Disseminate arts and culture to the world

Enjoy sports even more

Build a more attractive city

Get into a new business

Support youth
to take on challenges

Accelerate
the implementation
of renewable energy

Achieve self-fulfilment
vigorously

Enjoy Tokyo's Nightlife

Empower "you time" through digital transformation

Develop a safe and secure city

Make a variety
of life possible

Progress to Advanced Mobility

Be more in harmony with nature

Be fully prepared
for disasters

Realize a society in which women
can play an active role

Raise children with peace of mind

Further emphasize
Children First

Live a prosperous senior life

Tokyo2050Strategy

Unlocking a Better Future

March 2025

TOKYO
METROPOLITAN
GOVERNMENT

Tokyo 2050 Strategy Unlocking a Better Future

NEW COMPASS

Society has been changing at an unforeseen pace, with the ever-intensifying climate crisis, the shrinking and graying population, and the explosive evolution of technologies such as generative AI. It is precisely because we live in such an era that we need to turn accelerated change into an opportunity and chart a trajectory for even greater progress. The "Tokyo 2050 Strategy" is a new compass that integrates policies to be implemented by 2035 to realize the "Vision" of what Tokyo aims to be in the 2050s.

VISION FOR THE 2050s

The best city in the world—a city that balances maturity and ongoing growth
where all individuals shine and feel a sense of wellbeing

Better!!

Diverse City

Creating a Tokyo where everyone can fulfill their dreams and hopes, and each individual shines even brighter

Better!!

Smart City

Enhancing Tokyo's full potential for a more vibrant Tokyo

Better!!

Safe City

Developing a safe and secure Tokyo by building a resilient and sustainable city

Initiatives on Data Utilization by the Tokyo Metropolitan Government

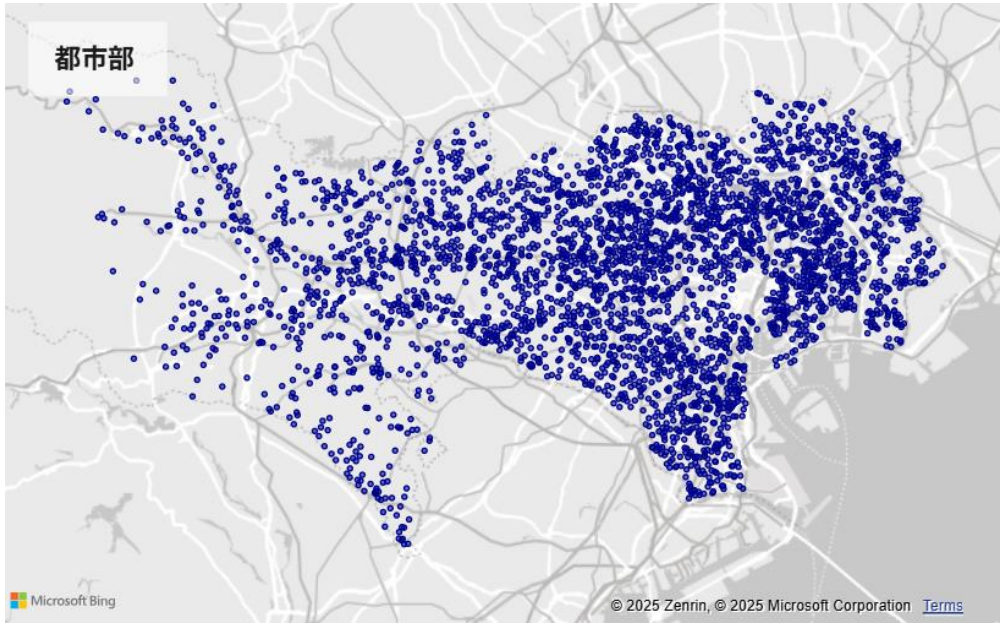
1 Utilizing Open Data

2 Tokyo Data Platform (TDPF)

3 Tokyo Digital Twin Project

Utilization of Diverse Data Including Statistical Data

- Population, Age, and Household
- Economy and Industry
- Labor and Employment
- List of Public Facilities (Schools, Social Welfare Facilities)



Distribution of Social Welfare Facilities in Tokyo

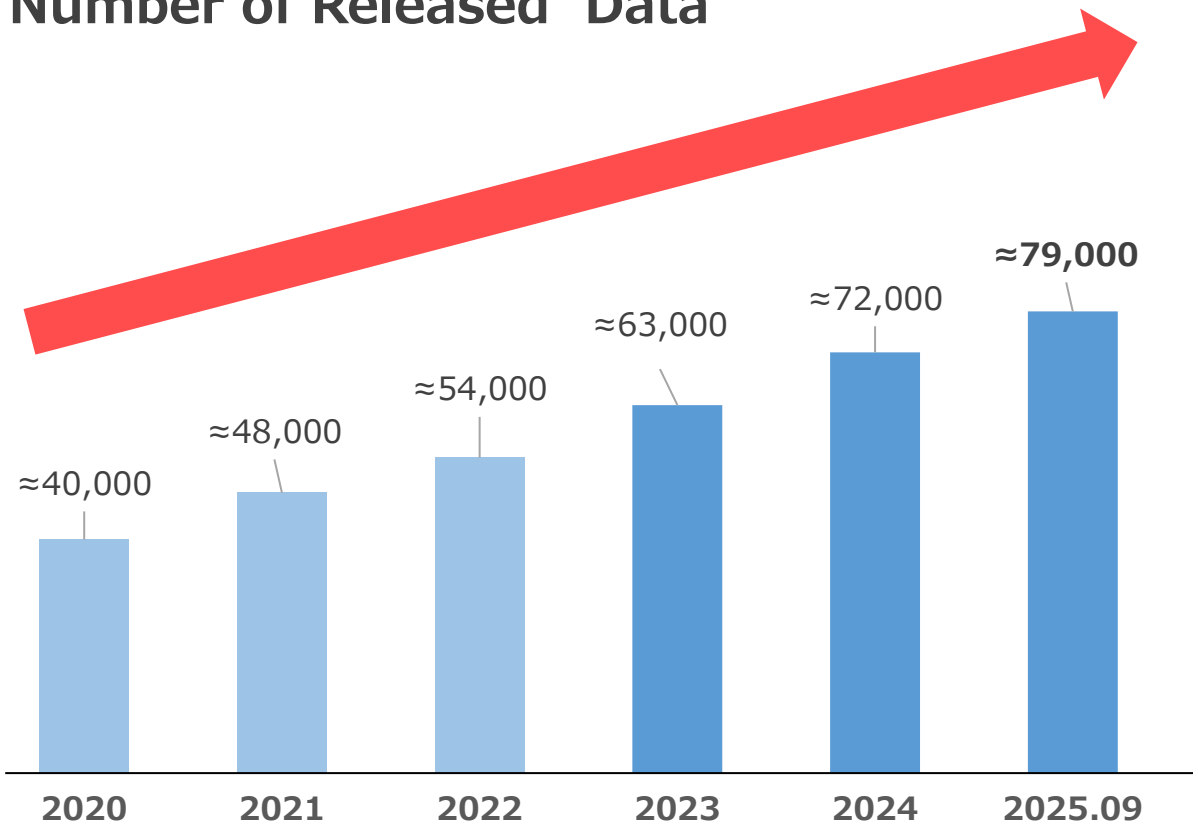
- Disaster Prevention Data (Flood Forecast Areas, List of Evacuation Shelters, etc.)
- Transportation Data (Bus and Subway Timetables and Operation Information, Road Traffic Volume)

