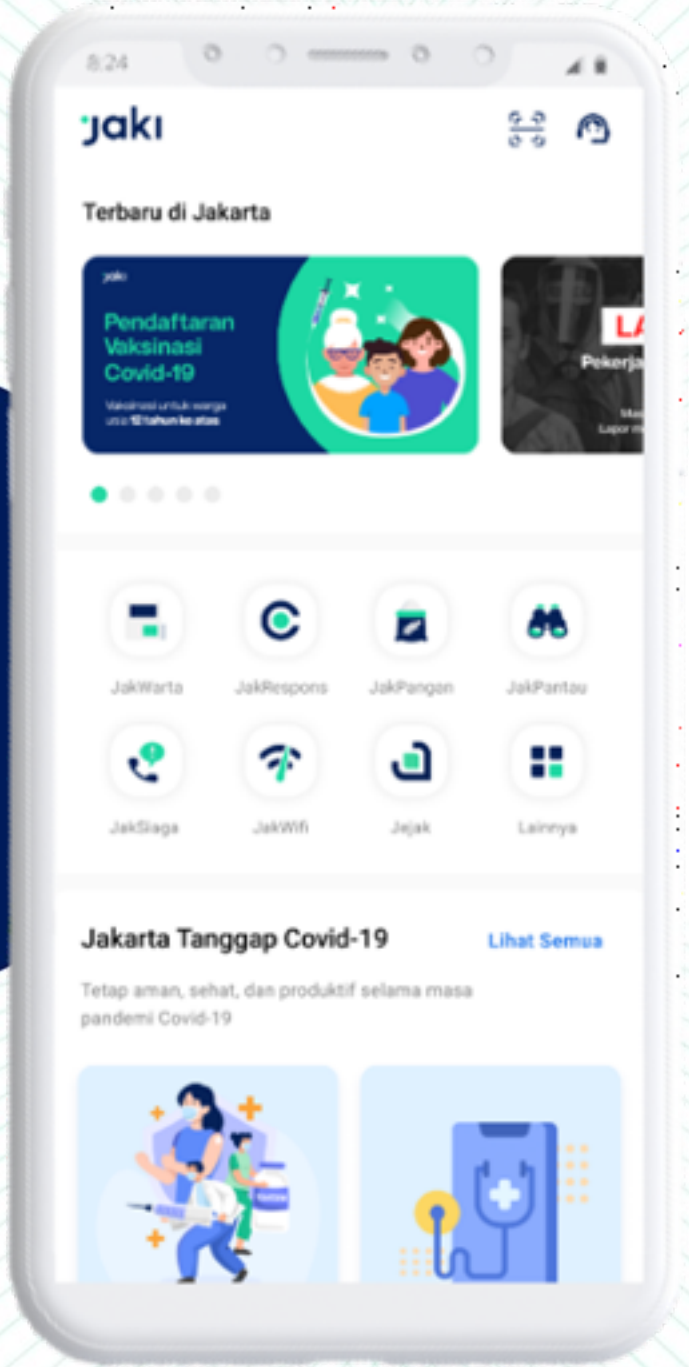


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# Digital Transformation for the Post-Pandemic City: The Future Smart City Vision

Yudhistira Nugraha, D.Phil – Director at Jakarta Smart City

Department of Communications, Informatics, and Statitics

# Digital Transformation for the Post-pandemic City: The Future Smart City Vision

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PROBLEMS

Health Crisis

Economic crisis

OPPORTUNITIES

Digital-life breakthrough

Greener environment

## The Enhanced Values...

**The value on LIVES**

*every lives matter*

Understanding citizen needs, solving the problems, seizing the opportunities, and put the values on...

