



Developing JCM Projects Through the City-to-City Collaborations Under Y-PORT (Yokohama Partnership of Resources and Technologies)

Development Cooperation Division
International Affairs Bureau
City of Yokohama

COP 22 Japan Pavilion on 8th November 2016

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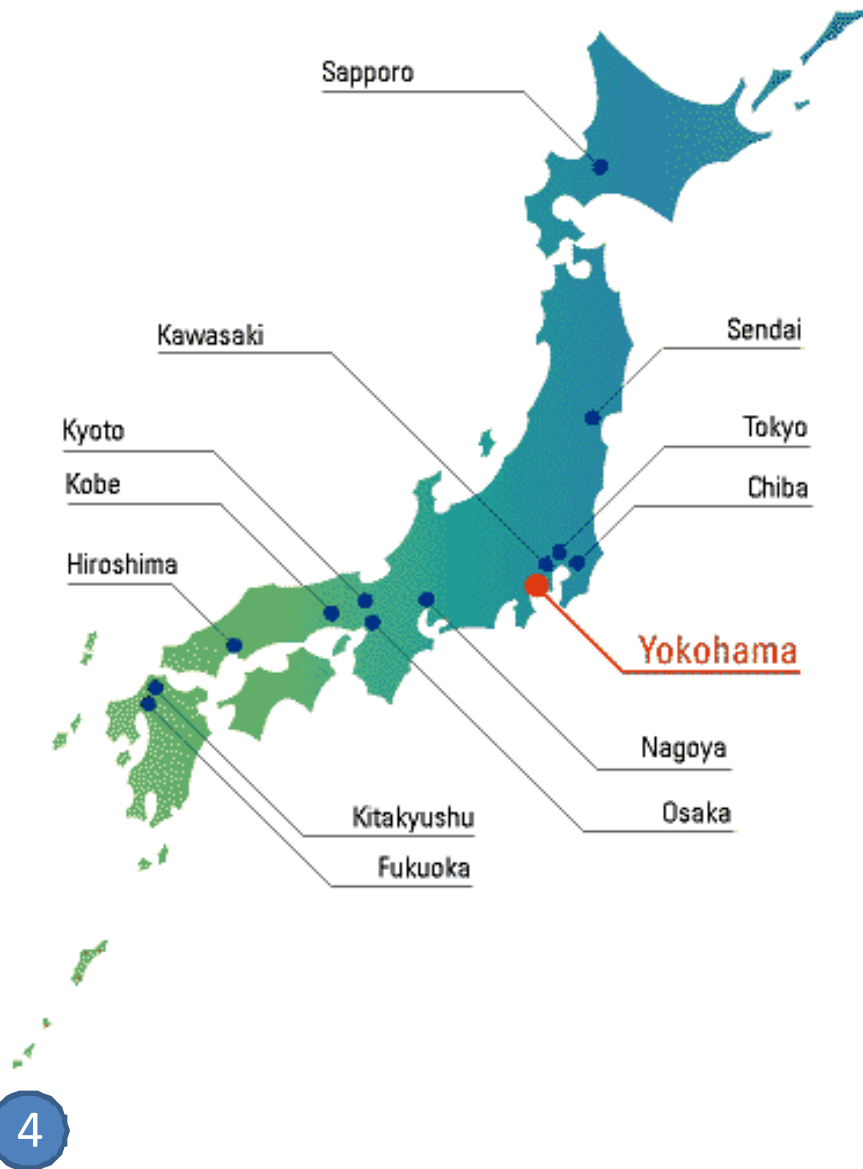
Phot Source: Port and Harbor Bureau, the City of Yokohama

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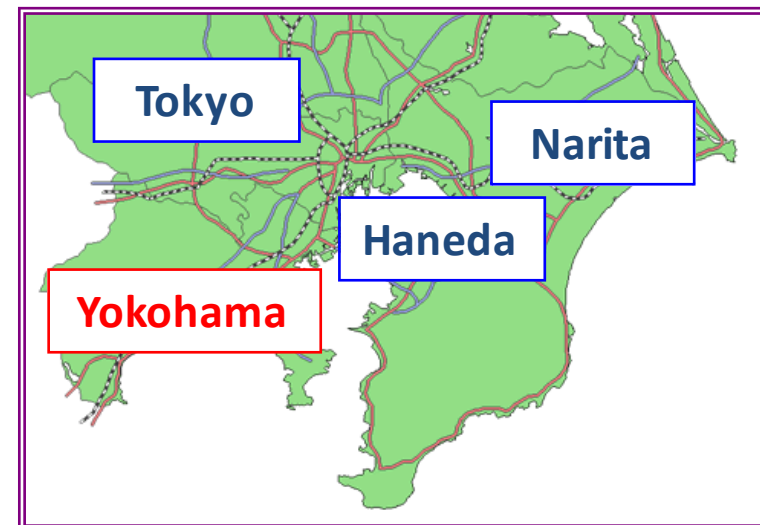
1. Introduction of Yokohama City and Its Development History
2. Challenges for Global Warming in Yokohama
3. Our Efforts to Develop JCM Projects through City to City Collaboration (Y-PORT Project)

1. Introduction of Yokohama City and Its Development History

Overview of Yokohama City



- International port city
 - Opening of port of Yokohama in 1859
- Population: approx. 3.7 million
 - Largest municipality in Japan
- GDP: approx. 12.7 trillion JPY
- Approx. 20 minutes from Haneda Airport (Tokyo)



