

“FutureCity” Initiative

OPEN YOKOHAMA

Creative Port City

where People, Things and Events Connect and Develop



Climate Change Policy Headquarters
City of YOKOHAMA

Location of Yokohama

Located in the Tokyo Metropolitan Region, the largest metropolis in the world

Population: 3,7 million (June. 2011)
Households: 1.5 million
Japan's largest municipality



(thousand people)2010

1	China	1,341,335
...		
10	Japan	126,535
...		
126	Bosnia and Herzegovina	3,760
127	Moldova	3,573

GDP \$127.7 billion USD (2008)

(Billion USD)2008 OECD

27	New Zealand	127.8
28	Slovakia	95.0

Area 434.98 km²

History of Yokohama



1859 Port Opening

A small village of just around 100 huts at the time of the port opening, Yokohama has been an international gateway to Japan

1889 Incorporation

1923 Great Kanto Earthquake

Yokohama suffered catastrophic damage, but has created its present urban framework through the recovery process

1945 Great Yokohama Air Raid

US military occupation of key areas of the city

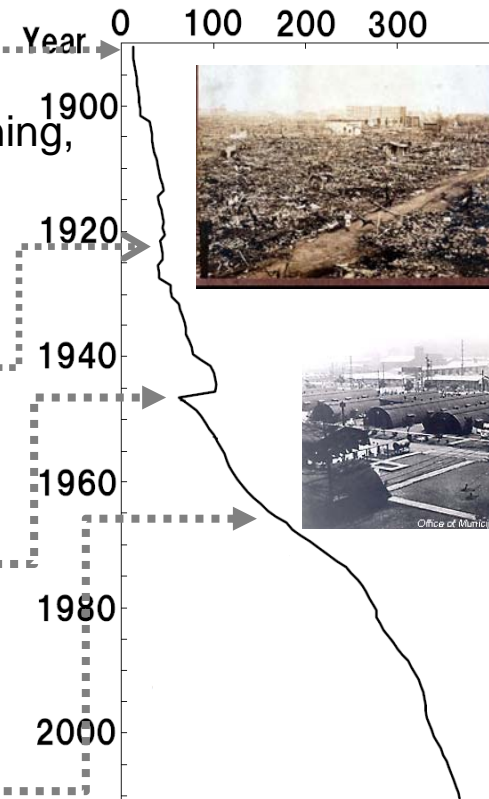
1965~ High-Growth Era

Concentration of population ⇒ urban sprawl ⇒ rapid degradation of living environment
“5 Major Battles” and “6 Major Projects”

5 Major Battles: ①Garbage ②Road Traffic ③Environment ④Water ⑤Public-Use Land

6 Major Projects: ①Strengthening of city centers (MM21, etc.) ②Kanazawa Site Reclamation
③Kohoku New Town Construction ④High-speed Railway (Subway) Construction
⑤City Highway Network Construction ⑥Bay Bridge Construction

Population (tens of thousands)



Urban Challenges: Rapid Urbanization and Pollution

Polluted airs and water, traffic jam...



1859

The City of Yokohama

Easy Access, Diverse Culture, and Green Environment

Shinkansen Bullet Train Station



Easy Access to/from Tokyo (30km)
and Haneda Airport

Shin Yokohama Ramen Museum



Minato Mirai 21

Traditional Japanese
Garden: *Sankeien*



Yamashita Park



Chinatown



Green and Water in Yokohama

Water reserves



Historical houses



Villages



Streams



Rice paddies



Hills in urban areas



Parks



Street trees



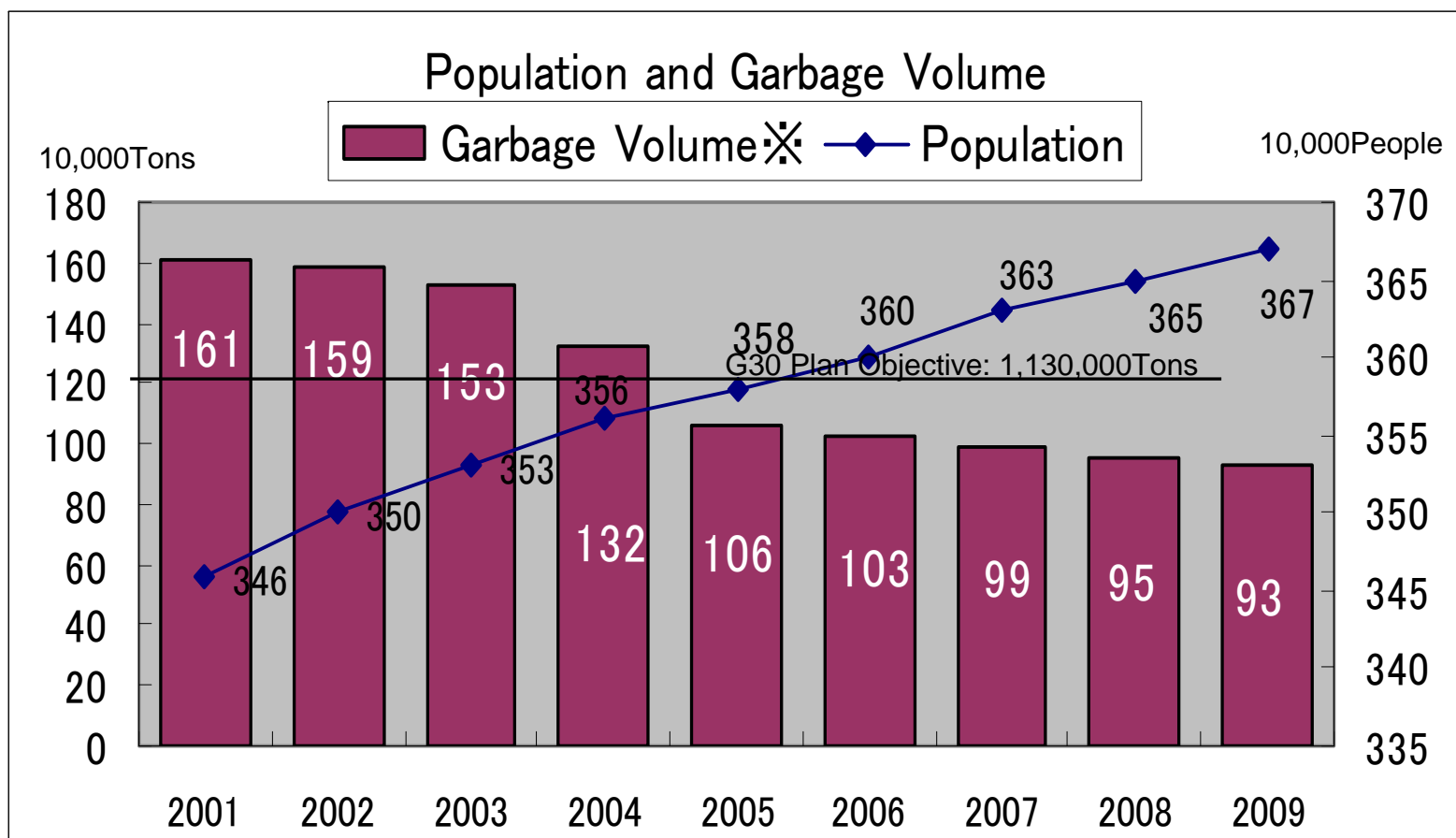
Diverse and attractive waterfront and natural scenes close to citizens

