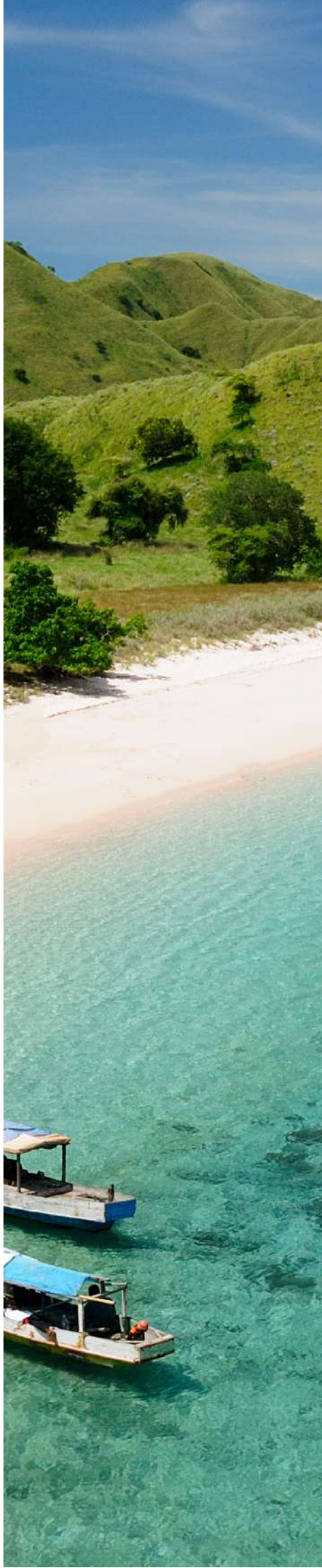
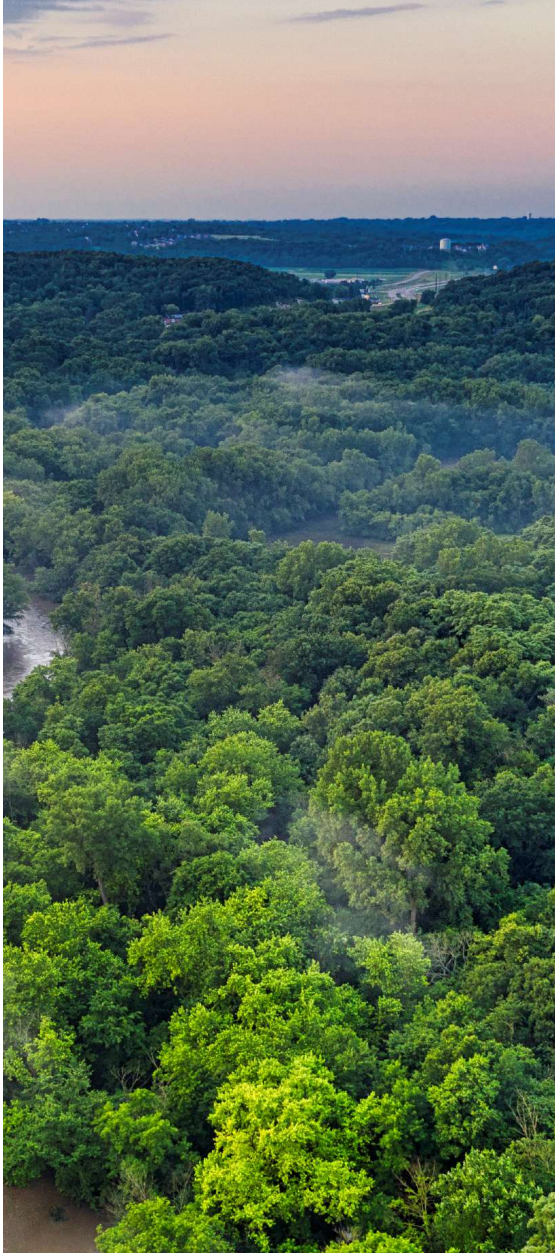
BADAN INFORMASI GEOSPASIAL

