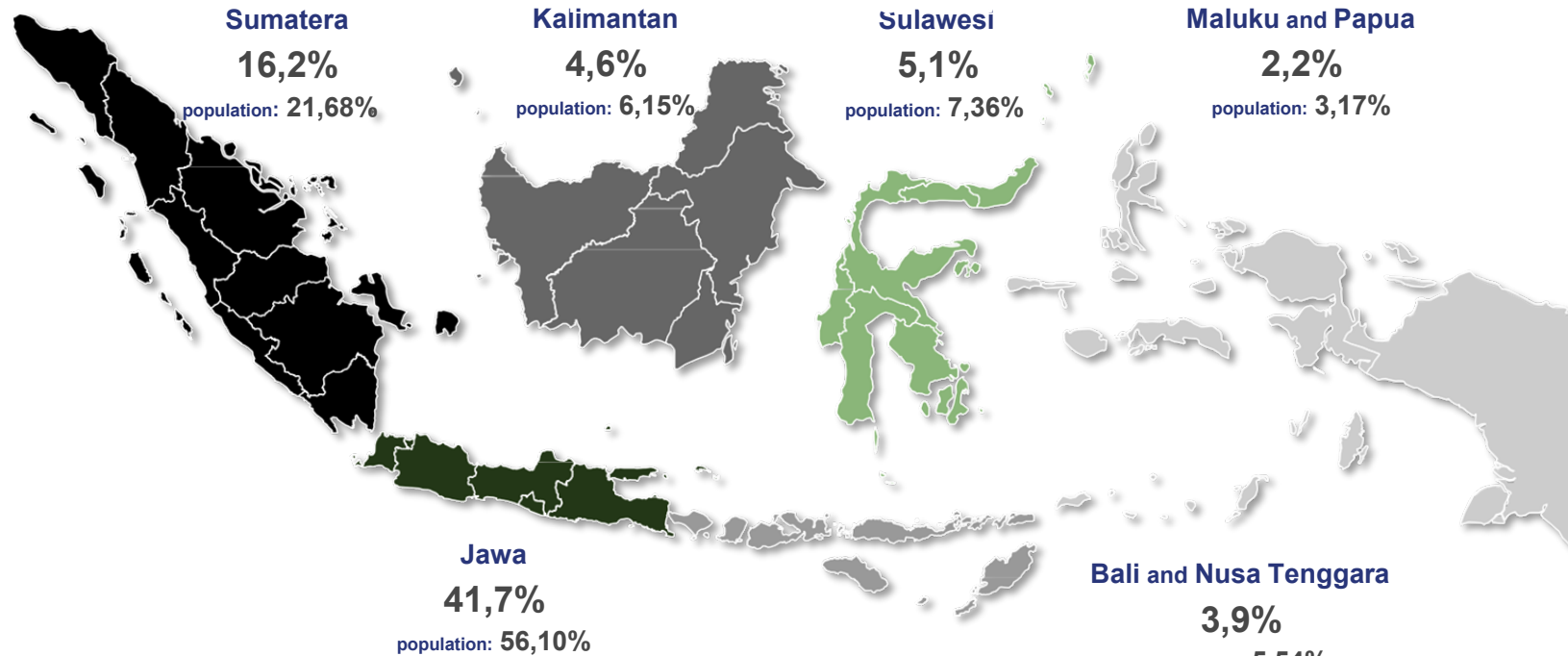
THE DIGITAL DIVIDE IN INDONESIA

INTERNET USERS IN INDONESIA BY 2019-2020 (Q2)

73,7%
of all total population are
online

■ Internet users   ■ Non-internet user

The total population of Indonesia is 266,91 million people. Therefore, around 196,71 million people are using the internet.