Port



Achievements of Reducing Garbage

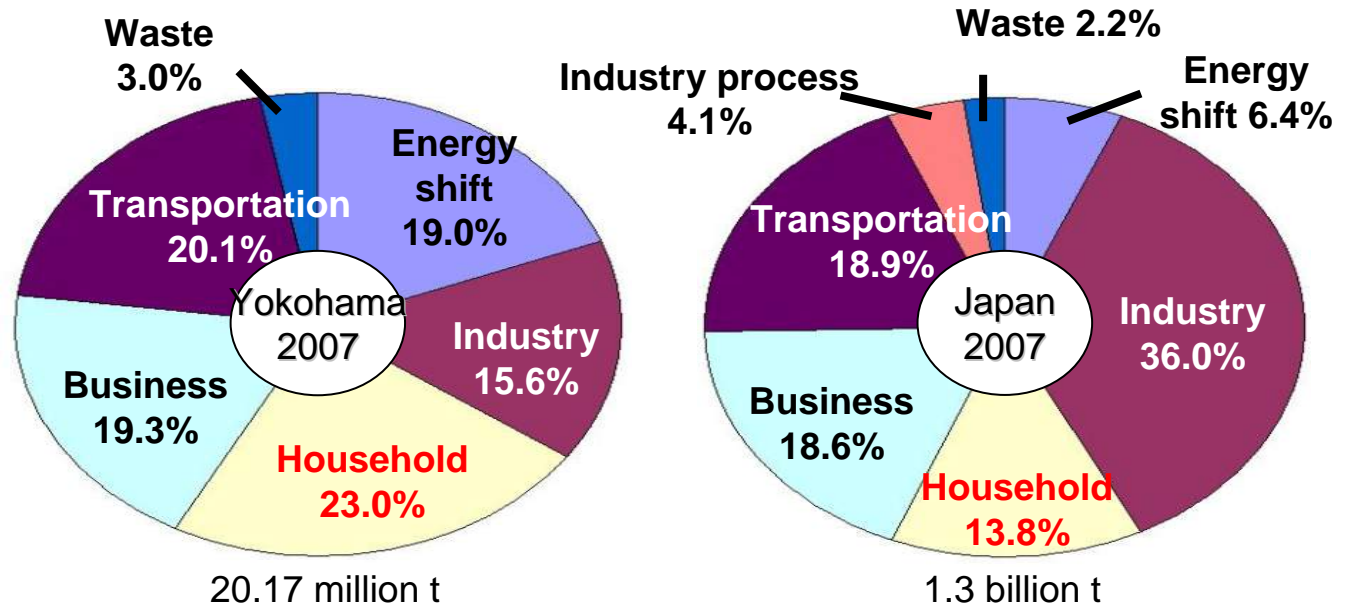
- ◆ **Problem: Wastes increasing faster than population**
- ◆ **Target: Cut wastes by 30% by 2010 (from 2001 level)**
- ◆ **G30 Plan started in 2003 and achieved 40% reduction in 2009**



◆ Effects

- Reduction of incineration plant costs
- Reduction of volume of garbage incinerated, leading to reduction of CO2 emissions by 47%

Breakdown of CO2 emissions



Many NPO

Participation in Neighborhood Associations 80%

G30

Environmental Household Accounts



A slogan aiming for citizens to become intimately familiar with climate change prevention measures and participate easily in eco-friendly activities

Yokohama is ...



