

October 19, 2013

3rd International Forum on the “FutureCity” Initiative



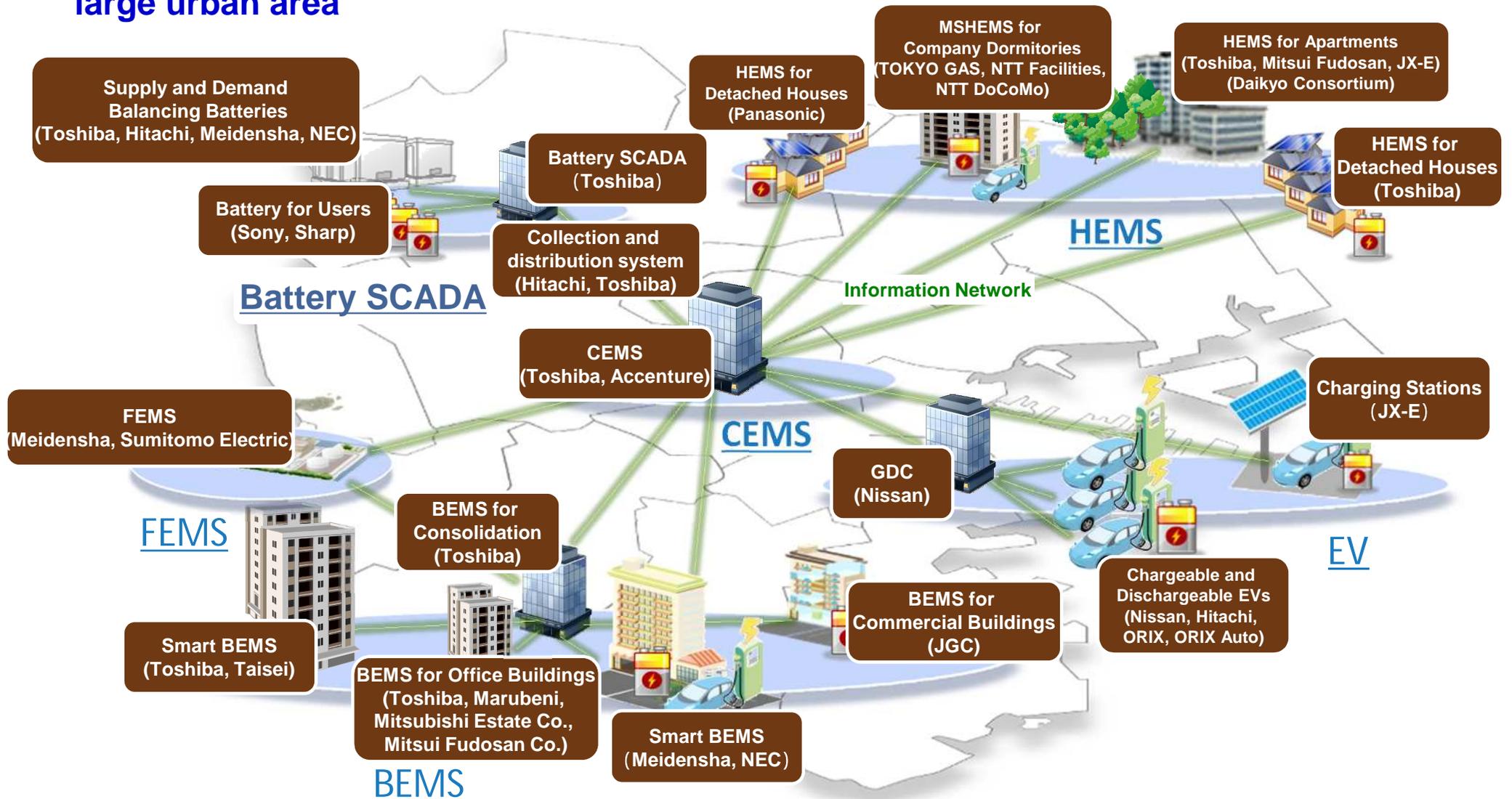
# City of Yokohama, the FutureCity