INTERNET PENETRATION RATE PER REGION

Sumatera
16,2%
population: 21,68%

Kalimantan
4,6%
population: 6,15%

Sulawesi
5,1%
population: 7,36%

Maluku and Papua
2,2%
population: 3,17%

Jawa
41,7%
population: 56,10%

Bali and Nusa Tenggara
3,9%
population: 5,54%

Source: APJII Internet Survey, 2019-2020 (Q2); BPS, 2020

INTERNATIONAL TELECOMMUNICATION UNION (ITU) ICT DEVELOPMENT INDEX (IDI) 2017

Indonesia ranked 111th in the world, from 176 countries; below Vietnam (108th), The Philippines (101st), Thailand (78th), Malaysia (63rd), Brunei (53rd), Singapore (18th).
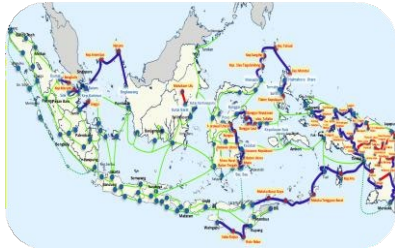
The ITU IDI combines eleven indicators on ICT access, use and skills, capturing key aspects of ICT development in one measure hat allows for comparisons to be made between countries and over time.

A COMMISSIONED STUDY BY THE BOSTON CONSULTING GROUP (BCG) 2017

There are approximately 150.000 public facility locations, e.g. school, health center, government office, military/police headquarter, tourism site, etc., without internet connection.

Twenty years after the privatization of telecommunication services, there are still some "blank spot" areas or without any telecommunication services, especially those that are considered less profitable by the industry.

DIGITAL CONNECTIVITY PROGRAM BY BAKTI KOMINFO

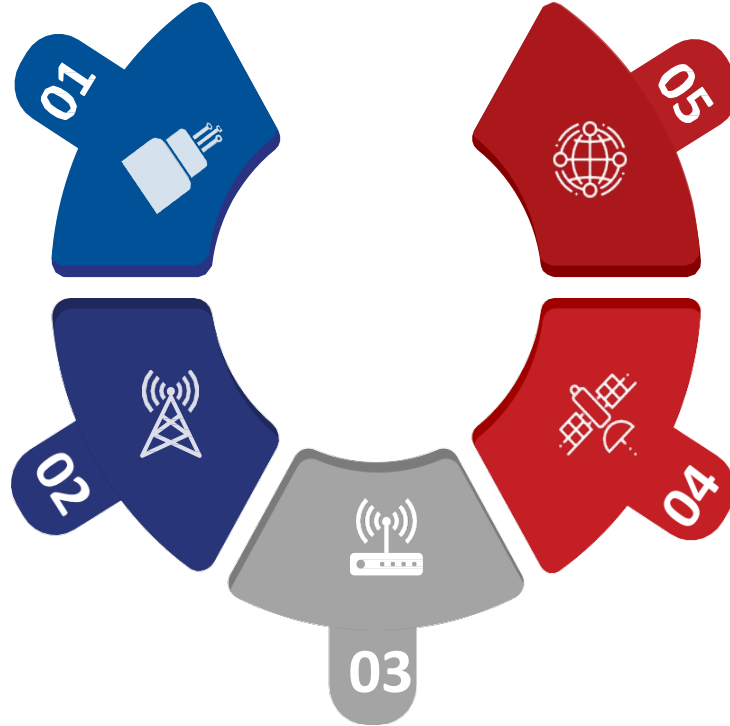**BAKTI** KOMINFO

01 **05**

02 **04**

03

PALAPA RING

The 12,229 km backbone network project that connects 90 regencies/cities in remote areas, using fiber-optic and microwave radio connections.

BTS 4G

Deploying 4G cellular telecommunication networks in remote areas. In 2021-2022, BAKTI Kominfo will build 4G BTS towers in

7,904 locations.

INTERNET ACCESS

Providing free internet services for public facilities using fiber technology, radio link, VSAT, and WiFi. By Q2 2020, BAKTI Kominfo has served 11,589 public facility locations throughout Indonesia.

DIGITAL ECOSYSTEM

Increasing community productivity through empowerment and assistance in utilizing the telecommunications infrastructure, especially in remote areas.

