

# Utilization of KDDI Location Big Data with Synthetic Data Technology

GEOTRA



– About us

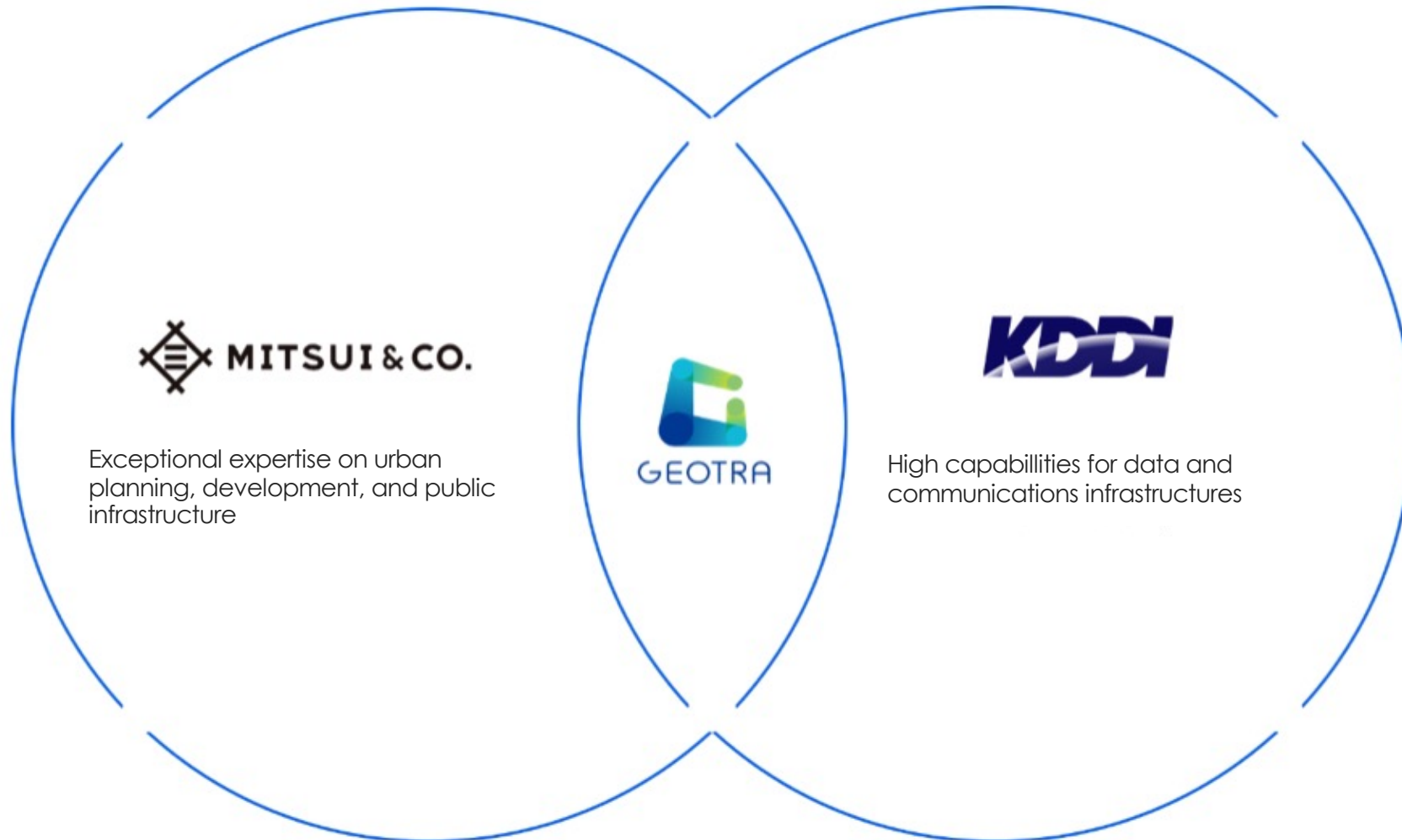
# Big Data for City



# About us



We are proudly a joint-venture between Mitsui&Co. and KDDI.





# About us



We, GEOTRA innovates society by utilizing various data. Our service begins by simulating people's travel patterns based on what the GEOspacial information suggests about their TRAjectory – which is exactly where our name was taken from. We then use the simulated data to analyze how people's activity can influence certain criteria. In addition, we combine our data set with external ones, allowing us to provide our clients with diverse, streamlined services.