History of Yokohama's Urban development

1853



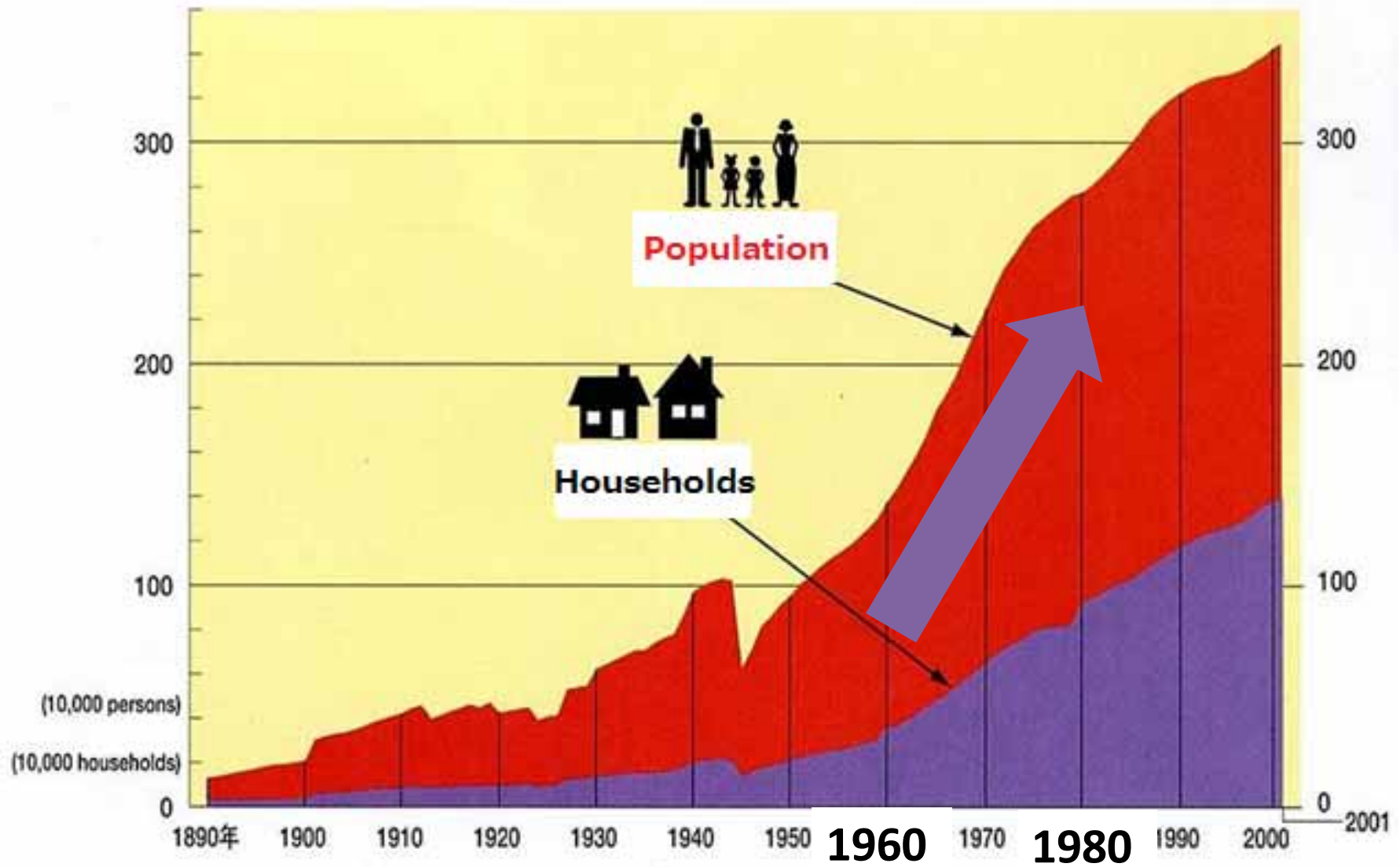
1867



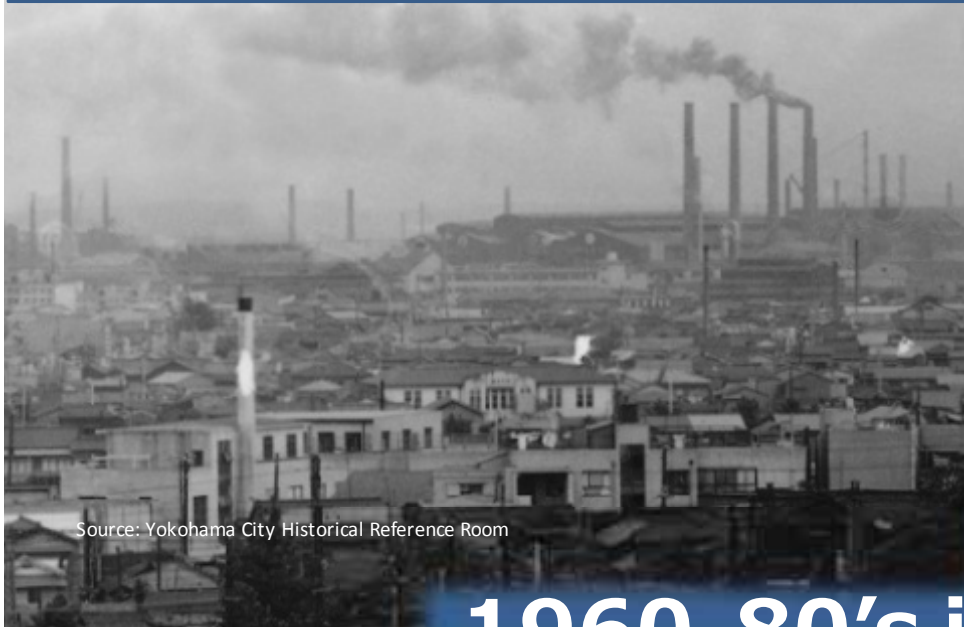
Gas Lamp

2016

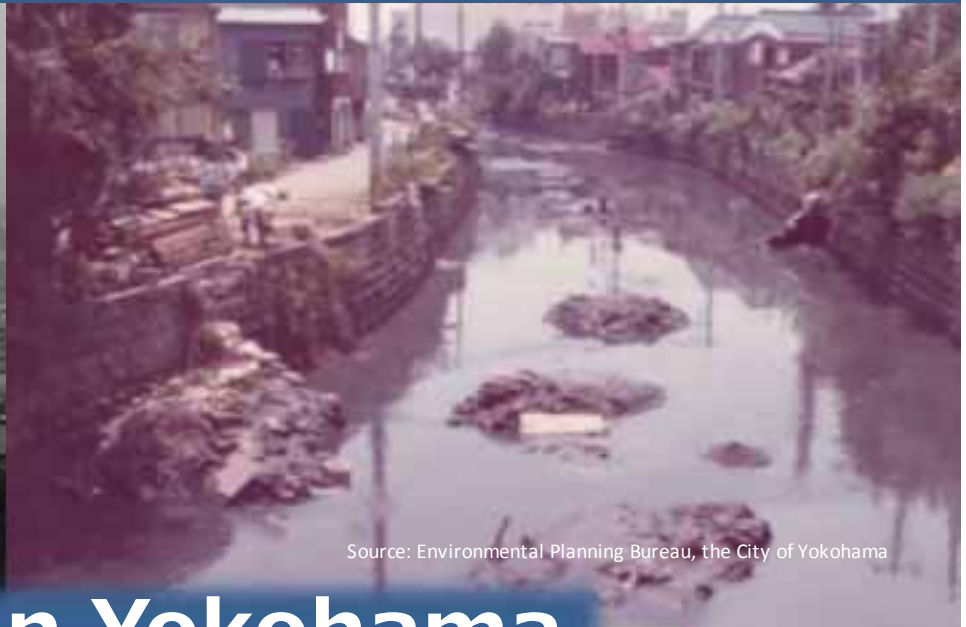
City of Yokohama faced rapid urbanization during 1960s to 80s



Due to Rapid Growth



Source: Yokohama City Historical Reference Room



Source: Environmental Planning Bureau, the City of Yokohama

1960-80's in Yokohama



7

Source: Yokohama City Historical Reference Room



Source: Resources and Waste Recycling Bureau, the City of Yokohama

Towards Sustainable City



Source: Port and Harbor Bureau, the City of Yokohama



Source: Environmental Planning Bureau, the City of Yokohama

At Present



8

Source: Road and Highway Bureau, the City of Yokohama



Source: Resources and Waste Recycling Bureau, the City of Yokohama