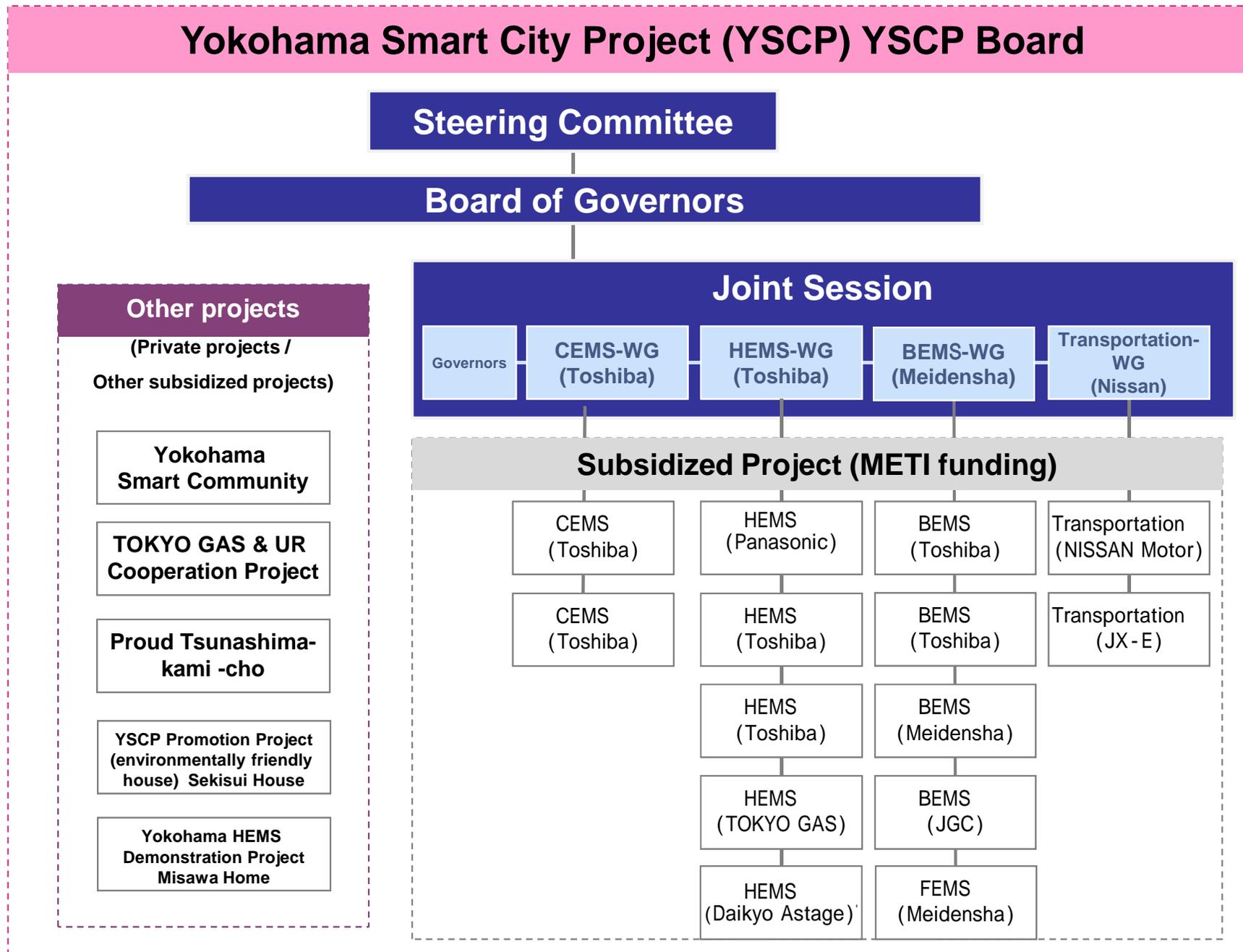
Masato Nobutoki  
Executive Director for Future City Promotion,  
Climate Change Policy Headquarters, City of Yokohama

