



The Mitsubishi Estate Group's Approach to Smart Cities

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1. Outline of Mitsubishi Estate Group

One of Japan's leading full-line developer companies, operating globally in a variety of formats

Company Name

Mitsubishi Estate Co., Ltd.

Date of Establishment

May 7, 1937

Paid-in Capital

¥142,279 million

Business Activities

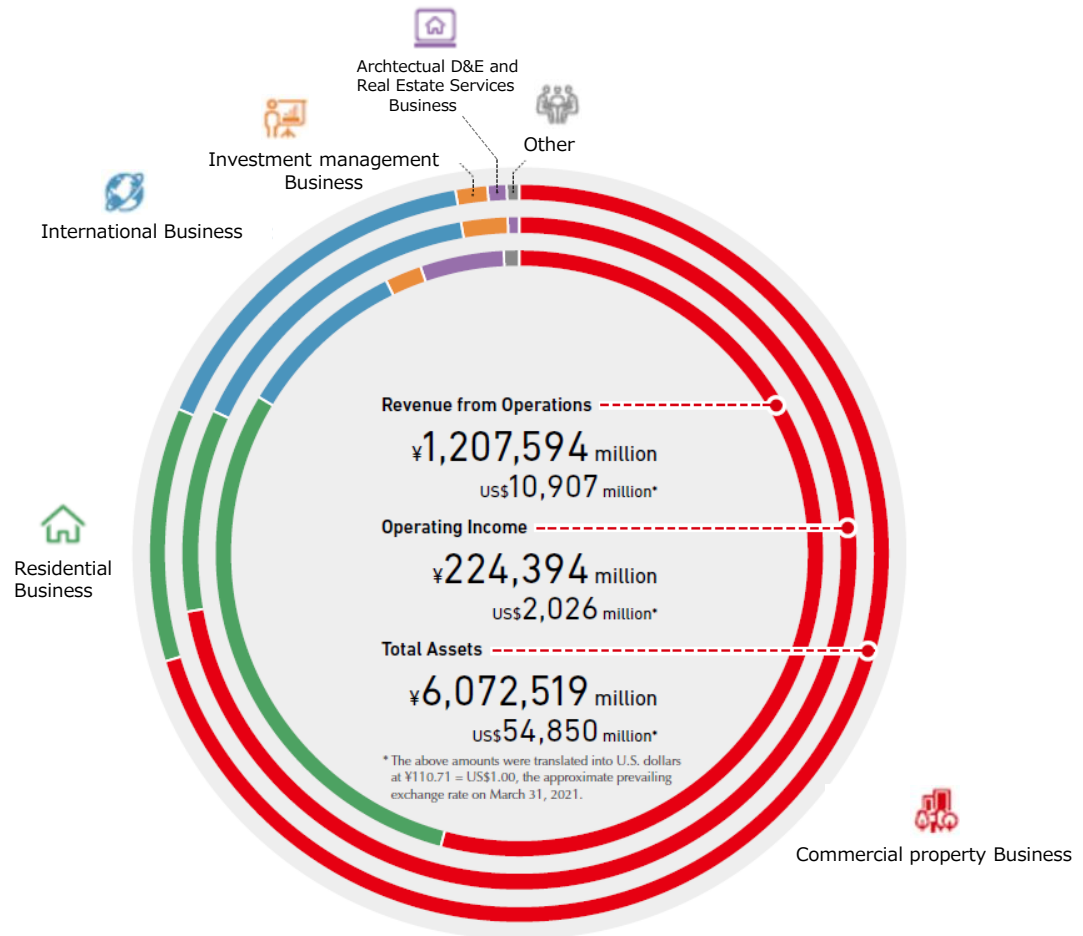
- Development, leasing, and management of office buildings, retail, and other facilities
- Development of real estate for investment purposes and asset management
- Development and sale of land for housing, research, and other facility use
- Management of leisure and other facilities
- Sale and brokerage of real estate and related consulting services

Number of Employees (Excluding temporary staff)

Non-consolidated: 880
Consolidated: 9,982

URL

https://www.mec.co.jp/index_e.html



Source : Prepared from INTEGRATED REPORT 2021 Mitsubishi Estate Co., Ltd

1. Outline of Mitsubishi Estate Group

The Mitsubishi Estate Group has been expanding its business overseas since the 1970s, and has developed its business globally. In recent years, the Group has been actively engaged in business in Asia and Oceania, including ASEAN countries.



