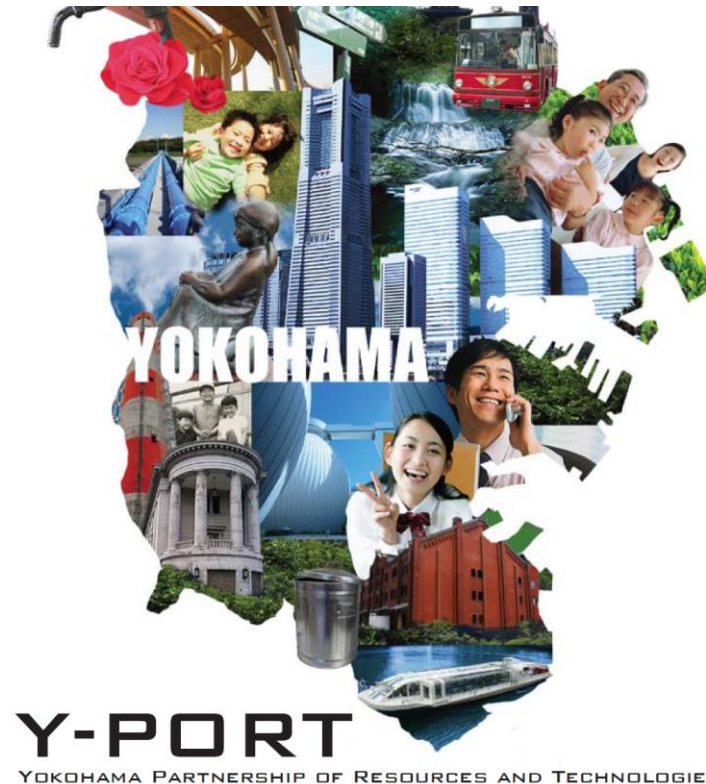


# Urban Challenge and City Development of Yokohama

*The views expressed in this presentation are the views of the author/s and do not necessarily reflect the views or policies of the Asian Development Bank, or its Board of Governors, or the governments they represent. ADB does not guarantee the accuracy of the data included in this presentation and accepts no responsibility for any consequence of their use. The countries listed in this presentation do not imply any view on ADB's part as to sovereignty or independent status or necessarily conform to ADB's terminology.*

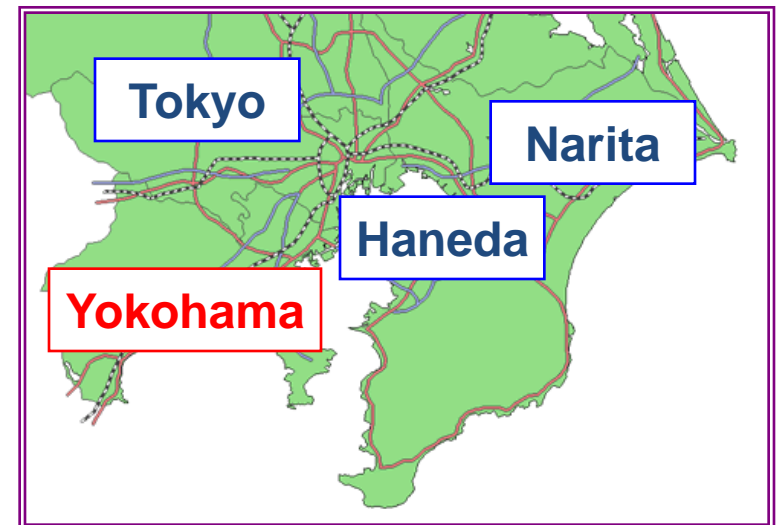


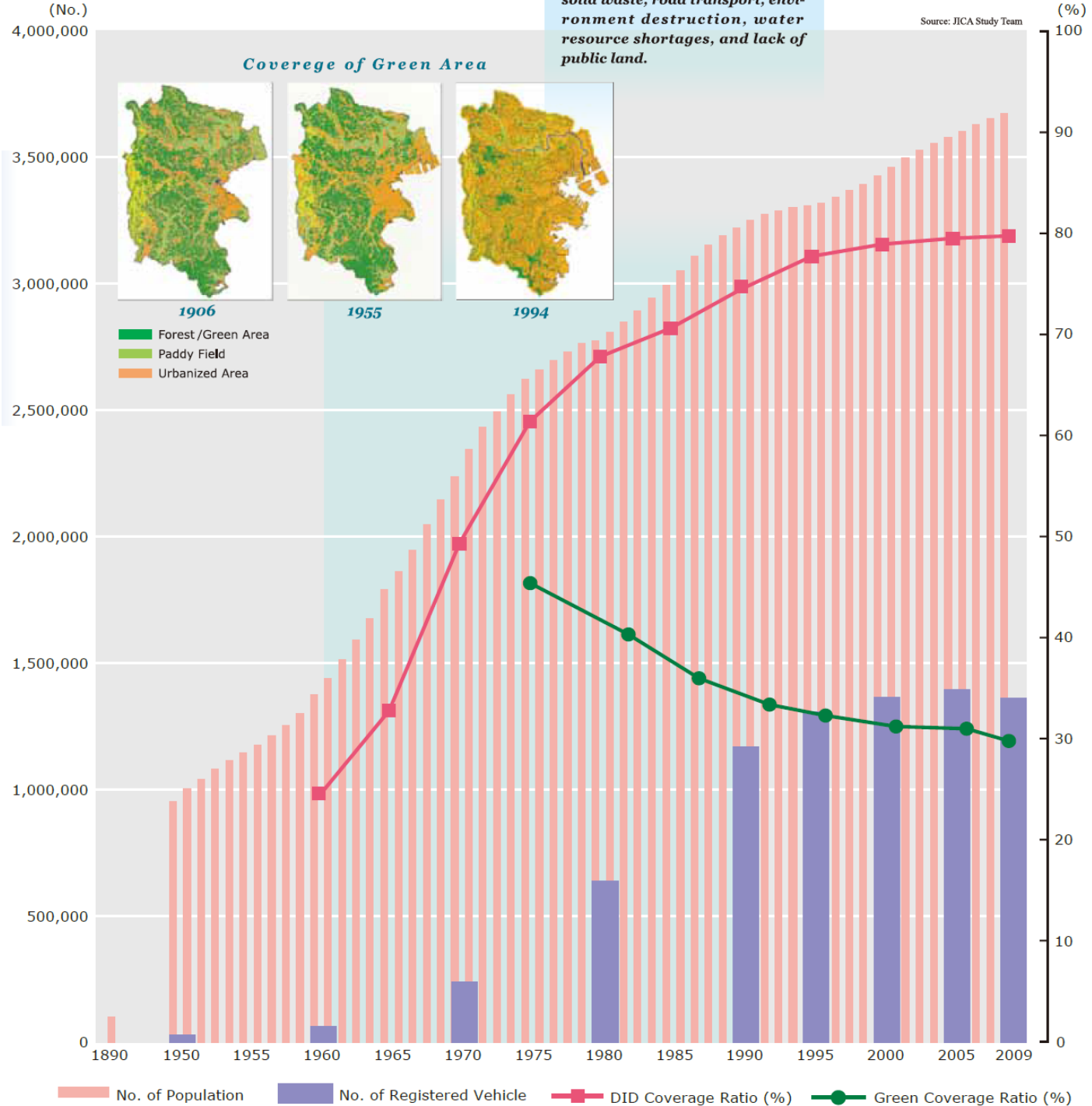
Toru Hashimoto, Director  
International Technical Cooperation Division  
City of Yokohama

# About Yokohama



- International port city  
Opening of port of Yokohama in 1859
- Population: approx. 3.7 million  
Largest city in Japan
- GDP: approx. 12.7 trillion JPY  
(approx. \$127 billion USD)
- 21 minutes from Haneda Airport (Tokyo)
- Rapid growth and urbanization





**Building Basic Urban Structure through  
Integration of Strategic Projects**



**Urban Development Management  
through Regulations and Guidance**



**Enhancing the Attractiveness of the City  
through Urban Design and Town Management**



**Private Sector and Citizen's Participation**



**Building a Resilient City through  
Comprehensive Disaster Prevention**



**Providing 24-hour Lifeline for All Citizens**



**Continuous Innovations**



## ***Examples of Target Benchmarks of Urban Development***

- **6 Strategic Projects** for strategic infrastructure development
- **190,000 employment** in Minato Mirai 21
- **300,000 population** of 2,500ha in Kohoku New Town
- **30%** waste reduction target of G30 Plan
- **15 minutes** accessible from home to nearest station
- **Less than 30 minutes** accessible to urban center
- **100% service coverage** of sewerage system
- **Zero children** on waiting list for child care support



# Urban Development Framework:

## Highlighting Six Pillar Projects

# Yokohama is ...

To Tachikawa and Hachioji

Axis connecting  
core business  
cities

To central Tokyo

Connecting axis  
around Tokyo Bay

Yokohama  
loop axis

Kohoku New Town

Tsurumi

Shin Yokohama  
city center

City center

Minato Mirai 21  
Yokohama Port

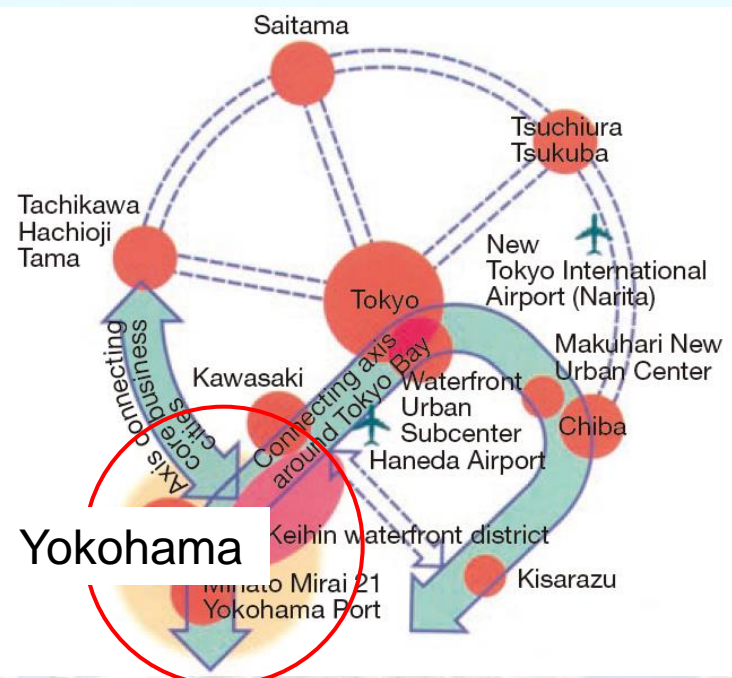
Futamatagawa  
-Tsurugamine

Kamiooka

Totsuka

Tokaido axis

To Yokosuka



Yokohama

Southern part of  
Tokyo Metropolitan

The City of Yokohama

# Urban Structure of the Yokohama City

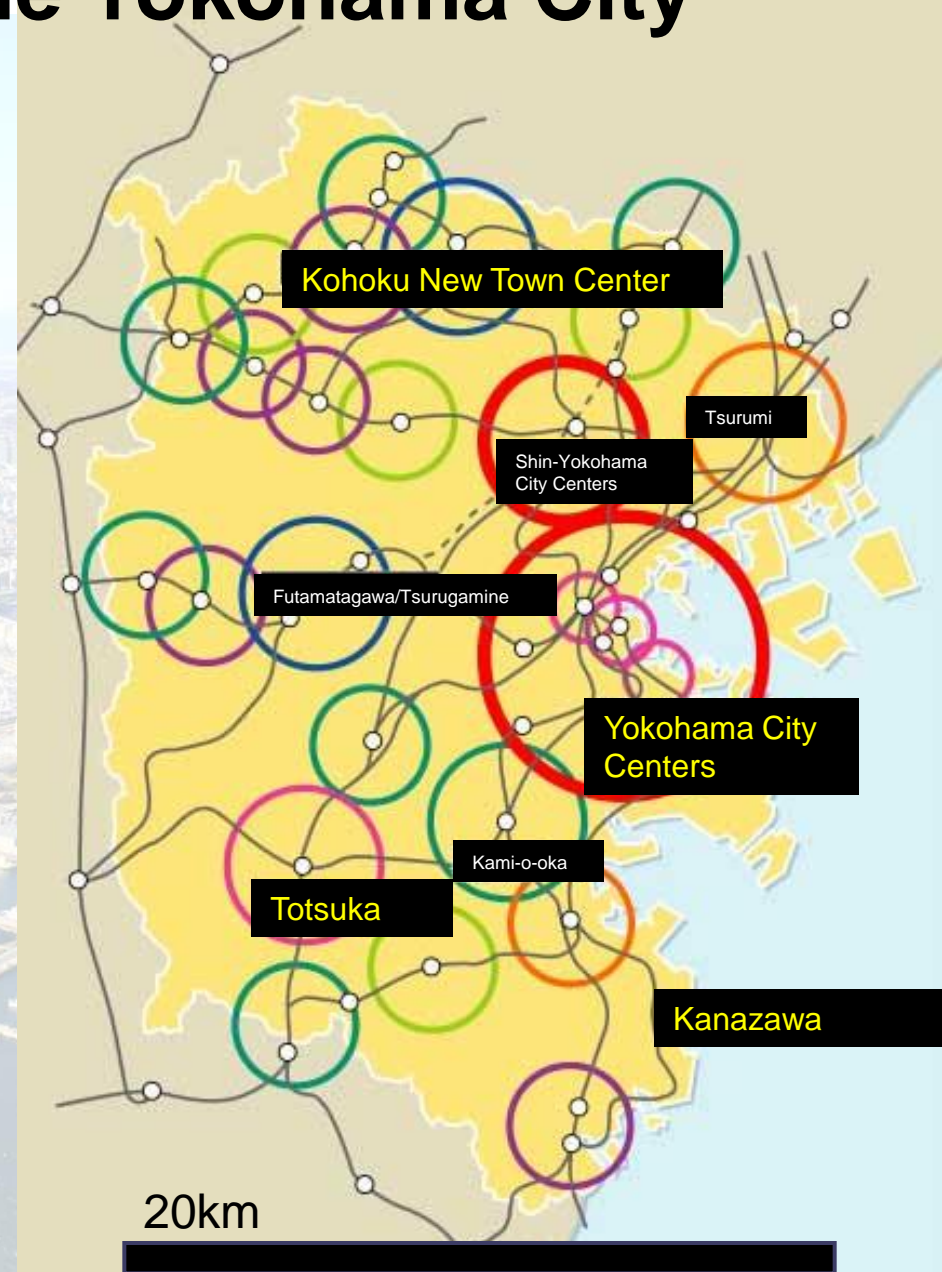
**City Area: 436.6 km<sup>2</sup>**

## **City centers:**

- ✓ Vicinity of Yokohama Station – MM21 Area – Kannai District
- ✓ Shin-Yokohama Area