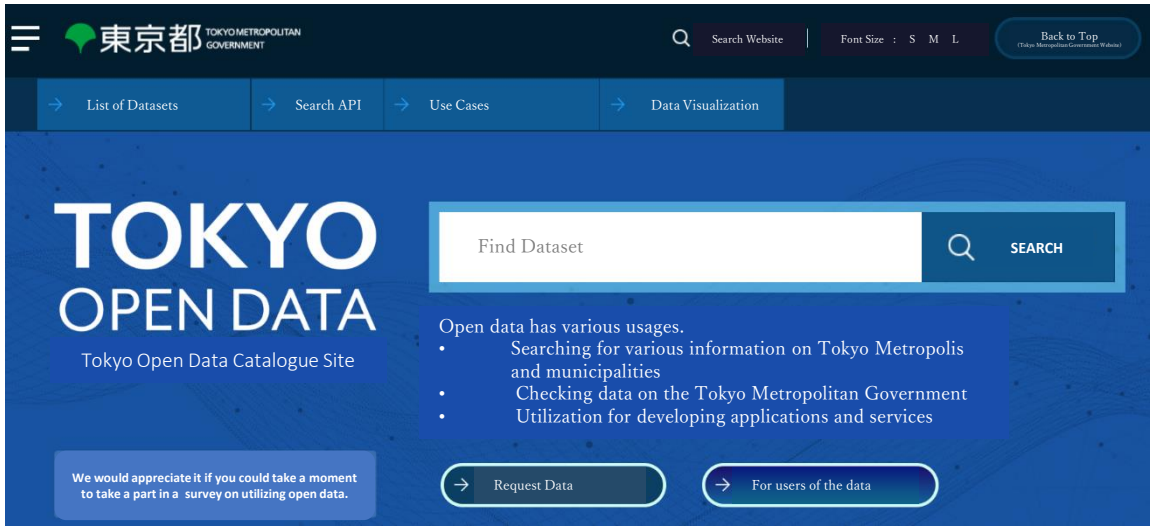
I Utilizing Open Data

Releasing Datasets

Open Data Catalogue Site

Number of Released Data





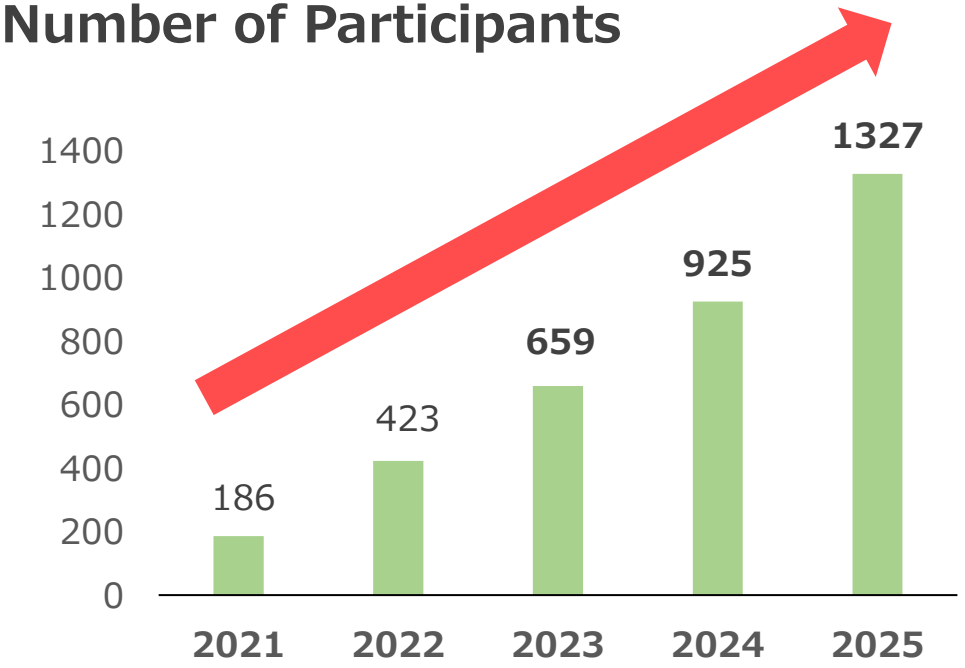
- Data on Tokyo Metropolitan Government and Tokyo Metropolis municipalities (wards, cities, towns, and villages) available
- Data mainly in CSV format with high machine readability
- Available data being enhanced by grasping users' needs

Tokyo Open Data Catalogue Site
https://portal.data.metro.tokyo.lg.jp/

Utilizing Open Data

Governor's Cup Open Data Hackathon

Number of Participants



Governor's Cup Open Data Hackathon URL
https://odhackathon.metro.tokyo.lg.jp/en/

Governor’s Cup Open Data Hackathon 2025

“Governor’s Open Data Hackathon” is a competition where developers unite to solve administrative issues, propose data visualization analysis, and present ideas to address challenges.

Entry	Ideathon /Hackathon	First Stage	Final Stage	Demo Day
～7/31	8/6～24	8/27～31	10/26	3/14

Governor’s Cup

都知事杯 Open Data Hackathon

- 3 Recruitment Categories (Service Development / Visualization / Idea Proposal)
- There will be support program to provide technical assistance towards service implementation for teams advancing to the Final Stage in the Service Development Category.

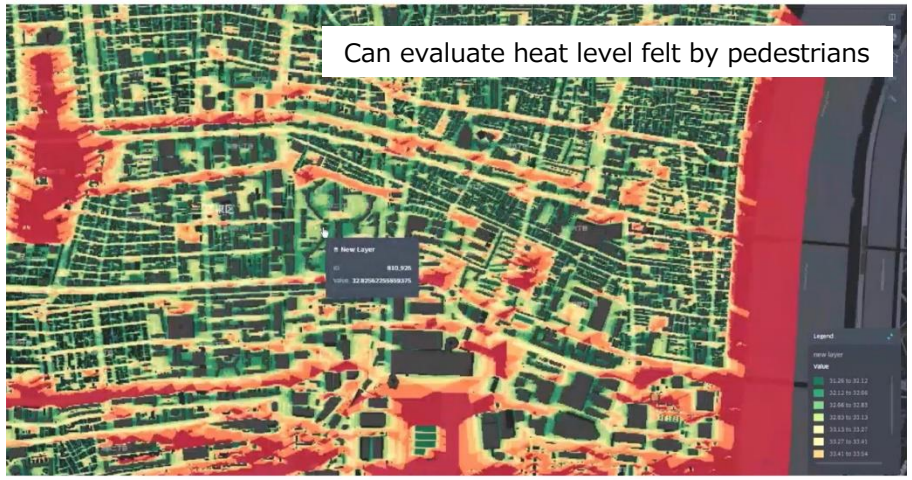
Governor’s Cup Open Data Hackathon (Past Winners)

Winner of 2024 Governor’s Cup (Grand Prize) / Audience Award

HITS
“Real-Time High-Resolution Heatstroke Risk Dashboard”

【Project Summary】
A high-resolution heatstroke risk map (5-meter mesh) that visualizes the risk (heat index) accounting for direct sunlight every 3 hours while also simulating the shade provided by buildings

【Data Used】
List of Public Facilities

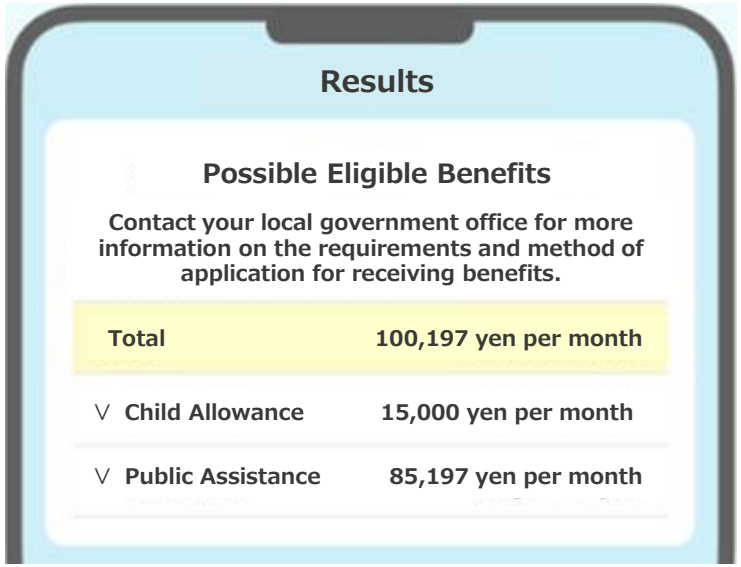


Winner of 2023 Governor’s Cup (Grand Prize)

proj-inclusive & Institute of Poverty Prevention
“Support Estimator ‘Yadokari-kun’”

【Project Summary】
A website where both people in need of support and supporters can access necessary services when in need

【Data Used】
List of Social Welfare Facilities



Governor’s Cup Open Data Hackathon 2025

Winner of 2025 Governor’s Cup (Grand Prize)

Aliss
“ YORUMICHI”（Proposal for a Service Utilizing Open Data to Identify Safe Night Routes ）

【Project Summary】
A web service that integrates nighttime light data and crime information to suggest safe routes at night. It evaluates safety based on factors such as security, brightness, and pedestrian traffic, and visualizes paths that can be walked with peace of mind.

【Data Used】

LED(Streetlights)

Crime Occurrence Information

Governor’s Cup (Business Award)

Yochi Yochi Yocchi
“Yochi-Yochi (Anticipating Suffocation Accidents from Menus)”

【Project Summary】
The program automatically visualizes the risks of suffocation of infants when a photograph of a menu is taken. It identifies ingredients with risks before cooking and supports improvements in providing meals.

【Data Used】

Incidents in Daily Life: Reporting Based on Emergency Transport Data

Educational Handbook for Prevention of Accidents Involving Infants and Young Children

2 Tokyo Data Platform (TDPF)

Tokyo Data Platform (TDPF)

Tokyo Data Platform (TDPF), a data distribution platform that promotes the use of various public and private data and supports the creation of new services, was launched in January 2024.

What is Tokyo Data Platform (TDPF)?