① Diverse

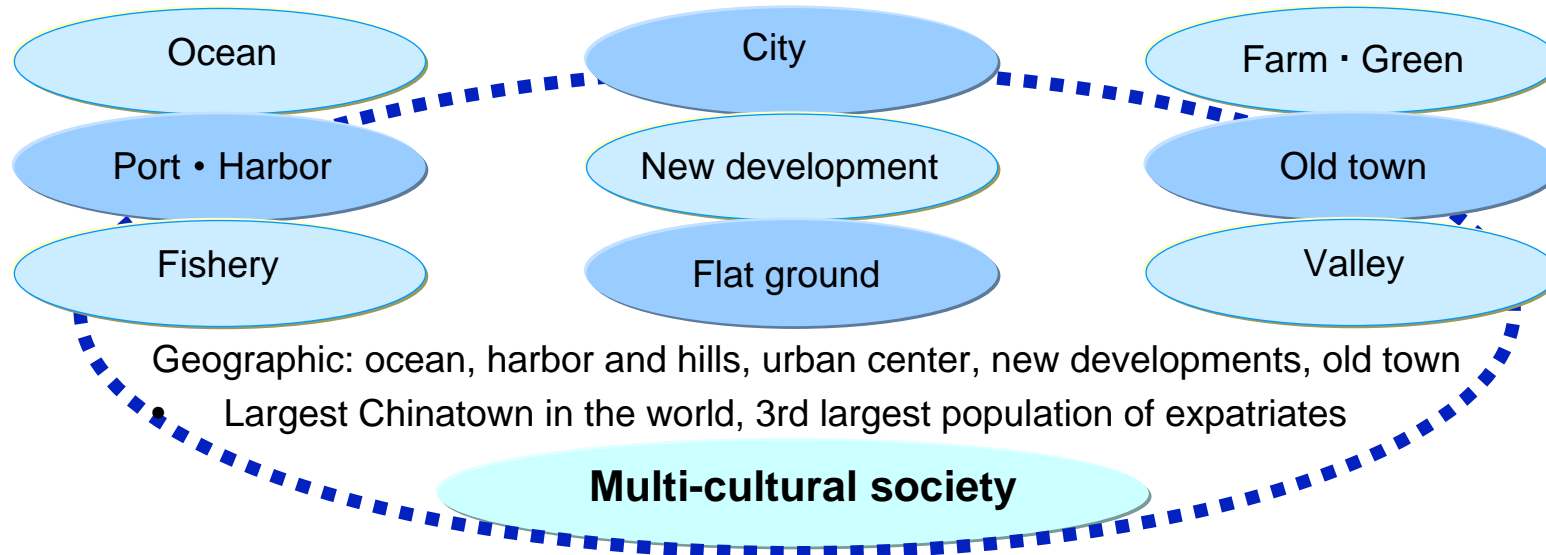
② Innovative

③ Creative

Yokohama, is the first harbor city introduced to the world as the entrance to Japan. Since the time its port was opened 152 years ago, Yokohama has been vigorously acquiring new cultures and information from foreign countries and introducing to Japan our country's first-time-ever things.

The Yokohama, referred to as “Hamakko” in Japanese, has been very cheerful at enjoying life and willing to adopt whatever is good. Such a tradition of the “Hamakkos” cultivated long ago has been incorporated into the present fashionable and sophisticated streetscape.

1. Diverse – Geographic, Culture, industry



2. **Innovative** – City was made with bold challenges

- Port of Yokohama opened 152 years ago
- Home for multi-nationals, local venture industries
- Birthplace in Japan of silk, telephone, railway, sewage system, ice-cream, dry cleaning



3. **Creative** – Citizens power

- City where people came to create change
- 80% participation rate in Neighborhood Associations
- 9th in the nation for NPOs, Yokohama Eco School
- 1000 participants in Open Yokohama event

YES

NPO/Citizen Group

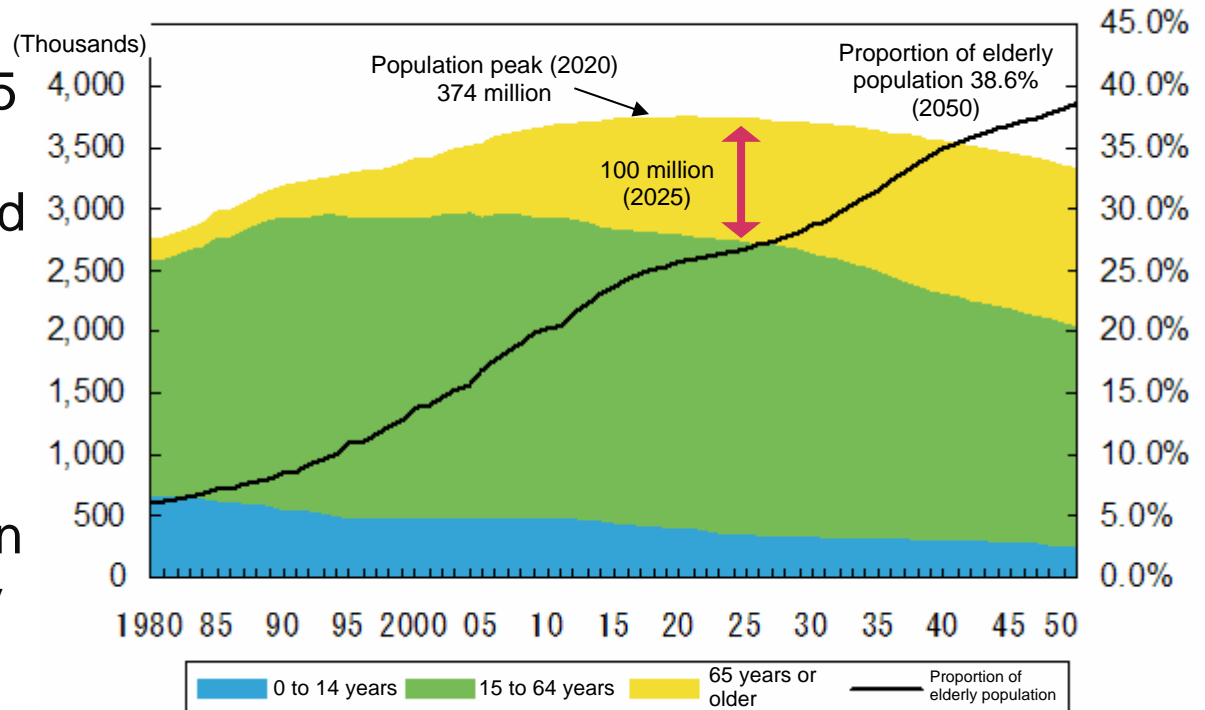
OPEN YOKOHAMA

Creative city

Future complex problems in Yokohama

<<Estimation of future population in Yokohama>>

- Population increase of 3.5 fold in 60 years following the war, which is expected to grow even more by 2020.
- Ever-increasing energy consumption
- Emergence of “one-million population group by elderly people” in the future



- Synchronously aging housing estates

Vision of Yokohama: FutureCity



Fostering a virtuous cycle in which the creation of cultures and arts, the promotion of growing industries, and the interaction among people and industries generate new cultures and industries



Instilling a sense of security by creating a low-CO₂, sustainable energy network and by ensuring seamless collaboration between healthcare, nursing-care, welfare, and child support services



Pleasant and attractive city where living environment surrounded by nature and functional business environment coexist

Steps to transforming into the FutureCity

Citizens' power

Since the opening of its ports to the world, has welcomed various goods and ideas from overseas, mobilized citizens' power to create new values, and passed on its legacy –DNA of the city– to future generations.

Mobilize citizen's power to create new systems and services for future generations and incorporate them into the existing urban districts to foster diversity.