**The value on LIVELIHOOD**

*everyone deserves decent livelihood*

## THE FUTURE SMART CITY VISION

**PANDEMIC PROOF CITY**

A city with high quality health standard, proper sanitation, clean, and crowd level is controlled that allow people to do necessary distancing

**RESILIENCE TO CRISIS CITY**

A city where the vulnerable groups are protected, housing are affordable, and basic services could sustain through the crisis

**DIGITALLY ADVANCED CITY**

A city where digital infrastructures are advanced and substantial daily urban activities could be done digitally, creating efficient and optimum living

**SUSTAINABLE & LIVABLE CITY**

A city with high environmental quality and decent standard of living for every citizens

Source: Jakarta City Vision

What is smart city?

# Innovative City and Happiness

Governor’s Vision and Mission

## Maju Kotanya, Bahagia Warganya

# Collaboration as Jakarta's Main Development Approach

## Develop through Collaboration.

| | | | | |
|---|---|---|---|---|
| **Government**<br>DKI Jakarta Provincial Government | + | **Government**<br>Central Government | = | **City Development**<br>City and Citizen |
| **Government**<br>DKI Jakarta Provincial Government | + | **Citizen**<br>Private Sector, MDB, SMEs, Civitas Academia, Community, Association, NGO, Media, International Org., others | = | |
| **Citizen**<br>Private Sector, MDB, SMEs, Civitas Academia, Community, Association, NGO, Media, International Org., others | + | **Citizen**<br>Private Sector, MDB, SMEs, Civitas Academia, Community, Association, NGO, Media, International Org., others | = | |

## Government as Collaborator - Citizen as Co-Creator.

Source: Governor's Vision and Mission

# Smart City 4.0 Ecosystem Platform

Collaborator

Government

Co-Creators

Citizen

Academia

Media

Industry/Business/Investor

Other Governments

Vision and Mission
JAKARTA CITY 4.0

Technologies, Innovations and Collaborations

Cloud | Big Data | AI | IoT | Blockchain

City's Problems

Citizen's Needs

Innovative City

Happy Citizens

# An Innovation Ecosystem of the Future Smart City Vision

## SPACES

*"Digital and community oriented development"*

## BUSINESS

*"Adaptive economy and experiential industries"*

## WELFARE

*"Inclusive and personalized welfare services"*

## GOVERNMENT

*"Agile and data-driven government"*

Source: Jakarta City Vision

# A Driving Factor for Digital Transformation

# Problem Statement

**Population: 11 million**

Urban Challenges

**Pandemic Covid-19 Situation**

- Scattered & Unstandardized Data
- Siloed Systems
- Unintegrated Services

**Inefficiencies**

**Costly**

**Decrease the quality of public services**

# Innovation

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### The Open API Policy
- Standardized the data
- Integrates the data to one system
- Develop and provide public API services

### System Development Collaboration
- Penta-helix collaboration (Government, University, Private Sector, Citizens, and Media)
- Collaboration in service development

### Service Integration
- Integrates all the innovation into JAKI Super-App
- Creating one-stop shop for all services

More Apps

- Government Platform
- One stop Services
- Citizen-designed Services
- Digital ID