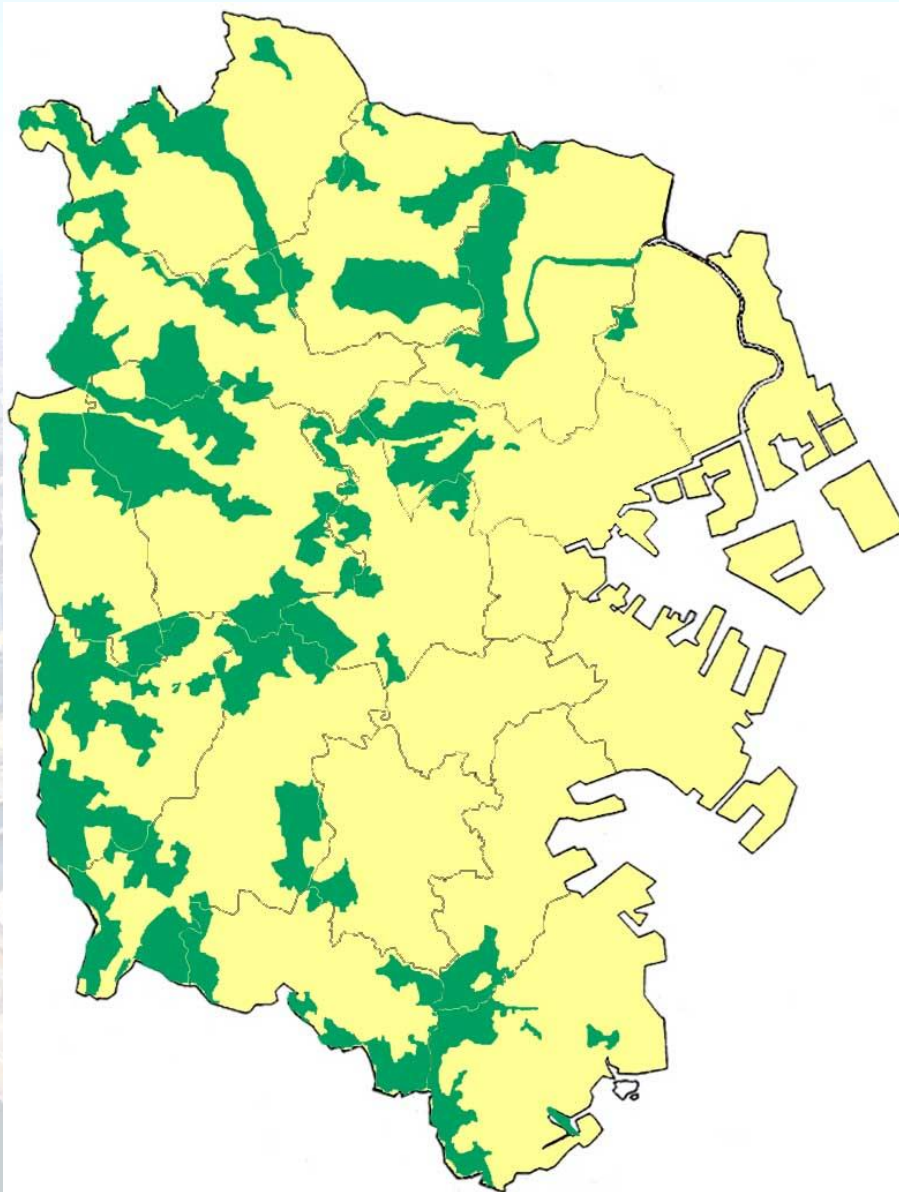
## **Regional centers:**

- ✓ Totsuka, Kami-o-oka, Tsurumi, etc.
- ✓ Areas around major railway stations





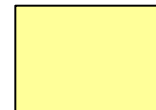
# Urban Structure of the Yokohama City



**Urbanization  
control areas: 1/4  
of the entire city  
area**

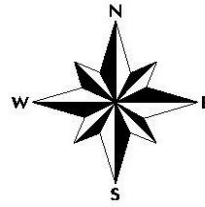


Urbanization  
control areas



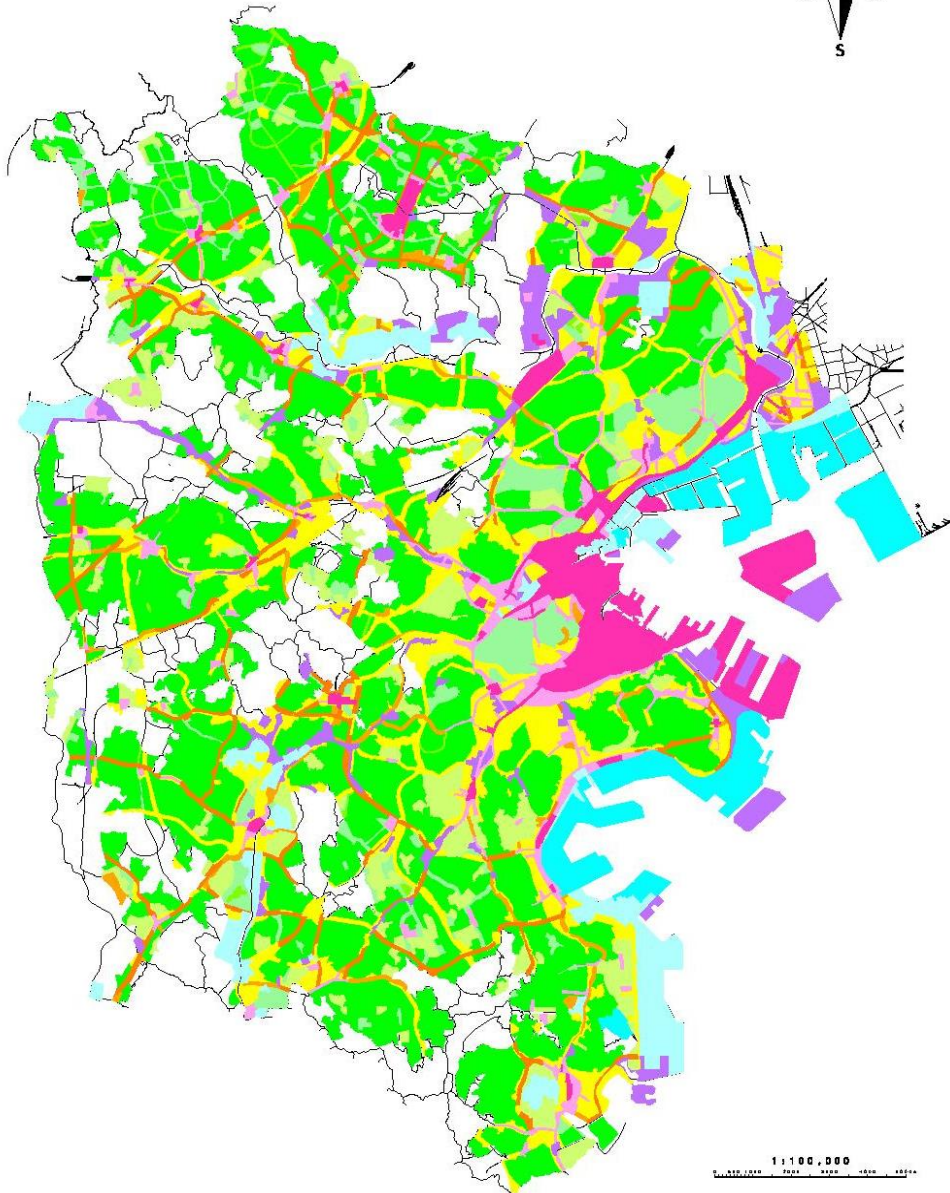
Urban areas





# Land use plan

**Residential Area**   
**Commercial Area**   
**Industrial Area** 

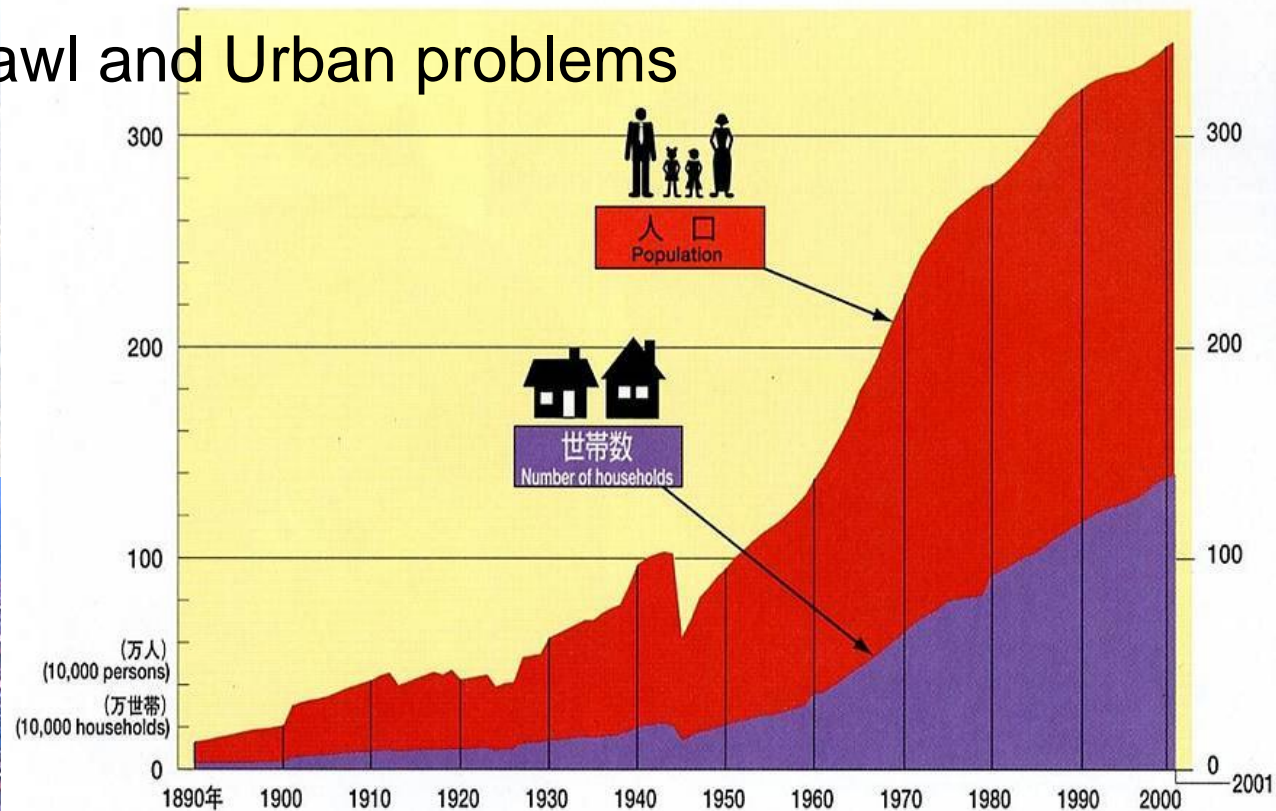


# Emergence of urban problems caused by the rapid population growth

The population doubled in the 20-year period between 1960 and 1980 (from 1.37 million to 2.77 million)



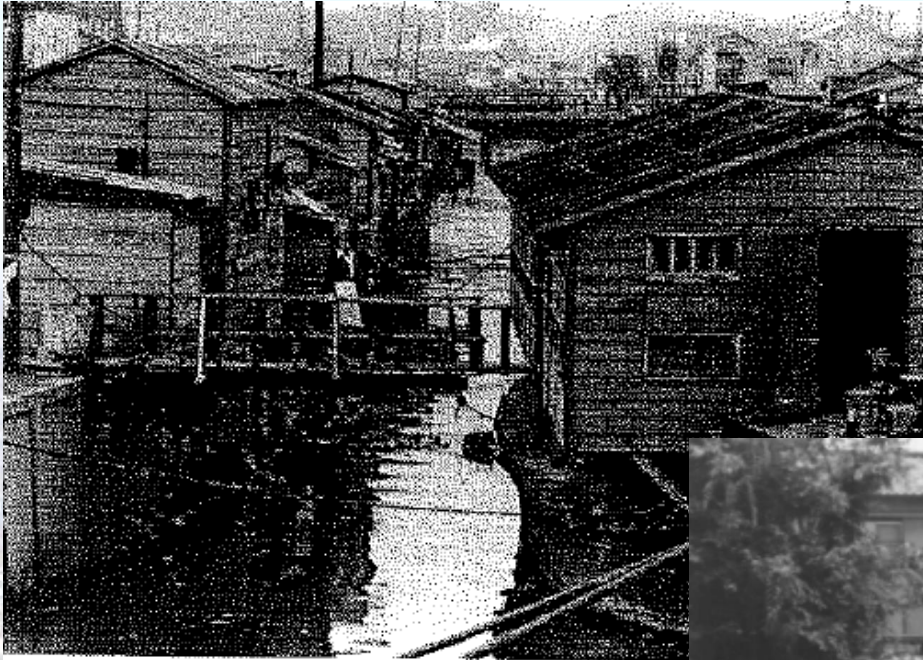
Intensification of Sprawl and Urban problems





# Urban Challenges : Rapid Urbanization and Pollution

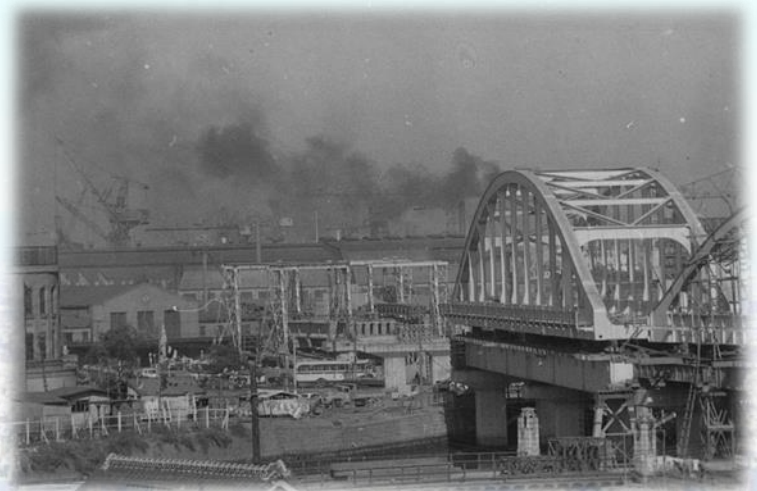
## *Shortage of Urban Infrastructures ..*





# Urban Challenges: Rapid Urbanization and Pollution

*Polluted airs and water, traffic jam · ·*





# Urban agenda for Yokohama leading to Six Major Projects during the period of rapid urban growth

Following were particularly serious urban issues caused by rapid population expansion and Urban sprawl during 1960s.