External Recognition on Achievement by the City of Yokohama

LEE KUAN YEW
WORLD CITY
PRIZE

2014 SPECIAL MENTION: CITY OF YOKOHAMA



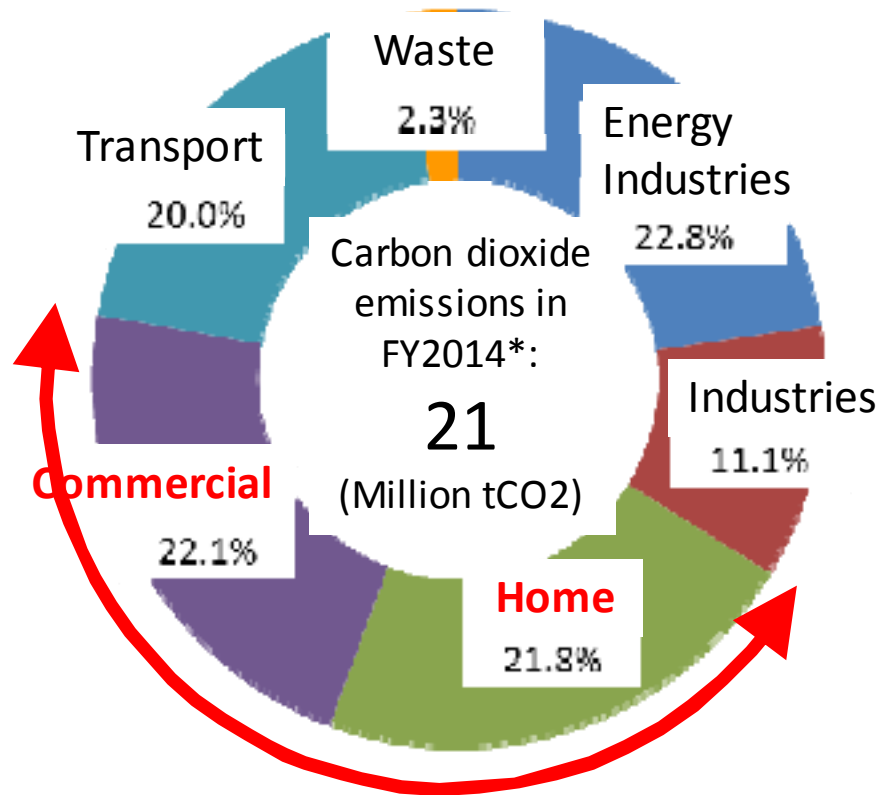
- The Lee Kuan Yew World City Prize is a biennial international award that honours outstanding achievements and contributions to the creation of liveable, vibrant and sustainable urban communities around the world.
- In 2014, Yokohama was selected for Special Mention, and will be awarded during the World Cities Summit in June.
- Yokohama was recognised for overcoming its urban challenges faced over the last 40 years through excellent partnership with its citizens and stakeholders. Also the Y-PORT programme was mentioned for its clever marriage of economic growth and international contribution by tying up with local businesses to export urban solutions to emerging cities.