Enables Data Flow

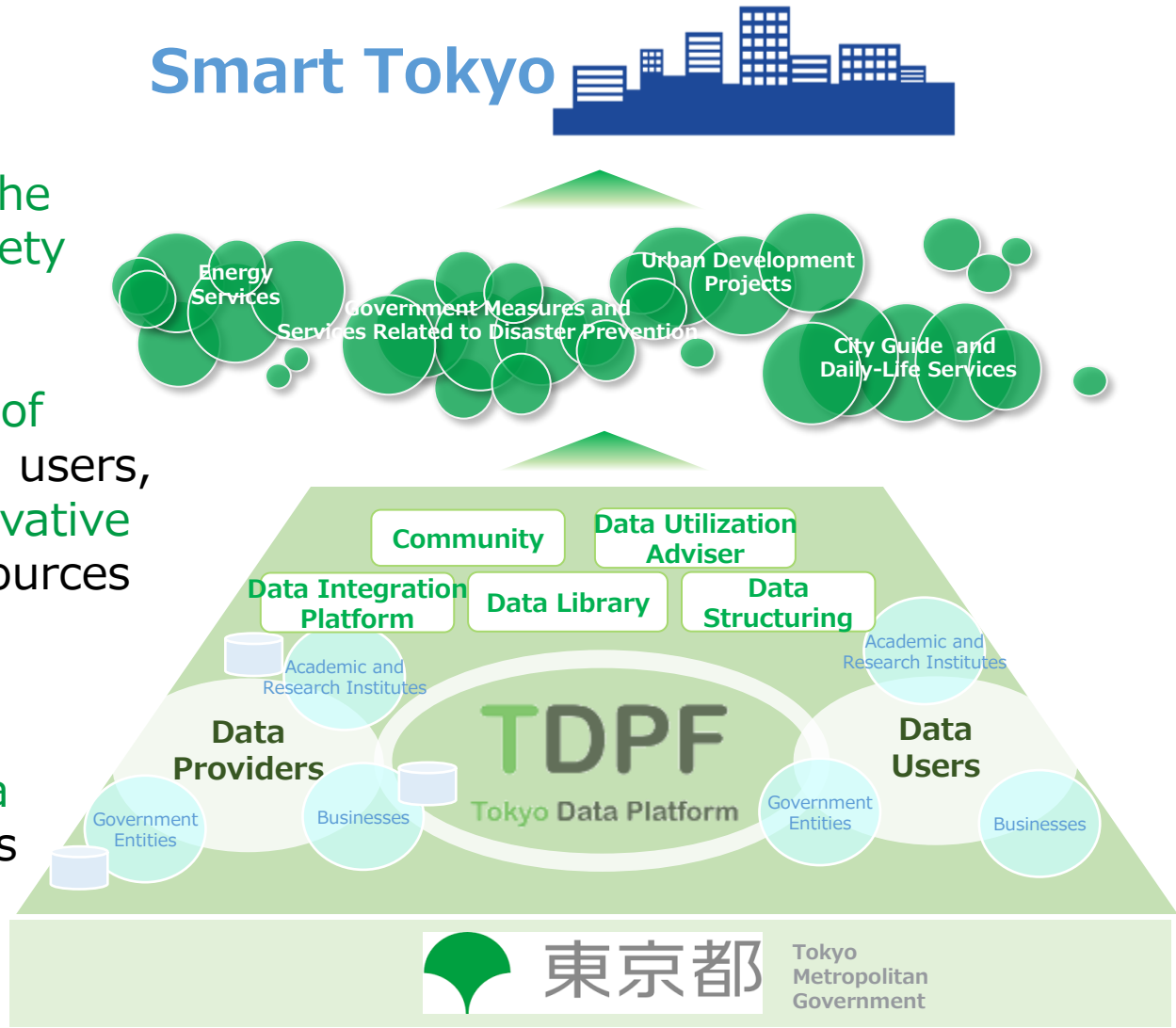
TDPF provides a trusted environment for the smooth and secure exchange of data among industry, academia, and government, led by the Tokyo Metropolitan Government to ensure safety and security.

Fosters Connection

TDPF supports and accelerates the formation of communities that connect data providers with users, supporting and driving the emergence of innovative data use cases by aggregating various data sources and actors.

Drives Evolution

TDPF unlocks Tokyo's potential and pioneers a virtuous cycle of data utilization that enhances the quality of life for its citizens.



Features of TDPF

SMART TOKYO

Creating New Value Through Utilization of AI and Big Data / Personal Data

Generating a Virtuous Cycle of Data Utilization and Integration Throughout Tokyo

Neighboring Municipalities

Matchmaking

TDPF

Tokyo Data Platform

Trust Framework

Private Sector

Aggregation of Data and Actors

Data Library

Data Structuring

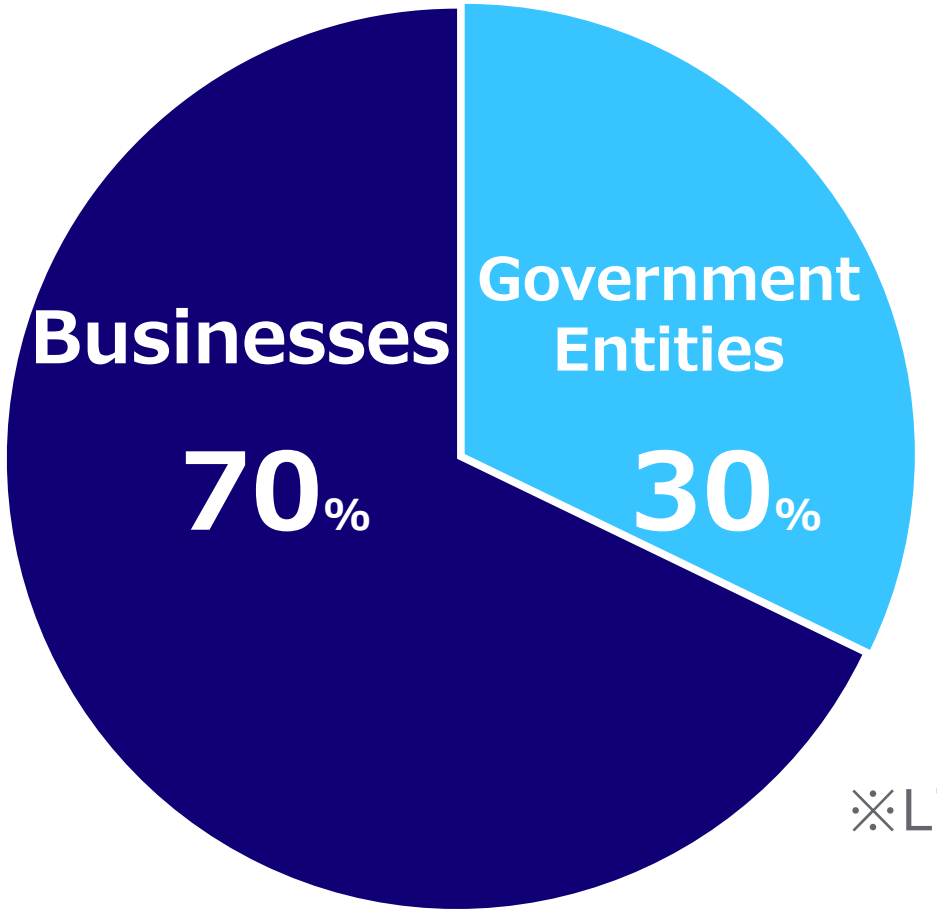
Urban Operating System

※ To be considered in line with national trends, etc.

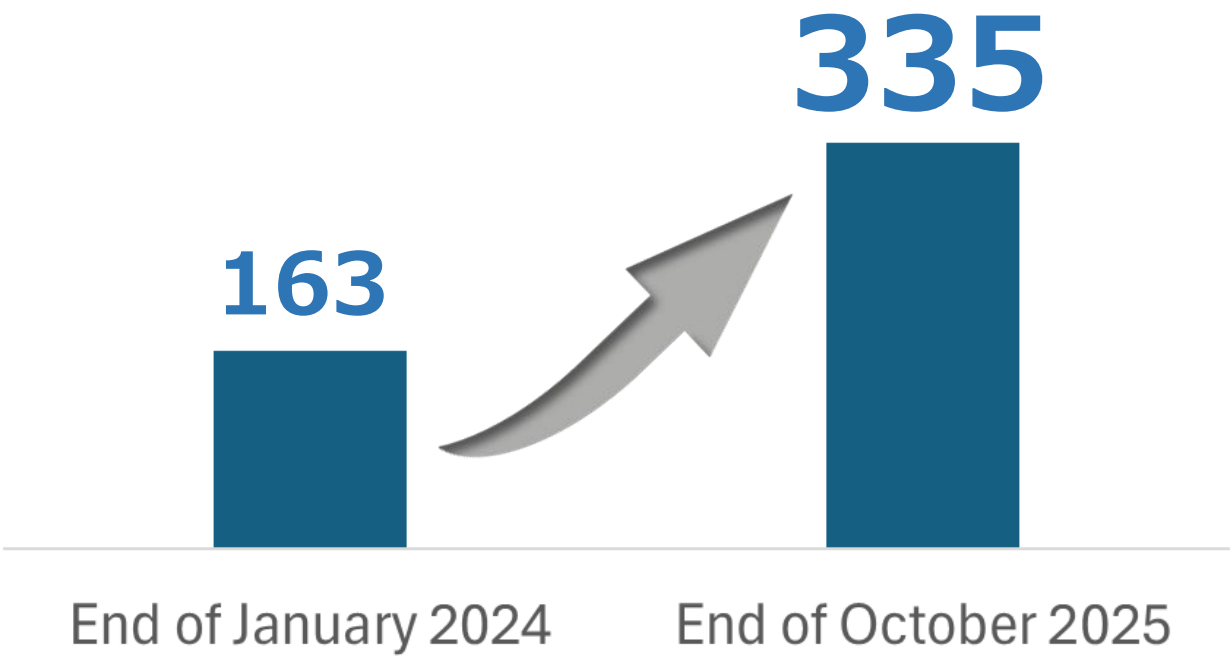
Membership of TDPF

More than 300 government entities and businesses registered

Ratio of Members



Number of Members



※List of members can be accessed via TDPF website
https://www.tdpf-hp.metro.tokyo.lg.jp/members-list/

