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# FIG WORKING WEEK 2023

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# Digital Transformation in Indonesia Land Services

National Land Data Centre-Ministry of Agrarian  
and Spatial Planning Indonesia

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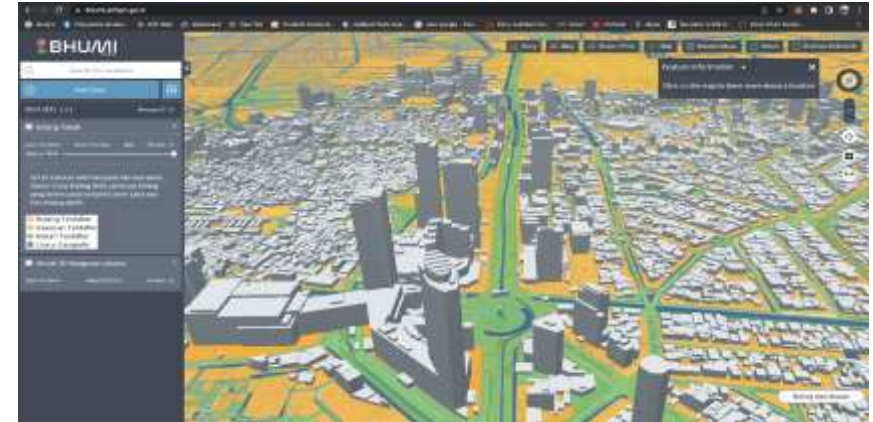


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## Overview: Indonesia Land Services

1. Indonesia has more than 500 land offices which applying dual systems: manual and electronic systems;
2. Manual system: land titles are in hard copy, Maintenance of land registration data are mostly in manual systems, including transfers, land subdivision and land use (about 120 procedures);
3. Electronic Services: Mortgage and land information systems (4 procedures);
4. Strategic goals: world standard land services: applies full digital services in 2025;
5. Challenges: converting manual archives into digital forms, digital literacy and ethics;
6. Chance: to apply electronic land titles and electronic transfers by 2023