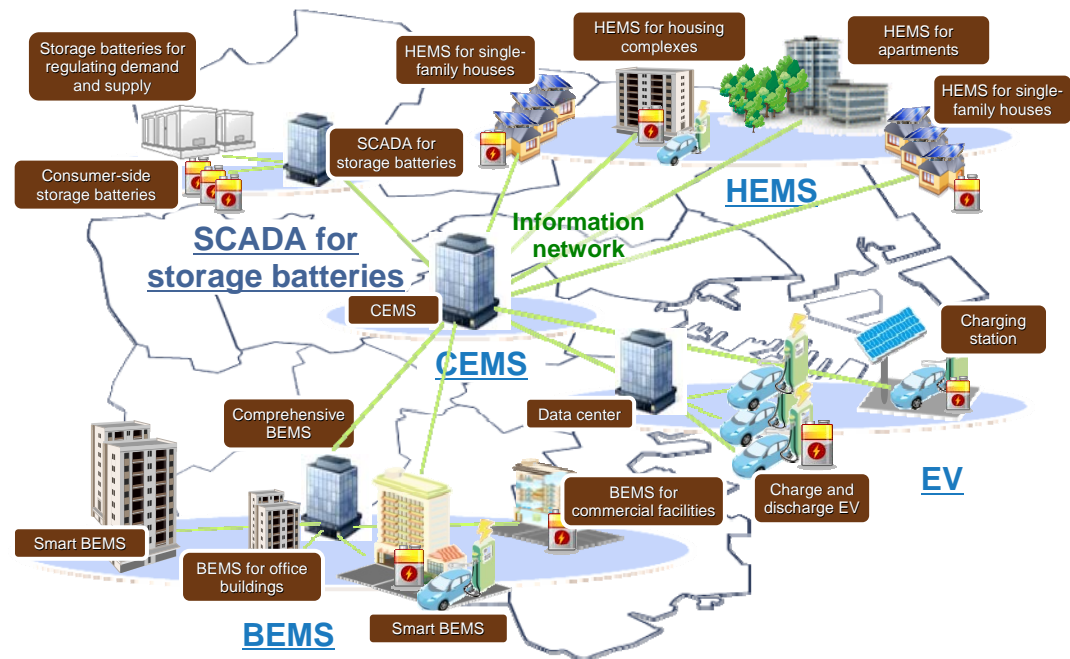
Create various city renovation models.

draws a roadmap to the future, setting an example for cities located inside and outside the country.

- City-wide implementation of a “Smart City” initiative for drastic CO₂ reduction
- Provision of service packages that offer what buyers need
- Becoming a low-CO₂, international trading port that attracts customers

➤ Establishment of a community energy management system (CEMS): Yokohama Smart City Project

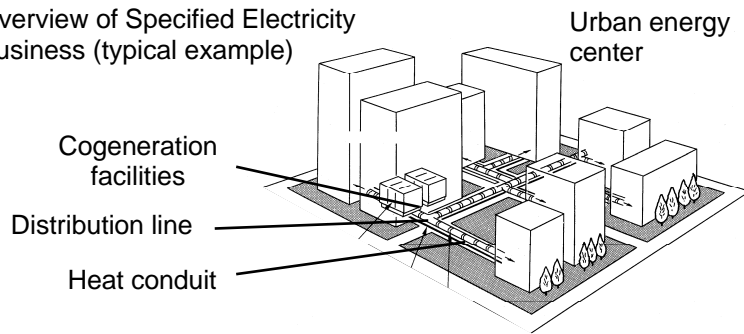
- ✓ Balancing demand and supply by promoting collaboration among districts with varying characteristics
- ✓ Establishing a large-scale energy network to balance demand and supply and facilitate mutual support
- ✓ Supporting a large-scale introduction of renewable energy sources to ensure the continuity of urban activity following a disaster
- ✓ Establishing an all-in-one solution that can be applied to various types of cities



Note) HEMS: Home Energy Management System
BEMS: Building and Energy Management System

CEMS: Community Energy Management System

Overview of Specified Electricity Business (typical example)

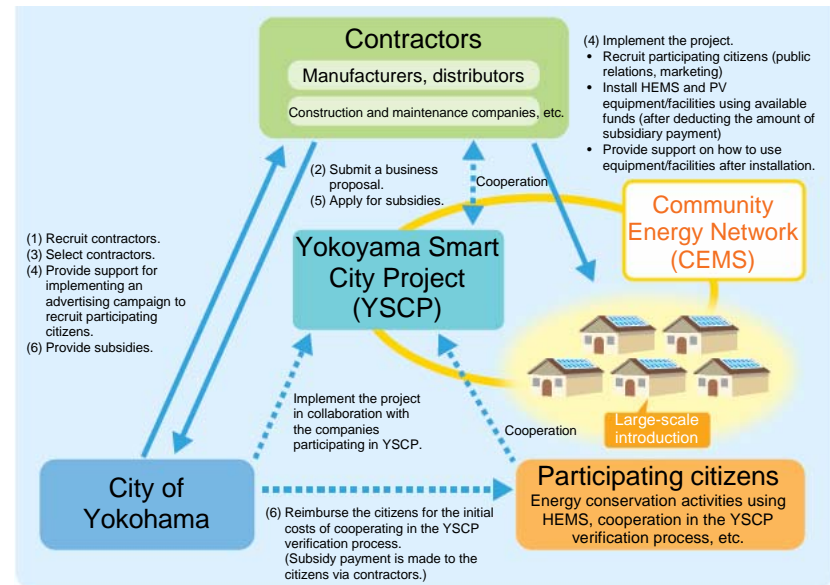
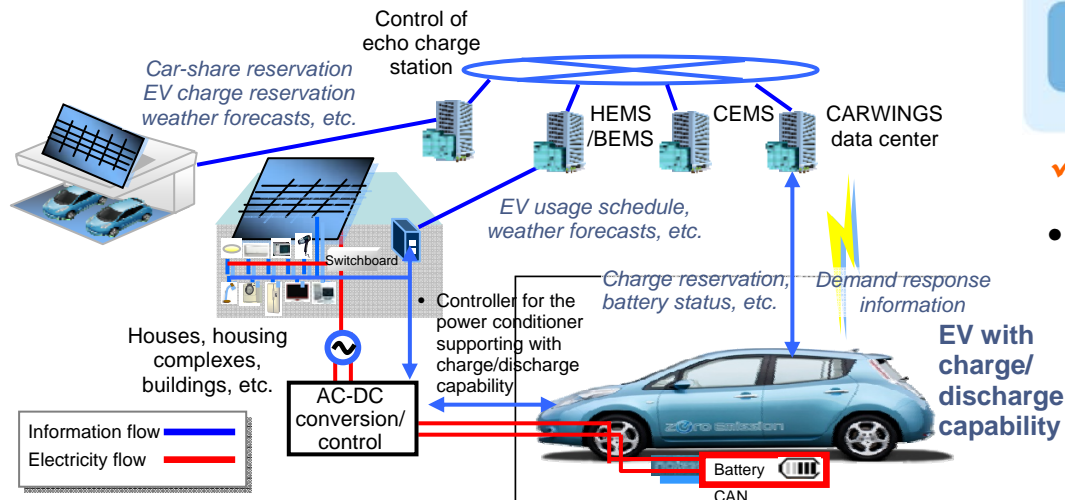