2. Challenges for Global Warming in Yokohama

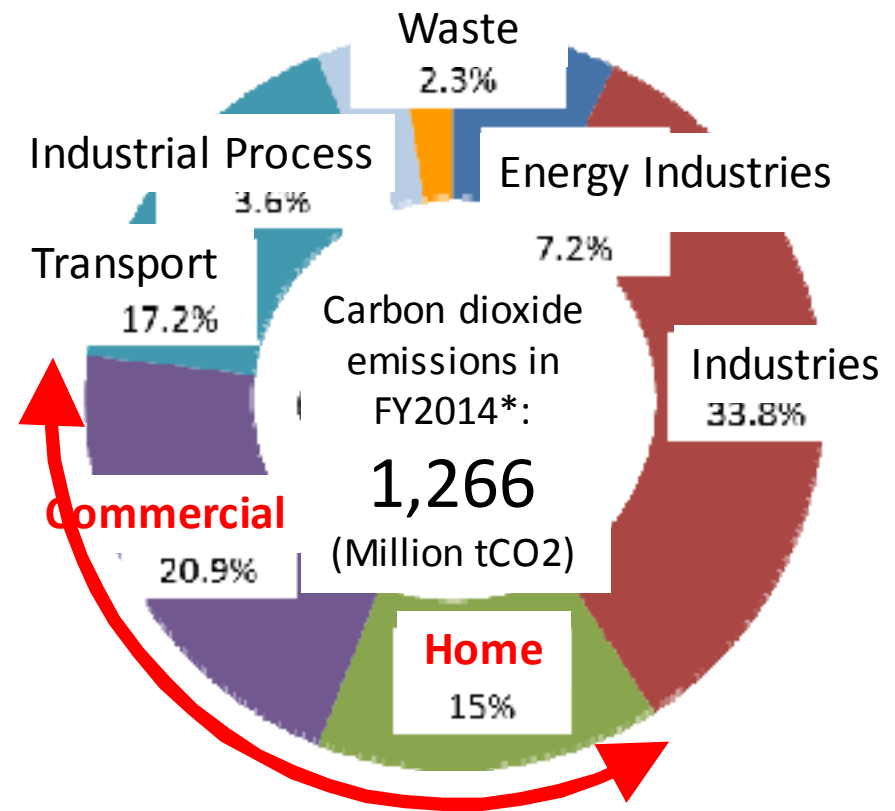
CO2 emission in Yokohama City

Yokohama city emitted CO2s more by household and commercial sector because of the largest population in Japan