MULTIFUNCTION SATELLITE SATRIA

This project will serve 150,000 locations uncovered by terrestrial broadband services. SATRIA Satellite utilizes the latest technology, High Throughput Satellite, it will be launched in the Q3 2023.
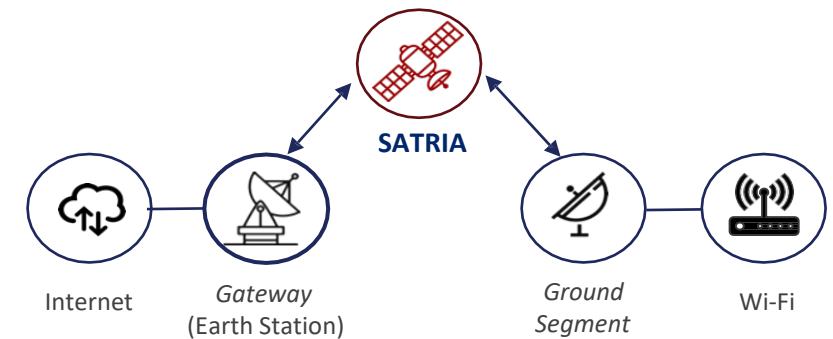
SATRIA

BRIDGING THE DIGITAL DIVIDE OVER 145,000 AREAS IN INDONESIA & CONTRIBUTING TO THE DEVELOPMENT OF DIGITAL INFRASTRUCTURES

TOTAL OF PUBLIC SERVICES POINT
IN NEED OF ADEQUATE INTERNET ACCESS

145.000 POINTS

Schools	93.900	points
Local govt.	42.900	points
Medical Fac.	3.700	points
Polsek/Koramil	3.900	points
Others (K/L)	600	points

SATRIA

Internet — Gateway (Earth Station) — Ground Segment — Wi-Fi

SATRIA satellite will provide fast Internet (Wi-Fi) services for public services. **The service is planned to operate in the third quarter of 2023.**

KEY CHALLENGES OF EDUCATION IN INDONESIA

What are Key Challenges of Education in Indonesia?

Lack of Internet Infrastructure

24%

Schools in Indonesia don't have internet access

4%

Schools in Indonesia don't have electricity

Low Teaching Output

57
Out of 100

Average score of National Teacher's Assessment (2019)

Low Digital Literacy Index

3,48
Out of 4,00

Average Digital Literacy Index in Indonesia

Source: National Statistic Agency; Ministry of Education; Katadata

THE PANDEMIC CREATES THE DISRUPTION AND, AT THE SAME TIME, THE MOMENTUM FOR TRANSFORMATION

Emergency response to the pandemic, health protocols including social distancing

Policy and regulation concerning at-home learning process

"Learning Freedom" that allows pupils and teachers explore innovations

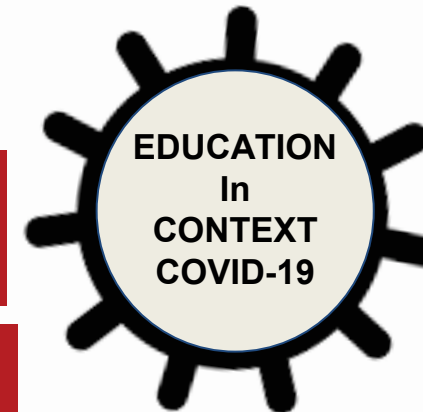**How the Pandemic pushes digital transformation in education sector**

Key strategies .....

DISTANT LEARNING

AT-HOME LEARNING

TV-BASED TEACHING

EDUCATION In CONTEXT COVID-19

ACCELERATED PROVISIONS OF ELECTRICITY AND CONNECTIVITY

Source: Ministry of Education; CUlture, Research and Technology

OUR RESPONSE: CREATING VARIOUS DIGITAL ECOSYSTEM SOLUTIONS TO PROVIDE CHILDREN AND YOUTH THE OPPORTUNITIES TO FULFILL THEIR POTENTIALS

Lack of Internet Infrastructure

- BTS Tower
- BAKTI AI
- Palapa Ring
- SATRIA Satellite

Low Teaching Output

- Pesantren Online
- Pelatihan Komp Guru
- Pelatihan Jong Coding
- Pelatihan Jong Kreatif
- Pelatihan Jong Desain

Low Digital Literacy

- Pelatihan SMK Coding
- Pelatihan Vokasi Telco
- BAKTI Podcast
- Merajut Nusantara
- Sosialisasi TIK
- Pelatihan Bhs Inggris