# Yokohama Smart City Project

Demonstration project for Community Energy Management System development through integrated use of CEMS, HEMS, BEMS, FEMS, EV, and battery SCADA in large urban area



Goals by 2014: PV 27MW, HEMS 4,000 units, EV 2000 vehicles



- A demonstration project was started in FY 2012 using state-of-the-art equipment in a newly built 24 unit TOKYO GAS company dormitory in Yokohama City's Isogo Ward
- The super-insulated housing complex utilizes **renewable energy systems** (photovoltaic power generation and the *Solamo* solar thermal and gas hot-water system), as well as **Ene Farm residential fuel cells, stationary batteries and EVs**. The project will demonstrate the flexible sharing of the generated electricity and heat.
- Using **the integrated control system**, the energy use of the entire residential building can be managed so that it will lead, among other things, to energy conservation and CO2 reduction, operational cost savings, energy security (energy locally produced and locally consumed) and peak power cut demonstration across the region by CEMS coordination
- Through **visualization of energy using HEMS and setting incentives**, support the energy conservation behavior of the residents



#### Construction site:

Shiomidai, Isogo Ward, Yokohama City

#### Zoning:

The first-class high-rise exclusive residential area

#### Building purpose:

24-unit housing complex

#### Structure size:

reinforced concrete, 4 stories aboveground, 1 basement floor

#### Construction area:

approximately 1,100m<sup>2</sup>

#### Floor area:

approximately 3,400 m<sup>2</sup>

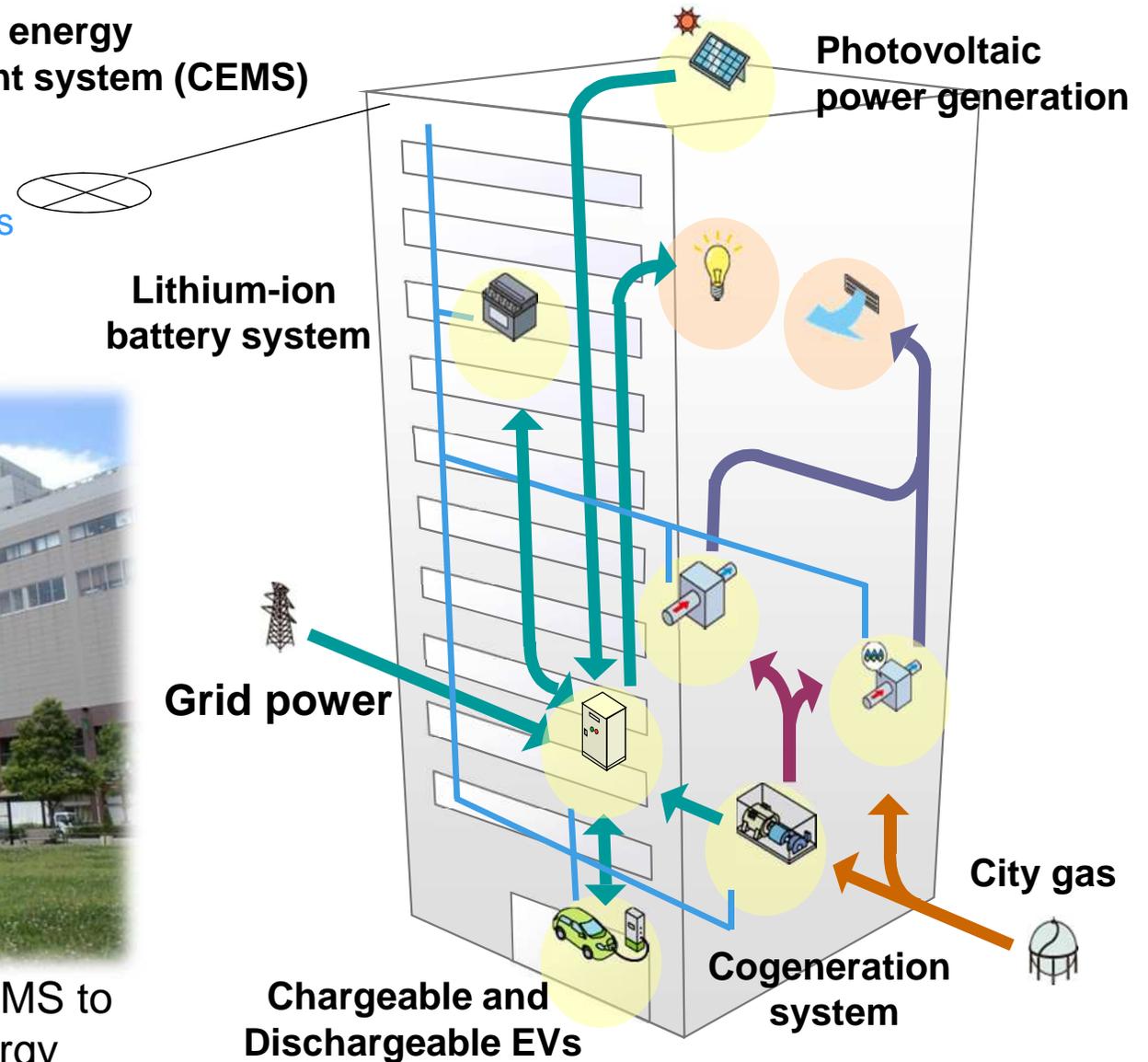
# BEMS demonstration case: Yokohama World Porters (Meidensha)