2022

COUNTRY REPORT

GEOSPATIAL INFORMATION MANAGEMENT OF INDONESIA





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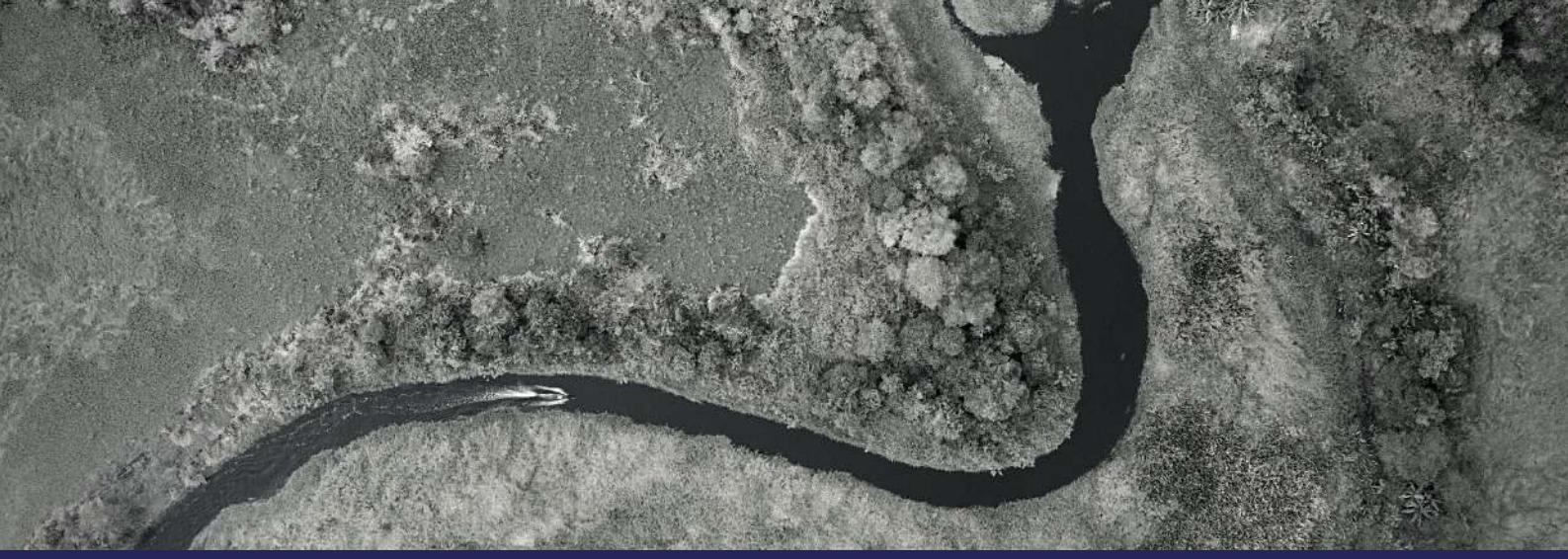

SUMMARY

Geospatial Information Management in Indonesia following Law on Geospasial Information No 4/2011. After being a guide for 9 years, in 2020, law on Job Creation No 11/2020 was issued.

Overall, there are 5 substances that have changed in the structure of Law on Geospatial Information. It all boils down to accelerating the provision of large scale base maps

GEOSPATIAL INFORMATION MANAGEMENT AFTER LAW ON JOB CREATION NO 11/2020

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- Regulation regarding the administration of Geospatial information
- Arrangements related to the integration of basic maps of land and sea areas
- Simplification of base map scale
- Arrangements regarding Geospatial Information Professionals
- Expanding possibilities for funding

GEOSPATIAL REFERENCE FRAME

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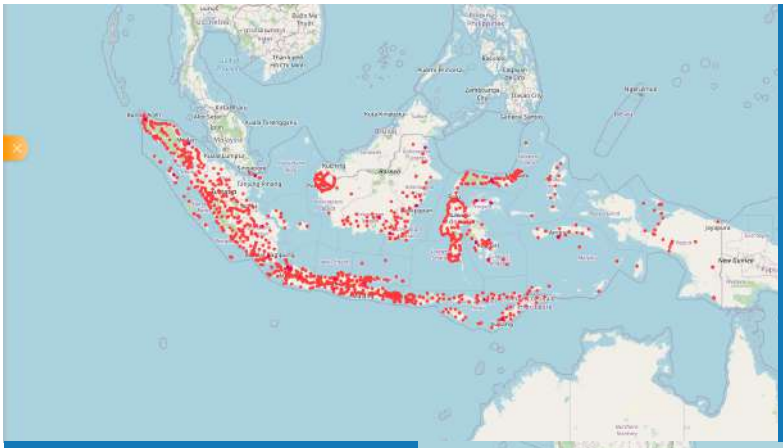
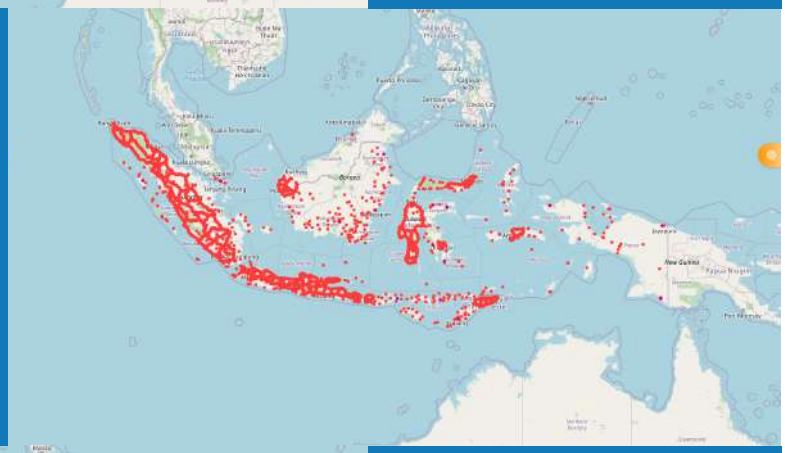