## **Five Major Battles**

1. Increasing solid waste
2. Shortage of roads and traffic jams
3. Environmental destruction
4. Protection of water resources
5. Insufficient land for public use

## **Six Major Projects**

The Six Major Projects were planned as the main pillar of efforts to develop the fundamental structure of the city.

# The History of Yokohama's Urban Planning

Principals of formulating plans in Yokohama

1. Free from governmental sectionalism
2. Sharing the goals with stakeholders
3. Transperancy to the citizens
4. Establishing local autonomy

# The History of Yokohama's Urban Planning

1973 (2.5 million people in the City)

## General Concept Plan

The Yokohama General Plan (for 32 years)

- Future vision
- Adopted by the city council

## Master Plan

The City of Yokohama Master Plan (for 13 years)

- Design population: 3.5 million people (1985)
- Six Major Projects were given a clear position as an engine for development

## Medium-Term Plan

Medium-Term Plan (for 5 years)

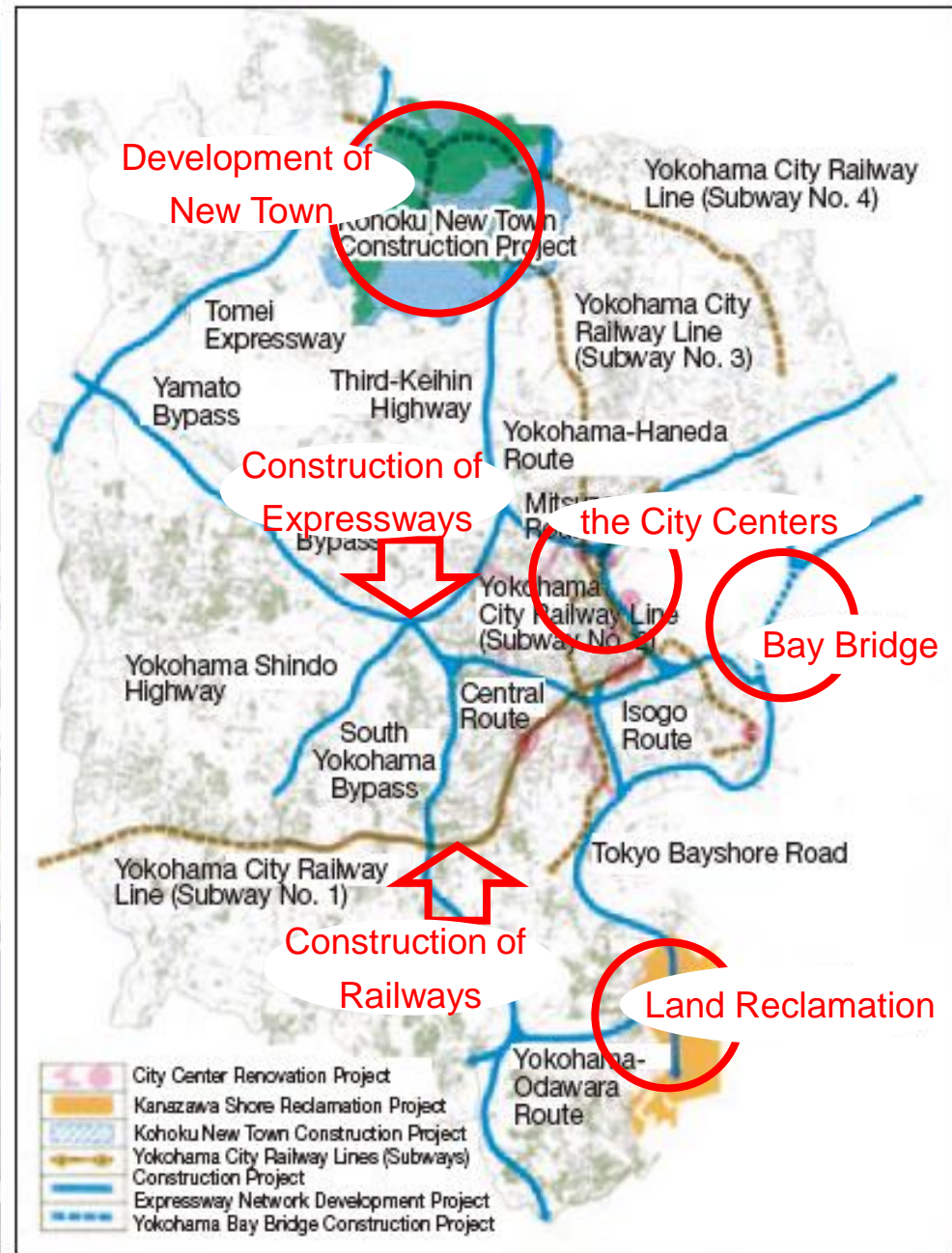


# Six Major Projects for Urban Solution





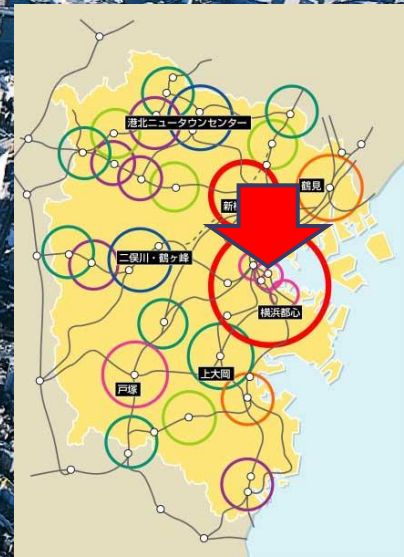
# Location of Six Major Projects





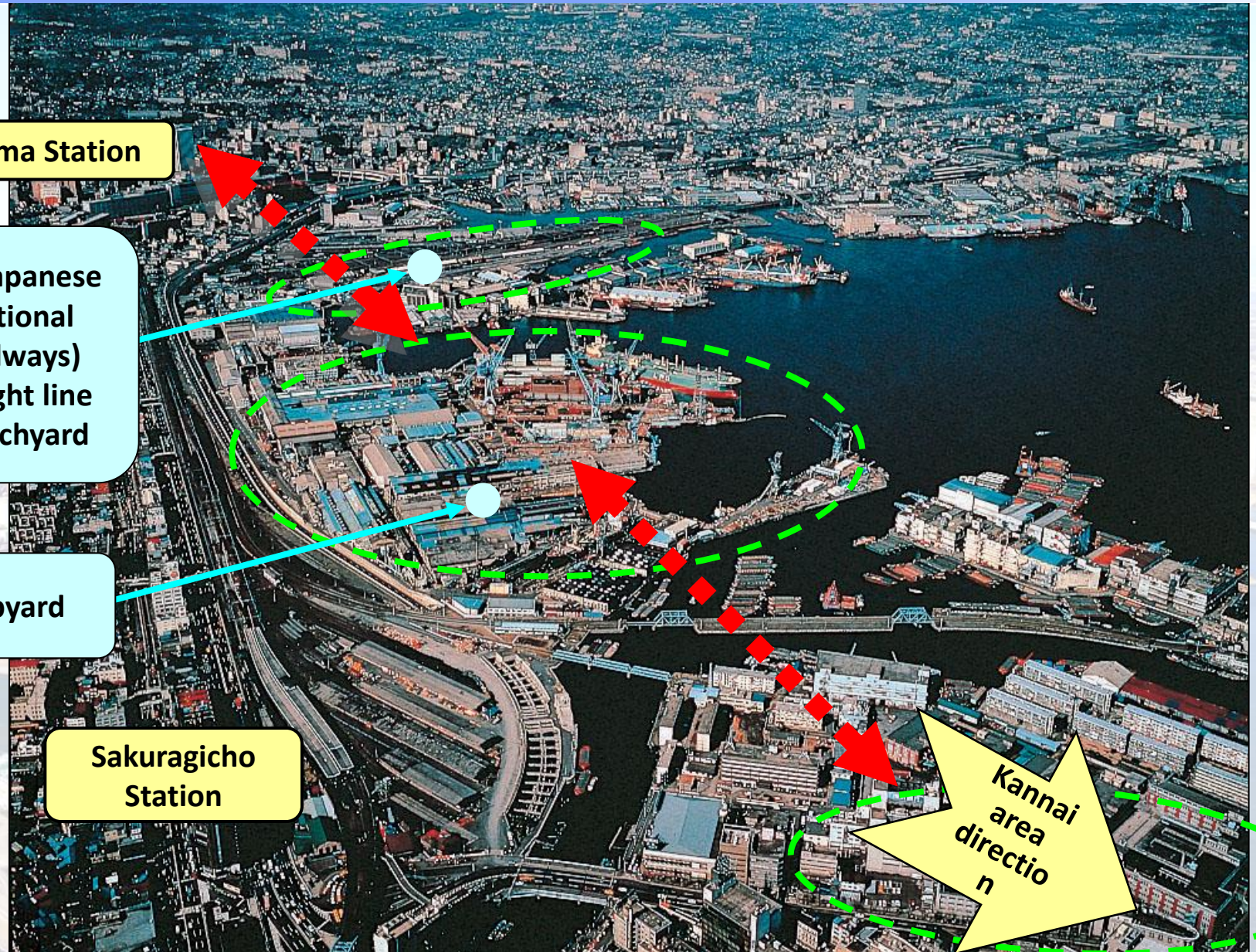
# Improvement of the Function of the City Center

- Conversion from Industrial Area to Urban Core
- Eco-Friendly Development
- Project Area: 186 ha
- Design Working population : 190,000
- Design Residential population : 10,000





