Praktik baik kota pintar Jepang dan "Smart JAMP"

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Pemerintah Jepang

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Sejarah Perkembangan Kota di Jepang

Sumber: materi Pertemuan Tingkat Tinggi ASEAN-Jepang ke-2 tentang Jaringan Kota Cerdas,

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	1960～ High economic growth period	1980 ～ Stable growth period	2000 ～ Maturity
Issue	• Shortage of housing due to population concentration in urban areas • Infrastructure (electricity, water etc.) shortage due to rapid urbanization • Environmental problems and pollution such as air and water pollution	• Dealing with high quality living environment needs that come with improved living standards • Worsening of traffic congestion with progress of motorization • Underutilized and unused land due to change of industrial structure • Increased environmental awareness	• Dealing with low environmental burden town planning needs • Decreasing vitality in urban centers due to falling birthrates, ageing society, and decreasing population • Utilizing progressively deteriorating housing stock
Solution	1. Decentralize urban functions through new town development in coordination with traffic infrastructure 2. Mass supply of housing (provision of new urban areas) 3. Legislation in order to realize urban policy	4. Improved housing performance standards 5. Expansion of traffic infrastructure networks 6. Maintenance of existing urban areas 7. Resource circulation efforts	8. Compact City Plus Network town planning 9. Stock regeneration 10. Landscape protection **11. Realization of Smart Cities**

Karakteristik Kota Cerdas di Jepang

Sumber: materi Pertemuan Tingkat Tinggi ASEAN-Jepang ke-3 tentang Jaringan Kota Cerdas,

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Japan's Smart Cities～ Solving Global Issues such as SDGs with Japan's Society 5.0 ～

3 pillars characteristic of Japan

①Eco-Cities (environmentally symbiotic cities)

②TOD (Transit-Oriented Development)

③Building Disaster-Resilient Cities (Resilient Cities)

Issues and Solutions

① Realize the world's highest level of a safe and secure society (eg: crime prevention, disaster prevention, traffic accident reduction etc.)

② Demonstrate maximum ability of traffic and logistics infrastructure (eg: MaaS, autonomous driving, car-sharing etc.)

③ Realize efficient energy use and zero emissions

④ Become the world's highest level recycling society

⑤ World-shaking infection control measures and public health

⑥ Expand access to education and improved education quality (distance / online learning)

⑦ Utilize tourism resources to attract people from around the world

⑧ Dependable infrastructure asset management and extending life

⑨ Safe and high quality agricultural production and distribution infrastructure

Konsep dan Prinsip Dasar

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Tiga Konsep Dasar

- Berorientasi pada Tuntutan Warga dan Pengguna
- Berfokus pada Masalah dan Visi
- Kerja sama lintas Sektor dan Kota

Lima Prinsip Dasar

- Keadilan dan Inklusivitas
- Privasi
- Keberlanjutan dalam hal Operasi dan Keuangan
- Keamanan dan Ketahanan
- Interoperabilitas, Keterbukaan dan Transparansi

Aturan Emas

- Penting untuk **mempertahankan diversifikasi setiap** kota dengan menyesuaikan dengan berbagai keadaan dan persyaratan yang dimiliki kota tersebut.

- Perlu **melibatkan berbagai jenis peserta** dari pemerintah daerah, industri & perusahaan, akademisi, dan masyarakat.

- Penting untuk **memastikan keterbukaan dan transparansi**. Pada saat yang sama, penting bagi berbagai macam orang dari berbagai sektor dan organisasi untuk membuat data yang dapat diandalkan tersedia secara bebas. Selain itu, diperlukan untuk membangun kepercayaan dalam privasi, perlindungan data, hak kekayaan intelektual dan keamanan data.