GEOTRA responds to clients' goals of making society a better place with data-based solutions; whether their goal is to relieve traffic, create environmentally-friendly cities, or vitalize transportation - we're here to support you.



# Our Clients/Partners (including KDDI's location data service clients)



## Government/Administration



## Transportation/Construction



## Real Estate



## Marketing/Finance





GEOTRA

dev.mitsui-city-sim.devpz.net/sim-viewer/marunouchi\_after\_dummy\_weekday\_20220422\_edited?area=true&link=false&aggregate=true

n.jinnai@mitsui.com (テスト会社B)

丸の内 after dummy weekday 20220422 edited

別タブで開く 保存済みのエリアを読み込む 分析結果を共有する

レイヤー

表示モード

行政区画

道路・路線

高速道路 鉄道路線 主要道路 その他道路

新しいエリアを指定する

サマリー

対象人数  
2,289,885人

適用中のフィルター

フィルターをすべてクリア

属性

性別

年代

居住地

勤務地

移動の詳細

移動目的

移動手段

出発時刻

到着時刻

滞在時間

移動時間

移動距離

経路の詳細

出発地点

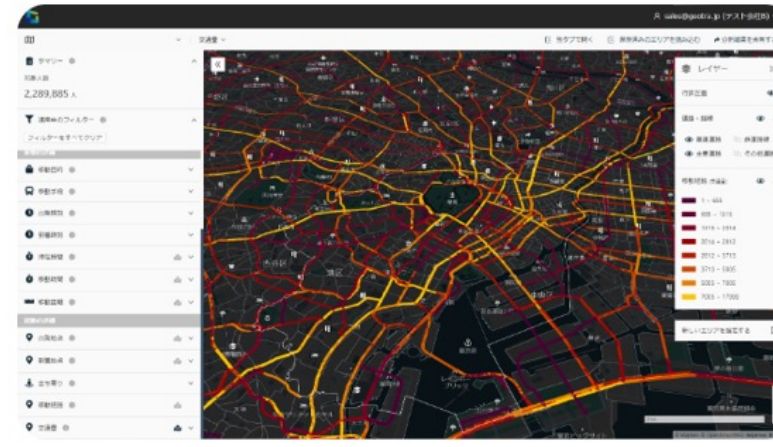
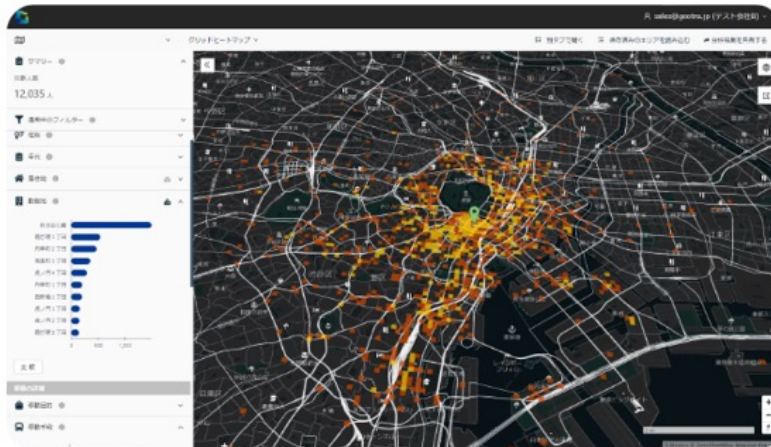
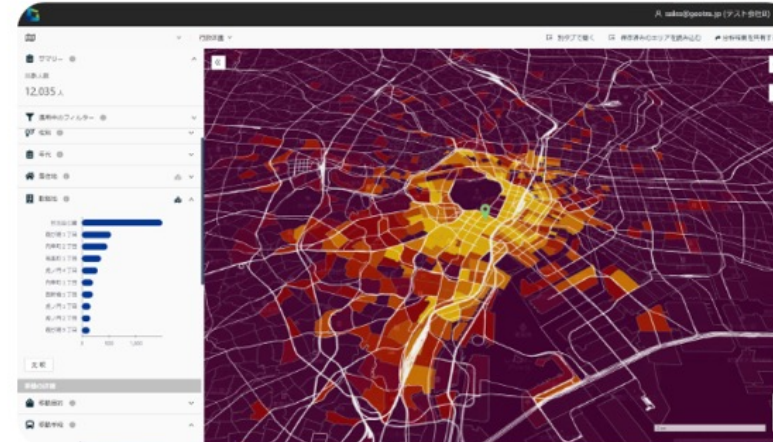
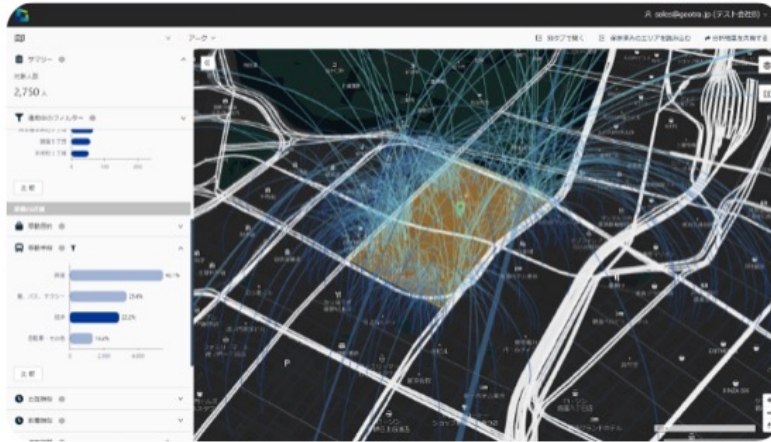
到着地点