Data Available via TDPF

Over 70,000 government-owned datasets available, along with data provided by the private sector

Driving data, data on traffic accident risks, etc. …

Nationwide data on events and occasions, records of lodging and workshop reservations, etc. …

Big data on human mobility, route search data, etc. …

Local meteorological data, etc. …

Television broadcast records, consumption statistics, etc. …

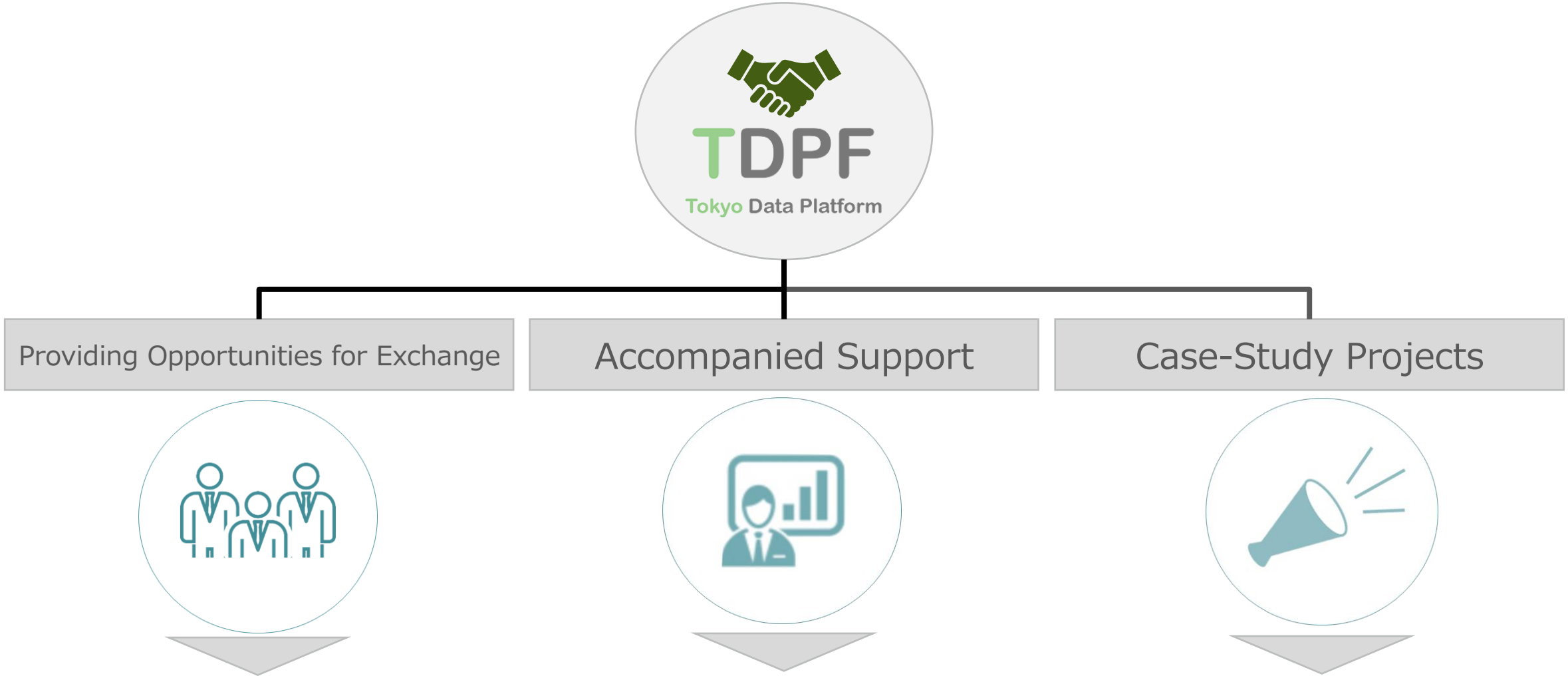
No.	Data Provider	Data Summary
1	RE Inc.	• Distribution data on vegetables produced in Tokyo by item • Sample data on the potential of household waste cooking oil collection by region
2	Aioi Nissay Dowa Insurance Co., Ltd.	Driving data collected via telematics motor insurance provided by Aioi Nissay Dowa Insurance
3	AGOOP Corp.	Location-based big data collected by statistically processing and making confidential location information obtained through GPS via smartphone applications
4	APTO	<Annotation data> Various data, such as facial images, images of cracks in pavements, and business form data, for developing AI
5	EventBank	Nationwide data on events (40,000 annually)
6	unerry Inc.	Big data on indoor and outdoor human mobility consisting of approximately 150,000,000 IDs obtained from smartphone applications using GPS and beacon technology
7	MS&AD InterRisk Research & Consulting, Inc.	Data on traffic accident risks on roads and at crossings quantified by AI using accident records and other related data
8	M Data Co., Ltd.	Database of text-converted broadcast records data on television programs and commercials
9	The Council for Area Development and Management of Otemachi, Marunouchi, and Yurakucho	Data on traffic mobility, the environment, MICE, etc. in the Otemachi, Marunouchi, and Yurakucho area
10	Tokyo Regional Headquarters, JMA (Japan Meteorological Agency)	Data catalog of various data owned and provided by the Japan Meteorological Agency, extending to information on data formats and data provision methods

▪
▪
▪

Tokyo Data Platform (TDPF) Data List https://www.tdpf-hp.metro.tokyo.lg.jp/data-list/

Activities of TDPF

TDPF supports and accelerates the development of impactful data use cases that address societal issues through matchmaking and the establishment of communities connecting various actors.



Generating new value from data utilization via co-creation among members

Providing Opportunities for Exchange: Promoting Community Activities

TDPF hosts community events, mainly in fields of a highly public nature such as disaster prevention, tourism, energy, transportation, and wellness, that connect various actors from industry, academia, and government and promotes matchmaking.

Creating opportunities for sharing the latest trends in data utilization and examples of initiatives among members in line with certain themes and fields

Promoting matchmaking among members by hosting networking events

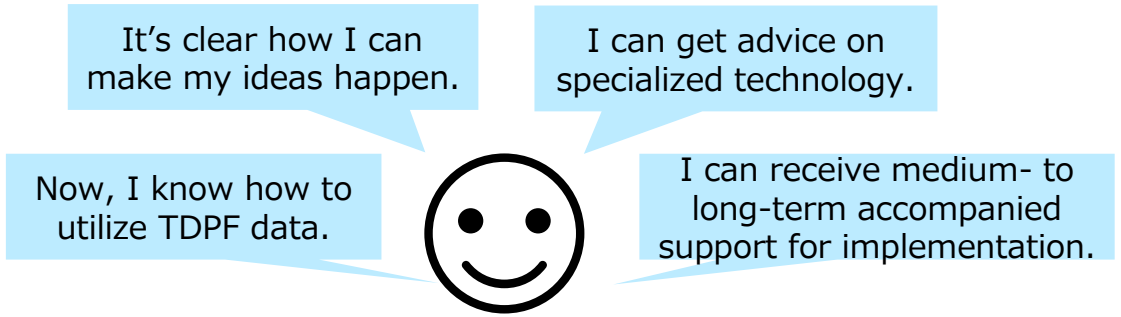
- ✓ Providing accompanied support for matchmaking to members
- ✓ Creating an atmosphere conducive to data utilization across industries

Accompanied Support: Matchmaking Among Members

TDPF provides various support including offering consulting services and data solutions to meet various needs.

Challenges Related to Data Utilization

Support for Overcoming Challenges



Support from group of advisers with specialized skills and business insights tailored to users' problems and challenges

Collaboration **Collaboration**

Ad-Hoc Advice

Specialized technical consultations, etc.