Proyek Kota Cerdas di Jepang

Sumber: materi Pertemuan Tingkat Tinggi ASEAN-Jepang ke-3 tentang Jaringan Kota Cerdas,

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FY2017-2020

sekitar 200 proyek Demonstrasi di sekitar 160 area yang dilakukan

Implementasi proyek-proyek OS Kota sedang berlangsung di 23 area (pada September 2020)

Implementasi 100 area oleh FY2025

Wilayah Hokuriku
7 area, 11 proyek

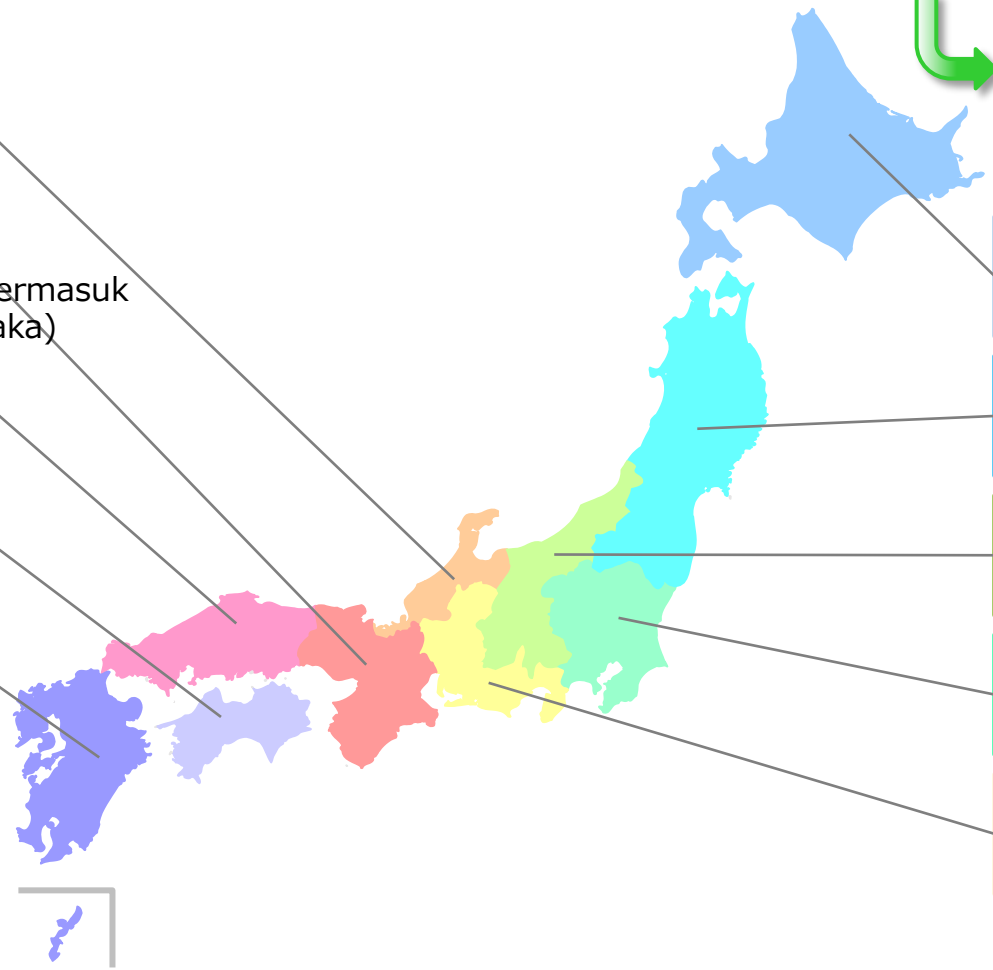
Wilayah Kansai*
26 area, 29 proyek

(*termasuk Osaka)

Wilayah Chugoku
17 area, 19 proyek

Wilayah Shikoku
10 area, 12 proyek

Wilayah Kyushu
16 area, 16 proyek



Wilayah Hokkaido
9 area, 12 proyek

Wilayah Tohoku
7 area, 10 proyek

Wilayah Shin-etsu
5 area, 7 proyek

Wilayah Kanto**
44 area, 58 proyek

(**termasuk Tokyo)

Wilayah Tokai
19 area, 26 proyek

(Kantor Kabinet)

Kota Ramah Lingkungan : Fujisawa (prefektur Kanagawa)

Sumber : Sekretariat Kabinet "Kota Cerdas Jepang"