# Our services: a. GEOTRA Activity Data Solution



GETORA Activity Data comes with easy-to-use web-based data dashboards





Analyzing the excursion of cities and the individual traits of their visitors can provide evidence to promote urban redevelopments.



Visualizing the usage of public transportation and utilizing the data to relieve traffic.



Understanding the specific usage of urban infrastructure such as time-worn bridges and roads to conduct effective maintenance.



Utilizing the trails of tourists to introduce future strategies. Cross-analysis with inbound data can also be effective.



Simulating people's activities in cases of emergency. We can utilize the data when determining the priority of roads to operate.



Measuring the impact of certain events to promote marketing.



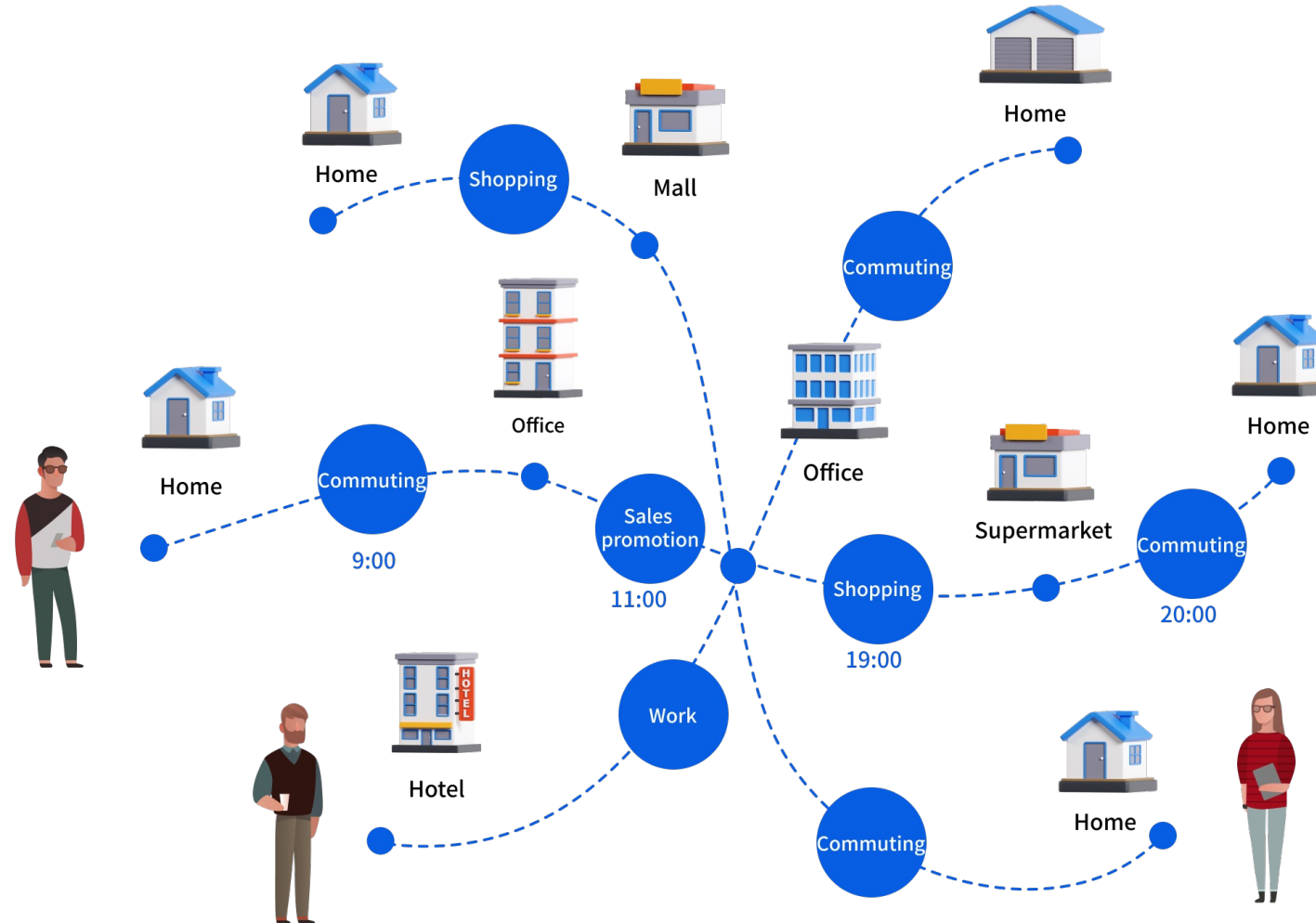
# Technologies

The background of the image is a dark, deep blue space. In the foreground, a perspective grid of thin, glowing blue lines stretches towards the horizon, creating a sense of depth and digital space. Above the