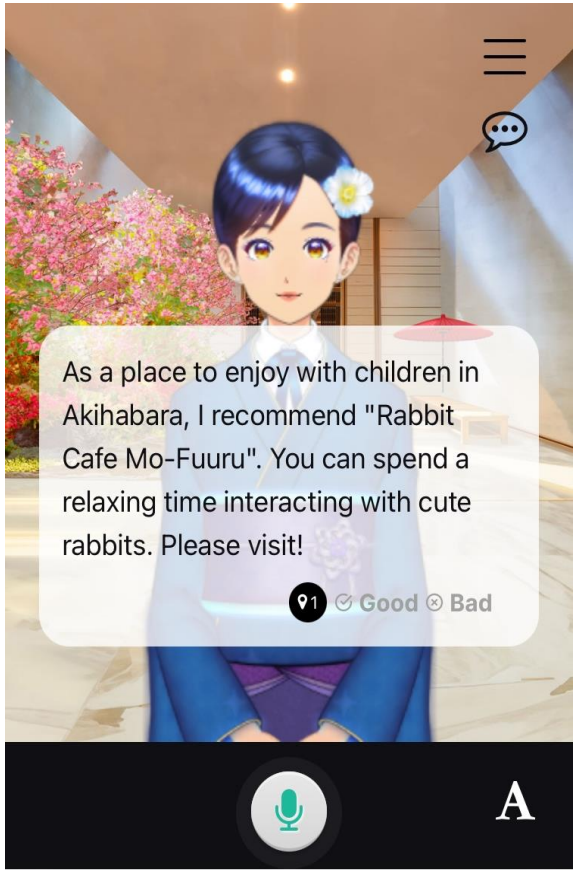
Matchmaking Support

Meticulous accompanied support (including community building)

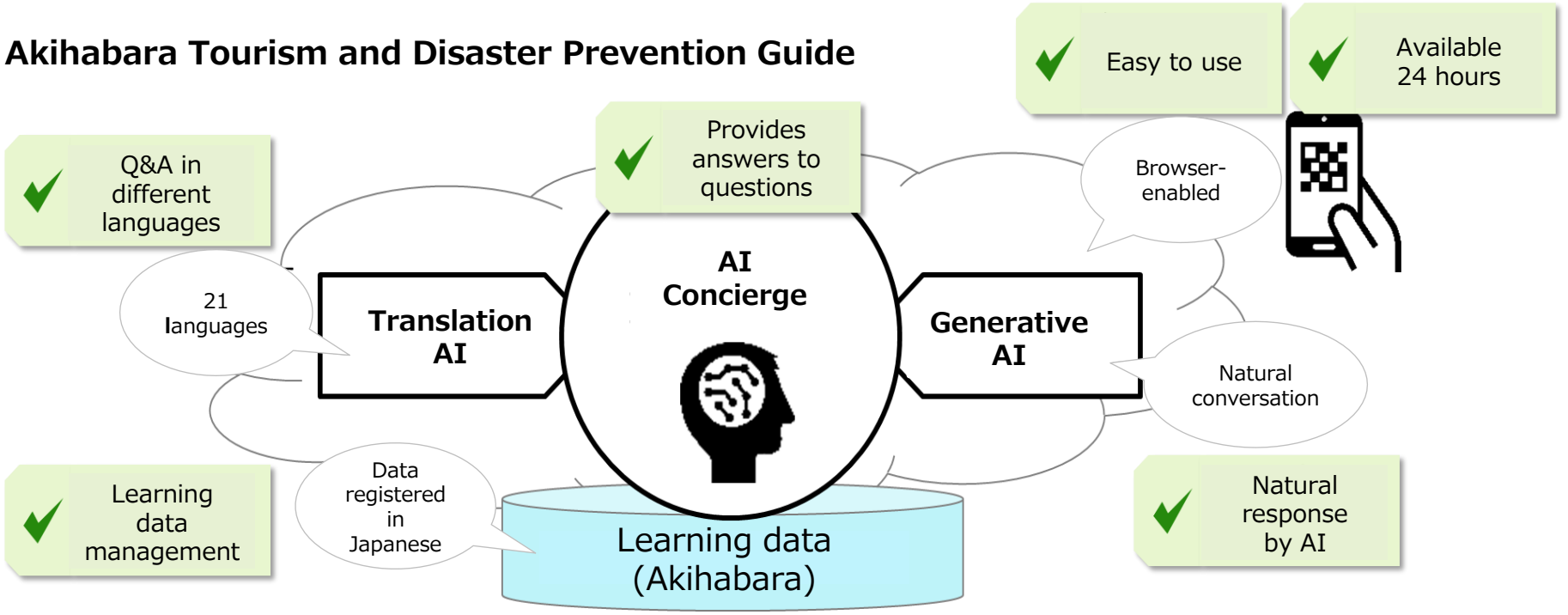
TDPF Case-Study Project (Example 1)

"'Multilingual AI Concierge' Project Developed by Local Community as a Whole"

Developing guidance service for tourism and disaster prevention by combining local community-based data and leading-edge AI



AI tourist guide



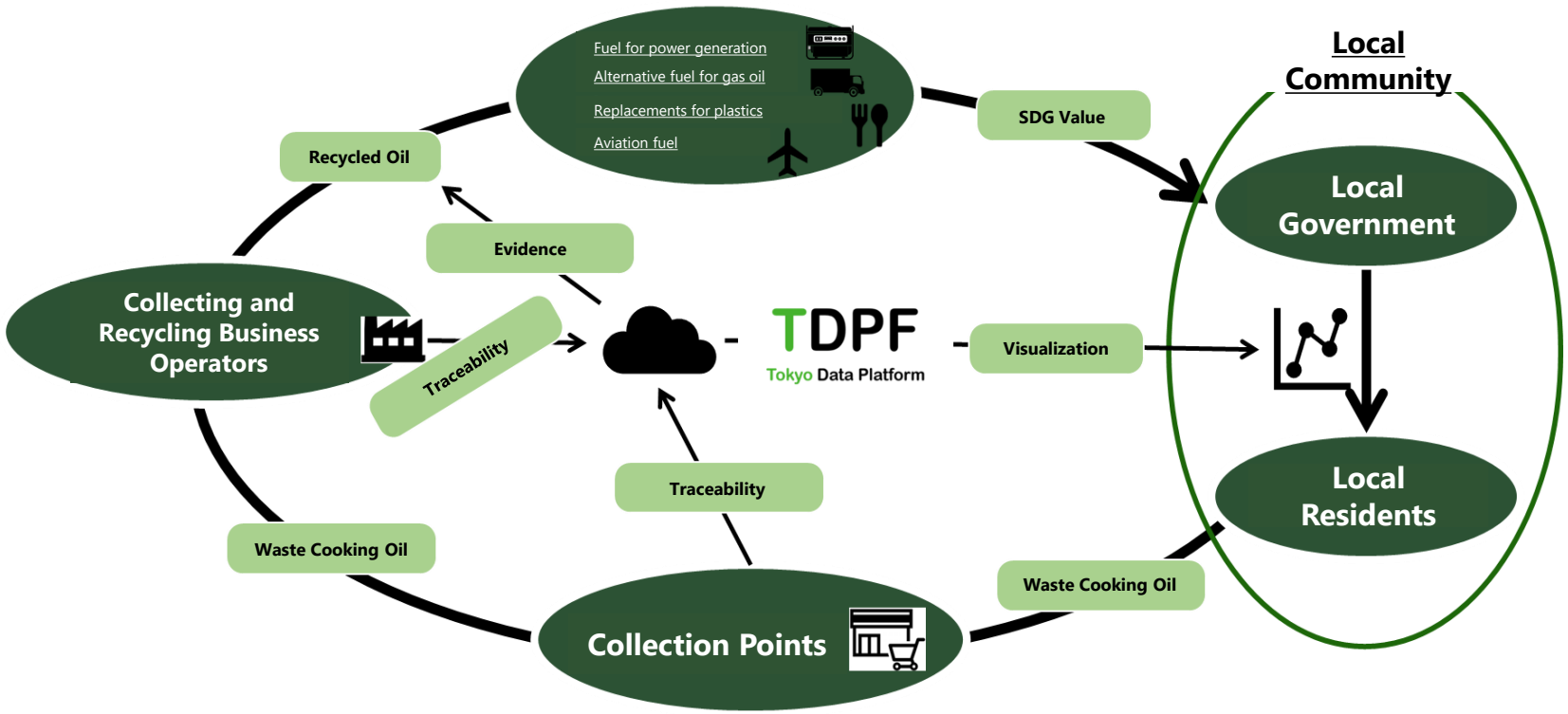
⇨ Providing automatic guidance* on tourism and disaster prevention 24 hours via the use of translation AI and generative AI

*21 languages available

TDPF Case-Study Project (Example 2)

“Project on Developing Traceability System for Household Waste Cooking Oil”

Developing a system to obtain traceability data on household waste cooking oil from its collection to reuse



Creating collection points

Visualizing volume of collection and recycling status

⇨Developing an environment and mechanism for local governments, residents, collection points, and collecting and recycling business operators to collect and reuse household waste cooking oil

TDPF Case-Study Project (Example 3)

“Project on Constructing Road Management Model Created by AI and Data”

Reducing patrols and making maintenance and management more sophisticated by constructing road management model utilizing private-sector data

Constructing road management model utilizing private sector data

Items for Implementation	1 Obtaining data on anomalies from multiple angles via analysis of dashboard camera images from non-government vehicles	2 Prioritizing repair work by combining various private and government data	3 Recommendation of collaborative utilization by promoting data distribution among diverse actors
Key Points of Implementation	1 Cooperation with private businesses with driving routes in the area 2 Dashboard cameras for automobile insurance 3 Detecting anomalies from multiple angles with image recognition AI 4 Evaluating data on detected anomalies in comparison with visual confirmation	1 Utilizing data on human mobility, traffic load, and accident risks 2 Planning on how to prioritize repair work 3 Applying to detection data obtained 4 Evaluating the effectiveness of prioritization through quantification	Base municipality (Shinagawa City) Power company Communication company Tokyo Metropolitan Government Bureau of Construction Road Bureau of the Ministry of Land, Infrastructure, Transport and Tourism National Highway Office Bureau of Public Safety Bureau of Sewerage (Tokyo Metropolitan Government)
Deliverables	✓ Dataset of detection results from multiple angles derived from images ✓ Evaluation results and implications in the context of streamlining operations	✓ Proposition of prioritization in repair work utilizing private and government data ✓ Evaluation results and implications on the effectiveness of prioritization	✓ Summary of results of hearings and consultations with each actor ✓ Recommendation on specifications of necessary data integration platform

3 Tokyo Digital Twin Project

Tokyo Digital Twin Project

What is Digital Twinning?