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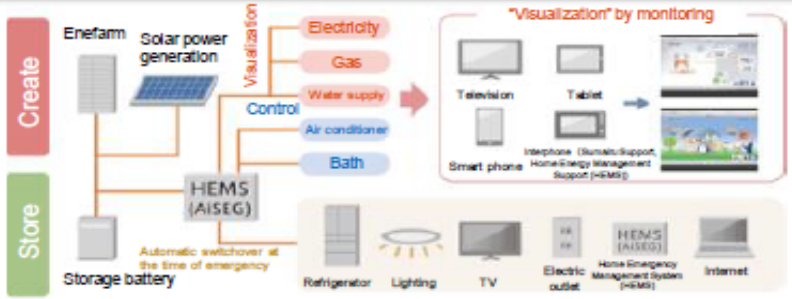
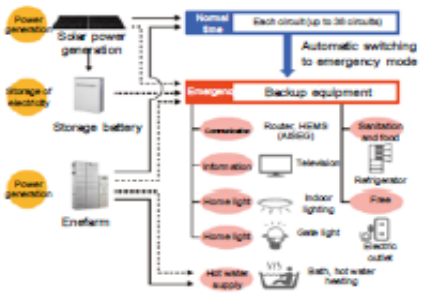
Energy

Realizing carbon free housing through the thorough introduction of low-carbon technologies

Through the visualization of energy use and standardization of smart homes equipped with photovoltaic power generation system and storage battery unit in all detached houses, realizing a self-produced, self-consuming energy life, ensuring that energy supply will continue for three days even in an emergency.



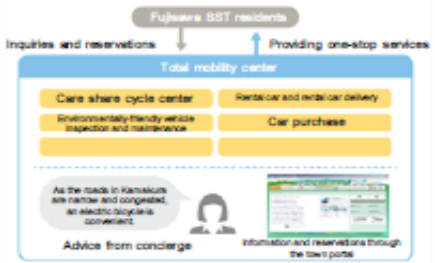


Mobility

Providing total mobility services according to the occasion of usage and needs.

Providing more convenient and eco-friendly mobility services, including electric vehicle (EV), electrically power assisted bicycle sharing, and delivery service of rental car close to home.

Total Mobility Center



Two EVs are reserved. In case of an emergency, the V2H system supplies electricity to the assembly room, etc.

Monitoring

Realizing a safe and secure city by making full use of ICT

Realizing a safe and secure city with a security system covering the whole area, including security cameras, smart lights that detect people and increase their luminous intensity, patrol by security concierges, and PUSH transmission of disaster prevention information to home TVs in the event of an emergency,

TOD : Tsukuba (Ibaraki pref.)

Sumber : Sekretariat Kabinet "Kota Cerdas Jepang"

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In order to promote the social participation of the elderly, etc., with reduced mobility, aiming to create a city that facilitates their going out by providing a mobility system that allows them to travel safely, securely and comfortably without relying their own cars.

Goals

- Ratio of people whose daily transportation is by private car 85.8% (current %) → 83.5% (FY2024)
- Ratio of elderly people who feel life is comfortable 31.4% (current %) → 34.4% (FY2024)
- Smart city project user satisfaction -% (current %) → 47.2% (FY2024)

Details of the Plan

Traffic congestion prediction using AI

Predicting congestion in advance and establishing an optimal traffic model to solve congestion by acquiring and analyzing traffic flow data.

The optimal operating model for public transportation

Developing an optimal public transportation model, including the development of operation plans that minimize waiting time costs by acquiring and analyzing human flow data.