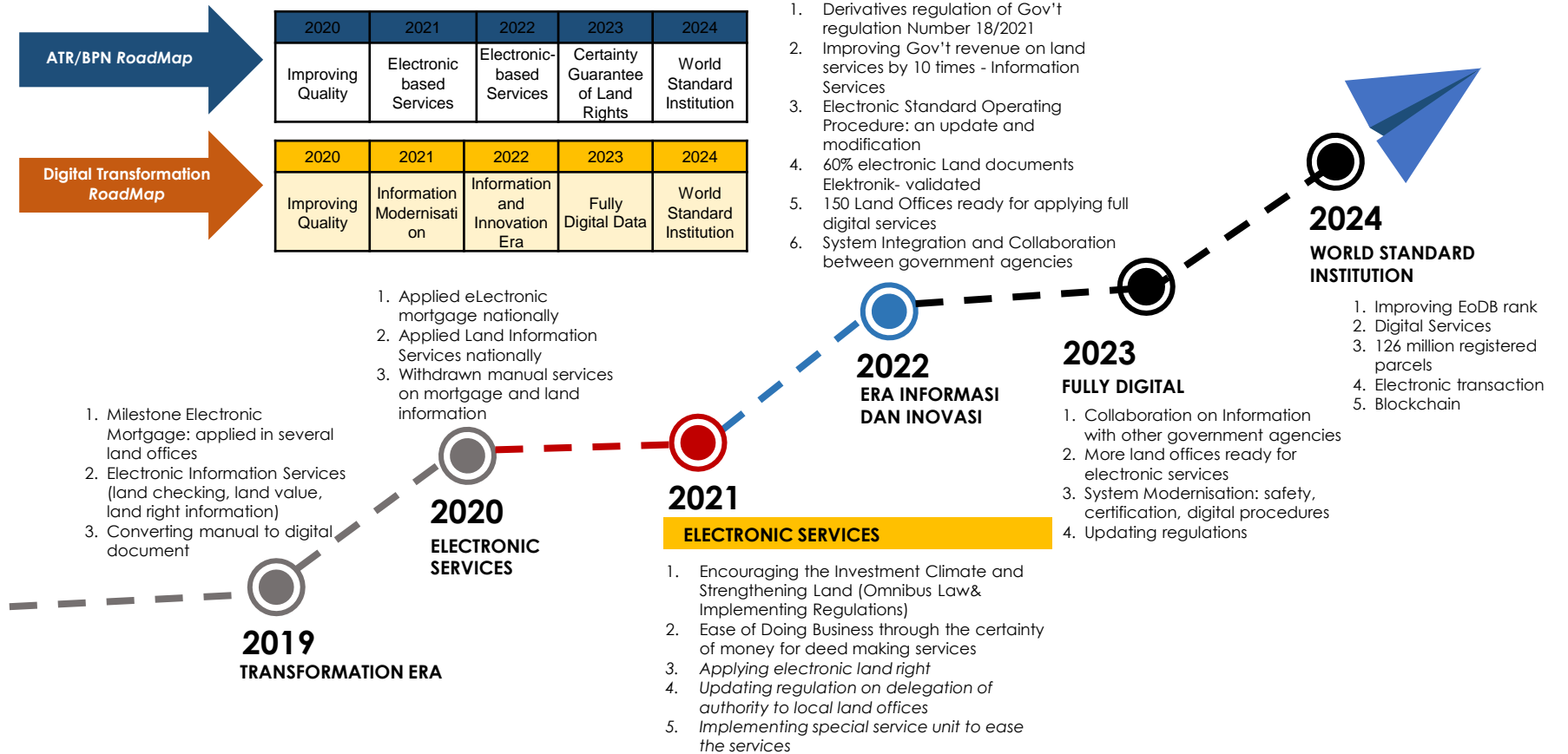


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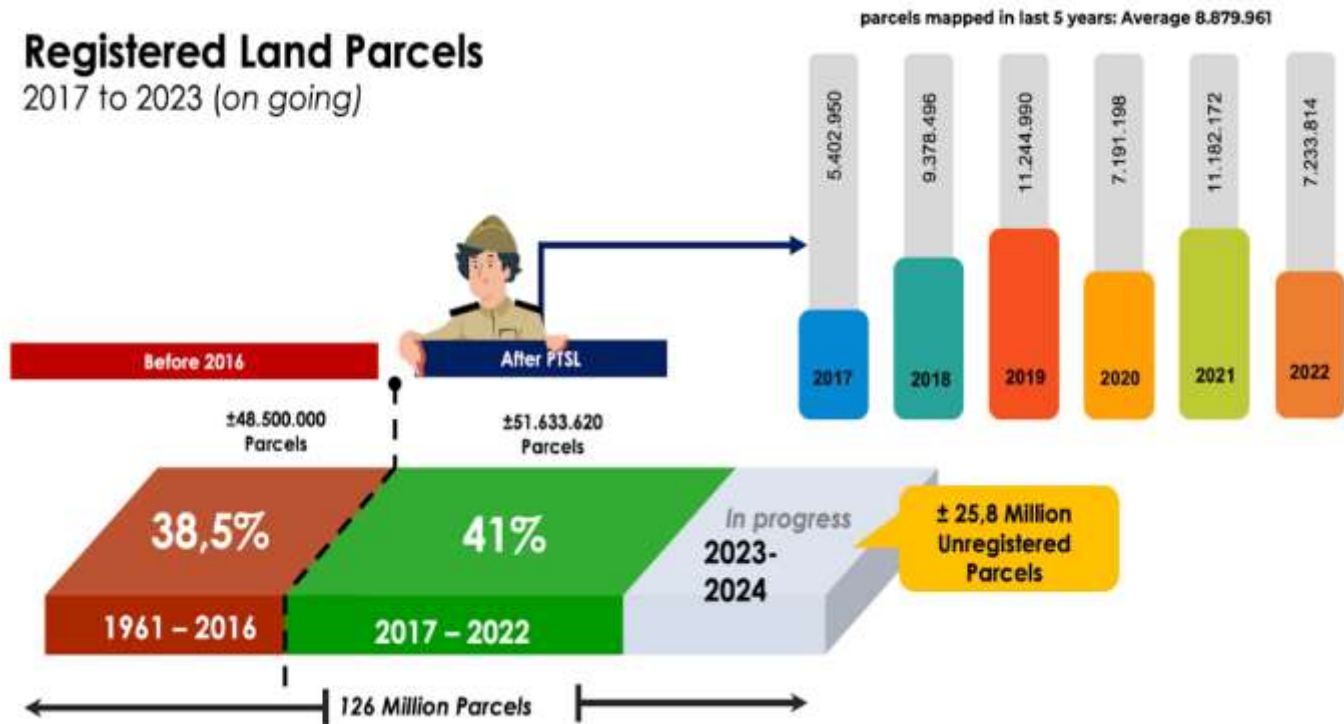
## Digital Transformation: A Roadmap



## Accelerating Land Registration

### Registered Land Parcels

2017 to 2023 (on going)



1. Indonesia has approximately 126 million parcels
2. Previous programs from 1961 to 2016 mapped more than 48 million parcels, or 38.5% from total parcels
3. Systematic land registration started in 2017 added more than 51.6 million parcels or 41% in 6 years
4. This systematic land registration is expected to finish in 2024.