Horizontal
Reference Frame

7328 pillars across Indonesians islands

Vertical
Reference Frame

1486 pillars across Indonesians islands

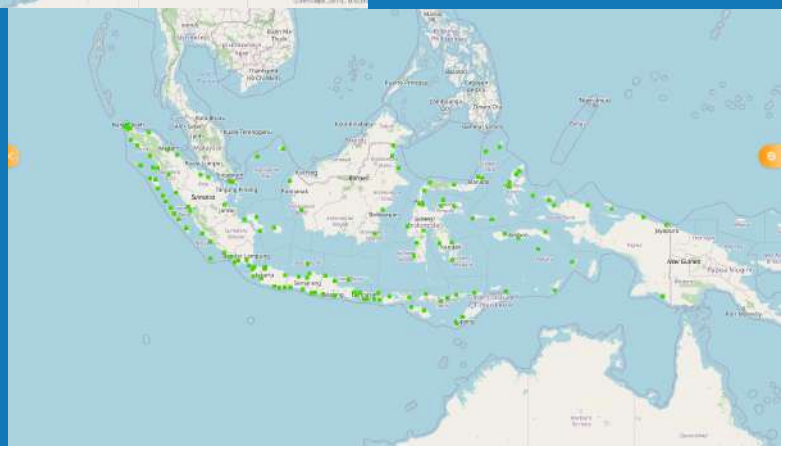


Ina -CORS

353 stations across Indonesians islands

Tide Gauge
Stations

198 stations across Indonesians islands



BASEMAPS

INTEGRATION

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Law on Geospatial Information 4/2011 and Goverment Ordinance : 9/2014

TOPOGRAPHIC MAP (RBI)

- Cover land area only
- coastline using Mean Sea Level (MSL)
- MSL as vertical refference
- Map Scale : 1:1.000.000 to 1:1.000

COASTAL AREA MAP (LPI)

- cover coastal area (60%-70% land area and 30%-40% marine area)
- coastline using lowest tide level
- MSL as vertical refference on land area and lovest tide level as vertical refference on marine area
- Map scale : 1:250.000 to 1:10.000

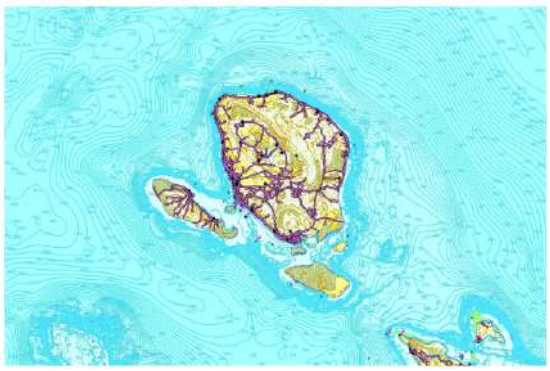
MARINE AREA MAP (LLN)

- cover most of the marine area
- coastline using lowest tide level
- Lowest tide level as vertical refference
- Map Scale : 1:500.000 to 1:50.000