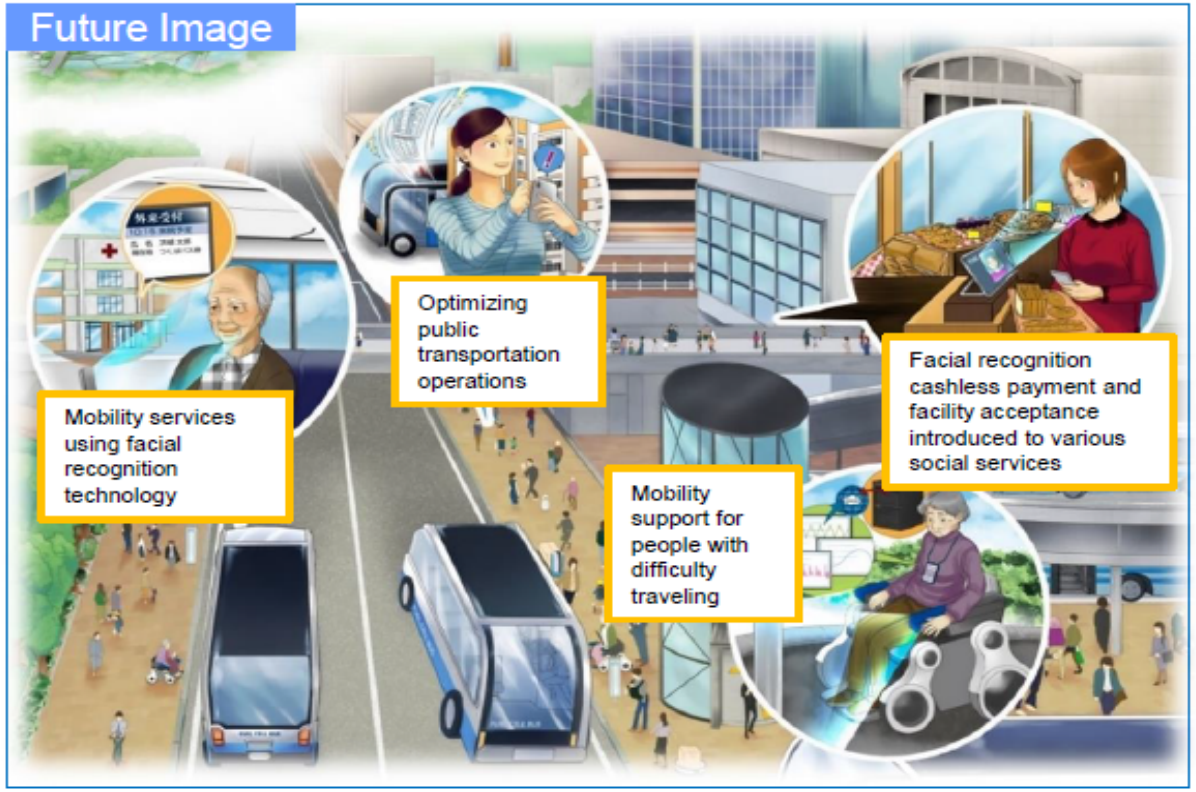
Encouraging the elderly to go out using facial recognition

Developing services and building systems that encourage the elderly to go out by using facial recognition technology including "riding in a bus" or "payment."

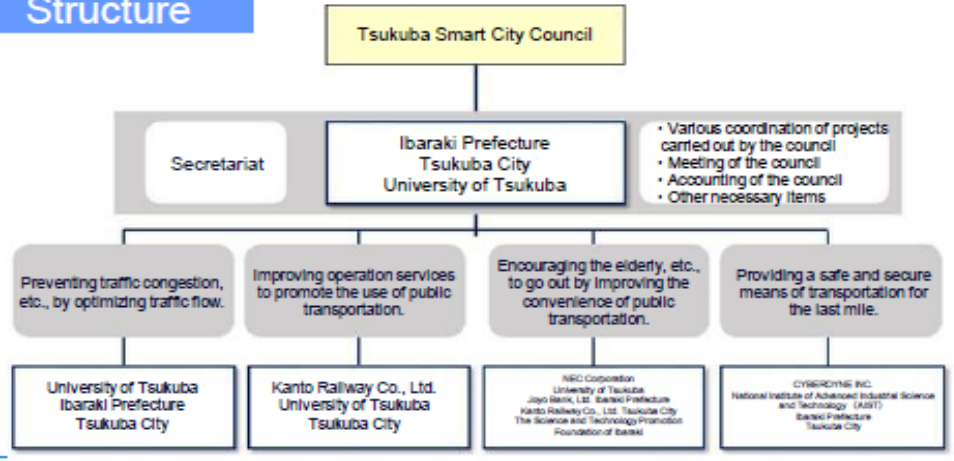
Introduction of Personal Mobility

Integration of human physiological system with mobility to support the mobility of people with difficulty traveling, and implementation of a compact mobility system linked to a pedestrian signal information system.