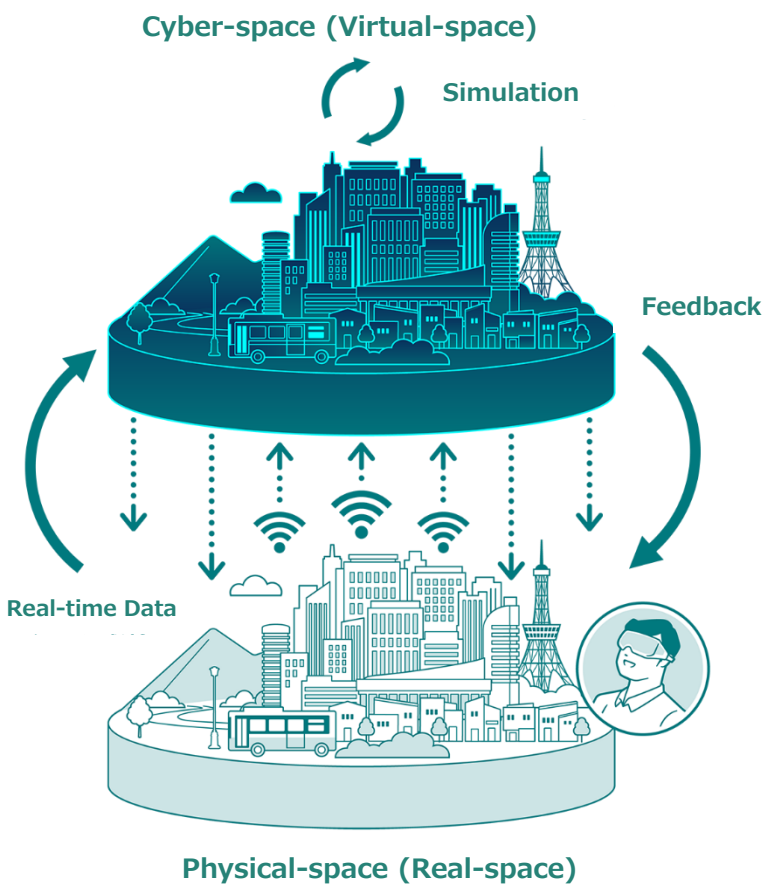
Building and utilizing a “twin” by replicating a physical space in cyberspace

Concept of Digital Twin

Cyber-space (Virtual-space)

Physical-space (Real-space)

Society5.0



Value Provided by Digital Twinning

【Real-time data acquisition linked to real space】

- Development of 5G and IoT sensor technology allows for collection of various data in real time.

【Analysis/simulation utilizing 3D space】

- 3D space makes it possible to visualize data that is difficult to overlay on a flat map as in the past. Advanced analysis and simulation by AI is possible.

【Feeding back to real-space】

- The results are fed back to various devices such as AR/VR and robots in real time.

Virtuous Cycle of Utilizing Geospatial Data

Data collection ⇨ Visualization ⇨ Utilization and analysis ⇨ Visualization

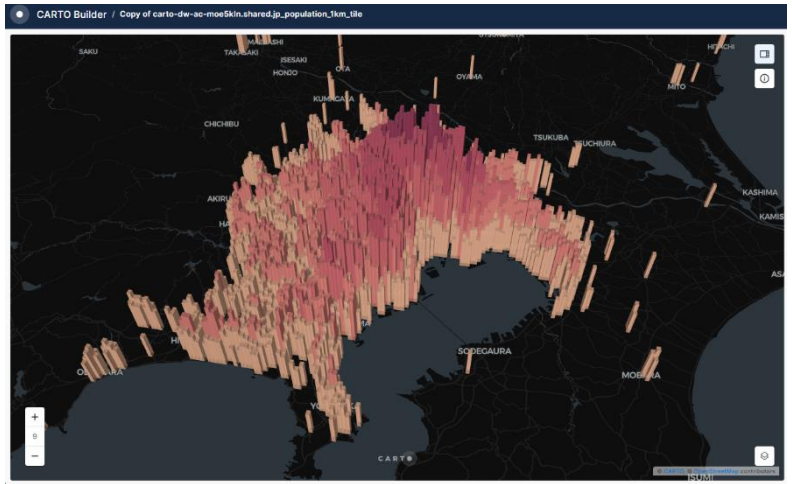
Data Management

- **Integrating and managing geospatial data** utilized for the digital twin, such as **3D digital maps, point cloud data, and GIS data**

Data Visualization

- **Enabling intuitive comprehension** of geospatial data and the results of analysis by each bureau through **systems for visualization such as 3D viewers**

Data Analysis



- **Analyzing data in the digital twin with various applications and simulators** to apply in policy measures

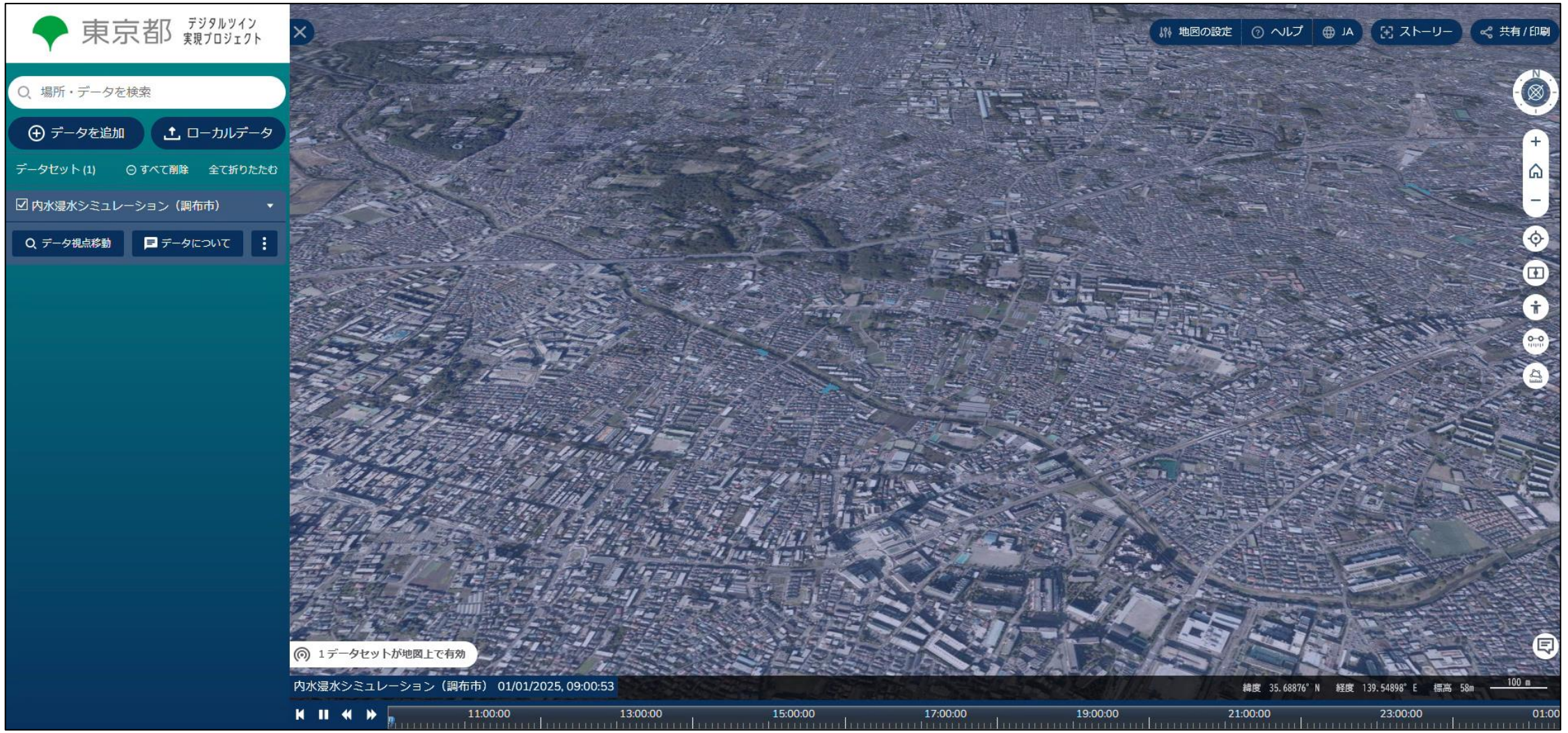
"Three Pillars of Digital Twins" (Source) Walter Lohman, Hans Cornelissen, Jeroen Borst, Ralph Klerkx , Yashar Araghi, Erwin Walraven, "Building digital twins of cities using the Inter Model Broker framework," Future Generation Computer Systems, Volume 148, 2023, Pages 501-513, ISSN 0167 739X, https://www.sciencedirect.com/science/article/pii/S0167739X23002455 (accessed on Jan 30, 2024)