# Personalised Services from Birth to Dead

## DATA

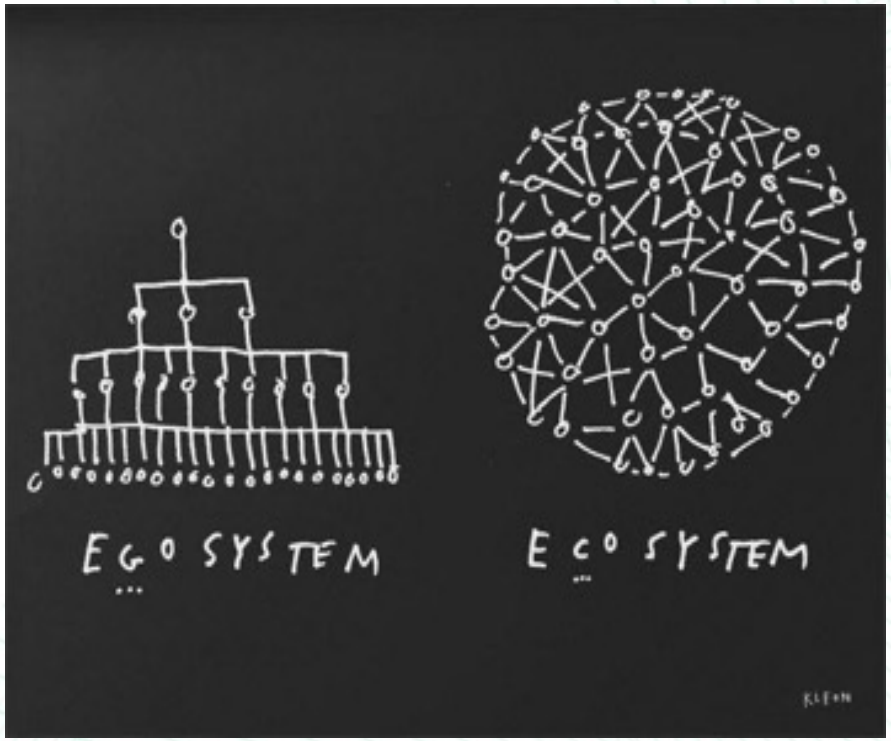
- NIK
- Data Kependudukan
- Data Pelayanan Kesehatan
- Data Kelahiran Bayi
- Data Ibu Hamil
- Data Golongan Darah
- Data Anak Balita
- Data Anak Sekolah
- Data Remaja Dewasa
- Data Dewasa
- Data Pra-lansia
- Data Lansia
- Data Meninggal

## SERVICES

- **Ibu Hamil** — Informasi dan Layanan Ibu Hamil
- **Bayi** — Informasi dan Layanan Imunisasi Dasar
- **Anak-anak** — Informasi dan Layanan Kesehatan Anak/Imunisasi Lanjutan
- **Remaja** — Layanan Pendidikan PPDB Online
- **Remaja Dewasa** — Layanan Kesehatan Reproduksi Remaja Dewasa
- **Dewasa** — Layanan Medical Check Up secara berkala
- **Pra-Lansia** — Layanan dan Informaasi Pengobatan Pra-Lansia
- **Lansia** — Layanan dan Konsultasi Kesehatan Lanjut usia
- **Meninggal** — Memudahkan Permintaan Surat Keterangan Kematian

## PLATFORM

- JAKI
- Website
- WhatsApp
- SMS
- Email
- Data Visualisation Tools




"Our society must move from **ego-system to eco-system economics.** This requires that we shift from ego-system silos to eco- system awareness that considers others and includes the whole."

- Otto Scharmer

# Thank You

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# Profile Jakarta Smart City

**Total Karyawan JSC**
**(ASN dan Non ASN):**

**220 Orang**

| SMA | D3 |
|---|---|
| 1 Orang | 8 Orang |

| S1 | S2 |
|---|---|
| 172 Orang | 35 Orang |

| S3 |
|---|
| 4 Orang |

Jakarta Smart City merupakan Badan Layanan Umum Daerah Pertama di Indonesia yang fokus pada pengembangan ekosistem kota cerdas di Indonesia sesuai Keputusan Gubernur No 17 Tahun 2020

# JAKI Won National Competition (Public Sector)
## Gold Medal – Indonesia Entrepreneur TIK 2020

# JAKI Won International Competition (E-Government)
## Champion Projects WSIS Prizes 2021

### Champion Projects

WSIS Prizes 2021 | AL C7. E-government

Category 7 — AL C7. ICT applications: benefits in all aspects of life — E-government (5 Projects)

**"Citizens' Electronic Appeals" system**
The project has been implemented in Shamakhi region of the Republic of Azerbaijan. The population of Shamakhi region is about 10% of the country's population. The e-appeals system provides citizens living in the area with online applications, complaints,... more »

**Citizen's Account**
Citizen's Account (CA) is a national program that envisioned to encompass all government benefits and subsidies. CA program was built with a vision in mind to be the unified platform for government subsidy programs that would ensure that citizens are awa... more »