Law on Job Creation 11/2020 and Goverment Ordinance : 45/2021

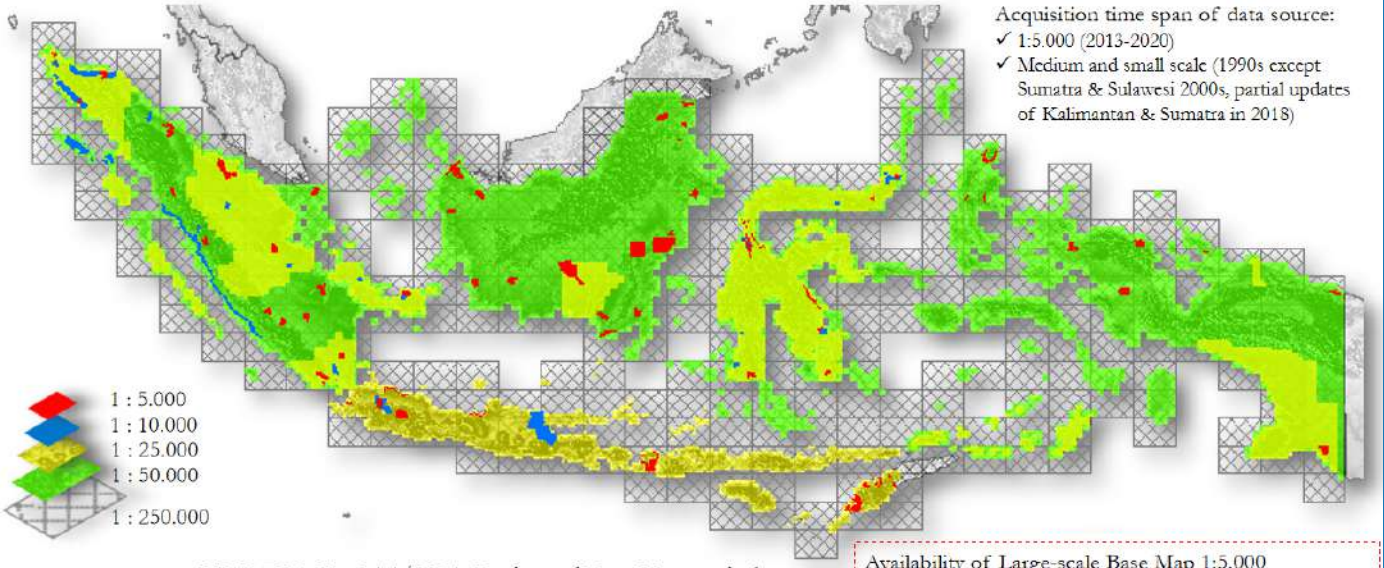
Topographic Map (RBI)

- **cover land, coastal and marine area**
- **coastline using Mean Sea Level (MSL) integrated with lowest tide level**
- **Geoid as vertical refference**
- **Map Scale : 1:1.000.000 to 1:1.000**



"there is only one type of basemap which is RBI (Rupabumi Indonesia)/Topographic Map . RBI integrates all element of the base map, both on land, coastal and marine

BASEMAPS STATUS



BASEMAPS STRATEGY

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Data Acquisition (2 years)

2021 2022 2023

Geospatial Data Acquisition
(Airborne SAR, Foto Udara, LiDAR)

Areas & Technology Used (km²)		
Urban	87.812	AP-LiDAR
Rural	852.374	Airborne SAR + CSRT
Forest	924.090	

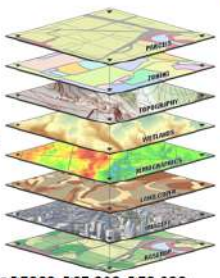
Technical Specification of Geospatial Data Acquisition

Airborne SAR		Aerial Photo (AP)		LiDAR	
Product	*Res/Acc*	*Product*	*Res/Acc*	*Product*	*Res/Acc*
ORI	25 cm	Orthofoto	15 cm	*Intensity*	50 cm
DSM	≤1m			*Point cloud*	8-15 ppm
DTM	≤1m			DTM	≤1m
INS	*Enhanced-precise Geoid and Airborne Gravity Anomalies*				

2022 2023 2024

Large Scale Base Map Production
(Automated Feature Extraction/AFE)

*Support and Readiness of Geodetic Infrastructure: SRGI2103
- ✓ Ina-CORS
- ✓ Ina-PASOET
- ✓ Ina-GEOID



Scales 1:5000, 1:25.000, 1:50.000, 1:250.000, 1:1.000.000

1. Building and Public Facilities
2. Transportation and Utilities
3. Hypsography
4. Hydrography
5. Coastline
6. Land Cover
7. Toponym
8. Administrative Boundary

Continuous Base Map Updating

2025

Multi-scale Base Map Production (3 years)

2022 2023 2024

Base Map Utilization and Commercialisation

ONE MAP & ONE DATA INDONESIA

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ONE MAP status

2016 - 2024 One Map Policy Roadmap

158 Thematic Maps

One Map Policy

24 Ministry/ Institution

34 Province

Presidental Decree No 9/2016 about One Map Policy Acceleration on 1:50.000 map scale

Presidental Decree No 23/2021 about revision on Presidental decree No 9/2016

One Map Objective

1 Reference
Standard
Database
Geoportal

One Map Stages

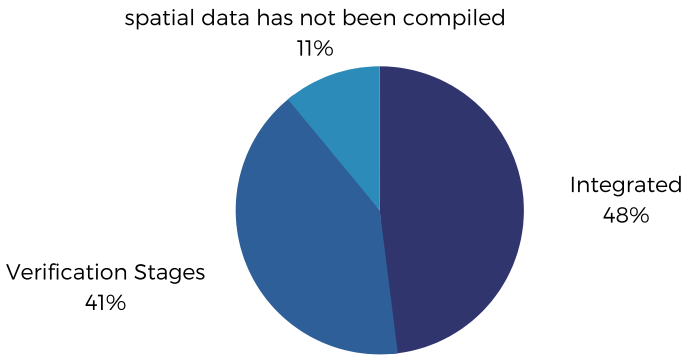
Compilation → Integration → Syncronization → Share