In Yokohama City



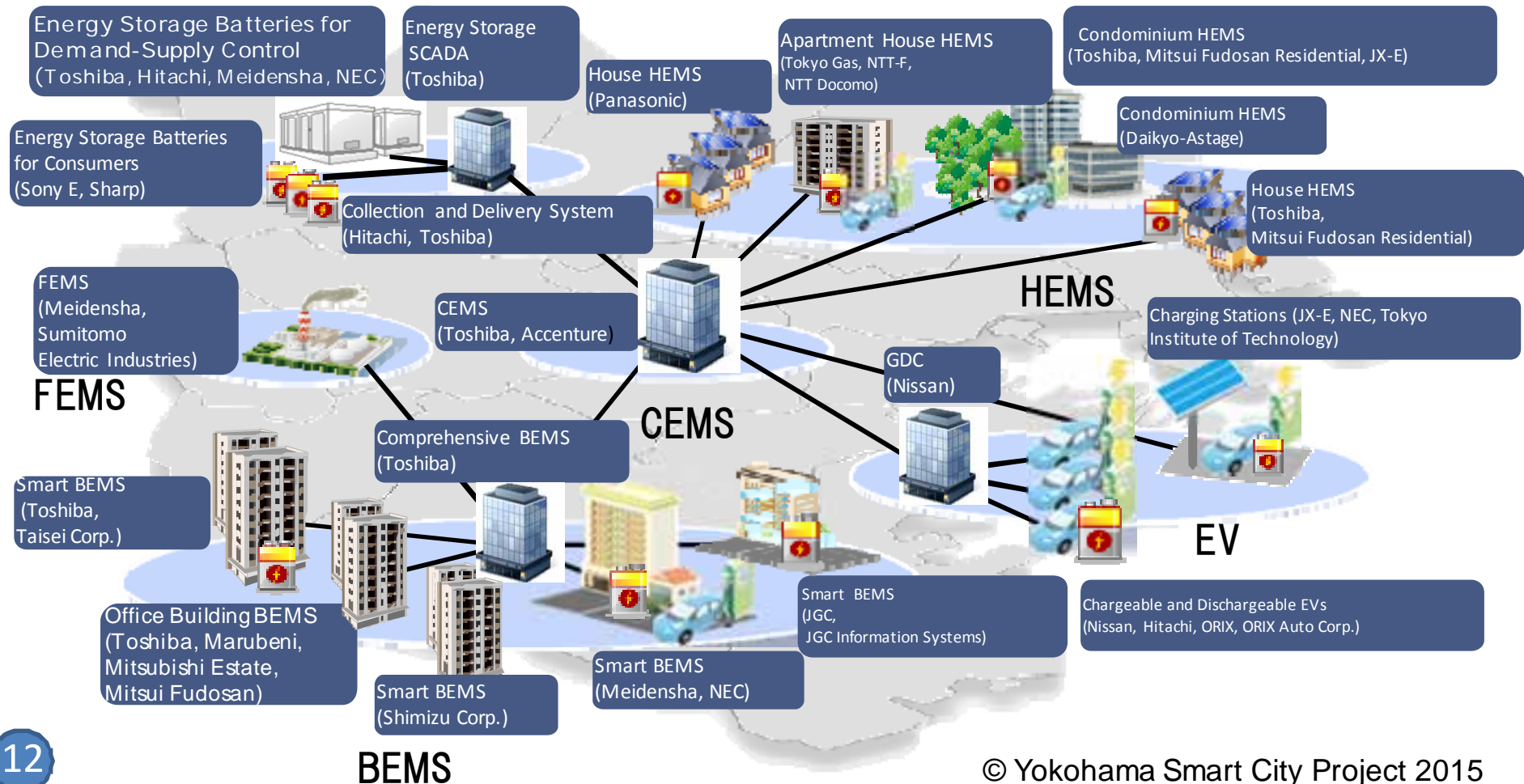
In Japan



Yokohama Smart City Project (YSCP)

■ Results (To FY2013) / Targets (FY2010-FY2014)
 HEMS(Home energy management system) (4,200/4,000) PV (37MW/27MW) EV (2,300/2,000)

Energy Storage SCADA



Yokohama Smart Business Association (YSBA)

Yokohama Smart Business Association

<8 secretary members>



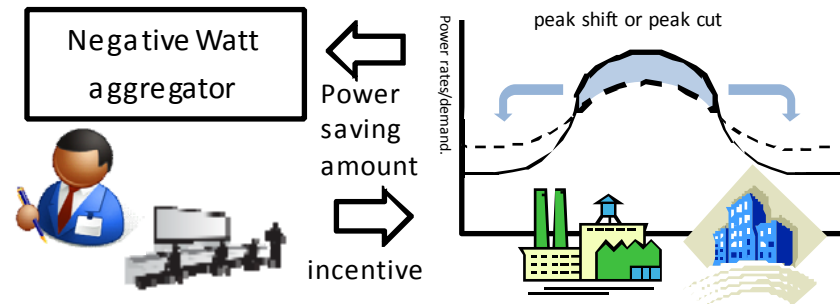
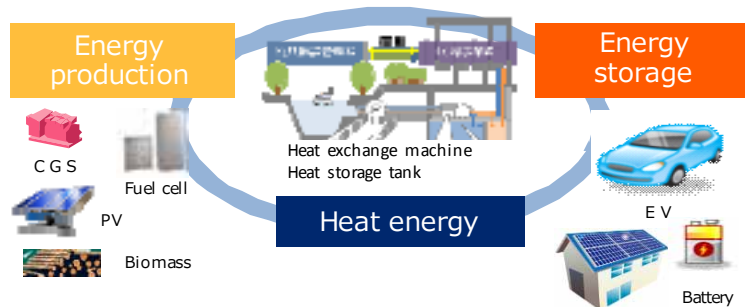
<8 general members>



Achievement of an "Energy - recycling City"