grid, numerous bright blue particles and light trails are visible, some appearing as sharp points of light and others as soft, wispy clouds of particles. The overall aesthetic is high-tech and futuristic, suggesting themes of advanced technology, data, or digital environments.

# Our services : a. GEOTRA Activity Data Solution



Our high-resolution data can display traces of individuals within the area.







Privacy-Tech is the key to SUCCESS

# Synthetic data



Synthetic data is artificial data created based on real-world data and is attracting attention as a new method of utilizing personal data.

## Personal data (measured data)

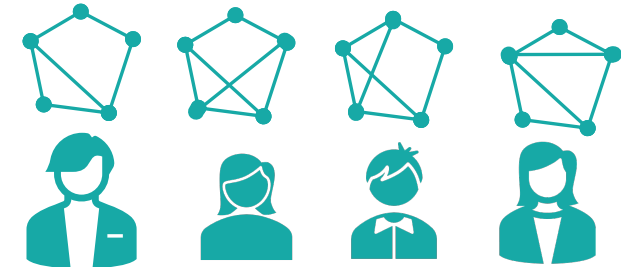


- Measured values are highly useful, but privacy protection is an issue
- Provided **after statistical processing and confidentiality**

## Synthetic data generation model



## Synthetic data



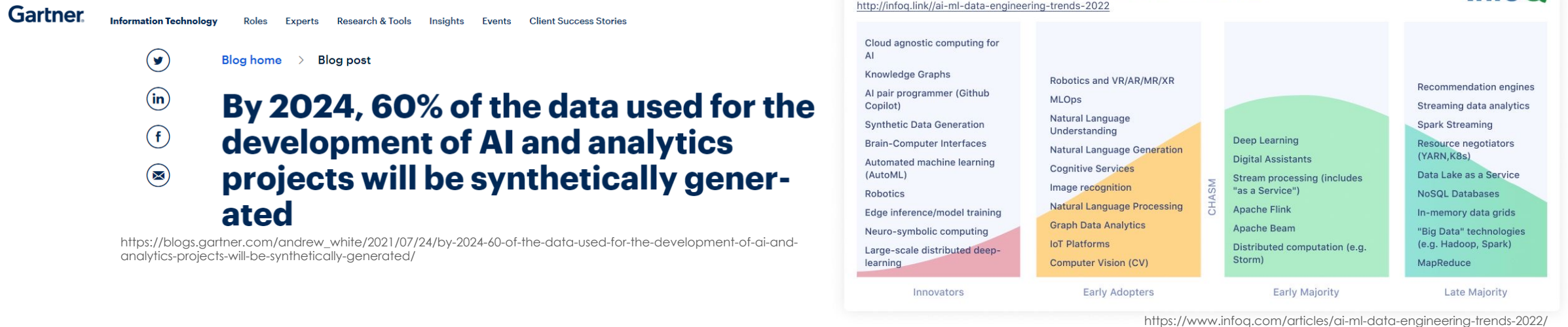
- No privacy issues because it is artificial data with the same statistical characteristics as measured data
- Provided in **a format similar to raw data**