Aspire Ratchada Wongkawang
Bangkok, Thailand
2016



Capita Green
Singapore
2015



Trinity Tower
Jakarta CBD, Indonesia
2021



Vista Verde
Ho Chi Minh City, Vietnam
2017

Europe

- Mitsubishi Estate London Limited
- Europa Capital Group*

United States

- Rockefeller Group International, Inc.
- Mitsubishi Estate New York Inc.
- TA Realty LLC*

Asia and Oceania

- Mitsubishi Estate Asia Pte. Ltd.
 - Yangon Branch
 - Australia Branch
- Mitsubishi Estate Vietnam Company Limited
 - Hanoi Branch
- PT. Mitsubishi Estate Indonesia
- Mitsubishi Estate (Thailand) Co., Ltd.
- Mitsubishi Estate (Shanghai) Ltd.
- Mitsubishi Estate Taiwan Ltd.
- Pan Asia Realty Advisors (Singapore) Pte. Ltd.*

* Group companies under the business segment

2. Smart city initiatives in various regions MITSUBISHI ESTATE

Promotion of various types of smart cities in four locations in Japan with support from government and other organizations



OMY Area:
Central business district type

Promoting an area management-type smart city in OMY Area



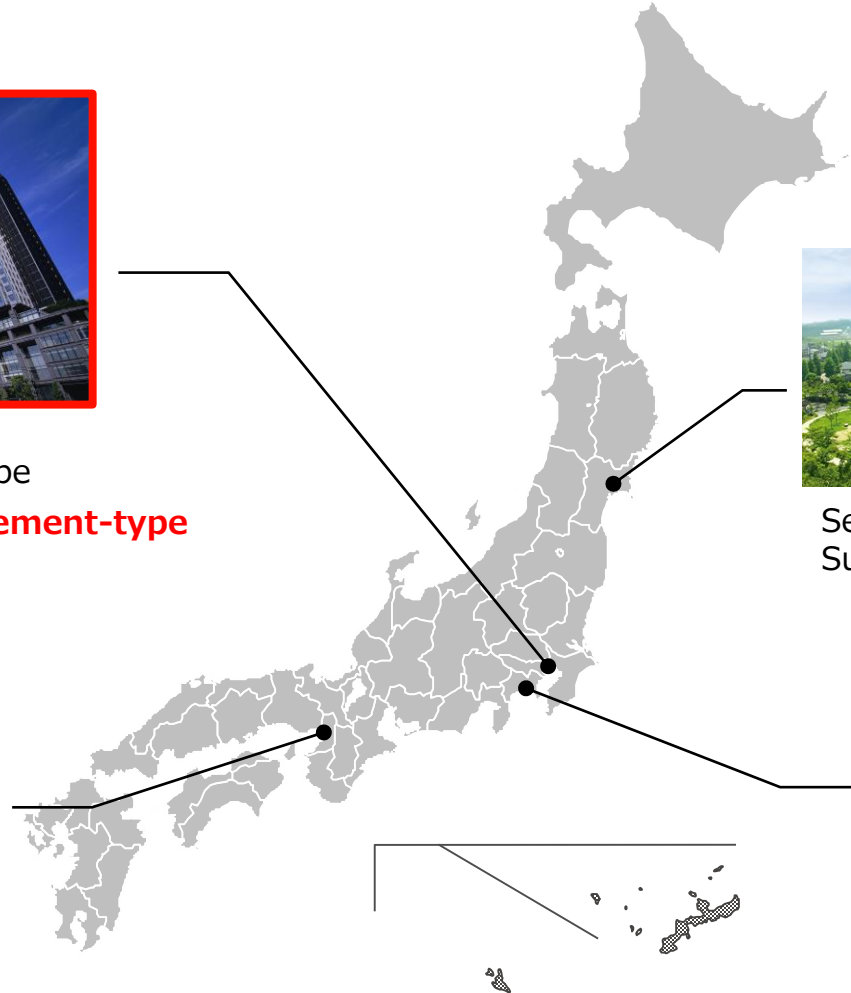
Sendai-izumi :
Suburban residential district type