Promote local energy production for local consumption

Use BEMS to verify public facility demand response



Aiming for an Energy Recycling City

Main measures (5 pillars) of Energy Action Plan established in March 2015

BEMS

Development of energy management



Use of renewable/unused energy



Use of hydrogen



Introduction of energy-saving technology



Integration with urban development



3. Our Efforts to Develop JCM Projects through City to City Collaboration (Y-PORT Project)

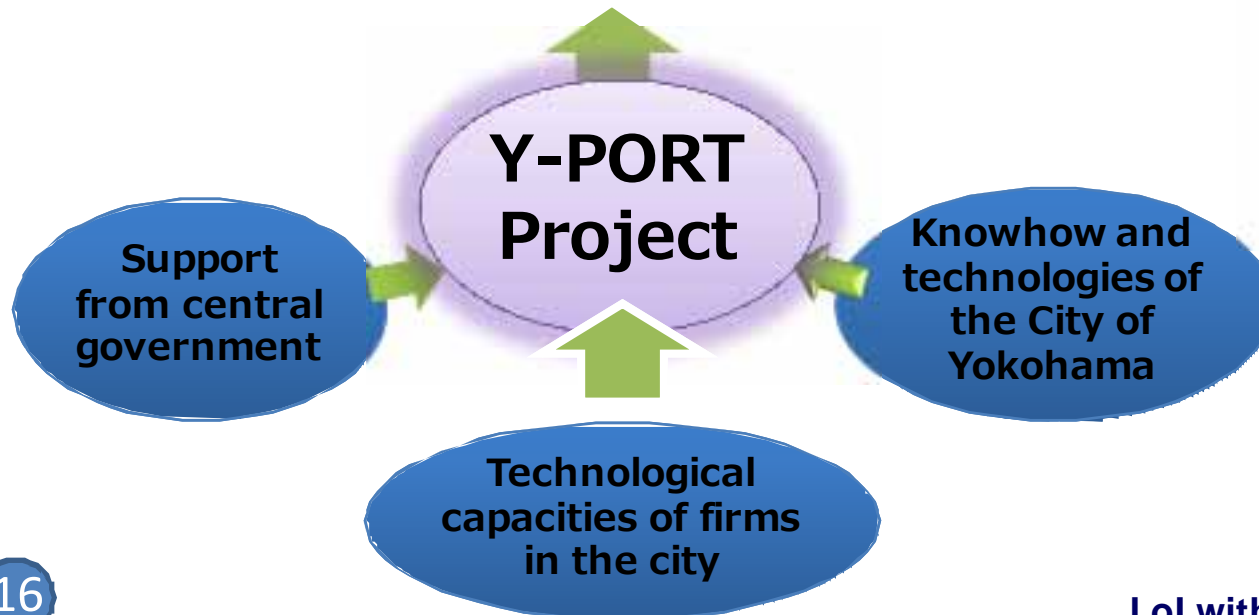
Yokohama's International Development Cooperation – Y-PORT

Yokohama

Partnership **o**f **R**esources and **T**echnologies

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

Enhancement of international technical cooperation



MOU with JICA

横浜市のアジア開発銀行との連携に関する覚書
Memorandum of Understanding on Collaboration between Asian Development Bank and City of Yokohama



MOU with ADB



MOU with the City of Batam in May, 2015

Master Plans which the City of Yokohama has worked together with Four Cities under City-to-City collaboration

Bangkok, Thailand

- Bangkok Master Plan on Climate Change



JICA

- JICA Report
- “ Technical cooperation project on the Bangkok master plan on climate change 2013-2023 in the Kingdom of Thailand” (1)<http://libopac.jica.go.jp/images/report/P1000025878.html> (2)<http://libopac.jica.go.jp/images/report/P1000025879.html>

Da Nang City, Vietnam

- Da Nang Urban Development Forum (Making Urban Development Action Plan)

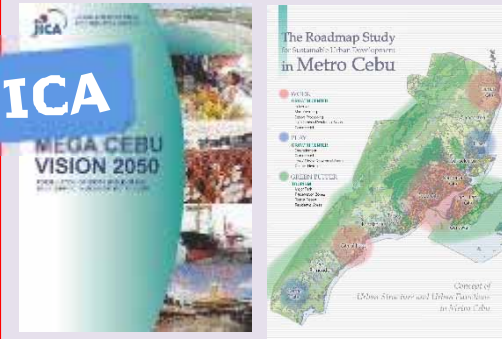


JICA

- JICA Report
- “ Data collection survey on sustainable and integrated urban development in Danang final report” <http://libopac.jica.go.jp/images/report/P1000026544.html>

Cebu City, Philippines

- Mega Cebu Roadmap 2050



JICA

- JICA Report
- “The Roadmap study for sustainable urban development in Metro Cebu final report “ <http://libopac.jica.go.jp/images/report/P1000022002.html>

Batam City, Indonesia

- Project Mapping (planned) based on Batam Green Cities Program



Under Implementation in JCM Study in JFY2016

JCM Projects as one of Schemes to Make the City's Plan and Prioritized Initiatives into Shape

Making Master Plans and Action Plan

Bangkok Master Plan on Climate Change 2013-2023



Capacity buildings through working together for city's plans



BMA

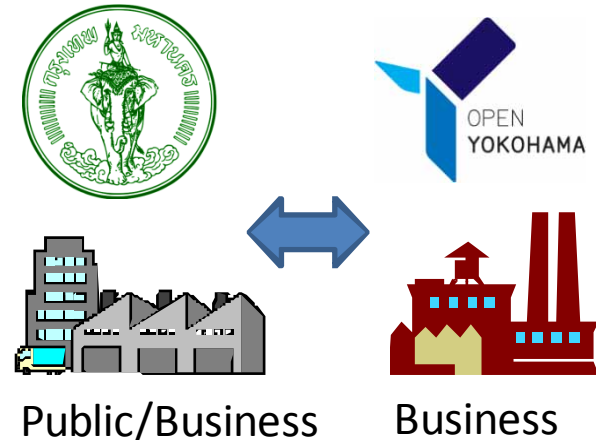
Yokohama

Implementation with Private Sector



Project Implementation for Sustainable Urban Development

(JCM Finance)



Public/Business

Business

Flagship Projects by City to City Collaboration in Four Cities

Bangkok, Thailand



JCM
1,344* tCO₂/year

Rooftop solar power system and advanced EMS for power supply in Factory by Finetech CO. Ltd.

Da Nang City, Vietnam



JCM
1,145* tCO₂/year

Introduction of high efficiency pumps in the water purification plant by Yokohama Water Co., Ltd.

Cebu City Philippines



JICA

Efficient dewatering process of septage sludge by Amcon INC.

Batam City, Indonesia



JCM
533* tCO₂/year

Energy Saving for Air-Conditioning Utility System in the airport terminal by iForcom Tokyo Co., Ltd.