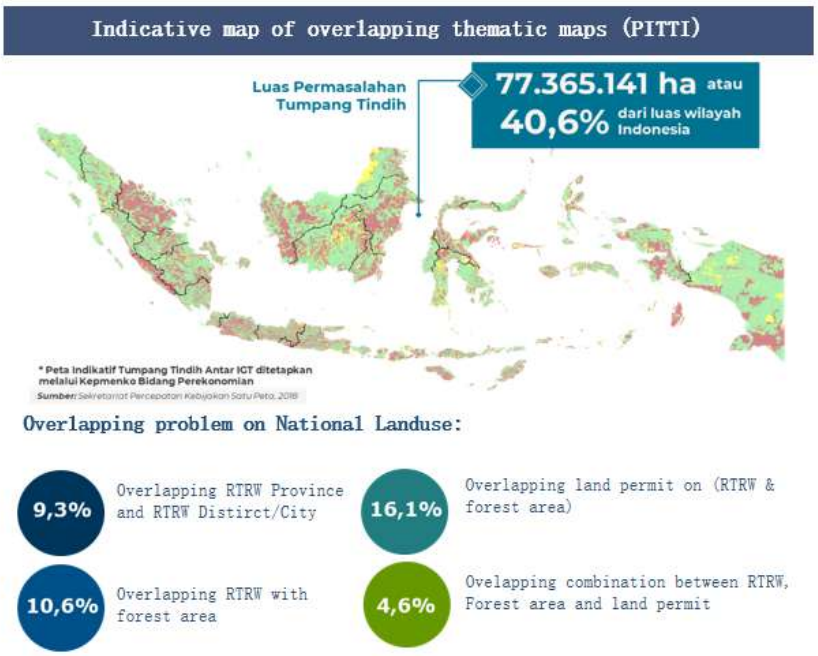
One Map Benefit

As reference for quality improvement:

- Spatial planning
- Natural resources management
- Sustainable development planning
- Dissaster risk reduction management.
- Policy making and decision making.
- Digital economy develompent.