Umekita :
Redeveloped new urban center type



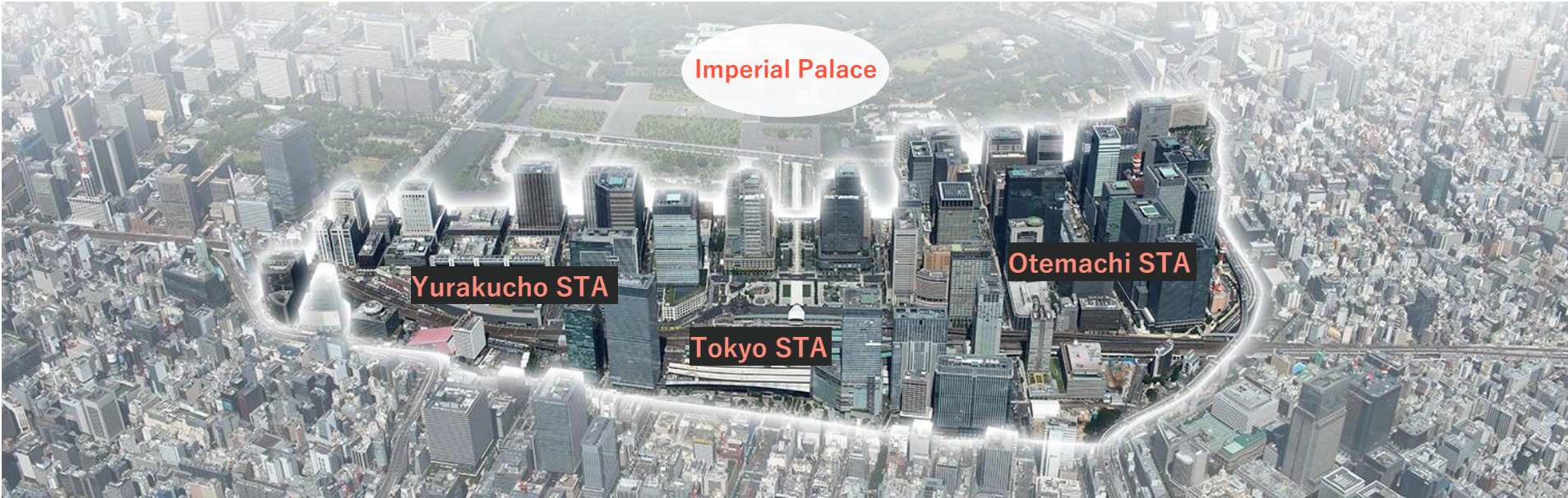
Minatomirai :
New urban center type



2. Smart city initiatives in various regions



Nearly 130 years of urban development has led to the growth of the Area into one of the World's Leading CBDs.




Area

aprox. **120** ha



headquarters of listed companies

aprox. **115**



Gross Consolidated Net Sales

aprox. **122** Trillion yen




Offices

aprox. **4,300**



Workers

aprox. **280,000**



Railway Network

28 routes
13 stations

Source : The Council for Area Development and Management of Otemachi, Marunouchi, and Yurakucho 2020

Number of Passengers 117mio./day

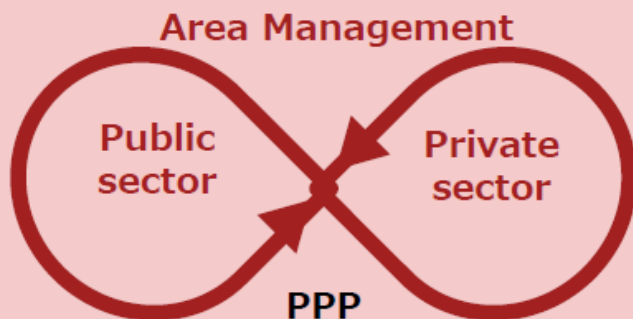
3. Overview of the OMY Area

In the OMY area, we are working to create a Vision-Oriented Smart City. Rather than relying on Technology alone, focus on the Software of City Management and Operation, such as Area Management activities.