**Community energy management system (CEMS)**

Name of the facility: Yokohama World Porters  
Facility purpose: large commercial facility  
Floor area: approximately 100,000m<sup>2</sup>



Introduction of the next generation BEMS to perform optimum operation of the energy system using cogeneration and battery storage



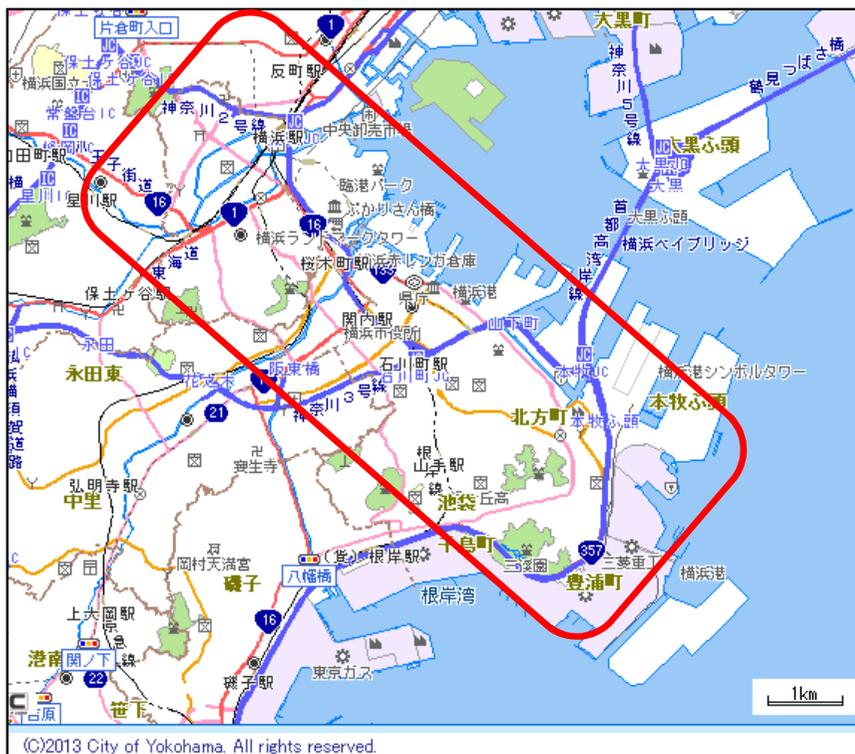
# Large-scale vehicle-sharing by ultra-small mobility