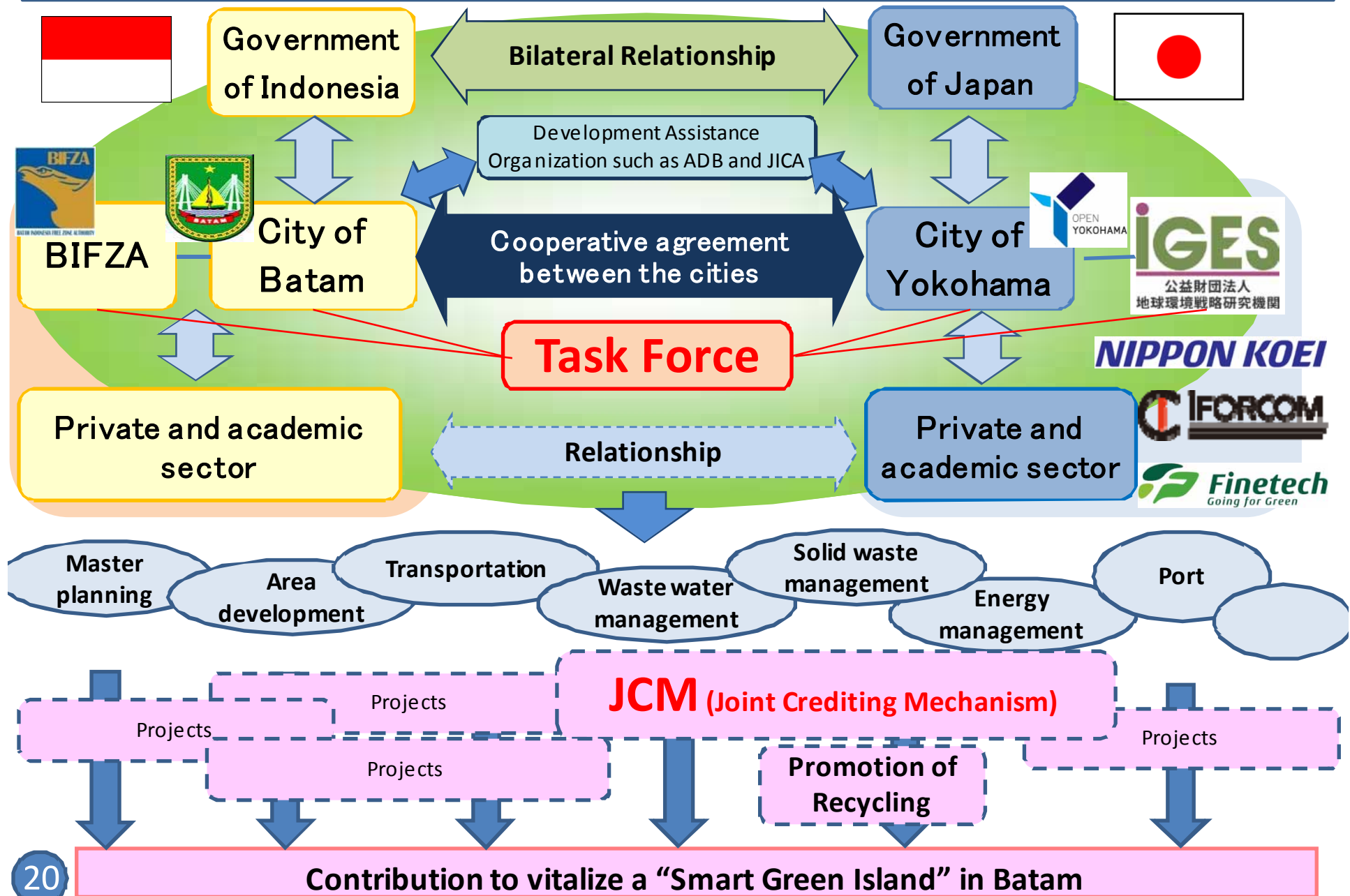
JICA



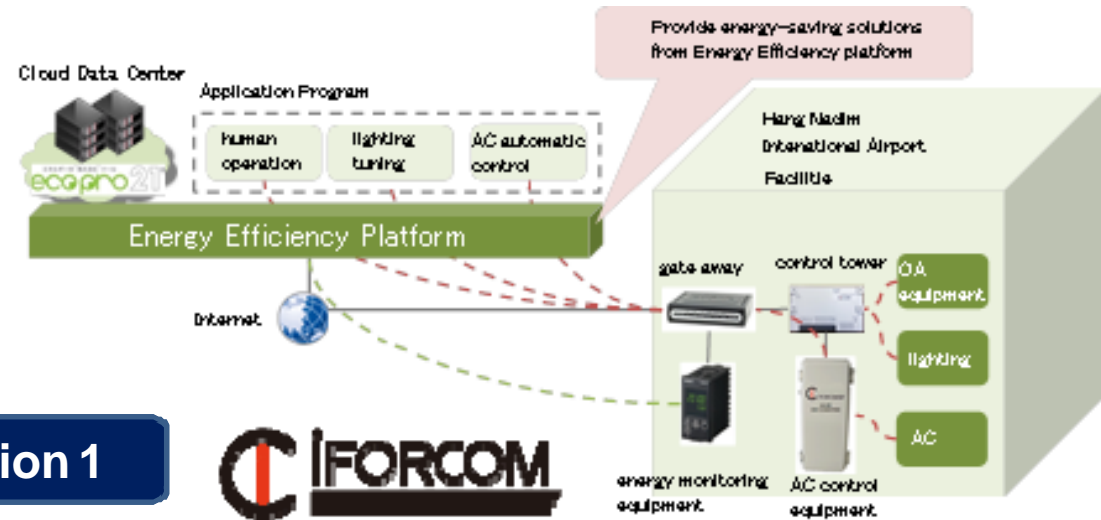
Waste plastic recycling by Mansei Recycling Systems Co., Ltd.