# Synthetic data



Synthetic data is artificial data created based on real-world data and is attracting attention as a new method of utilizing personal data.



Gartner predicts that 60% of data used for data analysis and other purposes will be synthetic data

Info Q's Technology Trends for software development (machine learning, data engineering, etc.) now includes synthetic data in its Innovators section, a group of notable technologies.





# Global Expansion



# Outlook for our business with Mobicom



We are developing a location-data service aiming to accelerate a **data-driven society in Mongolia**.



Location Big Data in Mongolia



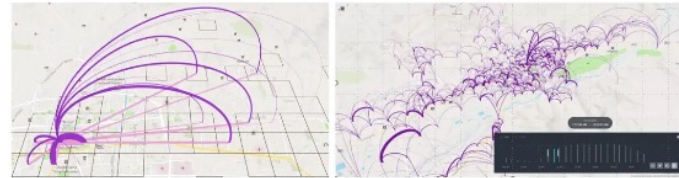
Analytics Platform, Privacy Tech

# Outlook for our business with Mobicom



We are developing a location-data service aiming to accelerate a **data-driven society in Mongolia**.

## GEOTRA Initiates Technological Collaboration for Mongolia's First Human Mobility Simulation and Analysis Service



2024/1/30 プレスリリース

GEOTRA Co., Ltd.

GEOTRA Co., Ltd. (Headquarters: Chiyoda-ku, Tokyo; CEO: Nobuhiro Jinnai) has initiated a technological collaboration with MobiCom Corporation LLC (Headquarters: Ulaanbaatar, Mongolia; CEO: Koji Kurushima), aiming to realize Mongolia's first human mobility simulation and analysis service.

GEOTRA currently offers "GEOTRA Activity Data", a human mobility simulation and analysis service in Japan, utilizing location information of smartphones. Leveraging expertise in data generation technology, service development, and operation gained through service provision, GEOTRA is committed to expanding its initiatives overseas.

As the inaugural step in this effort, GEOTRA has partnered with Mobicom, Mongolia's leading telecommunications company and a subsidiary of KDDI (Headquarters: Chiyoda-ku, Tokyo; President: Makoto Takahashi), to collaborate with KDDI and Mitsui & Co., Ltd. (Headquarters: Chiyoda-ku, Tokyo; President: Kenichi Hori) in supporting the demonstration of Mongolia's human mobility simulation and analysis service. The initiative, scheduled for the first half of the upcoming fiscal year, aims to tackle societal challenges in Mongolia, such as congestion management, while also working towards the commercialization of the service.





GEOTRA

A high-angle, nighttime photograph of a city skyline, likely New York City, featuring prominent skyscrapers like the Empire State Building. The scene is overlaid with a complex, glowing blue network of lines and nodes, resembling a digital or data network. The word "Cases" is centered in the image in a white, sans-serif font.

# Cases



# Case



## Urban planning



Analyzing the excursion of cities and the individual traits of their visitors can provide evidence to promote urban redevelopments.

## Transportation



Visualizing the usage of public transportation and utilizing the data to relieve traffic.

## Construction



Understanding the specific usage of urban infrastructure such as time-worn bridges and roads to conduct effective maintenance.

## Tourism



Utilizing the trails of tourists to introduce future strategies. Cross-analysis with inbound data can also be effective.

## Disaster Prevention



Simulating people's activities in cases of emergency. We can utilize the data when determining the priority of roads to operate.