## Choi-mobi Yokohama starts

- **Demonstration period:** Oct. 11, 2013 – Sep. 30, 2014
- **No. vehicles:** approx. 100
- **Rental return locations:** approx. 70 places (140 spaces)  
Starting with 30 vehicles at about 45 locations, eventually expanding
- **Central area:** Yokohama city center area (Yokohama Railway Station, Minato Mirai 21, etc.)
- **Operation method:** smart phone and IC card will be used for rental and return
- **Rental fees:** 20 yen per minute (demonstration project of business model to charge user fees)



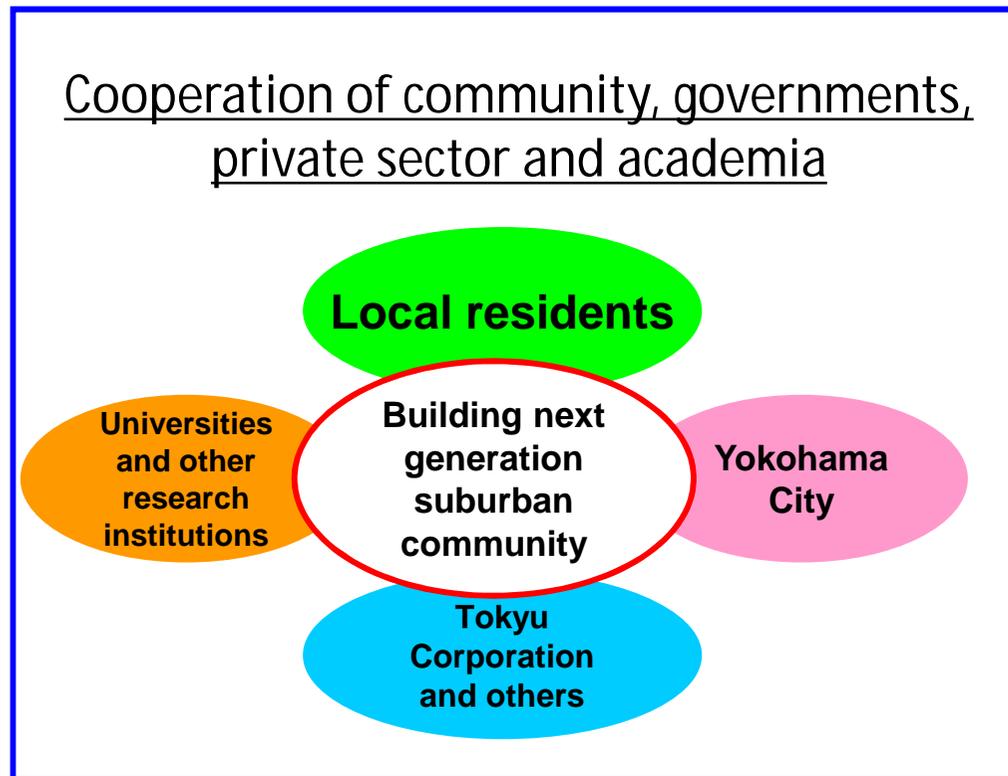
Reservation, Parking



Approximate area covered



## Tokyu Corporation and the City of Yokohama signed an agreement on the promotion of next-generation suburban town development