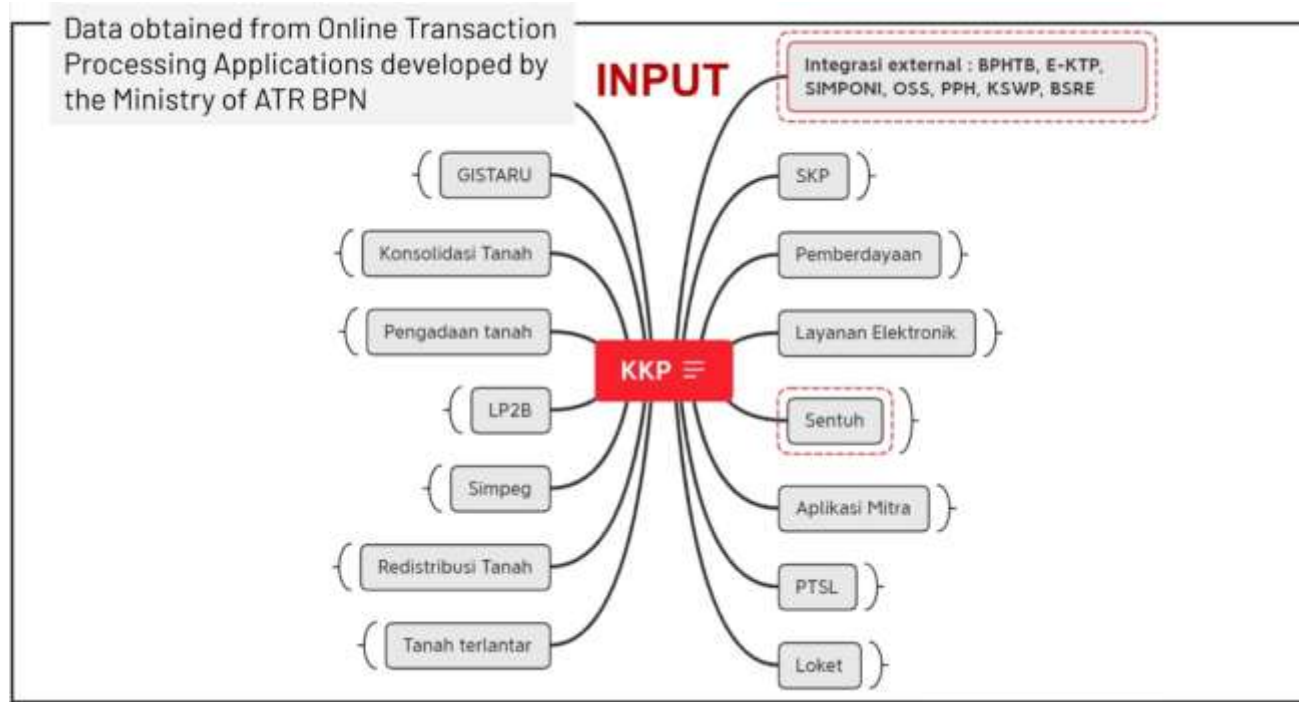
## Collaborative Land Registration

1. Various programs to support acceleration programs: cross-agency collaboration (Lintor), land redistribution, Gov't asset registration and mass registration funded by foreign grants (PHLN)
2. This PHLN programs currently in 10 (ten) provinces in Sumatra, Kalimantan and Java;
3. This acceleration is aimed to improve transactions and ease the investment;
4. This program performed digitally, utilising digital application for spatial and juridical data collection: *SURVEY TANAHKU*





## Integrated Land Data Management



KKP is Land Offices Computerisation application that incorporate with various applications inside and outside Ministry of Agrarian. This application produce spatial and textual dataset that managed, stored and monetised by National Data Centre.