## Marketing

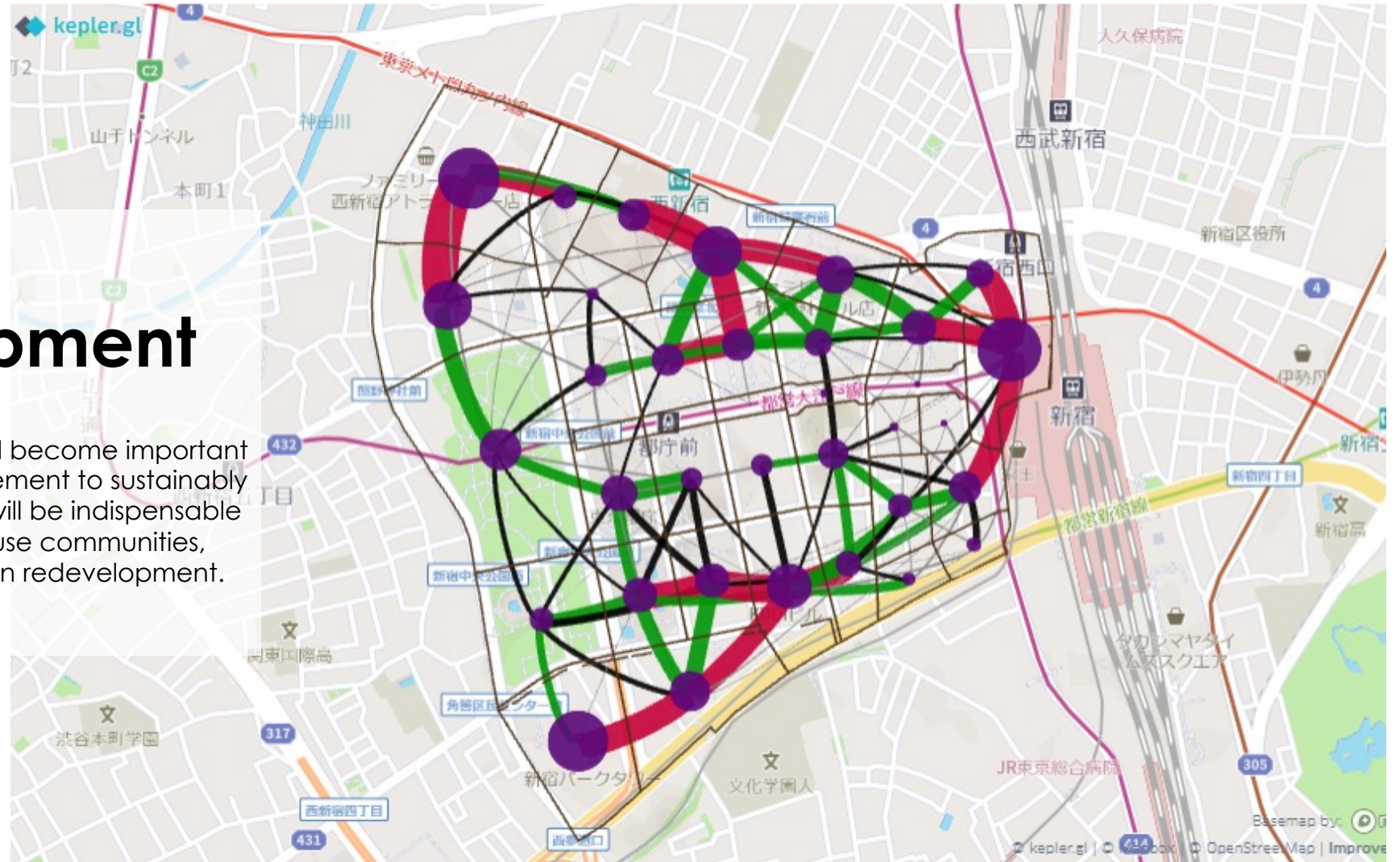


Measuring the impact of certain events to promote marketing.



## Urban Development

Knowing the movement of people will become important for redevelopment and area management to sustainably increase the "value of the city". Data will be indispensable for the future development of mixed-use communities, introduction of new mobility, and open redevelopment.