ONE MAP POLICY INTEGRATION ACHIEVEMENT





ONE MAP &
ONE DATA INDONESIA

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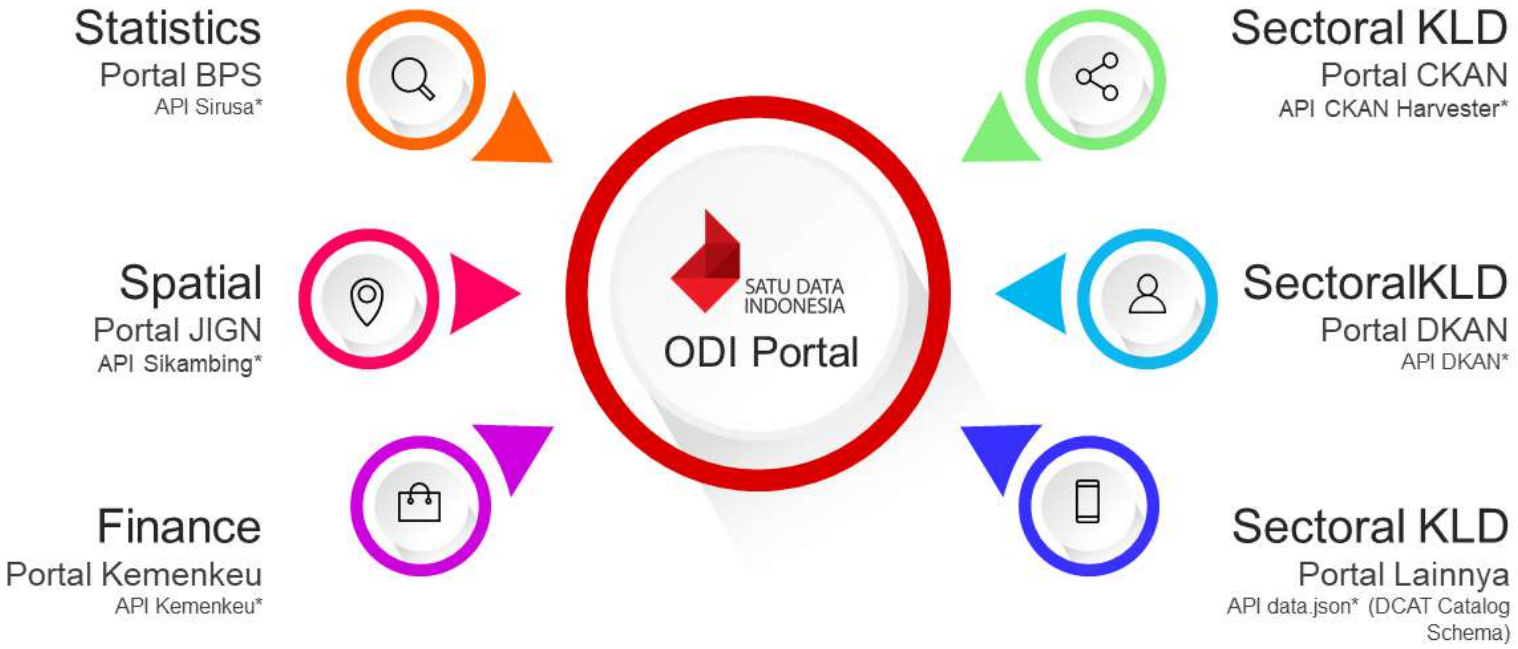
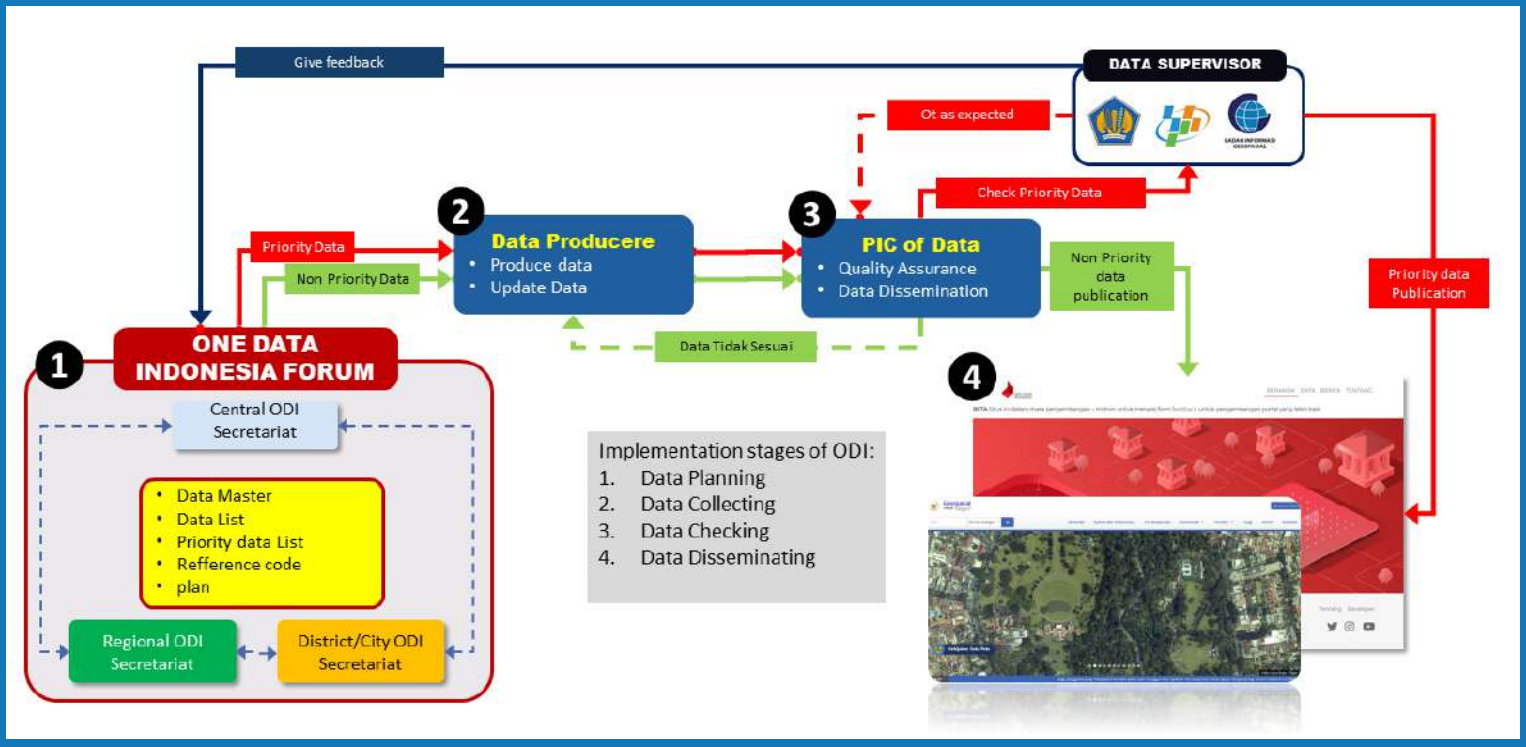
ONE DATA Indonesia