# Minato Mirai 21 Area Before Start of Construction <1980>



Yokohama Station

JR (Japanese  
National  
Railways)  
Freight line  
switchyard

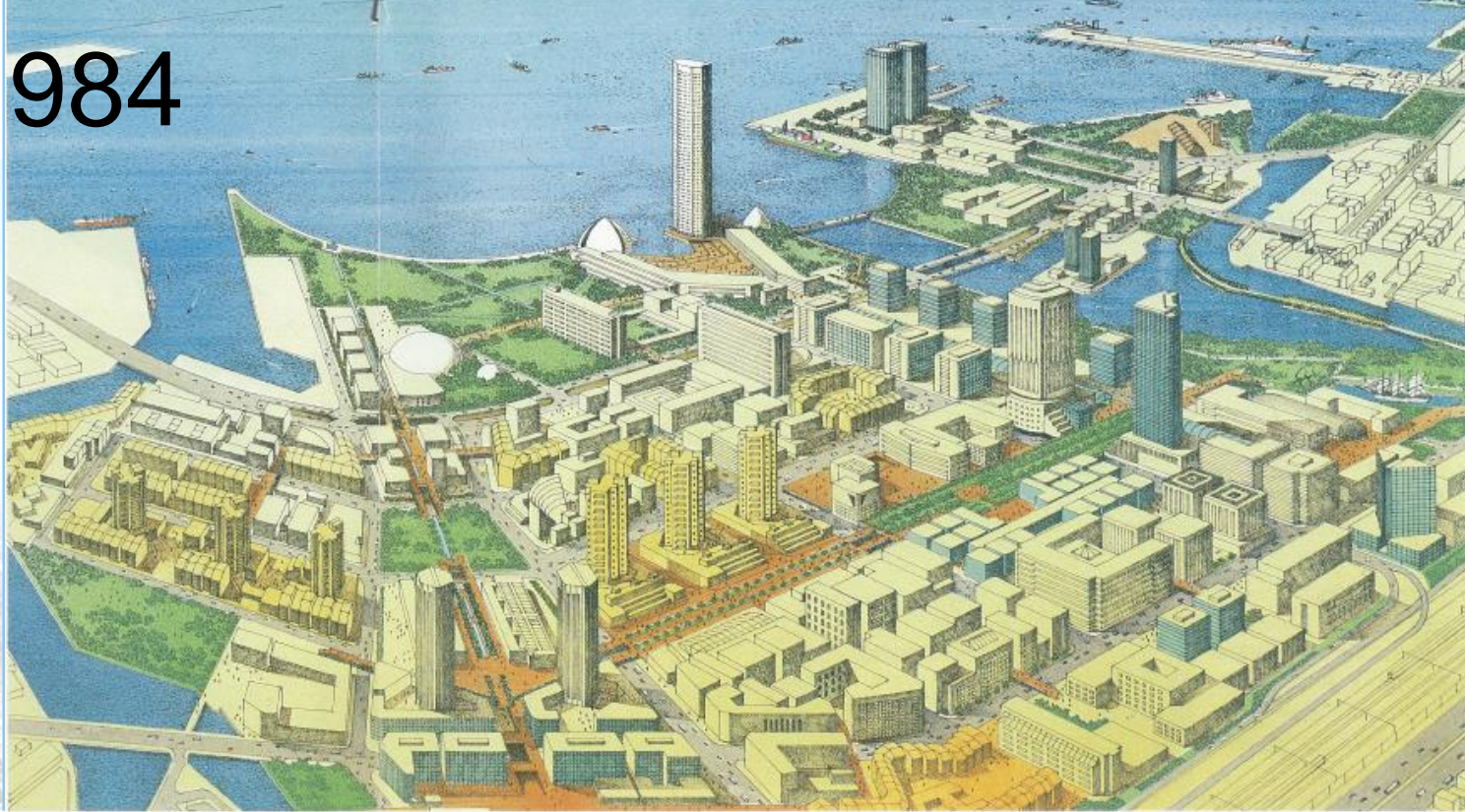
Shipyard

Sakuragicho  
Station

Kannai  
area  
direction



Plan in 1984



At Present





# ● Minato Mirai 21 District: Showcase of Yokohama's urban development

Urban  
Planning

## ○ Greener City Center



Grand mall park



Cherry blossom street

## ○ Integration of History, Culture and Art

Nippon Maru  
Memorial Park



Red Brick Warehouses



MM21 Pedestrian Bridge  
LED Lighting



Utility Tunnels



Moving walkway at  
Sakuragicho station

Landmark Tower

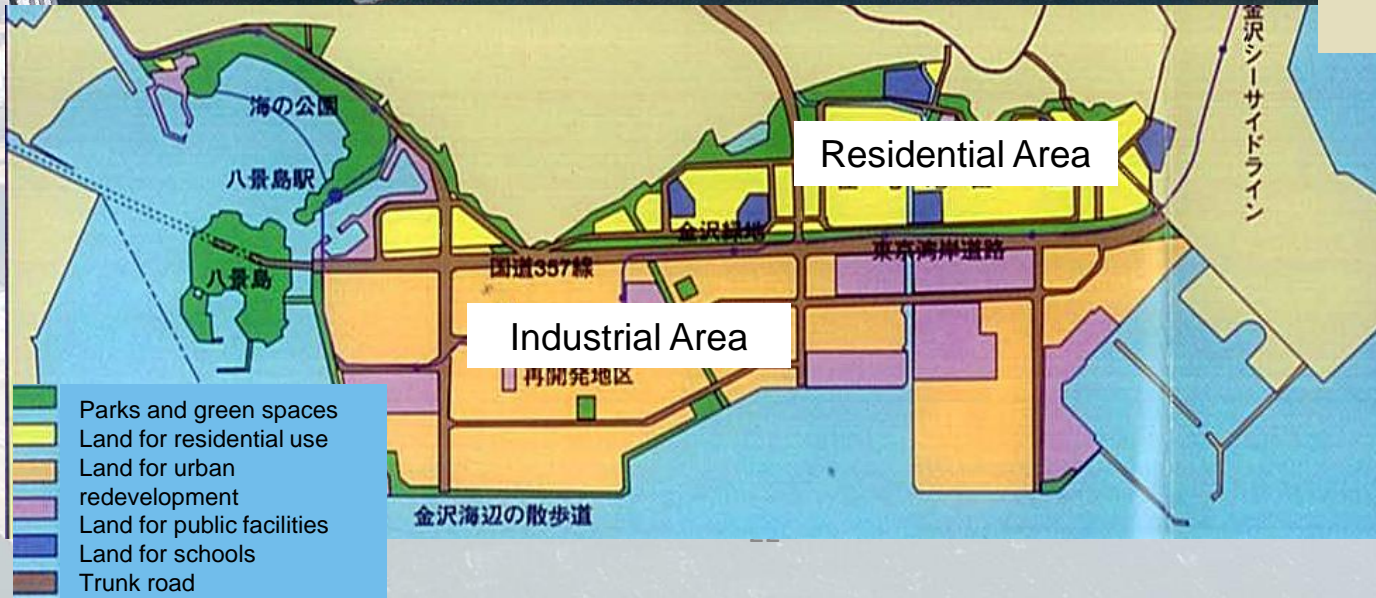
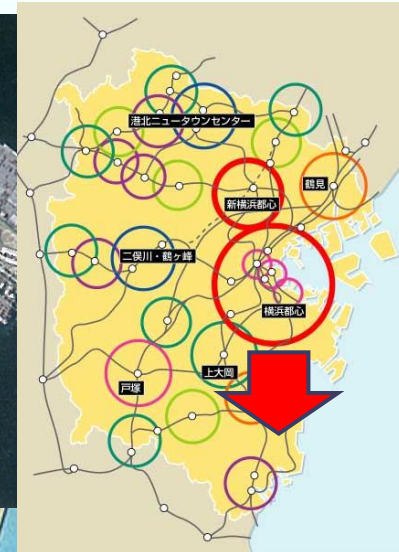


Reusing rain and  
wastewater

## ○ Utilization of Renewable Energy towards Low Carbon Emission

# Land Reclamation of the coast of Kanazawa

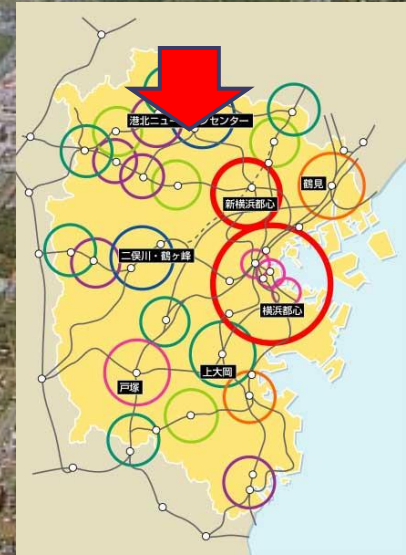
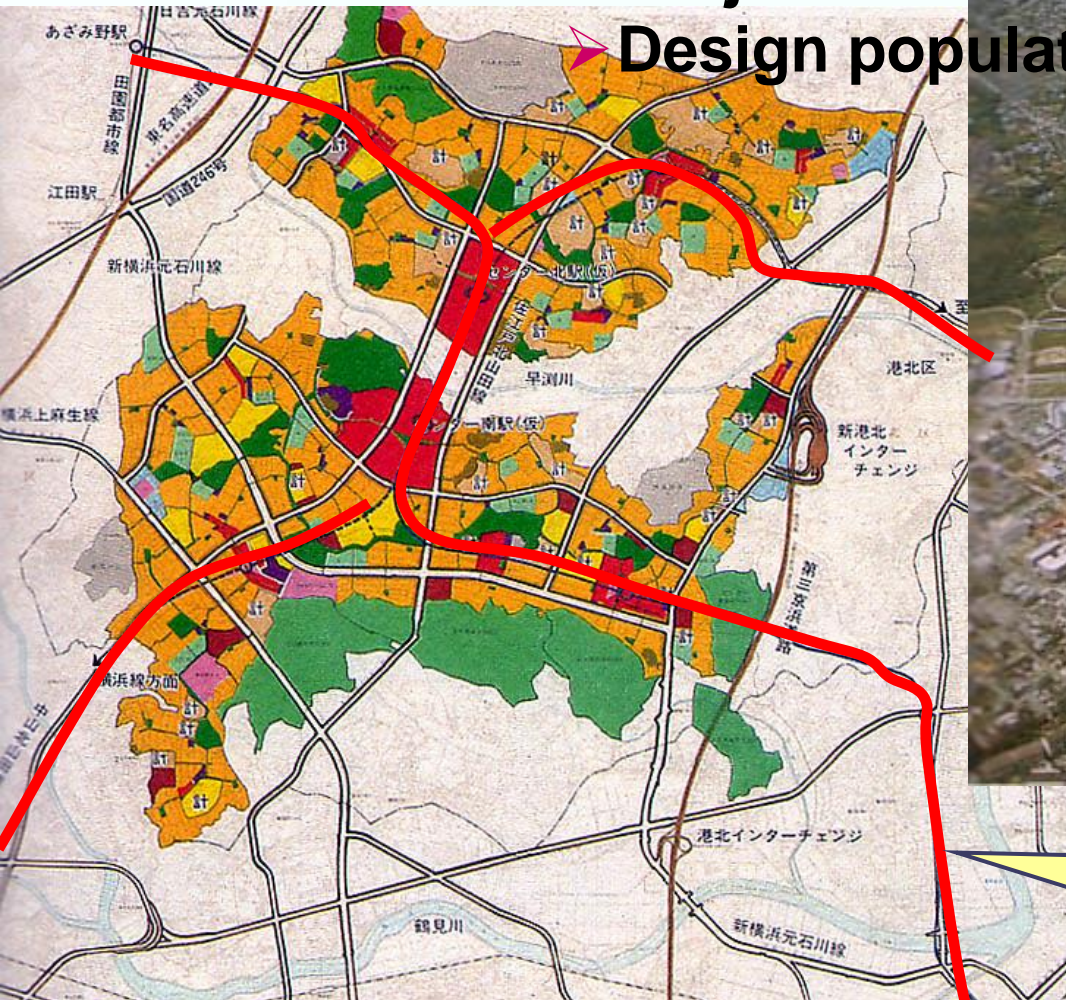
- Relocation of a shipyard from the city center
- Provision of plots for new industrial establishment
- Project Area : Approx. 660 ha
- Concentrated waster water treatment facilities





## Development of New Residential Town

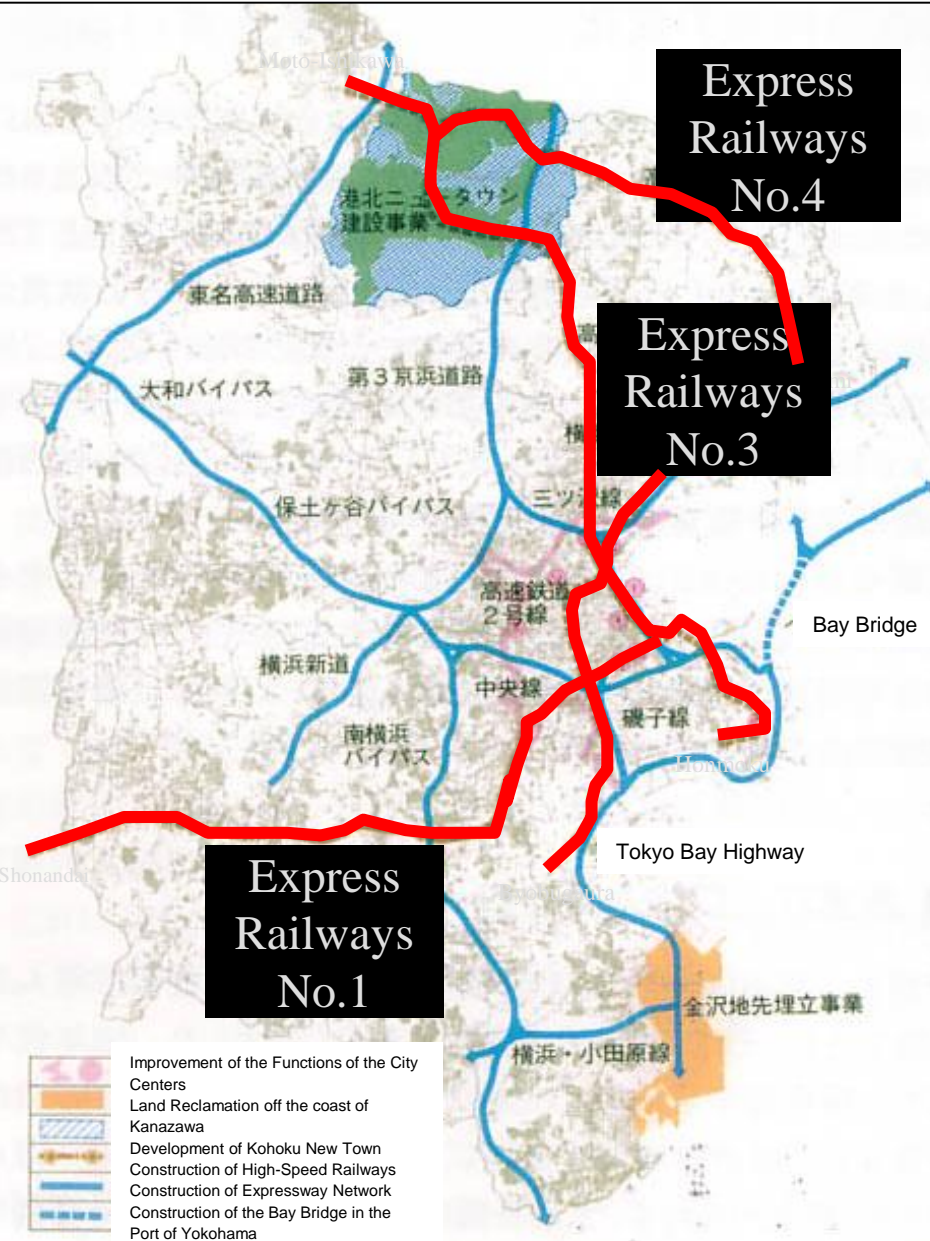
- Resident participation in planning process
- Preserve green matrix
- TOD with subway running to the city center
- Project Area: Approx. 1,340 ha
- Design population: 220,000