✓ Promoting energy independence in areas surrounding Minato Mirai 21

- Installation of locally distributed power system consisting of a gas cogeneration system and a local generator to ensure a stable supply of energy at times of disaster
- Consideration of a Specified Electricity Business taking into account the possibility of system interconnection

✓ Building a community energy network

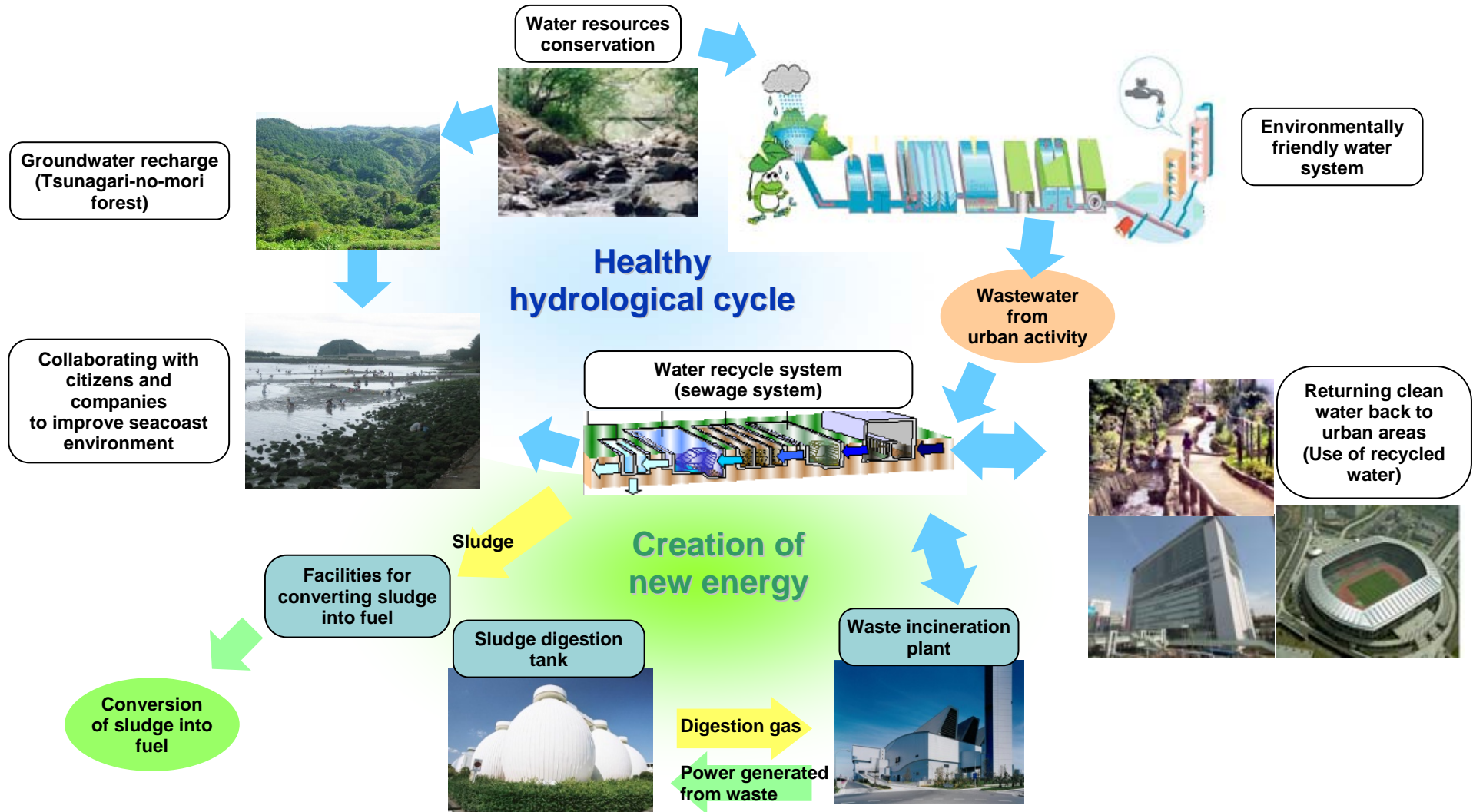
- Large-scale introduction of solar power generation systems and HEMSs at a reasonable cost by using private sector know-how



✓ Promoting the use of electric vehicles

- Examine if an EV battery used as an electric storage device can be used for energy management in houses and buildings or for ensuring a stable supply of electricity during a large-scale introduction of renewable energy sources.

- Contributing to solving water and sewer problems overseas by introducing our water and wastewater treatment technology to overseas
- Establishing a low-carbon, biodiversity friendly water treatment technology and creating new energy by using wastewater and sludge
- Improving seacoast environment to enhance scenic qualities, attract visitors, and protect biodiversity



- ✓ Supporting the launch of overseas water businesses through collaboration between the public and private sectors

Yokohama Water Business Conference

133 companies and organization + city

Use of various technologies and know-how of Yokohama to support the launch of businesses overseas

- (1) Advertisement and promotion of environmental technology held by member companies
- (2) Support for establishing inter-business networks
- (3) Overseas demand survey and information service
- (4) Consideration of how to establish collaboration between the public and private sectors in the water business field



- ✓ Introducing the advanced urban infrastructure technology overseas

- Collaborate with JICA to establish a framework for supporting human resource development and practical training for water supply companies in 17 provinces and cities in central Vietnam.
- A company founded by the municipal water department offers consultation to business enterprises about conducting business overseas, and accept trainees.



Yokohama establishes its own brand of water and wastewater treatment service.
Yokohama takes an initiative in launching an overseas water business.