**Universities and other institutions:**  
University of Tokyo, Institute of Gerontology etc...

In the “existing town” make sustaining and regeneration the goals

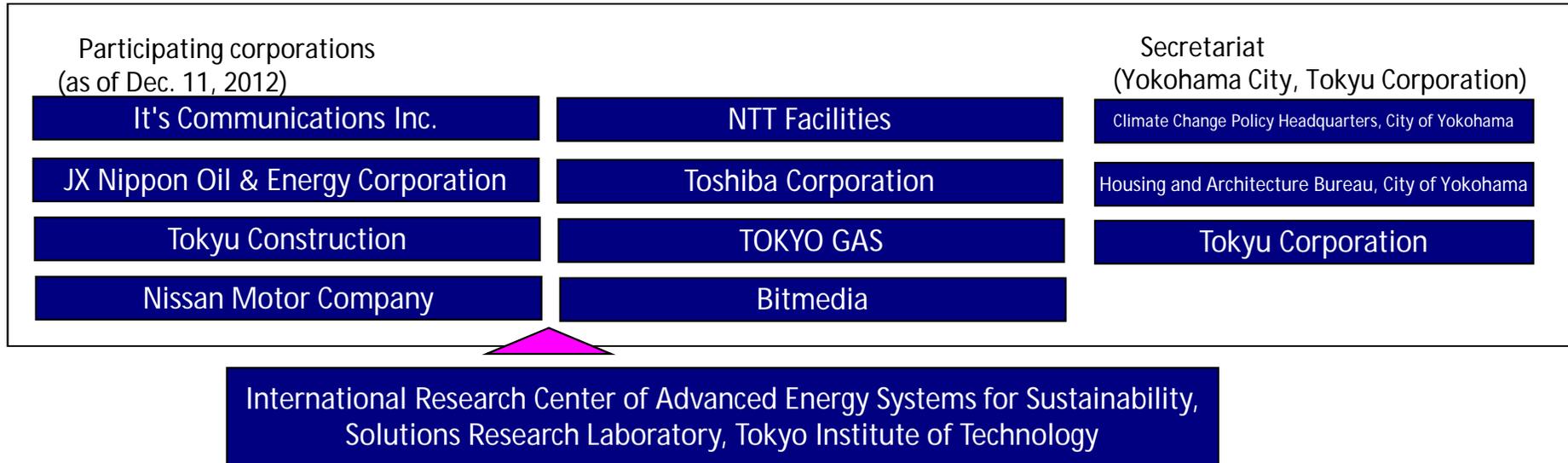
Aim for continuity, a cyclic system and diversity, most importantly looking at people, living and community

Solve the problems of the declining population society and other social problems by planning the next-generation community

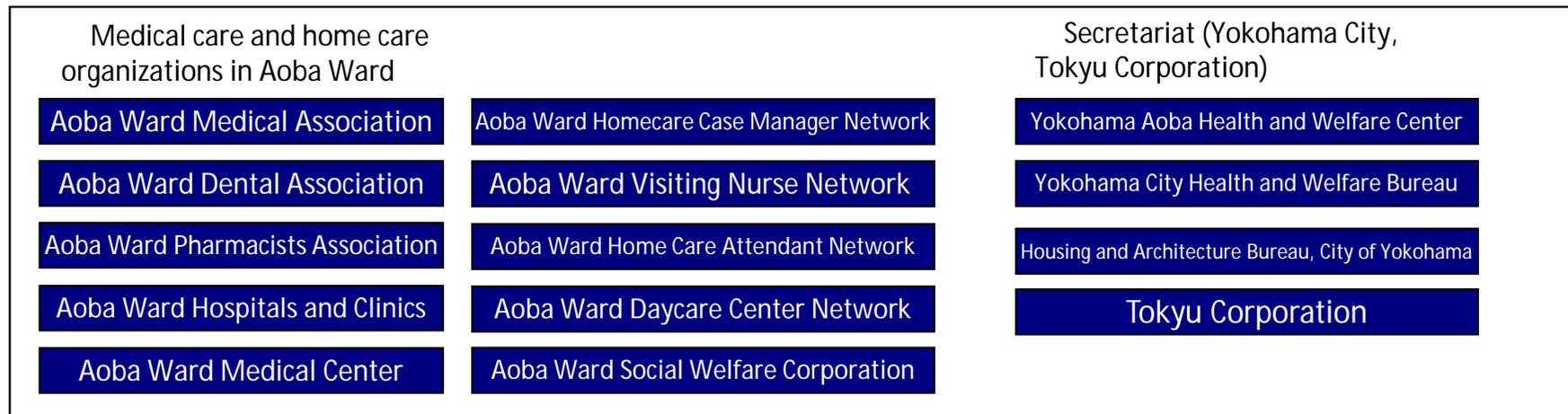
# – Building the next generation suburban community – Make-up of the Infrastructure of Daily Life Working Group



## ➤ Smart Community Promotion Committee



## ➤ Comprehensive Community Care System Promotion Committee



**[Advisor]**

University of Tokyo, Institute of Gerontology