Future Image



Structure



Schedule

~FY2021 Implementation
- On-site demonstration of measures to prevent traffic congestion.
- Considering an appropriate operation schedule, etc.
- Implementation of MaaS by facial recognition.
- On-site demonstration of personal mobility.

FY2022~Implementation
- Implementation of measures to prevent traffic congestion.
- Considering a new form of public transportation management, etc.
- Implementation of various services by facial recognition.
- Introduction of personal mobility.

Tangguh : Kakogawa (Prefektur Hyogo)

Sumber：Sekretariat Kabinet "Kota Cerdas Jepang"

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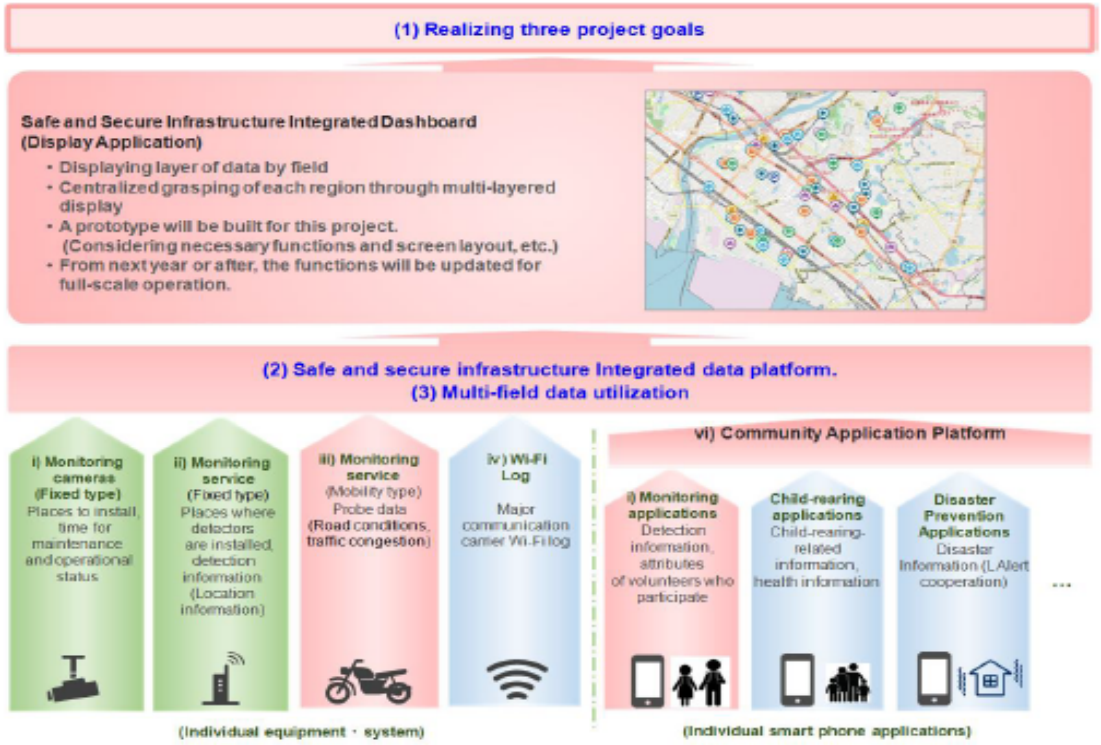
Main Efforts



(1) Three project goals

① Increase the number of immigrants and permanent residents by improving citizen satisfaction.
② Improving the quality of life and productivity of citizens and reducing the financial burden.
③ Strengthening local power (local communities) and regional revitalization.

(2) Safe and secure infrastructure Integrated data platform.

① Planning the adoption of cloud system and data collaboration.
② Composed with FIWARE as the center.
③ Open API for data utilization.

(3) Multi-field data utilization

① Urban planning for crime prevention: Information on security tag detection, security cameras.
② Urban planning for transportation: Bus location and vehicle-mounted sensors.
③ Urban planning for disaster prevention: Community application (push notification), and disaster prevention and disaster reduction Information (J/V/L Alert).