## Transportation

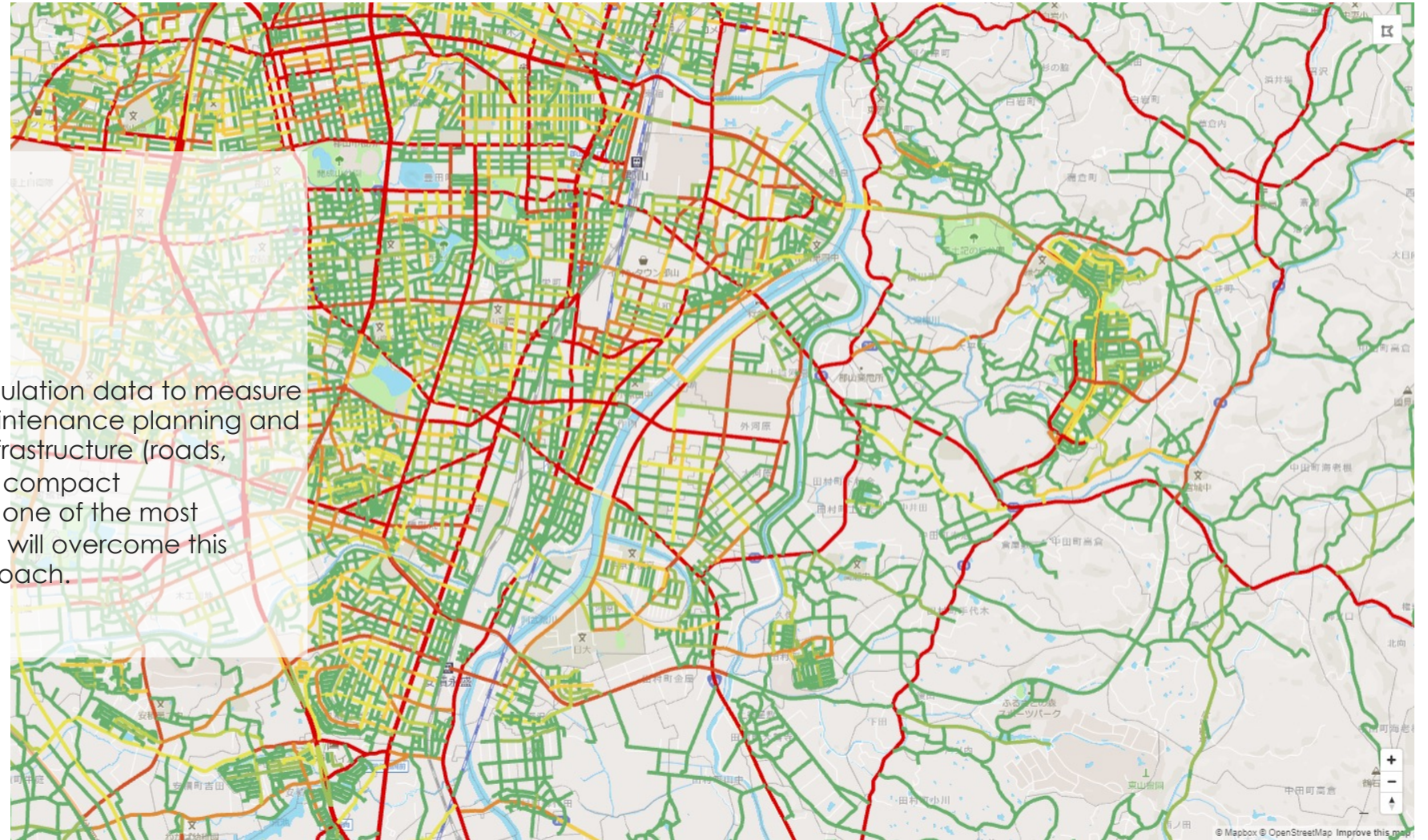
Utilized as traffic demand evaluation data and simulation data for solving regional traffic issues, restructuring public transportation, and resolving specific traffic congestion issues during the tourist season, etc. Data-driven transportation planning is becoming increasingly important as the nature of mobility itself is changing.





## Construction

Utilization as quantitative data and simulation data to measure how social infrastructure is used for maintenance planning and criticality assessment of aging social infrastructure (roads, bridges, etc.) and for the realization of compact cities. Addressing aging infrastructure is one of the most important issues facing Japan, and we will overcome this difficult phase with a data-driven approach.