**COVID-19 vaccination Information System**
This project supported the establishment of a state-of-the-art system for application, scheduling and tracking of vaccines and the immunization of the population of Serbia. This web-based IT system is designed to ensure optimal coordination in allocation... more »

**Jakarta Kini**
The JAKI platform plays an important role in the realization of a one-stop service for the Jakarta Provincial Government. The JAKI platform is able to integrate various services belonging to the Regional Government, Central Government, and Business Actor... more »

**NATIONAL REGISTRATION AND IDENTIFICATION SYSTEM (NRIS) OF MALAWI**
Project Goal: To ensure a permanent and continuous national registration and identification system is established in Malawi Project output: Design, establish and manage the necessary systems, infrastructure and equipment for the National Registration and... more »

# Jakarta Won as An Innovative Province

Yudhistira Nugraha is a senior member of the Indonesian Government, currently assigned as Director of Jakarta Smart City – Department of Communications, Informatics, and Statistics, the Provincial Government of Jakarta. He has been a civil servant since 2006 and had been working for more than 13 years at the Ministry of Communications and Informatics. His last assignment at the Ministry was the Deputy Director for E-Government Services in Economic Affairs.

He received a D.Phil. in Cyber Security from the University of Oxford. He also holds a Data Protection Officer Professional University Certificate (ECPC-B DPO) from the European Centre of Privacy and Cybersecurity (ECPC) of Maastricht University, the Netherlands. He also undertakes research and teaching in the area of information security, privacy, and smart city at Telkom University.


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# Yudhistira Nugraha


Kepala BLUD Jakarta Smart City
Top 10 PNS Inspiratif 2020 – Kementerian PANRB

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**Riwayat Jabatan:**

- Kepala Jakarta Smart City, September 2019 – Sekarang, Dinas Kominfotik, Pemda DKI – Jakarta
- Kepala Sub Direktorat Layanan Aplikasi Informatika Perekonomian, Juni 2019 – September 2019, Ditjen Aptika, KOMINFO
- Kepala Seksi Pengendalian Sistem Elektronik dan Ekonomi Digital, September 2018 – Juni 2019, Ditjen Aptika, KOMINFO
- Plt Kepala Seksi Kelembagaan Keamanan Informasi, Feb 2018 – Agustus 2018, Ditjen Aptika, KOMINFO
- Kepala Seksi Manajemen Risiko, 2011 – 2013, Direktorat Keamanan Informasi, Ditjen Aptika, KOMINFO
- Kepala Sub Bagian Kerjasama, 2010 – 2011, Badan Litbang SDM, KOMINFO
- Staf Khusus Kepala Badan Litbang SDM, 2009 – 2010, Badan Litbang SDM, KOMINFO
- Anggota Tim Staf Khusus Menkominfo, 2006 – 2007, DEPKOMINFO

**Riwayat Profesional:**

- Dosen Professional  Part-Time Telkom University – Fakultas Informatika, Juli 2019 – Sekarang
- Co-Founder, Indonesia Blockchain Society (IBS)
- Co-Founder, Indonesia Digital Institute (INDiS)

**Riwayat Pendidikan:**

- Doctor of Philosophy (D.Phil) in Cyber Security, University of Oxford, UK, Michaelmas 2013 – Michaelmas 2017
- Master of ICT Advanced (Distinction), University of Wollongong, Australia, February 2008 – July 2009,
- B.Eng (Excellent), Telecommunication Engineering, Telkom University, Bandung – Indonesia, 1999 – 2003.

**Sertifikasi:**

- Certified ECPC-B DPO by the European Centre of Privacy and Cybersecurity (ECPC) of Maastricht University, 2019
- Certified ECPC- A (Privacy Fundamental), Maastricht University, 2019
- Certified Data Protection Officer, Singapore Management University, 2019
- Certified Ethical Hacker, September 2012,
- Certified Lead Auditor ISO/IEC 27001, November 2011.