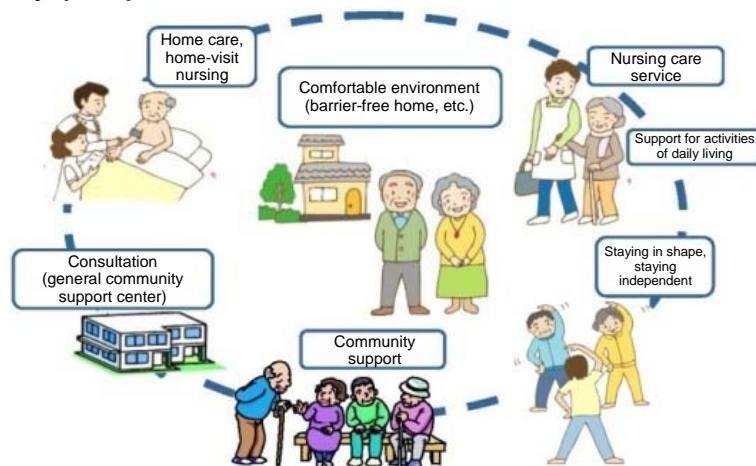
- Friendly hometown community where people of all generations -from children to elderly- feel connected and live in security.

Supporting people living in a big city and spending most of their time at home by strengthening the connection between a community network –cooperative network of all people living in the community– and public services.

Establishing a system to help every individual solve problems in their so that they can live and live happily and securely.

✓ Establishing a system of collaboration between community care and healthcare in a big city

Establish a collaborative community healthcare system through hospital-hospital collaboration and hospital-clinic collaboration, and build a network that links nursing care with medical treatment to provide community support to elderly people with dementia.



✓ Yokohama project to promote the participation of the elderly population

Establish a system to grant various privileges, including the rewarding of points, to elderly people for participating in lessons and events.

Provide elderly people with enjoyable opportunities to maintain health and contribute to the society in which they live.

Yokohama City:
Encourage physical exercise, active lifestyle, and social contribution.



Citizens and community:

Self-care for health promotion, volunteer activities, community activities

Private companies:

Employee healthcare
Linkage between different card point rewarding systems

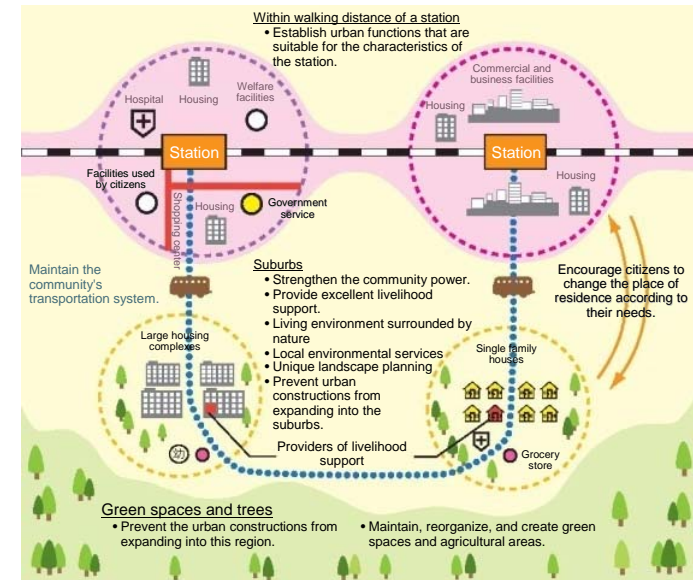
- Compact town planning to provide the comfort of living in the suburbs as well as the excitement and advantages of being close to central Yokohama

✓ Sustainable residential area model project

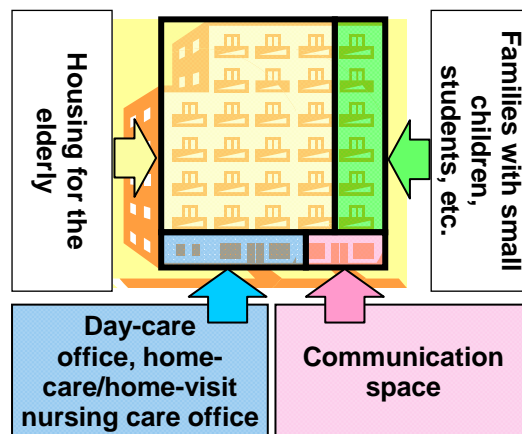
- Provide excellent livelihood support by improving access to train stations from large housing complexes and residential quarters located along the railroad line, providing easy access to schools, and linking healthcare and welfare services.



Smart house block



✓ Building a Yokohama-style housing district for promoting mutual support



- Provide private housing that provides livelihood support at a price affordable to pensioners.
- Create a pseudo-community where young and old generations coexist and encourage active involvement of elderly people in community activities.



Social events (morning market)



Elderly salon



Mutual support for childcare

- Establishing and promoting a Yokohama brand through collaboration among citizens, NPOs and companies
- Taking advantage of the resources of Yokohama (sea, ports, cultural assets, urban spaces) to revitalize the local economy, encourage creativity, and achieve an urban renaissance
- Establishing Yokohama's international status as the location for MICE.



Collaboration of energy conservation technology and art = Smart illumination

Photographed by Hideo Mori



Space
Creation of urban spaces by taking advantage of history and waterfronts

Creative city:

- Urban planning focused on attracting artists and creators
- Urban renaissance through art

People & Community
A City full of opportunities to attract creators
Encouragement of citizen's creativity



City of culture and arts

- Hosting world-class, original cultural and art events in the city
- Using cultural power to foster collaboration among citizens and to educate younger generations



Inflow of people



Increased interaction among people from inside and outside the country



Economic revitalization

City of international tourism and MICE*:

- Building an infrastructure for hosting high-quality international conventions and other MICE events
- Promoting tourism that values hospitality

*The abbreviation for Meetings, Incentives, Conventions and Exhibitions

Relations
Exchanging / promoting multilateral appealing points to the world



- ✓ **Achieving an urban renaissance by providing a creative atmosphere and promoting art**

○ **Setting up a creative district:**

- Provide artists with the opportunities to create and exhibit their art work and give them places to stay.



- Promote collaboration between the community and artists to transform an illegal restaurant district into a more



Le Gentil Garçon 《The rise and fall of Black Light City》,2009

Nobuhiro Shimura 《Red Shoes》,2009

- ✓ **Launch a Yokohama brand that is built on high quality culture and arts**

○ **Hosting three art festivals:**

- As a city of culture and arts, Yokohama hosts art, dance, or music festival every year, attracting visitors from all over the world.