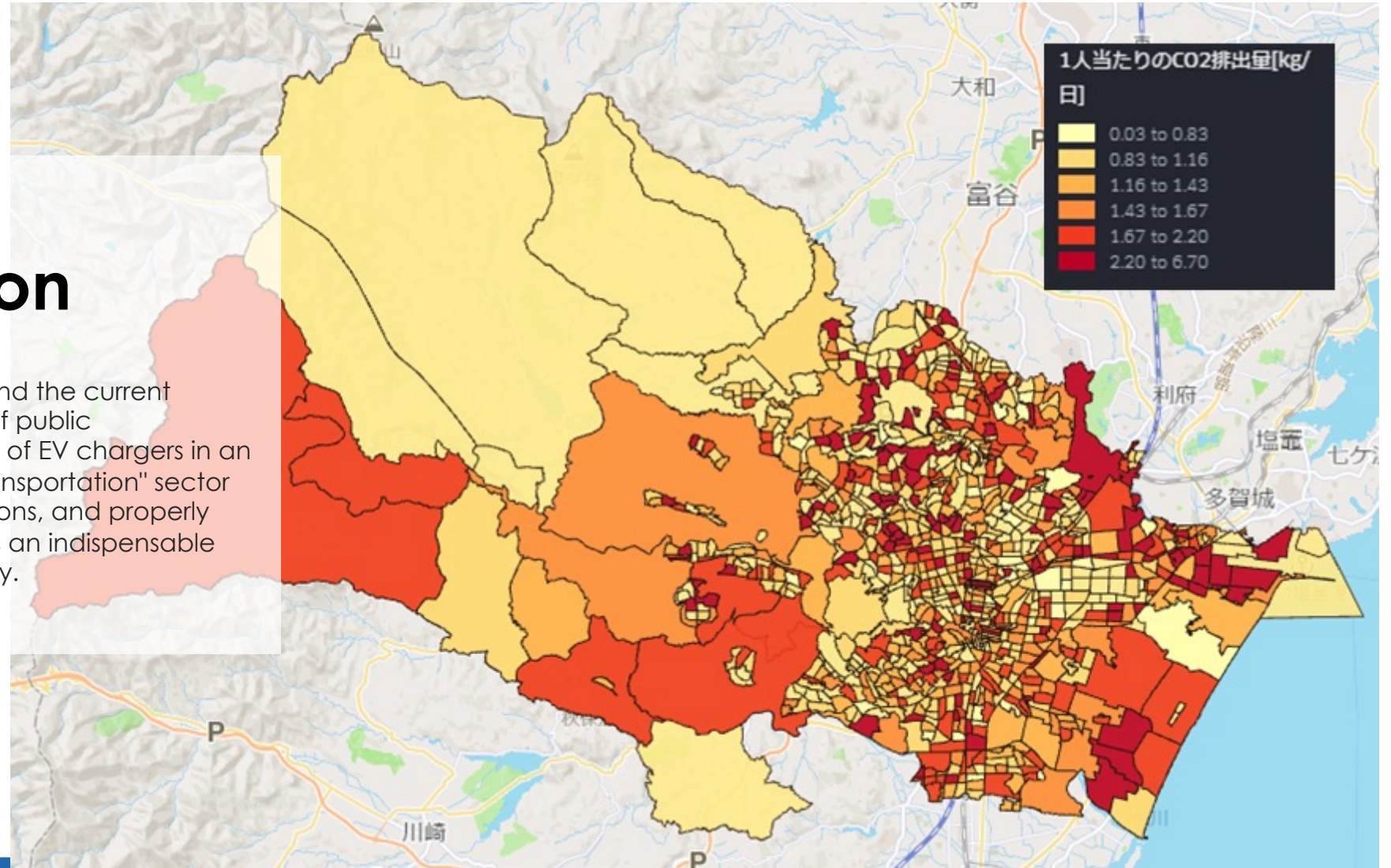
## Tourism

Capturing tourist leads to attract more tourists and create new business opportunities.



## Decarbonization

Utilized as simulation data to understand the current situation in order to promote the use of public transportation, EV use, and installation of EV chargers in an effective and phased manner. The "transportation" sector accounts for a large amount of emissions, and properly understanding its volume and trends is an indispensable process for achieving carbon neutrality.





## Simulations

By conducting data-based simulations in a variety of areas, the effects of various measures can be understood in advance to maximize return on investment.



## Marketing

Capturing people's behavior patterns and changes in them, and using them as important and fundamental data for marketing and decision-making by combining them with your own data. With the diversification of lifestyles and lifestyle changes in the post-COVID era, the importance of "knowing consumers" is increasing.





# Digital-Twin Simulation at center of Tokyo area