Monitoring

Creating a safe and secure city using ICT

Providing guardians with information on the location of children and the elderly with detectors installed in security cameras, postal vehicles, and official vehicles.

Mail vehicle

Security camera

Mobility

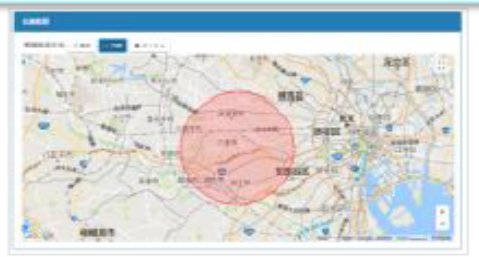
Improving the convenience of regional public transportation

Opening up information on community bus location and bus stops, etc. by using a data linkage platform.

Disaster Prevention

Optimizing evacuation behavior through the timely distribution of information on disaster prevention and disaster reduction

Effective push notification of emergency and disaster information such as evacuation advisory, etc., by using location information



Pembangunan Perkotaan Jepang di ASEAN

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Indonesia - Kota Delta Mas

Gambar gambar Kota Delta Mas yang sudah selesai

Thailand - Proyek Pembangunan Perkotaan di sekitar Stasiun Bang Sue（TOD)

Gambar pembangunan perkotaan di sekitar Stasiun Bang Sue

Vietnam - Pengembangan Kota Cerdas di Hanoi Utara

Gambar gambar pertama yang sudah selesai
(※Tahap pertama berada di area bertitik merah)

Vietnam - Pembangunan Perkotaan yang Kompleks di Provinsi Binh Duong

Becamax Tokyu

Bus Tokyu
(Menggunakan teknologi TIK, dampak lingkungan rendah)

Thailand - MEE（Koridor Ekonomi Timur）Proyek Pengembangan Kota Cerdas AMATA Chonburi

Gambar rencana induk Kota Cerdas Chonburi

Smart JAMP ~Kota pintar yang didukung oleh Kemitraan Bersama ASEAN Jepang~

Implementasi pembentukan proyek kota pintar beton

- **Pelaksanaan Studi**
  - Melaksanakan studi berdasarkan kebutuhan AMS dan kota untuk membentuk proyek-proyek prospektif
  - Rencana induk, studi pra-kelayakan, studi kelayakan, atau uji demonstrasi

Promosi dukungan keuangan untuk proposal kota pintar ASEAN

- **Dukungan Finansial**
  - Pinjaman oleh JBIC hingga total 200 miliar yen
  - Investasi ekuitas oleh JOIN hingga total 50 miliar yen

Memperkuat dukungan untuk kota pintar di negara-negara ASEAN

- **Konsultasi**
  - Menunjuk sekretaris di Kedutaan Besar Jepang sebagai penasihat
  - Konsultasi disertai dengan dukungan dari perwakilan JICA, JETRO, JBIC dan JOIN

Kelancaran berbagi informasi dan kerja sama yang saling menguntungkan melalui situs web JASCA

- **Saluran Kontak**
  - Memperoleh informasi tentang teknologi dan solusi di dalam dan di luar Jepang
  - Permintaan untuk kontak dengan perusahaan Jepang

Proyek "SmartJAMP" di Indonesia

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✓ **Survei berdasarkan proposal dari kota-kota anggota ASCN (proposal kota) dan perusahaan Jepang (proposal perusahaan):**

<Proposal kota>

- Tempat : Banyuwangi
- Tema : Rencana induk
- Garis besar:

Upaya-upaya berikut ini akan dilakukan sebagai penelitian dasar unt
Kampung Pintar di Banyuwangi.
Mengatur status Smart Kampung saat ini.
Memeriksa rencana induk untuk perluasan Smart Kampong
bidang layanan.
Pemeriksaan kebijakan untuk perluasan platform Smart Kampong

<Proposal perusahaan>

- Tempat : DKI Jakarta
- Tema : O&M infrastruktur
  (Sistem diagnosa jalan berdasarkan teknologi analisis gambar)
- Garis besar : Percobaan demonstrasi untuk mengumpulkan data kerusakan jalan me
  dilengkapi aplikasi pengenalan gambar AI.

Terima kasih.

ありがとうございました。