Yokohama Triennale: Japan's leading international exhibition of contemporary art

○ **Attracting people to downtown waterfront areas and advertising tourist attractions:**

- Link new tourism resources together to execute a comprehensive and effective tourism advertising campaign and to offer more tourist attractions.

○ **Educating and training younger generations**

- Provision of practical training programs by artists

- ✓ **Becoming a city of international tourism and MICE and attracting people from all over the world**

○ **Attracting and supporting MICE:**

- Enhancing the MICE functions of Pacifico Yokohama and other facilities
- Attracting major conventions, such as Tokyo International Conference on African Development
- Improving facilities for hosting MICE through efforts of local companies and citizen supporters
- Offering delightful parties and events after conventions

○ **Promotional activities for attracting overseas tourists:**

- Promotional activities focused on Asia
- Encouraging local media to cover Yokohama topics

○ **Improving and taking advantage of tourism resources**

- Focus on new tourism (environment, etc.)

- Strengthening the competitiveness of local companies by promoting WLB and encouraging participation of women in the workforce
- Strengthening local economic infrastructures by utilizing the power of citizens (including the elderly)
- Strengthening growing industries by improving the technology and management of local companies in the environmental and life science fields
- Strengthening the international competitiveness of the port of Yokohama and supporting economic recovery in the Tohoku district

✓ **Creating a new economic value in which a city population characterized by declining working-age population and increasing elderly population is viewed as a new driving force of our society and economy.**

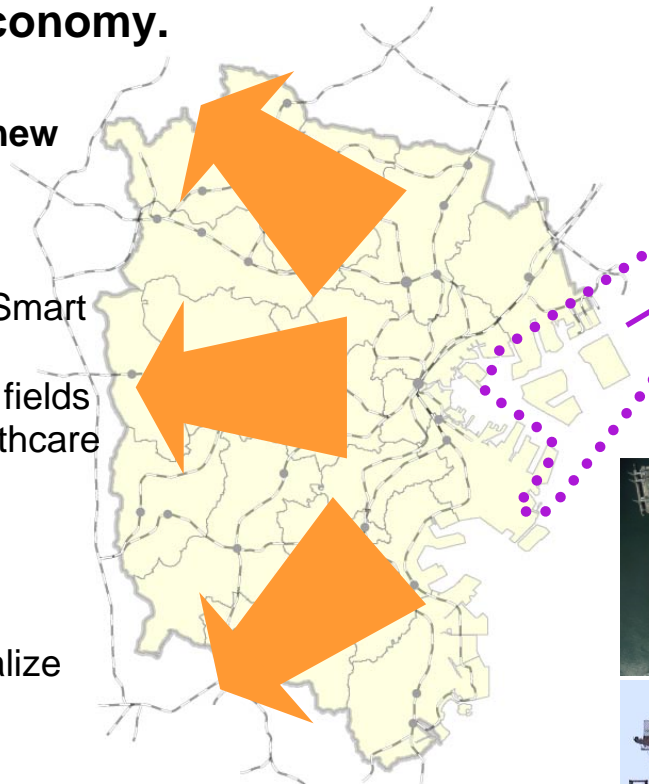
<<City-wide projects>>

○ **Supporting the development of new technology in the fields of low-carbonization and healthcare:**

- Inviting small-and-medium-sized companies to join the Yokohama Smart City Project
- Developing new technology in the fields of low-carbon production and healthcare
- Promoting the Yokohama Green Valley Plan

○ **Suggesting a new work style:**

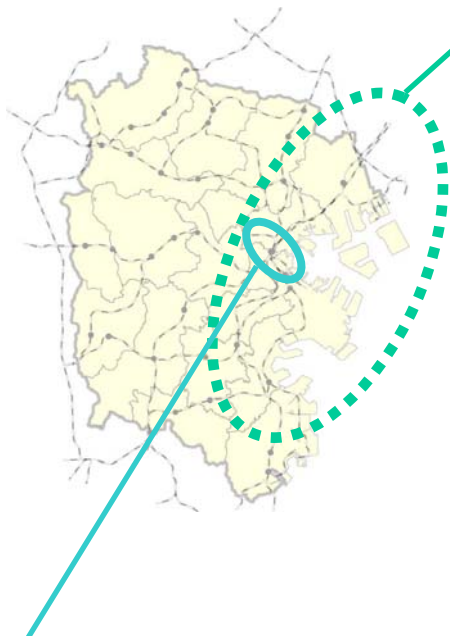
- Supporting female entrepreneurs and enlightening companies to realize decent work for employees
- Encouraging elderly people to participate in social business that specializes in solving community issues



<<Strengthening the international competitiveness of the port of Yokohama>>

- Being an international port comparable to Busan port, with access to some of the important shipping routes, the port of Yokohama aims to become an international hub port in East Asia.
- Optimize the domestic shipping routes as part of an effort to support economic recovery in the Tohoku district.





✓ **Special zone for integrated international strategy for life innovation in Keihin waterfront areas** (selected by Japanese Government)
 Creating an internationally competitive life science center by collaborating with Kawasaki City (Tonomachi area) of Kanagawa Prefecture.

**Suehiro area
(Yokohama Science Frontier)**

- RIKEN Yokohama Institute
- Yokohama City University Tsurumi Campus
- Yokohama Bio Industry Center,
- Yokohama Biopharmaceutical Research & Development Center



Minato Mirai area

- Pacifico Yokohama, etc.



Fukuura area

- Yokohama City University School of Medicine and Yokohama City University Hospital
- Advanced Medical Research Center



✓ **Establishing infrastructures for high-value-added global companies**
 (selected to the Special urban renaissance districts requiring urgent upgrades by Japanese Government)
 Encourage global companies to establish Asian headquarters in Yokohama and implement urban renaissance to attract more companies, thereby becoming an economic leader in Japan and creating new business opportunities.