PPP : Public Private Partnership

VISION The Goals of Area Management Development

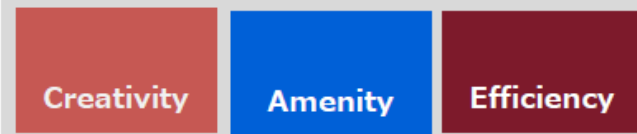
1. State-of-the-art international business area
2. Cultural area that attracts and bustles with people
3. Area where information is exchanged and spread
4. Area where character and vitality coexist
5. Convenient, comfortable area that people can walk around
6. Sustainable area that coexists with the environment
7. Safe & secure area
8. Smart area that make use of new technologies and data
9. Area nurtures through cooperation between citizens, governments and visitors



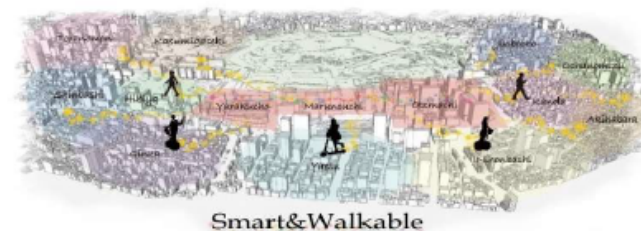
Vision Oriented

OMY Smart City

City Updates



Redesigning the CBD



Everyone can be comfortable, safe, and secure
Continuously experience and enjoy area's attractiveness
Increase interaction and encounters

4. Smart City Approach in the OMY Area

Redesigning the Area

Under the concept of "**Smart & Walkable**", we have formulated **the ideal image of future redesign**. Based on this concept, specific issues are to be discussed.



Redesign image of Walkable Space



Redesign image of transportation nodes

4. Smart City Approach in the OMY Area

Currently, we are starting to work on issues that can be tackled through co-creation with startups, government, and academic experts.

Visualization of Area activities

Area Management City INDEX (AMCI)



Problem

To visualize the efforts of area management activities

Solution

Creating a city promotion tool that shows the value of an area by using a 3D city model

Approaches to the demonstration experiment for the deregulation

Autonomous bus running demonstration



Problem

Changes in the legal system and easing of operations are necessary for the introduction and diffusion of new mobility systems that contribute to improved mobility and circulation.

Solution

The area will be turned into a living laboratory and repeated demonstration experiments will be conducted to verify safety and social acceptability.

Demonstration of electric kickboard on public roads



Indoor and outdoor data linkage of 3D models

Development of robot running environment



Problem

No linkage between indoor (architectural BIM) and outdoor (3D city model) 3D data

Solution (planned)

Building a data collaboration model and conducting indoor and outdoor robot driving experiments

4. Smart City Approach in the OMY Area

Currently, we are starting to work on issues that can be tackled through co-creation with startups, government, and academic experts.

Implementation of the latest digital technology to encourage "New Working Style"

TOKYO TORCH App for Tokiwabashi Tower



Problem

Aiming for a comfortable work style

Solution

Contactless security authentication using a smartphone or hand-held device, and the introduction of an employee-only application that can be used for lunchtime seat reservation, ordering, and decision making all at once.

Using IT in COVID-19 pandemic

Marunouchi Street Park 2021 Summer



Problem

We want to provide an environment where people can relax and work outdoors as a value-added feature of the city, while ensuring social distance from the Covid-19 disaster.

Solution

Observations of changes in the retention and behavior of people as a result of greenery development, and real-time disclosure of the measured people flow as a congestion map on a special website.

What I would like to tell you today

- Smart cities are solving urban problems by using IT and other cutting-edge technologies.
- Cities face different challenges in different countries.
- In this presentation, we have introduced our efforts to solve issues in the smart city in the OMY Area, which we are focusing on, but we are also making progress through trial and error.
- We believe that ASEAN countries also have your own challenges, and we hope that you will share their initiatives with us so that we can work together to create better cities.