## OUTPUT

### 1. Spatial Data

Land parcels, thematic, land acquisition,



### 2. Textual Data

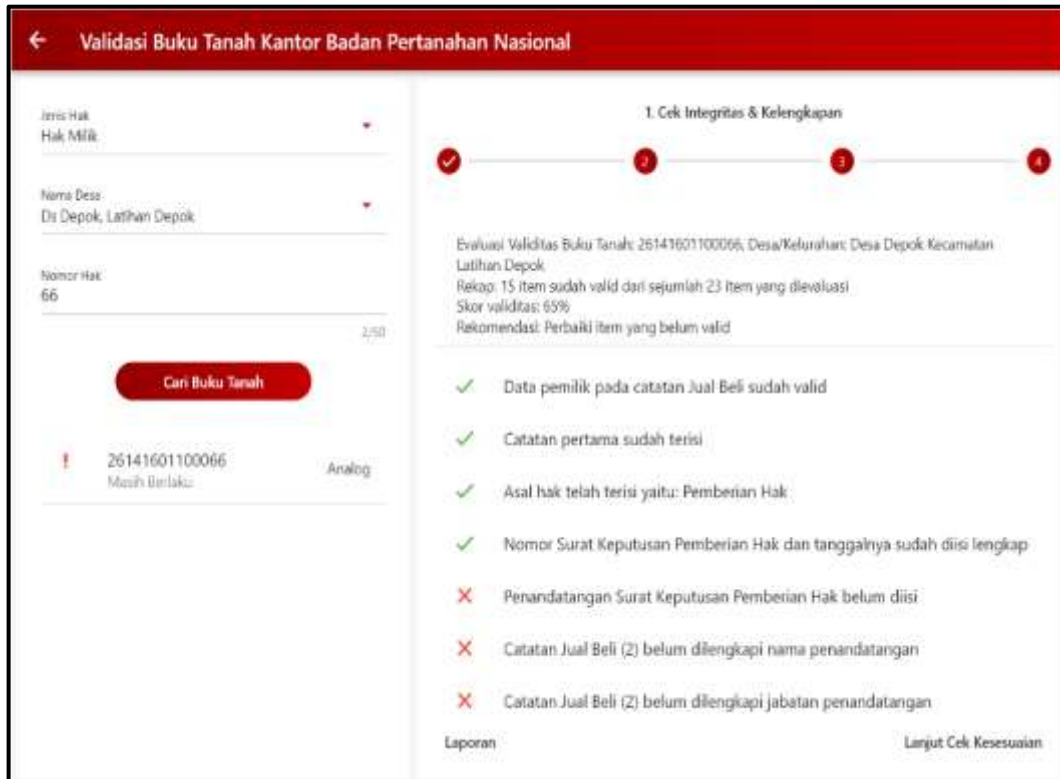
- Land Owner Data
- Types of Land Rights
- Employment Data
- Revenue data of the Ministry of ATR/BPN

## Data Validation and Standardisation

- Ministerial regulation 1/2021 mandated to apply electronic land title in Indonesia
- It faces several challenges: data variations, data format and null values
- Several tests performed to analyse data validity in 10 (ten) land offices. It is found that the highest validity score was found in Denpasar, with 95.92%, while the lowest was in Jembrana, with an average validity score was 69.85%
- Lower score indicates there are more null values input during data entry, while a higher score indicates that the documents were completely input. However, the more complete the data input does not mean that the data input was similar to the hard-copy document. Therefore, visual validation is cannot be neglected.
- To overcome this situation, researchers urged to apply standardisation on data input by applying default values

No.	Province	Land Office	%Validity Score (avg)
1	Bali	Denpasar	95,92
2	Bali	Jembrana	69,85
3	Bali	Karangasem	84,80
4	Jakarta	West Jakarta	76,66
5	Jakarta	Centra Jakarta	88,00
6	South Kalimantan	Hulu Sungai Utara	74,00
7	NTB	Bima	93,00
8	Banten	Kota Tangerang	81,54
9	Banten	Kabupaten Tangerang	70,05
10	Gorontalo	Pohuwato	82,00

## Application Modernisation



Validasi Buku Tanah Kantor Badan Pertanahan Nasional

1. Cek Integritas & Kelengkapan

Evaluasi Validitas Buku Tanah: 25141601100066; Desa/Kelurahan: Desa Depok Kecamatan Lathihun Depok  
 Rekap: 15 item sudah valid dari sejumlah 23 item yang dievaluasi  
 Skor validitas: 65%  
 Rekomendasi: Perbaiki item yang belum valid

- ✓ Data pemilik pada catatan Jual Beli sudah valid
- ✓ Catatan pertama sudah terisi
- ✓ Asal hak telah terisi yaitu: Pemberian Hak
- ✓ Nomor Surat Keputusan Pemberian Hak dan tanggalnya sudah diisi lengkap
- ✗ Penandatanganan Surat Keputusan Pemberian Hak belum diisi
- ✗ Catatan Jual Beli (2) belum dilengkapi nama penandatanganan
- ✗ Catatan Jual Beli (2) belum dilengkapi jabatan penandatanganan

Laporan Lanjut Cek Kesesuaian

- Digital land title is in block data;
- Currently, there are 118 procedures in land Services; 41 procedures create new data block, while the rest creates/updates annotation;
- Update procedures to adopt the digital ecosystem by maintaining data integrity and applying digital signing;
- Each product, including data migration from manual to digital must to be inspect its validity and apply default values to each null values;
- Only products with 100% validity score can be migrated to block data



## Electronic Land Title



- 01 Applying single identity number
- 02 Limitations and Obligation of every landowner listed on the documents
- 03 If needed, the land certificate can be printed using secured paper
- 04 Apply digital signed, that can be check using mobile application: “Sentuh TanahKu”
- 05 Landowners are able to check the validity of Geo-location each of their parcel on the map shown in second page of the e-land title documents



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Thank You



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