Implementation Flowchart



NSDI DEVELOPMENT AND STATUS

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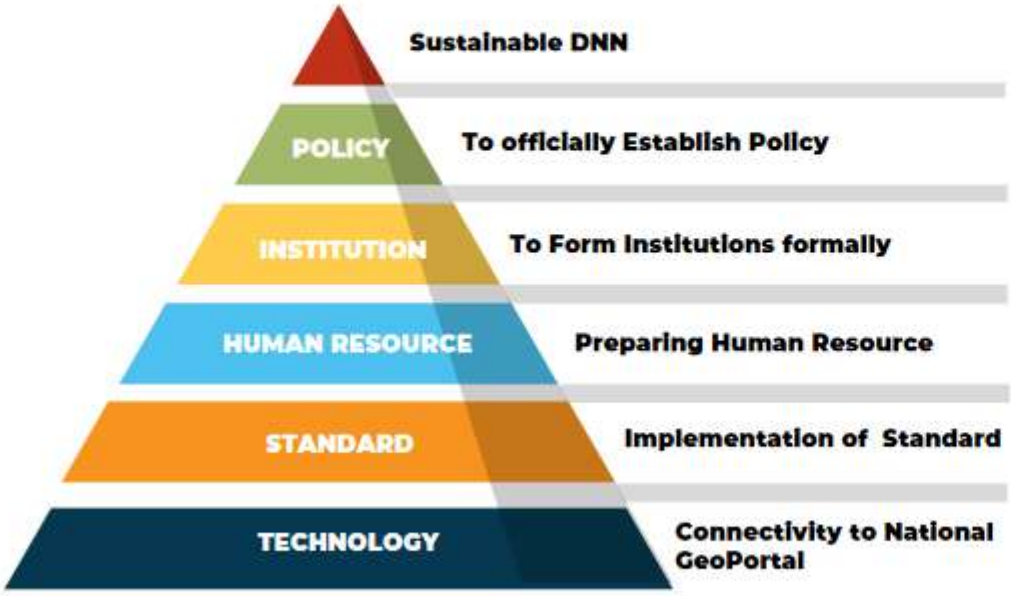
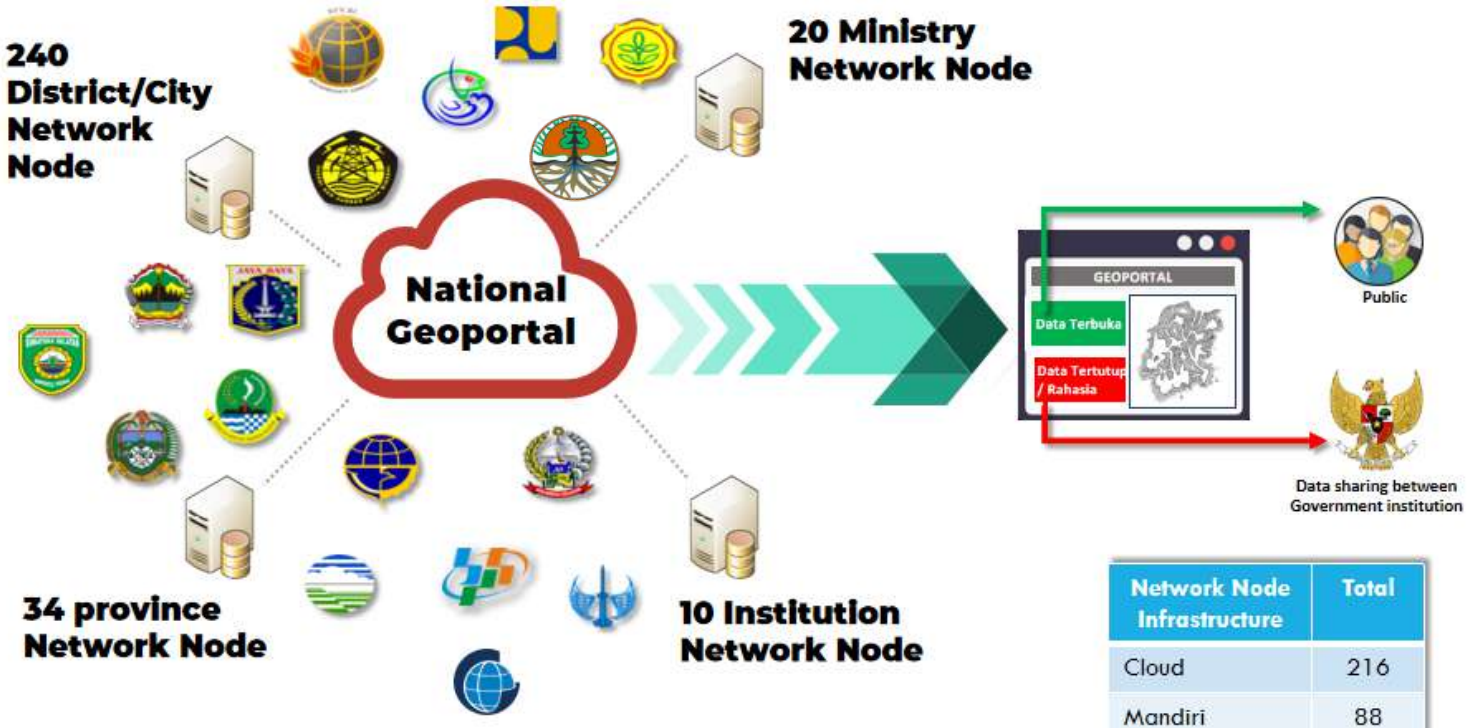