Yokohama subway



# Construction of Railways



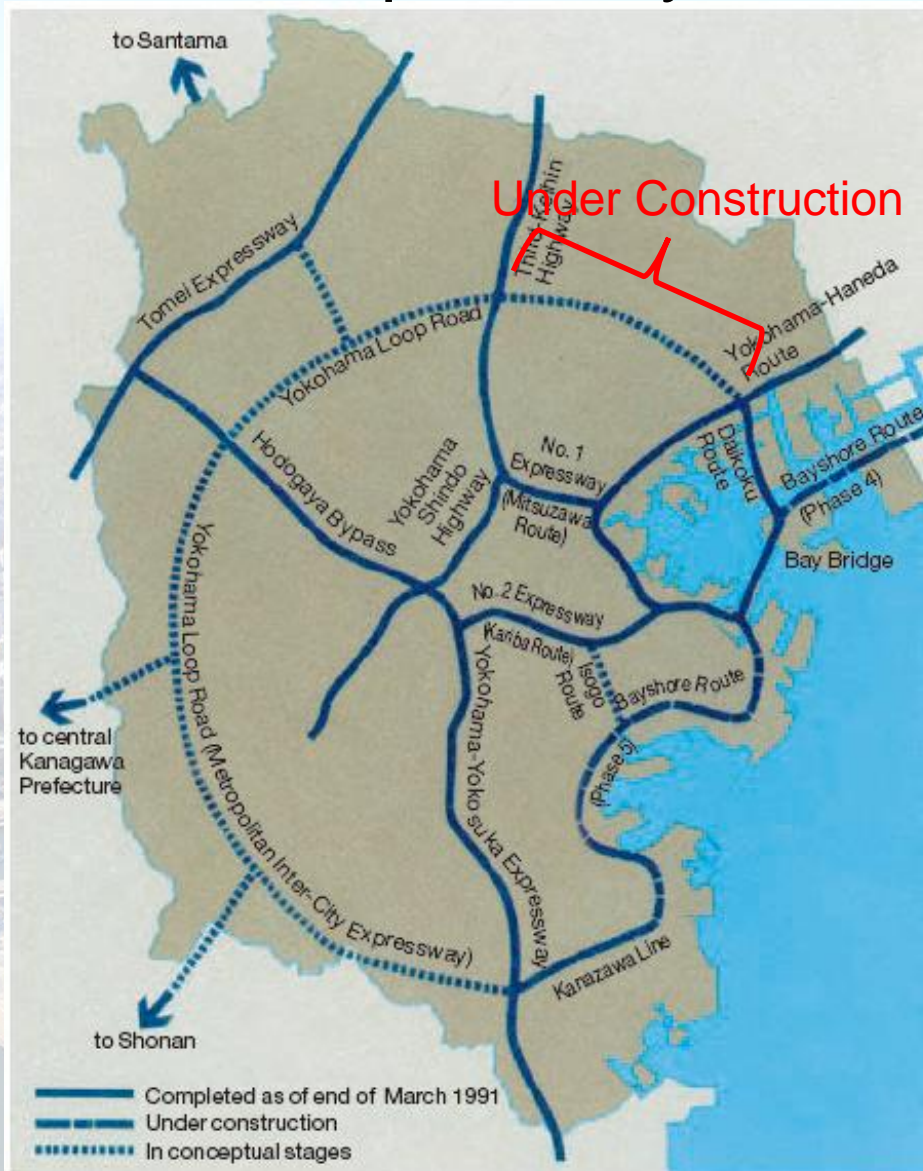
- Enhancing the linkage between sub-urban residential areas and the city center
- Current operating length : 53.4km





# Construction of Expressways

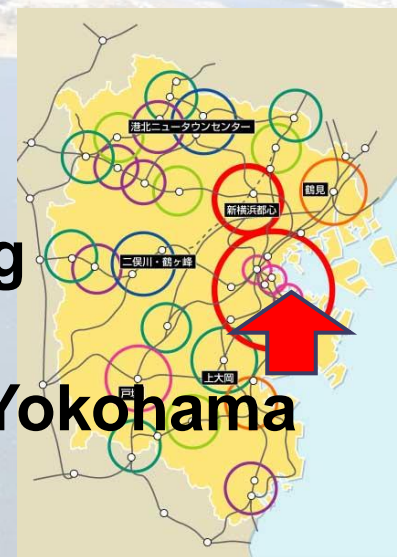
- A part of national governmental plan
- To relieve traffic congestion in the city center
- Enhancing the link between the city center and outlying areas.
- Total planned length of expressway : Approx. 124km



Map of projected expressway construction (as of the end of March 1991)



# Construction of the Bay Bridge



- As a direct link between the ports / industrial zones and Tokyo to divert heavy traffics passing through the city center.
- New symbolic icon of the International Port of Yokohama
- Cable-stayed bridge with double decks
- Total length: 860 m



# Six major projects

Functions and effects of six projects were interlinked each other.

Improvement of the Functions  
of the City Centers

**Construction of Expressways**

Development of Kohoku  
New Town

Construction of the Bay Bridge

Land Reclamation of Kanazawa

Construction of Railways

# Diagram of urban planning of Yokohama during the period of rapid urban growth

## Objectives of urban development

Promoting and Regulating Private Development (Land Use Regulation and Controlled Development)

Establishment of municipal regulations, etc

Projects (Backbone of Urban fabric)

Six major projects, etc

Urban Design (Creating Urban Spaces at Human Scale)

History and scenery  
Attractive public spaces  
Citizen participation, etc

Research (Establishing Urban Science)

Establishment of a committee for urban planning survey and project teams, etc

Organization (Establishing local autonomy)

Mayor

Planning and Coordination Bureau

Bureau

Bureau

Bureau

Citizens



# How the Yokohama's urban development has been implemented continuously...

- **Establishment of Long and medium term plans**
- **Financial supports and organizations of National Government and LGs for implementation**
- **Promotion and Control of urban development by the Private Sector**
- **Consensus buildings and collaborations with stakeholders**

# **Urban Development Process of Yokohama**

## **Collaboration and Consensus building with the stakeholders**

- **National Government:**  
Legislative framework,  
Comprehensive National Development Plan,  
Direct project implementation and subsidy provision
- **City council:** Decision making of policy implementation
- **Citizens:** Foundation of policy formulation,  
Involvement in urban development
- **Private Sector :** Core of economic development  
Collaboration with business associations
- **Others:** Regional collaborations with surrounding LGUs



# Transformation of Urban Space

Last Two Decades

# Accumulation of core business in the central business district

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1985



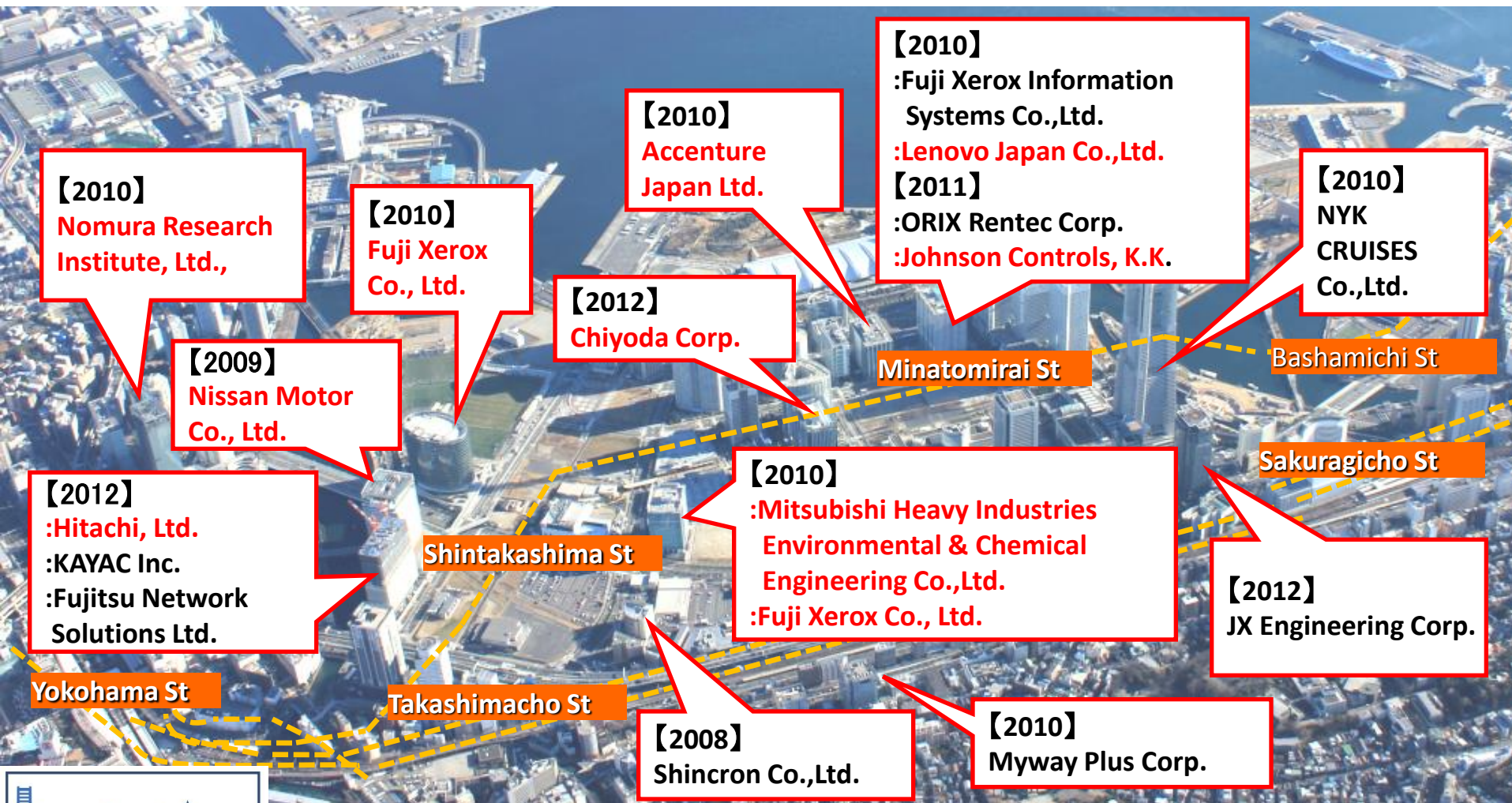
1989



2010



# \*Examples of the companies which relocated to MINATOMIRAI21 (2008~)





# Enhanced Convention Facilities and Major International Events





# Creative Cities and Cultural Interaction



 YOKOHAMA TRIENNALE

DANCE  
DANCE  
DANCE  
YOKOHAMA 2012



イルミネーションが輝き始めた夕暮れ、潮風と幻想的な雰囲気満点のなかでの「ギリシャの踊り」  
photo: Kiyonori Hasegawa



YOKOHAMA  
OTOMATSURI 2013  
Welcome to the Music Ocean



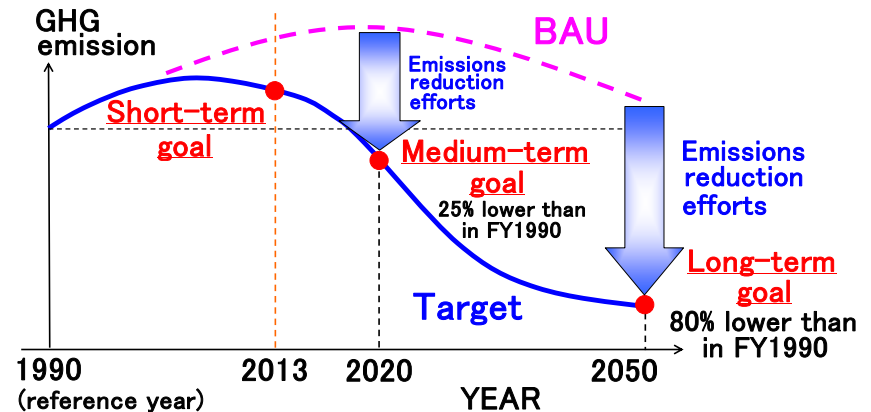
# Future Challenges



# Tackling future problems in Yokohama

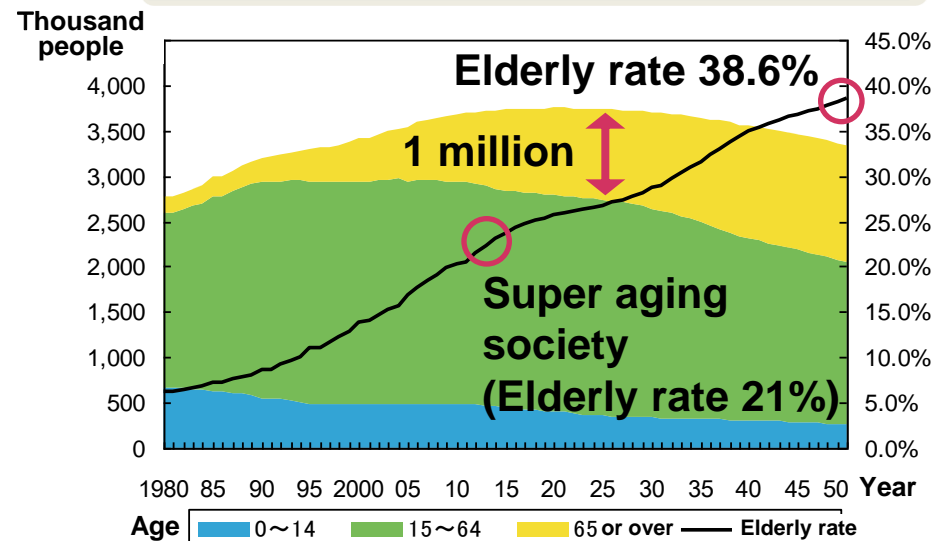
## Estimated GHG emission in Yokohama

- ◆ Increase of GHG emission
  - Rapid population growth (3.5 times that of 60 years ago)
  - Population in Yokohama expected to increase until 2020