*Expected CO₂ Emission Reductions(tCO₂/year)

Framework of City-to-City Collaboration with Batam in this Year



Phase approaching by JCM in Batam City



Generation 1



- Energy-saving A/C System for the Airport terminal

Preliminary approval by GEC/MOEJ with JCM Financial Support

Generation 2

- Energy-saving at Ferry terminals
- Energy-saving at Hospitals
- Energy-saving at Hotels

Feasibility studies are on going in JFY 2016

Aiming to spread benefit over whole of the City

- From Flagship Model Project to wide-range fields of projects
- From "BtoG" to "BtoB" businesses



Sharing best practices on smart urban solutions

***JOIN the 5TH ASIA SMART CITY CONFERENCE
on 16th-18th November in Yokohama, Japan***



Y-PORT CENTER – Knowledge hub for smart city management

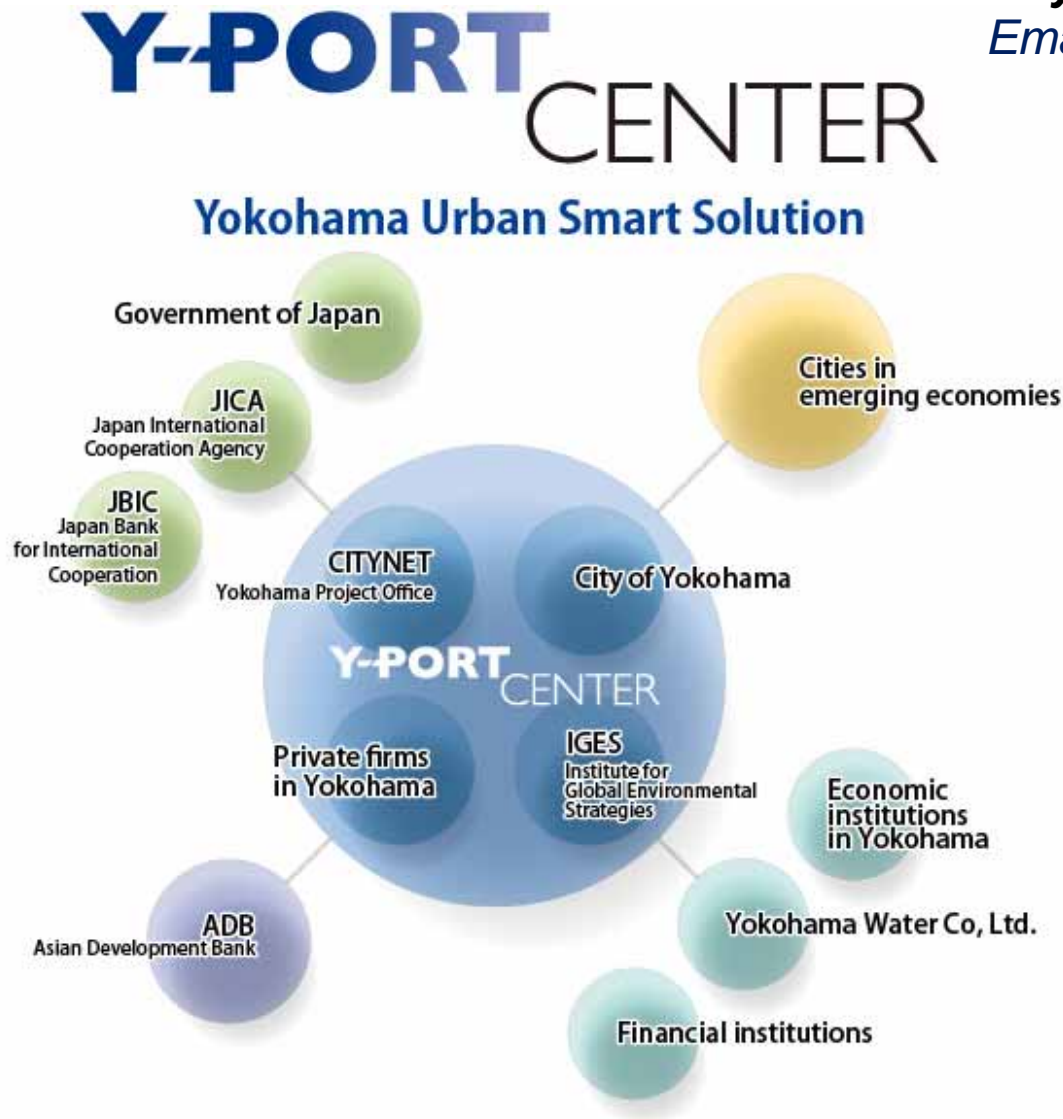
Please visit our web site:

<http://www.city.yokohama.lg.jp/kokusai/yport/en/>

Development Cooperation Division,
International Affairs Bureau

City of Yokohama, Japan

Email : ki-yport@city.yokohama.jp



*Thank you
for your attention*