Data Producer

Technical unit that collecting, processing, saving and utilization of GD and GI

PIC of Data

Technical unit that saving, securing dan disseminating of GD and IG



Network Node Infrastructure	Total
Cloud	216
Mandiri	88
Total	**304**

HUMAN RESOURCES IN GEOSPATIAL INFORMATION

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SKKNI

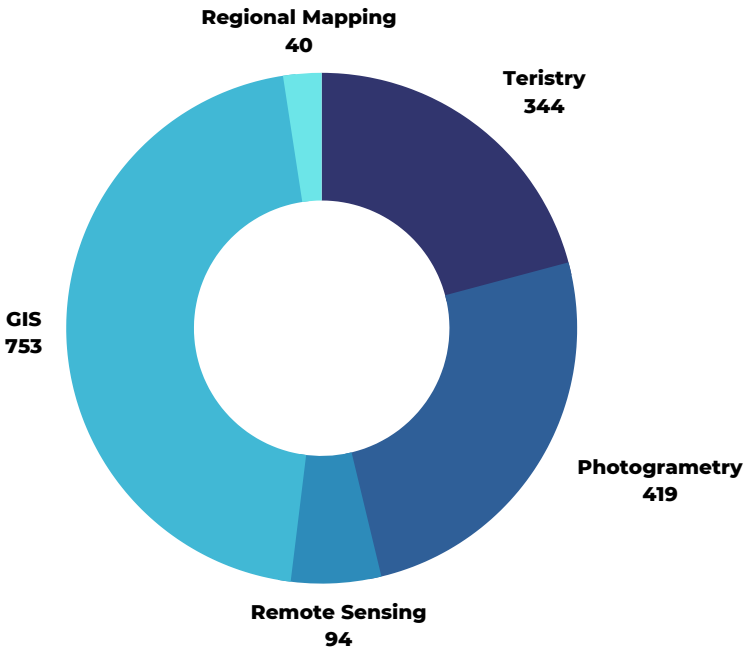
The formulation of work ability which includes aspects of knowledge, skills and/or expertise, as well as work attitudes that are relevant to the implementation of duties and job requirements that are determined in accordance with the provisions of the legislation.

KKNI

A framework for ranking competency qualifications that can juxtapose, equalize, and integrate the fields of education and the field of job training and work experience in order to provide recognition of work competencies in accordance with the work structure in various sectors.

Certified Expert

February 2021 status



https://porsig.big.go.id/

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FUTURE

GEOSPATIAL INFORMATION MANAGEMENT OF INDONESIA

2020 - 2022
QUICKWIN

- Geospatial Information human resources capacity building
- legal and technical strengthening
- acceleration of geospatial information for national priorities

2020 - 2024
LARGE-SCALE BASEMAP COMPLETION

- optimizing the role of data producer
- optimizing the use of geospatial information
- large-scale basemap completion and Thematic Geospatial Information fullfilment for National Midterm Development plan

2024 - 2030
INTEGRATING GEOSPATIAL INFORMATION AND STATISTICS

- optimizing data sharing for the fulfillment of SDGs and supporting K/L/P activities
- strengthening the integration of network nodes at the central goverment, regional and private levels

2030-2045
IMPLEMENTING THEMATIC GEOSPATIAL INFORMATION FOR DATA SHARING

- one map policy operates for the Indonesian Golden Era
- Maintenance, strengthening of sustainable geospatial information

Integrated Geospatial Information Framework(IGIF) will be one of Indonesia's references in preparing the National Midterm Development Plan 2024 - 2029 and the National Long term Development Plan 2024 -2049