Visualizing Various Data Held by the Tokyo Metropolitan Government with a 3D Viewer ①

[redacted]uman Mobility Time-Series Data for the Otemachi, Marunouchi, and Yurakucho Areas

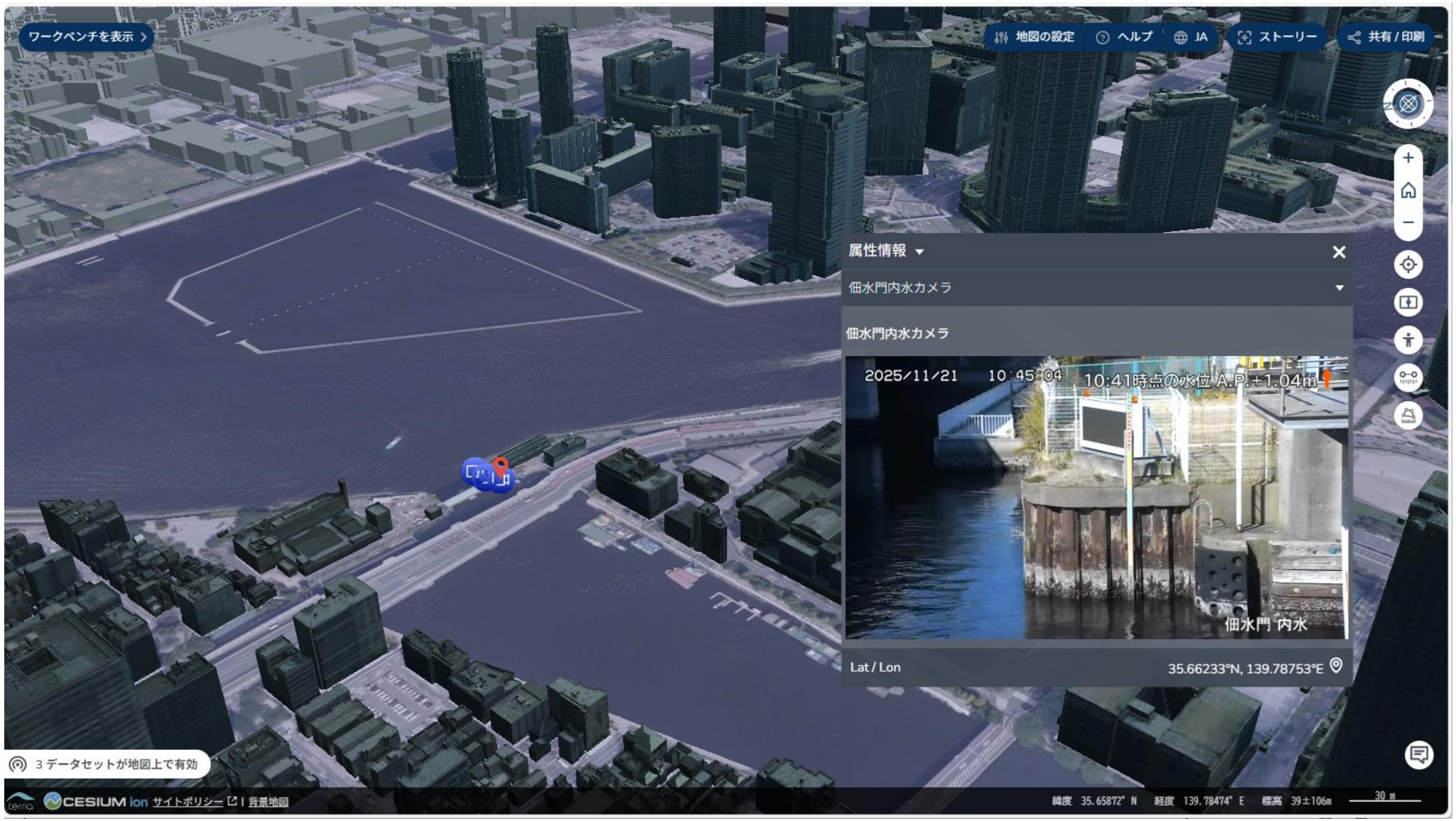
Visualizing Various Data Held by the Tokyo Metropolitan Government with a 3D Viewer ②

Simulation Data: Inland Flood Simulation (Chofu City)



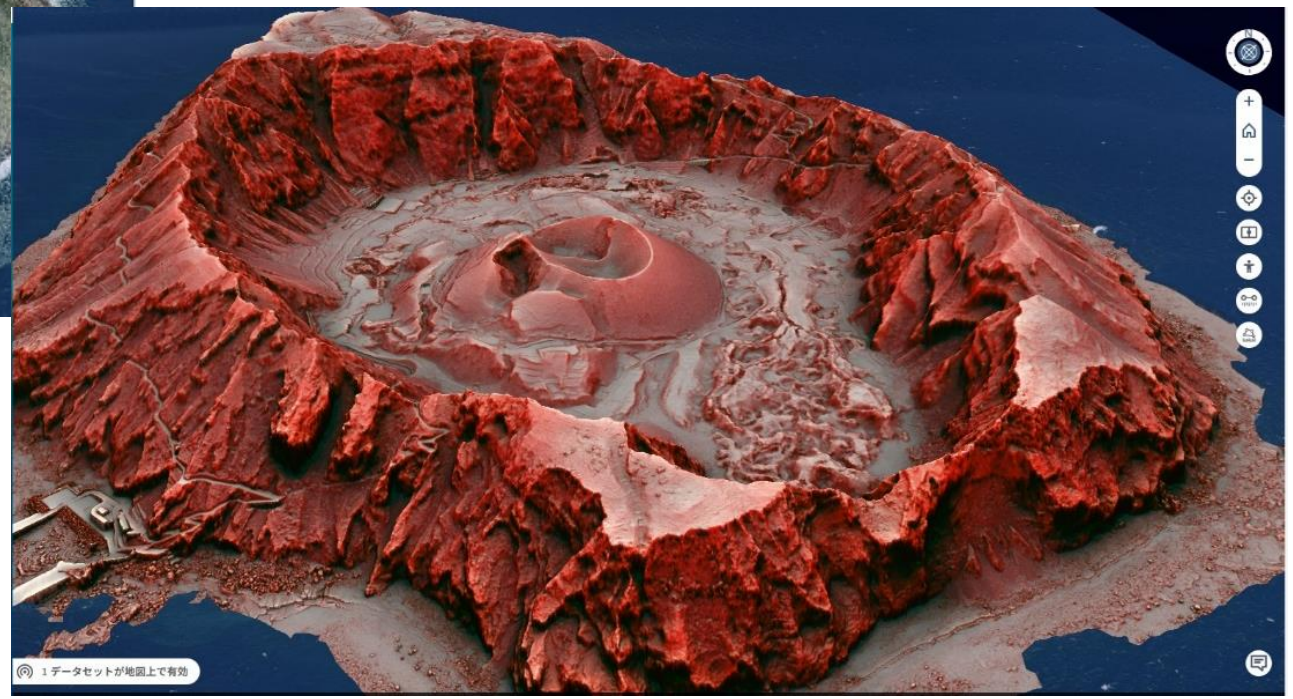
Visualizing Various Data Held by the Tokyo Metropolitan Government with a 3D Viewer ③

Real-Time Data: Ocean-Surface Camera Live Feed (Bureau of Port and Harbor)



Visualizing Various Data Held by the Tokyo Metropolitan Government with a 3D Viewer ④

[redacted]oint Cloud Data (top) and Microtopography (bottom) of Aogashima Island



Verification of Attribute Data for Buildings and Overlapping/Comparison of Data Also Possible

【3D Model of Buildings in West Shinjuku Area】

Can verify attribute data (ex. name, address, etc.) for the target building from the 3D model

【3D Point Cloud Data for Noto Peninsula (Comparison Pre- and Post-Disaster)】

【Left】 Pre-disaster
【Right】 Post-disaster
⇒ Slide left and right to visualize change