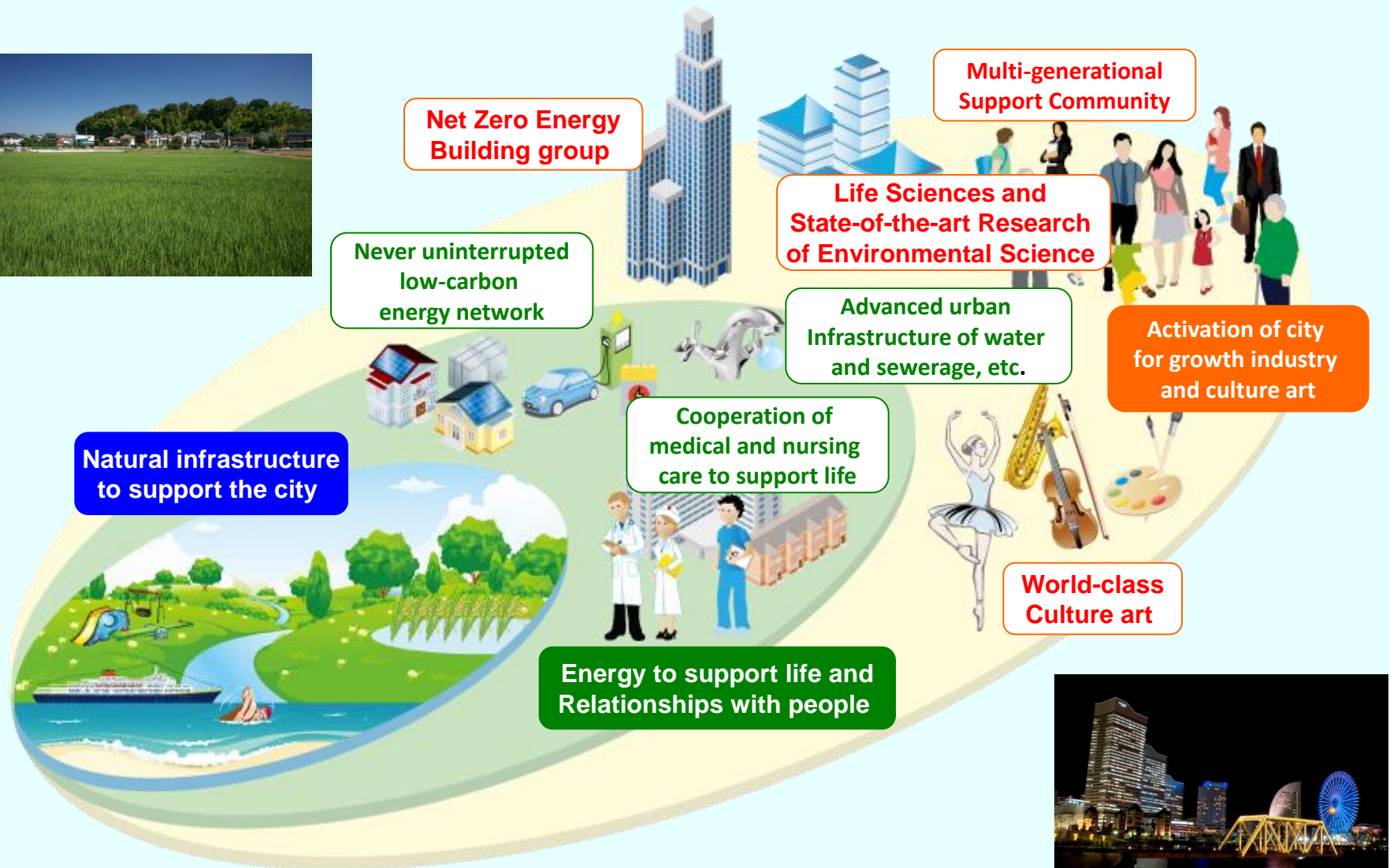


- ◆ Super aging at rapid pace
  - Yokohama to face super aging society around 2012 with a rate of more than 21%
  - Population over 65 in Yokohama exceeds 1 million in 2025

## Estimated population in Yokohama



# Yokohama as “FutureCity”





# **“FutureCity” Initiative launched in Japan**

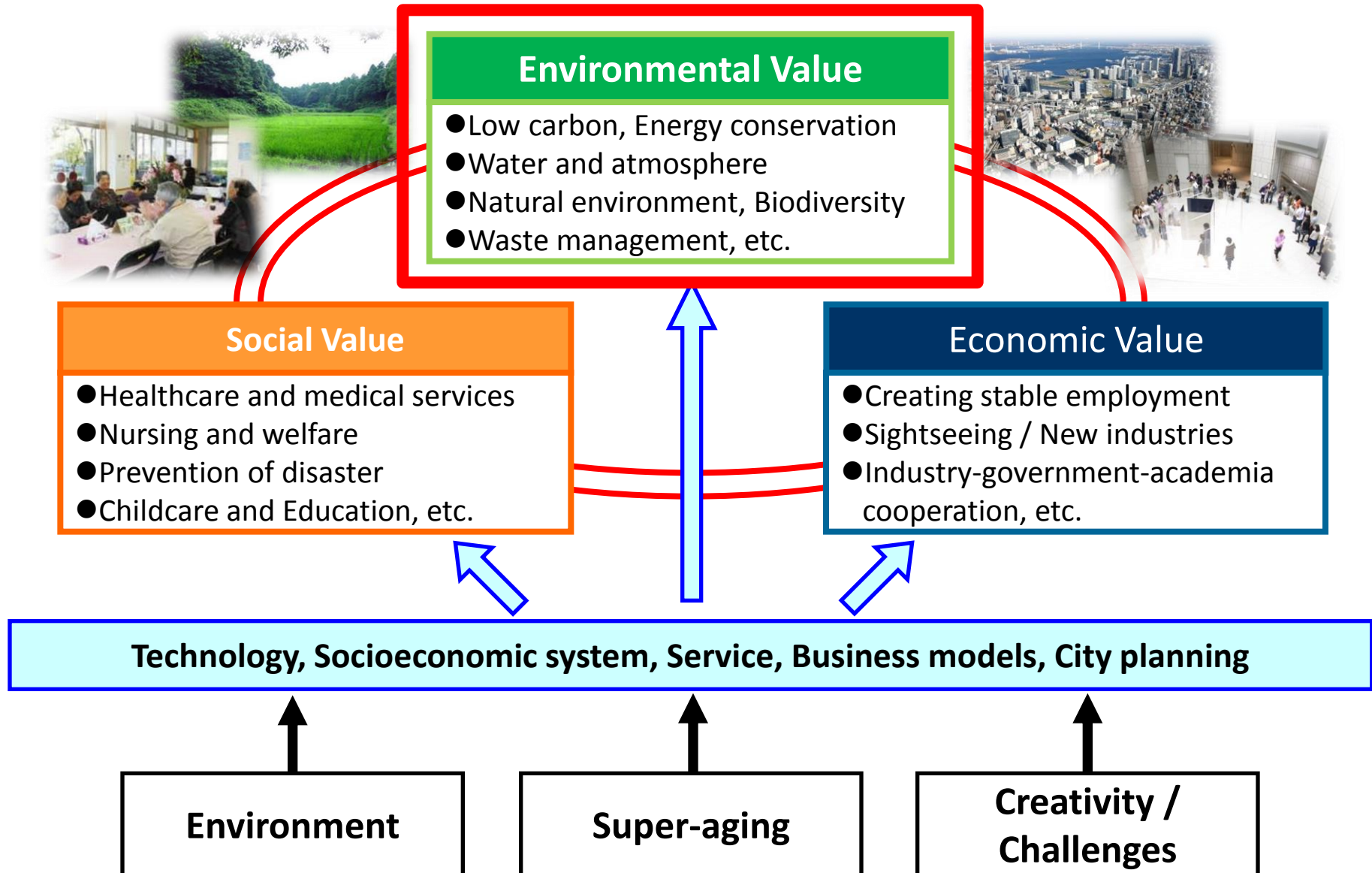
**The “FutureCity” initiative has been implemented as one of the “New Growth Strategy” projects launched by the Japanese government**

- ◆ **Japanese government selected a few cities as “future cities”, to serve as successful models for resolving issues such as environment and super-aging society.**
- ◆ **Japanese government will offer support to the selected cities through such measures as concentrating a budget in relation to FutureCity projects.**



**11 cities, including Yokohama, were selected as “FutureCity”  
(December 2011)**

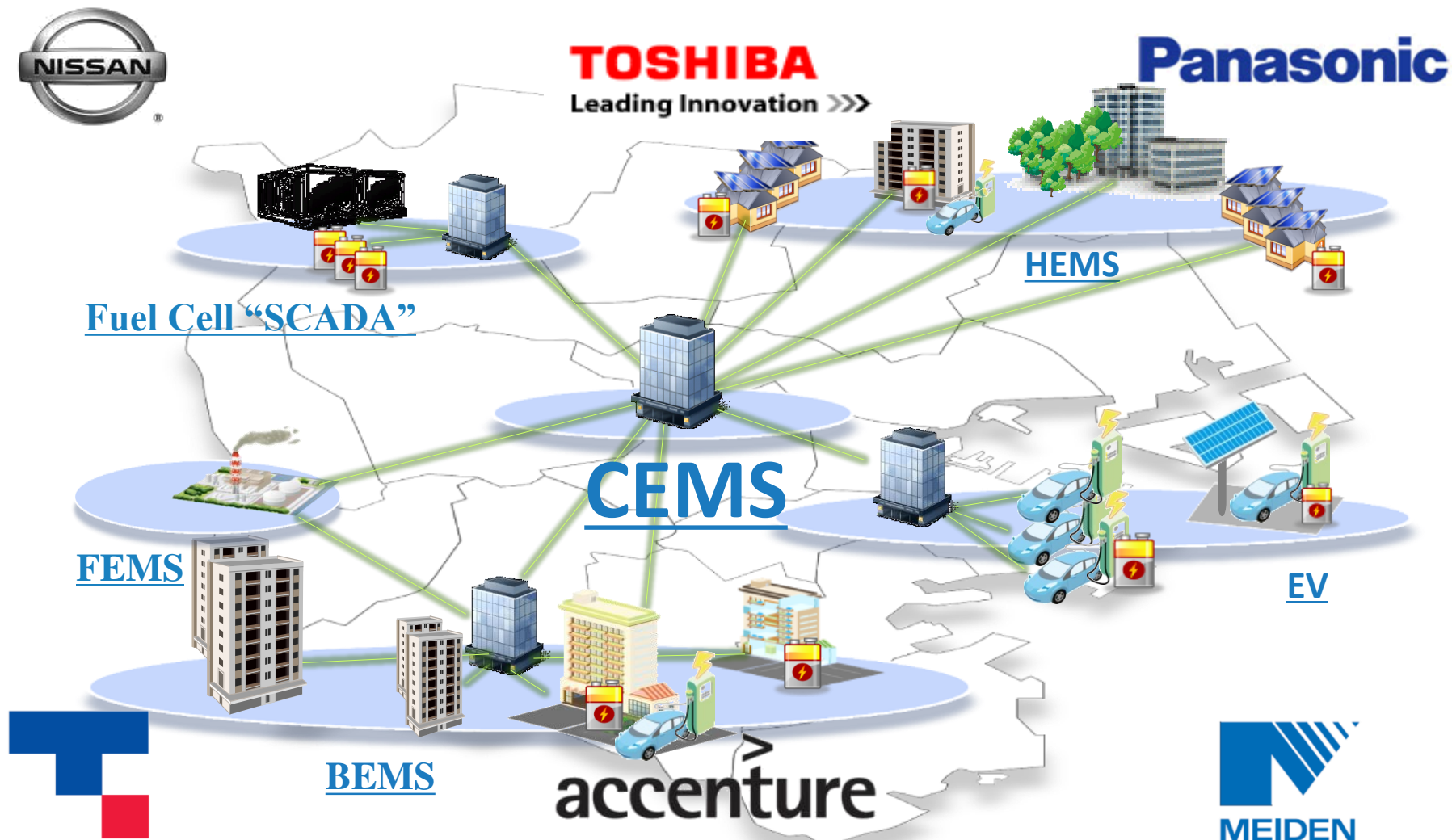
# Yokohama as “FutureCity”