【Example of available feature】

Split view

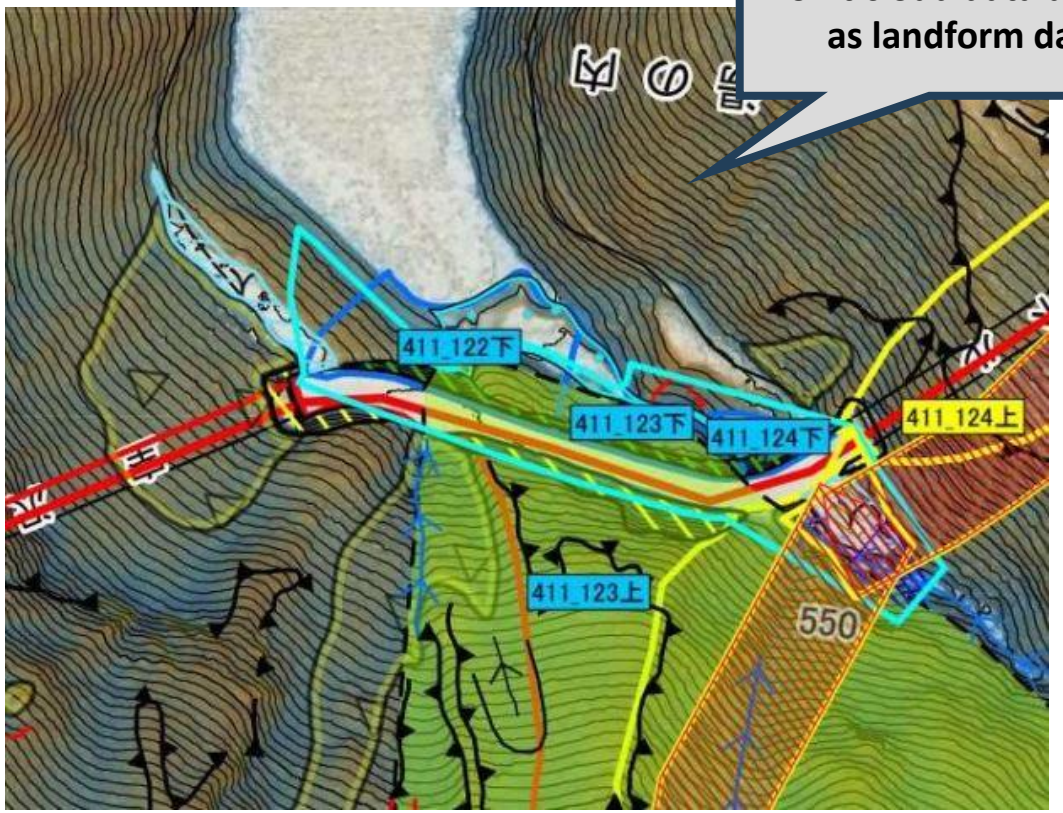
Example of Utilizing Geospatial Data ① (Point Cloud Data)

“Slope monitoring of Tokyo Metropolitan roads and mountain roads” &
“Enhanced sophistication of mudslide control measures”: Road Management Division, Bureau of Construction

Bureau of Construction downloads point cloud data obtained and released by the digital twin

⇒ Utilized in analysis and simulations; possible to understand landforms in detail, which is necessary for debris flow control

Item	Sub-item	Symbol Suggestion	Description / Points of Attention	Example on Microtopographic Map
Landforms relevant to debris flow	Precipitous mountain streams Gullies Natural water systems		Streams with a clear flow path or a clear gully (Gullies are extracted from mountain streams and slopes that are read on slopes.) Running water or water traces	
	Stream bed deposit materials		Sediments in stream beds from sediments in a stream or river (sediments on stream beds that are on a route that may be moved by traction)	
	Alluvial cones Debris flow lobes		Sediments carried by water from the mountains that form alluvial cones and debris flow lobes	
Landforms relevant to landslides	Landslide configurations (clear)		Clear scarps indicating old topography and landslide soil masses that separated and slid from the old topography (Tension cracks on the exteriors of scarps are sampled as stepped terrain.)	
	Landslide configurations (unclear)		Unclear scarps indicating old topography and landslide soil masses that separated and slid from the old topography (Tension cracks on the exteriors of scarps are sampled as stepped terrain.)	
	Depressions Pockets		Depression/Pockets = formed by natural phenomena such as slope deformation	
	Landslide mounds		Mobile structures formed by landslides or sector collapses in a part of a mountain body, such as a hill or knoll	



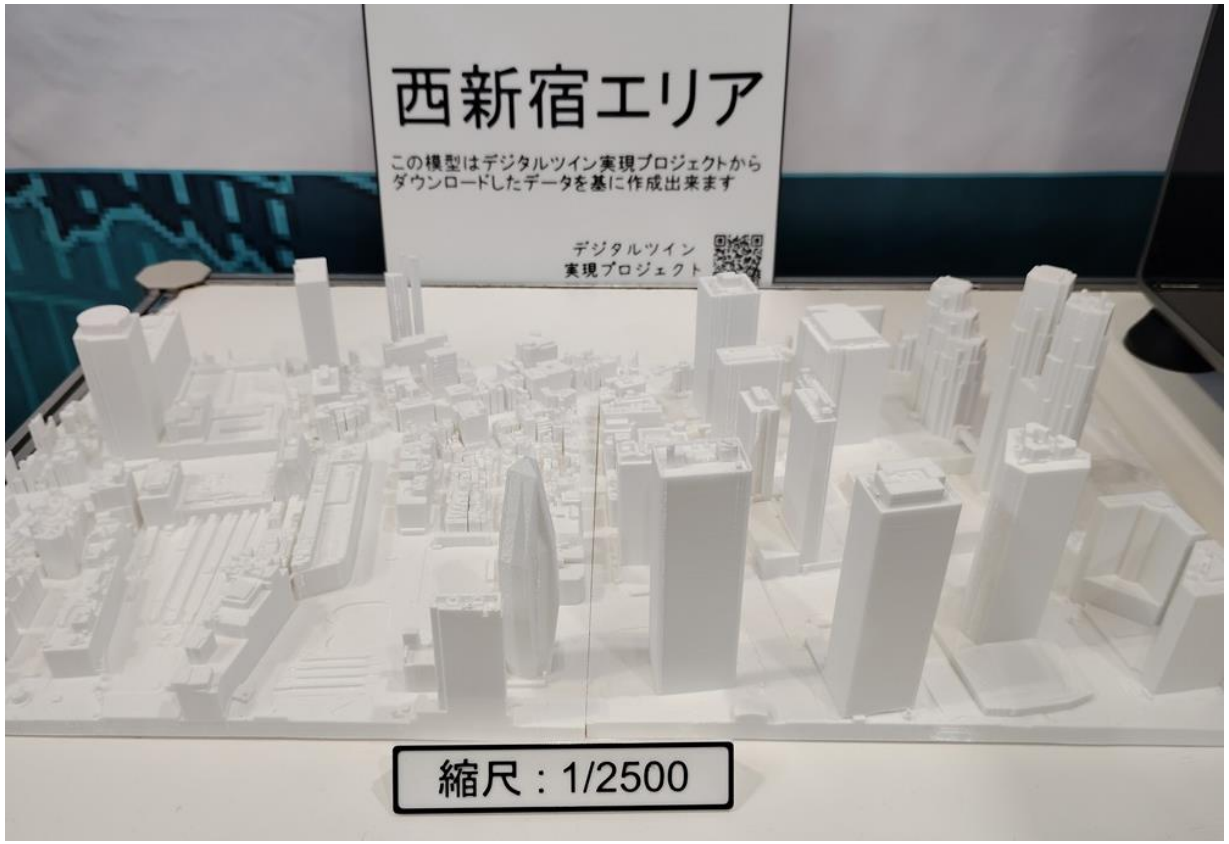
Example of Utilizing Geospatial Data ② (3D Building Model)

3D Model: West Shinjuku Area (1:2500 scale)

Model created with a 3D printer utilizing geospatial data from the digital twin constructed by the Tokyo Metropolitan Government

⇒Can be utilized for planning urban policy or explanations to local citizens

【3D Printer】



Smart Tokyo as Social Infrastructure for the Entire Tokyo

SMART TOKYO

Digital twin functioning as social infrastructure for the entire Tokyo

Accelerating resilience and disaster prevention via cooperation with neighboring prefectures

Improving administrative QoS and Tokyo residents' QoL through advanced analysis and simulations

Tokyo Metropolitan Government

Other neighboring municipalities

Municipalities

Cyber-space (Virtual-space)

Simulation

Feedback

Real-time data

Physical-space (Real-space)

Tokyo residents
Civic tech

Private sector

Deepening understanding of Tokyo Metropolitan Government's policies
Promoting participation by Tokyo residents

Creating opportunities for co-creation by various actors through jointly utilizing quasi-public data

Women's Empowerment

Everyone can choose their own way of life, regardless of gender

Women’s Empowerment

Women in Action

女性活躍の輪
Women in Action

Support for Women Entrepreneurs and Managers

Promote Women in STEM Fields

Greenery and Water

Tokyo, a city of greenery and water, a city of serenity and tranquility

Greenery and Water（Tokyo Green Biz）

Protect Greenery

Nurture Greenery

Utilize Greenery

Urban Resilience

Become the world’s most resilient city that protects residents from the threat of disasters

Urban Resilience（TOKYO Resilience Project）

Heavy Rain Countermeasures

Underground Regulating Reservoir

Earthquake Resistance

Undergrounding Utility Poles

THANK YOU

Tokyo 2050 Strategy

Unlocking a Better Future