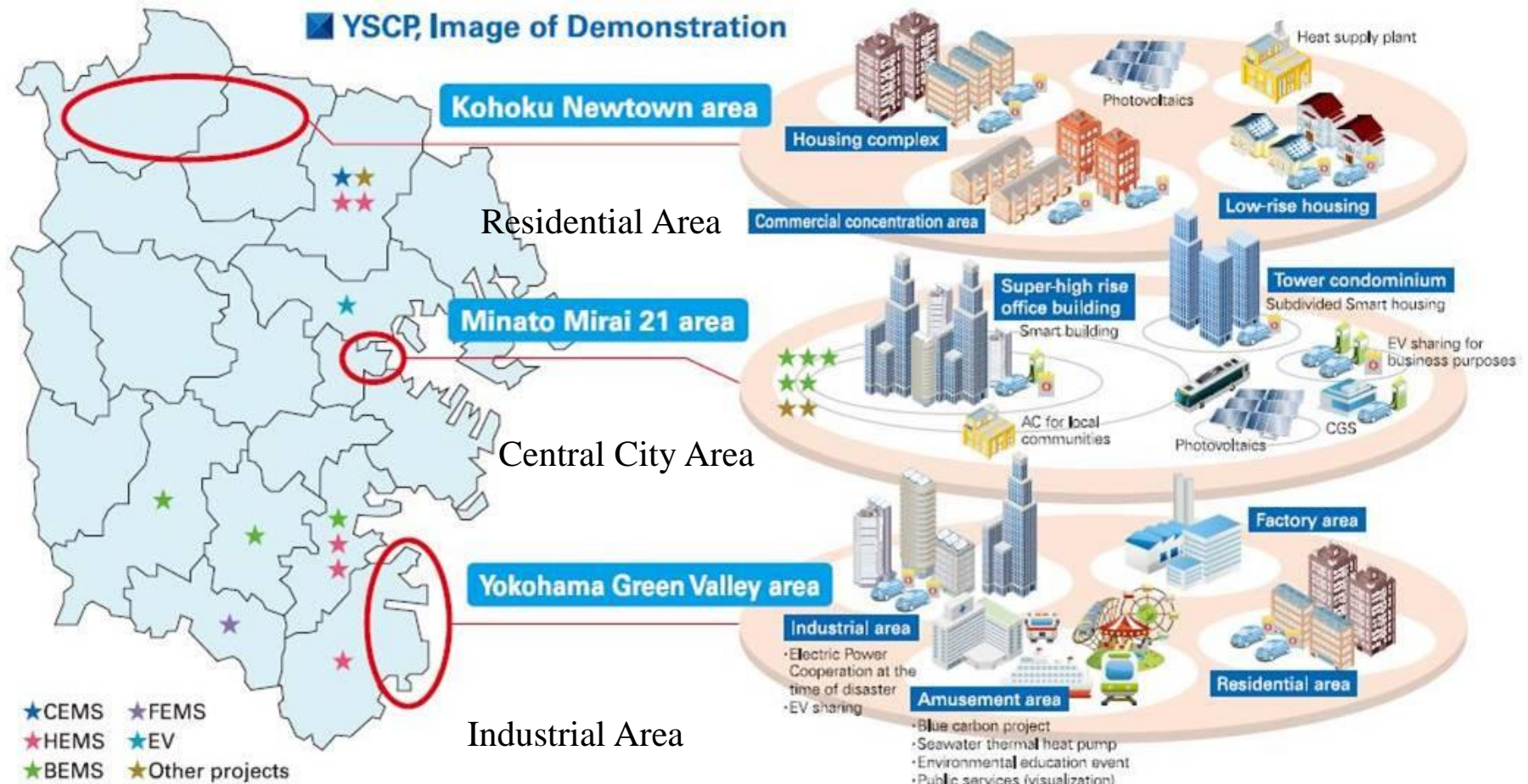
# Yokohama Smart City Project

*Making Yokohama the World Leading Smart City*



Target by 2014: PV27MW, 4,000 HEMS, 2,000 Electric Vehicles

# Image of Yokohama Smart City Project

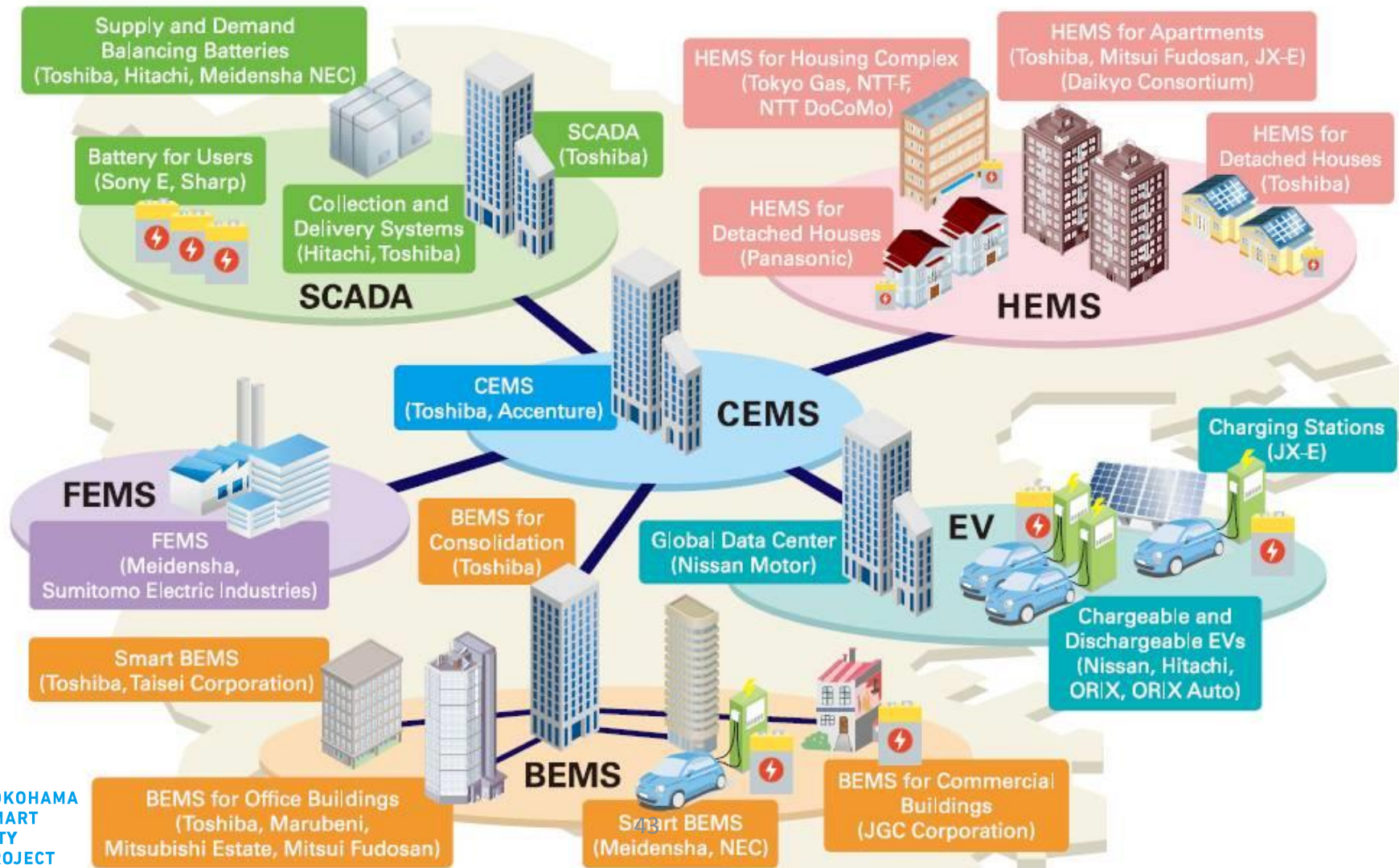




# Overview of demonstration experiments

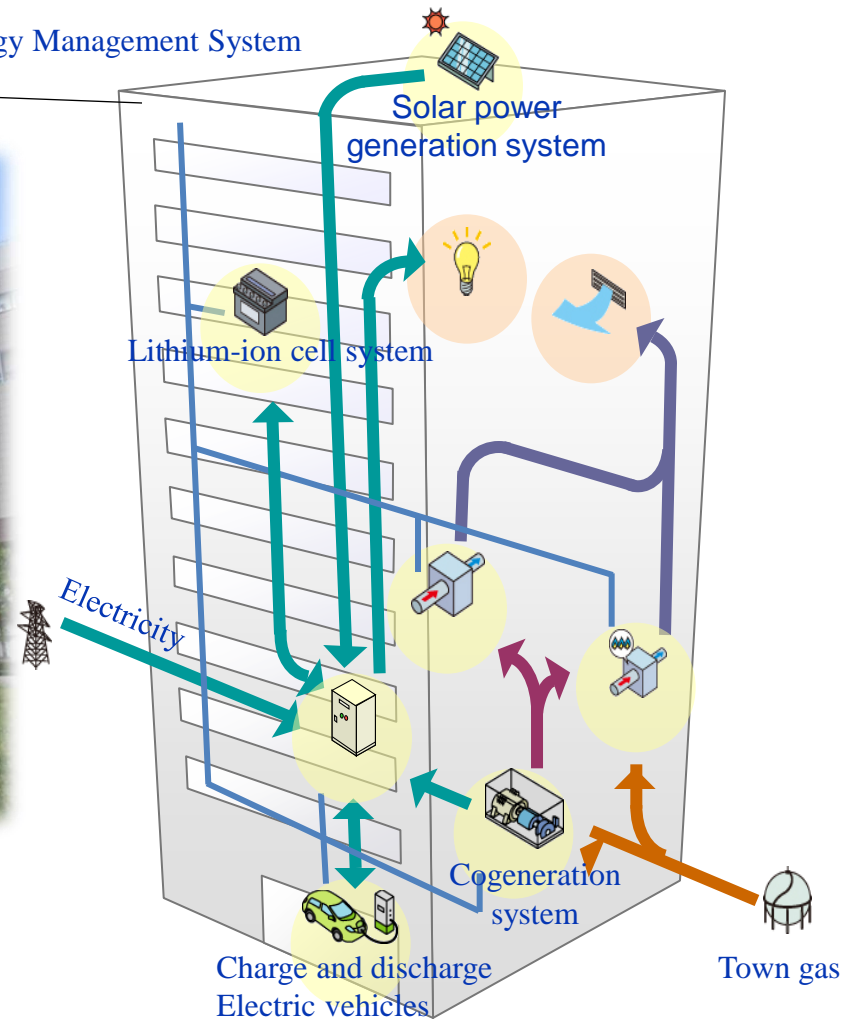
(Energy management systems)

Target by the end of 2014 PV 27MW / HMS 4,000 units / EV 2,000 vehicles



## BEMS (Building Energy Management System)

CEMS:  
Community Energy Management System





# <Home> Optimization of Electricity Consumption



## Efforts in single-family house

### • Visualization of Electricity

Amount of electricity consumed from April to July 2011 was on average reduced approximately 20% from the previous year.  
**= Effect of introducing PV and HEMS**

## Efforts in Collective housing

- Application equipment of renewable energy
- Control all over collective housing by integrated control system and demonstration
- Visualization of energy and incentive setting **by HEMS**, and support for energy saving action in household



Smart House Isogo: Tokyo Gas Co., Ltd. (Shiomidai Isogo-ward)

# <Transportation> Making Yokohama a City of Electric Vehicles



**EV sharing in industrial area and shopping district**



**Starting test utilization for visiting medical care and nursing care in a hospital**



**Not only means of transportation, but also function of storage battery**



# Sharing with Global Society

# Contribution for urban problem all over the world



C40: Member of the international Group for environmental issue

The first 6 “Eco 2 Cities”

Yokohama(Japan) ,Brisbane(Australia)  
Curitiba(Brazil), Stockholm(Sweden),  
Singapore, Auckland(New Zealand)



**Bangkok (Kingdom of Thailand)**

Cebu (Republic of the Philippines)

Colombo (Democratic Socialist Republic of Sri Lanka)

Da Nang (Socialist Republic of Viet Nam)

Kitakyushu (Japan)

Makassar (Republic of Indonesia)

Makati (Republic of the Philippines)

Penang (Malaysia)

Suva (Republic of Fiji)

Yangon (Republic of the Union of Myanmar)

Yokohama (Japan).

*Asia Smart City Conference*



*Yokohama Day*

in Smart City Week 2012 (Yokohama, October 2012)

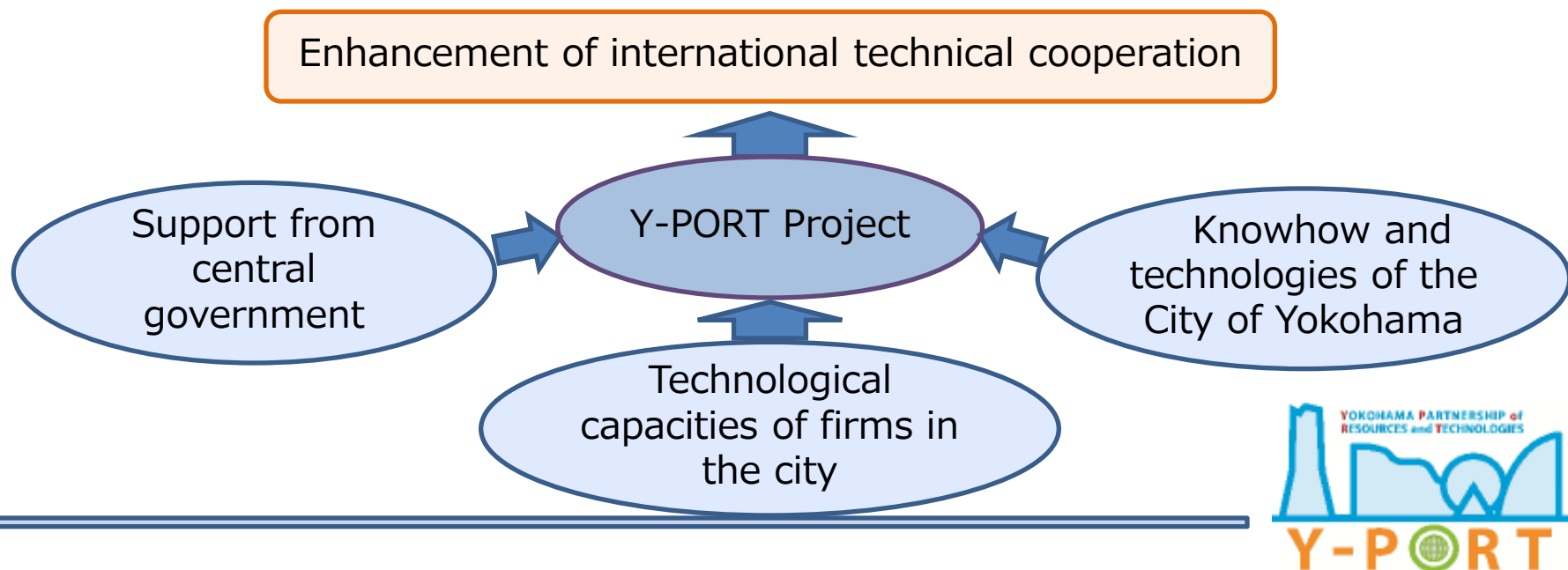


# Yokohama's International Technical Cooperation (What is Y-PORT?)

## Yokohama Partnership of Resources and Technologies

International technical cooperation based on public-private partnership and drawing on the resources and technology of Yokohama

- It is essential to provide not simple products but solutions through combining technologies and knowhow of the public and private sectors



# Comprehensive Partnership Agreement with JICA

Strengthening cooperation to solve urban problems in developing regions



## Contents of Agreement

1. Technical cooperation including the acceptance of technical training participants from developing countries, the dispatching of Japanese experts to developing countries, and the implementation of JICA Partnership Program (JPP)
2. Public-private partnerships toward solving urban issues in developing countries
3. Participation in JICA volunteer activities by Yokohama citizens
4. Education for international understanding at schools and other institutions in Yokohama
5. International conferences and events related to international cooperation
6. Staff training at the two organizations



# City to City' s Cooperative Relationship

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**Memorandum of Understanding on Technical Cooperation for Sustainable Urban Development Signed with the City of Cebu, the Republic of Philippines on 28<sup>th</sup> March, '12.**

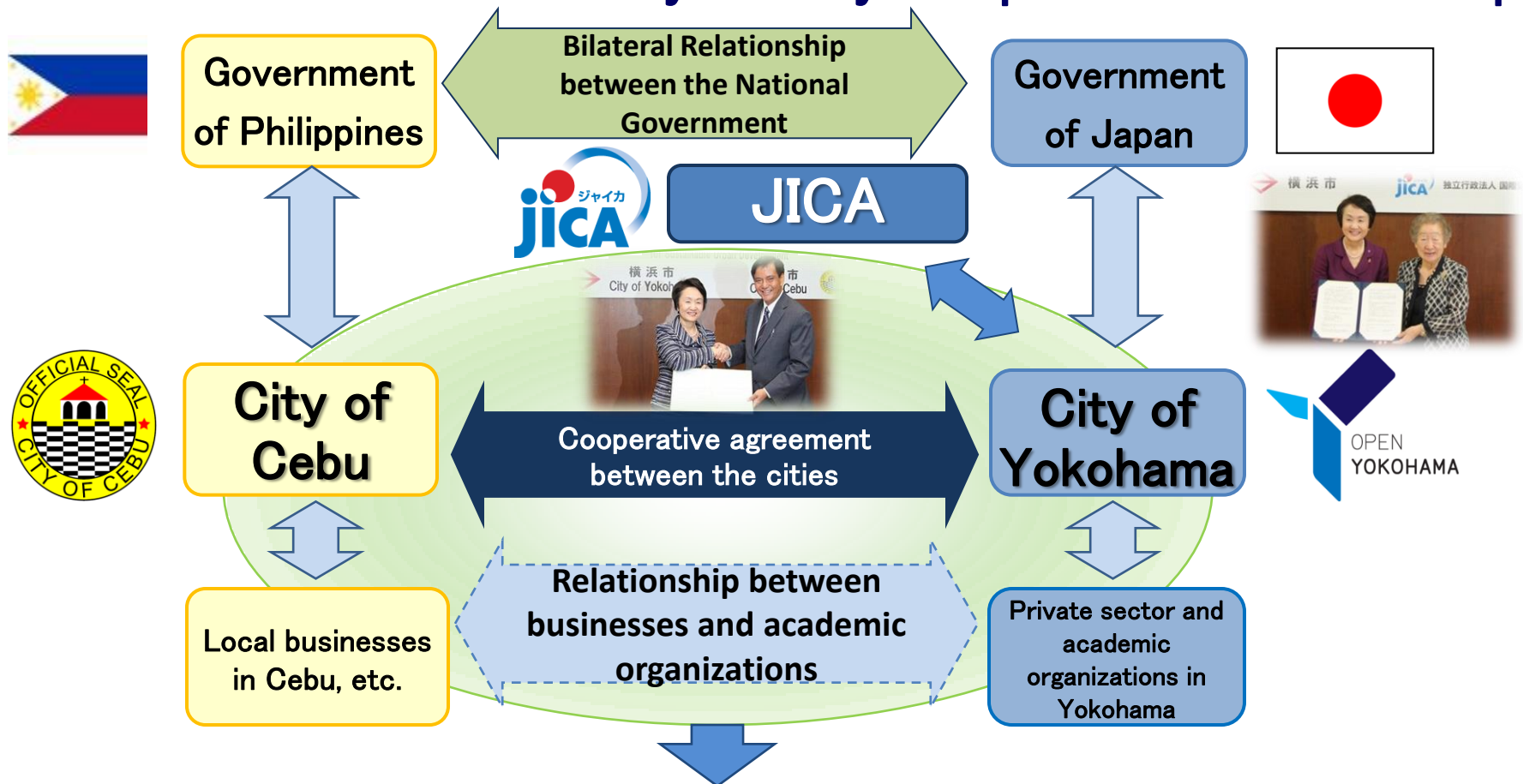


## Contents of Agreement

1. The City of Yokohama will offer technical advice in promoting eco-city development of the City of Cebu.
2. The Parties will encourage participation of the private sector and academic organizations.
3. The Parties will take actions to obtain cooperation of the governments of both countries and international organizations.
4. The Parties will disclose and exchange information which is essential to implement the above collaboration effectively.

# City to City's Cooperative Relationship

## Activities based on the City to City Cooperative Relationship



Supporting the City of Cebu's Urban Development Efforts through Public-Private Partnerships  
-Beginning dialogs through public-private partnerships in order to resolve urban issues-

Partnership of  
Technologies



# MEGA CEBU VISION 2050

FORMULATION OF SUSTAINABLE URBAN  
DEVELOPMENT VISION FOR METRO CEBU



## MEGA CEBU

*Making W.A.V.E.S.*

JICA Study Team:



In Collaboration with:  
City of Yokohama



In Collaboration with:

Metro Cebu Development and  
Coordinating Board (MCDCB)

MCDCB Research, Program and  
Organizational Development (MCDCB RPOD)



March 2013



## Y-PORT



## Education

- Human Resource & "**Cebu Hospitality**"
- **Skills Training & Matching for Workforce**
- K-12 & Higher Education (Adaptive Curriculum, Classrooms & Teachers)
- **English & Foreign Language** (ESL, Call Center, OFW)
- International Accreditation
- Science and Technology

## Enablers

- Utilities (Power, Water, ICT)
- BCP (Business continuity Plan)
- Human Capital

## Tourism

- Eco-Tourism & Experiential
- Conventional (Cultural & Historic)
- **MICE** (Meetings, Incentives, Conventions, Expos)
- Education (ESL, Business Training)
- Sports and Entertainment
- **Medical and Healthcare**

## Competitiveness

## Enterprise

- IT/Business Process Outsourcing (**BPO**)
- Knowledge Process Outsourcing (KPO)
- **R&D HUB** (Research & Development)
- Employment Generation/Job Creation
- Pharmaceutical and Healthcare
- **Manufacturing** (Economic Zones)
- **Eco-Tech** Products (EVs, etc.)
- FDI (Foreign Direct Investment)
- Talent & Value Creation
- Creative Industry
- Logistics Center

## Metropolitan Management

- **Strengthen mandate of the organization of Metro Cebu** (Metro Cebu Planning & Development Body)
- **Comprehensive Metropolitan Master Plan** (Action Plan & Policy Framework)
- Integrated Metro Cebu Knowledge and Operations Center (**Information Dissemination & Education**)
- Guidelines (Selection, Evaluation, Monitoring)
- Innovative Financing and Budgeting (ie. PPP)
- **Ownership** (3 Folding - Government, Business, Civil Society)
- Best practice Recognition (Showcase)
- **Capacity Development**
- **Branding & Marketing**

## Basic Services

- Safe **Water Supply**
- **Housing** (Informal Settlements, Slum Upgrade)
- Access to **Public Amenities** (Parks, Coastal, Recreation)
- **Health Care**
- **Sanitation**

## Livability

## Environment

- **Solid Waste Management** (3R, RA 9003, Waste to Energy)
- **Watershed Preservation**
- Bio-Diversity and Ecological Preservation
- Agriculture & Permaculture
- SMART Energy Management
- Waterway Restoration

## Safety

- Resilience from Natural Disasters (**Flooding**)
- Peace and Order
- (Safety, Crime Prevention, Drugs)

## Gateway

- **Gateway Functions** (Airport, Ports)
- **Link** between Mactan & Cebu Island

## Network

- Road Network (Hierarchy, **Bypass**)
- Pedestrian Environment (Sidewalks, Bike Lanes, Green-ways)
- Freight & Logistics

## Public Transport

- **Multi-modal Integrated Mass Public Transport**
- Compact Growth Centers / TOD (Transit Oriented Dev)
- Sea-Based Transport

## Mobility

## Management

- Traffic Management 4E (Engineering, Education, Enactment, Enforcement)
- ITS (Intelligent Transport System)
- Road Safety

# MEGA CEBU 2050 Development Strategy

# Next Steps for MEGA CEBU VISION 2050



*All together*

## MEGA CEBU VISION2050

Metropolitan Management

Competitiveness

**Mobility**

**Livability**

*Focusing on mainly Mobility and Livability in this study. Metropolitan Management and Competitiveness will be included too.*

- **Priority sectors** and priority projects: 2015 (short term) • 2030 (middle term) • 2050 (long term)
- Action / projects (short term priority projects)



Experience and knowledge of Yokohama City, Japan

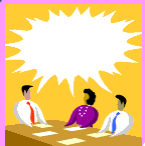


- **Formulation of Urban Spatial Planning for Urban Development**
  - Development Framework, Spatial Plan, and revise of the Vision
- **People's Participation in the attainment of MEGA CEBU VISION 2050**
  - ★ Institutional Plan

*What is the role of Central Government?  
What is the role of the Province and cities?  
How can the MCDGB Contribute to the attainment of the Vision?*



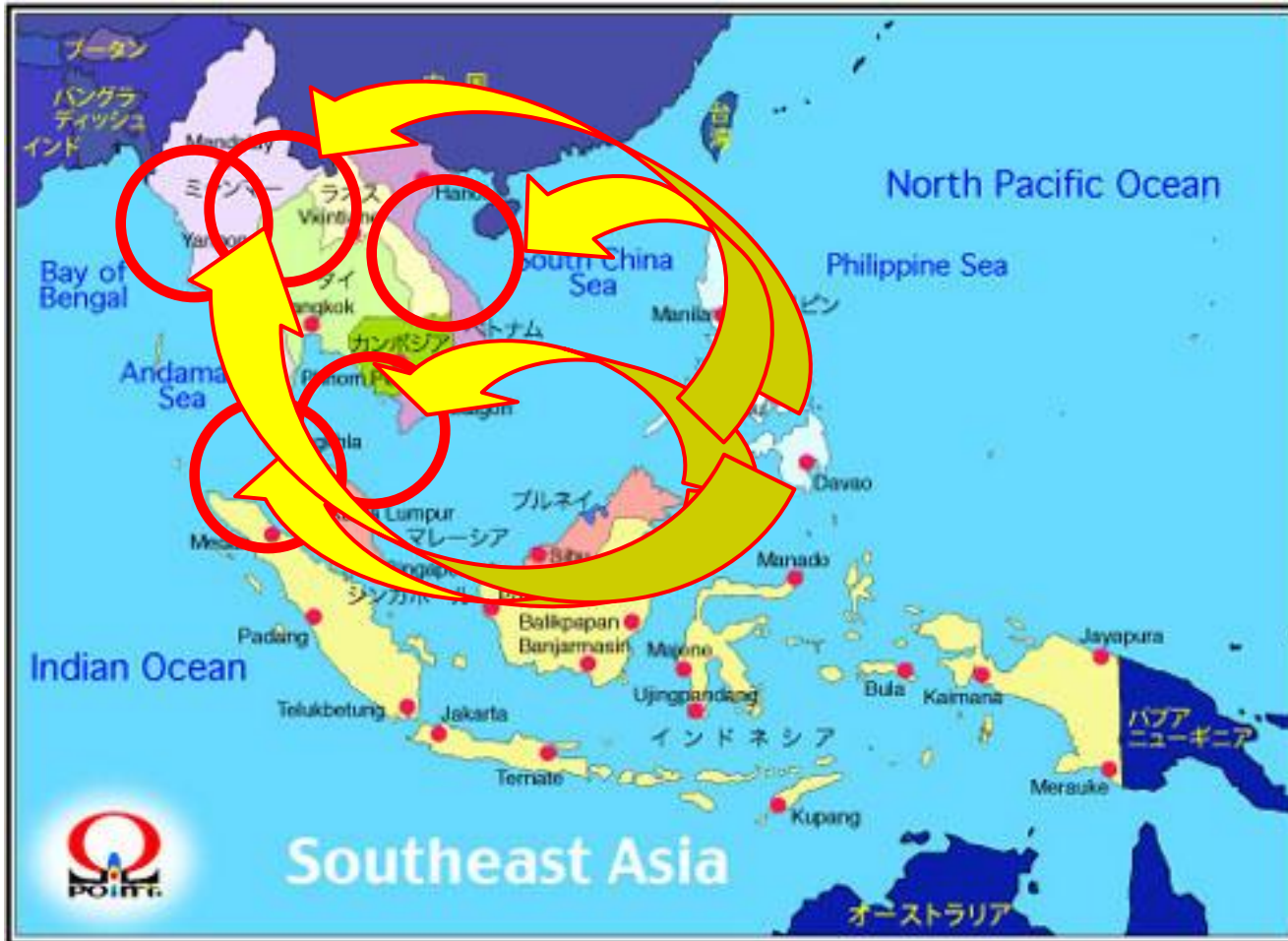
**Review and Analysis of the Present Situation**  
grasping the socio-economic situation





# City to City's Cooperative Relationship

Dissemination the scheme on technical cooperation in Metro Cebu to other cities in Asian countries such as Thailand, Vietnam and Indonesia.



# Asia Smart City Conference

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Aiming furthering city-to-city cooperation through Asian city's network

**Organizer: City of Yokohama**

**The Conference will be held in Smart City Week**

**Number of Participant in 2012: 11 cities**





# Asia Smart City Conference will be held on 24<sup>th</sup> October 2013

Declaration of the Asia Smart City Conference in Yokohama  
on October 31<sup>st</sup>, 2012



The participating cities in the Asia Smart City Conference have agreed to strengthen coordination among cities and to press ahead the creation of smart cities in Asia by regularly holding conferences with **the aim of furthering city-to-city cooperation in collaboration with respective governments and international organizations.**

# Why Yokohama?

- Solid Achievement: Livable, Sustainable, Vibrant, and Culturally Rich City Development
- Continuous Social Innovation
- Yokohama is not Tokyo, London, Paris, Singapore nor New York: Secondary and Edge City
- Leadership and Full Collaboration by Stakeholders: Direction from Mayor and People centered approach
- Will to Share and Lead: Y-PORT
- Potential for Robust Partnership: including leading private sector firms



For Smarter Cities, For a Smarter Earth