Area around Yokohama station

- Gateway to Yokohama, with easy access to Haneda Airport
- Nation's fifth busiest passenger airport with a large terminal building
- One of the largest commercial districts in the Tokyo Metropolitan area



Minato Mirai 21 area (Chuo area)

- International business center where many company headquarters and research and development facilities are congregated
- Best location for MICE in the country, where Pacifico Yokohama, one of the world's largest convention centers, is located



Kitanaka Street area

- Introducing high-standard residential functions and attractive cultural/commercial functions into the waterfront area





Strategies for Disseminating the Concept of FutureCity Within and Outside the Country

– Making the best use of networks within and outside the country –

➤ Cities in Japan:

- Collaboration with Doshi-mura (Yamanashi) and Shimokawa-cho (Hokkaido)
- Expanding collaboration with a larger number of local authorities

Partner cities in Japan:

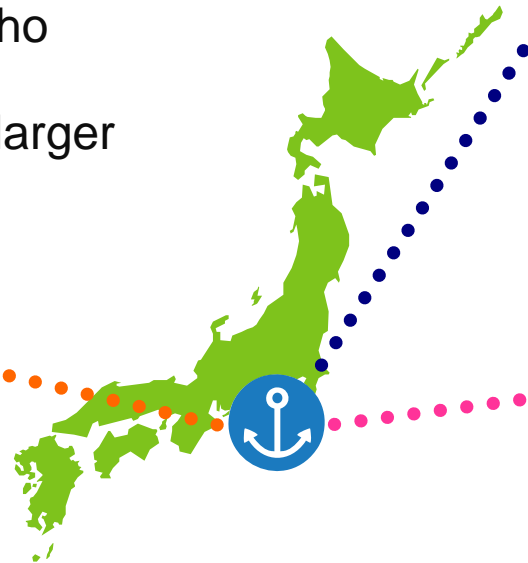
- Shimokawa-cho (Hokkaido)
- Yamanashi/Doshi-mura/Yokohama Joint Study Group on Global Warming Countermeasures
- Association for the Promotion of Low-Carbon Cities (Green Economy WG)

Partner cities overseas:

Partner cities:
Beijing, Taipei, Busan, Incheon, Ho Chi Minh, Hanoi, Frankfurt

Sister/friendship cities:
San Diego, Lyon, Mumbai, Manila, Odessa, Vancouver, Shanghai, Constanta

Sister/friendship/partner ports:
Auckland, Vancouver, Shanghai, Melbourne, Dalian, Hamburg



➤ Cities overseas:

- Promotion of Y-PORT, collaboration with JICA
(Supporting infrastructure development in developing nations through industry-government-academia collaboration)
- Collaboration with partner cities
- Participation in Rio +20
(United Nations Conference on Sustainable Development)



Concluded the partner city agreement with Frankfurt (September, 2011)

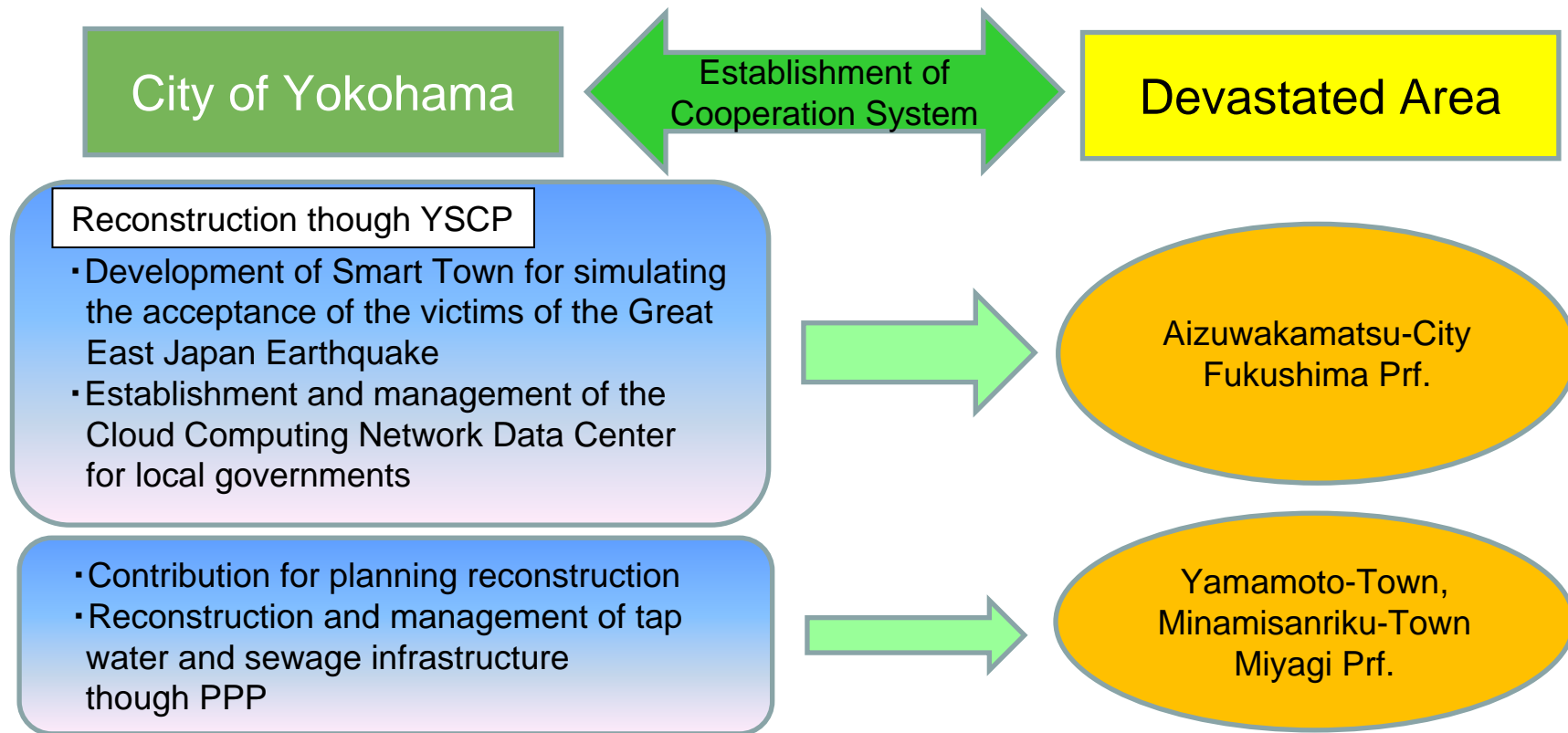


Concluded the comprehensive partnership agreement with JICA (October, 2011)



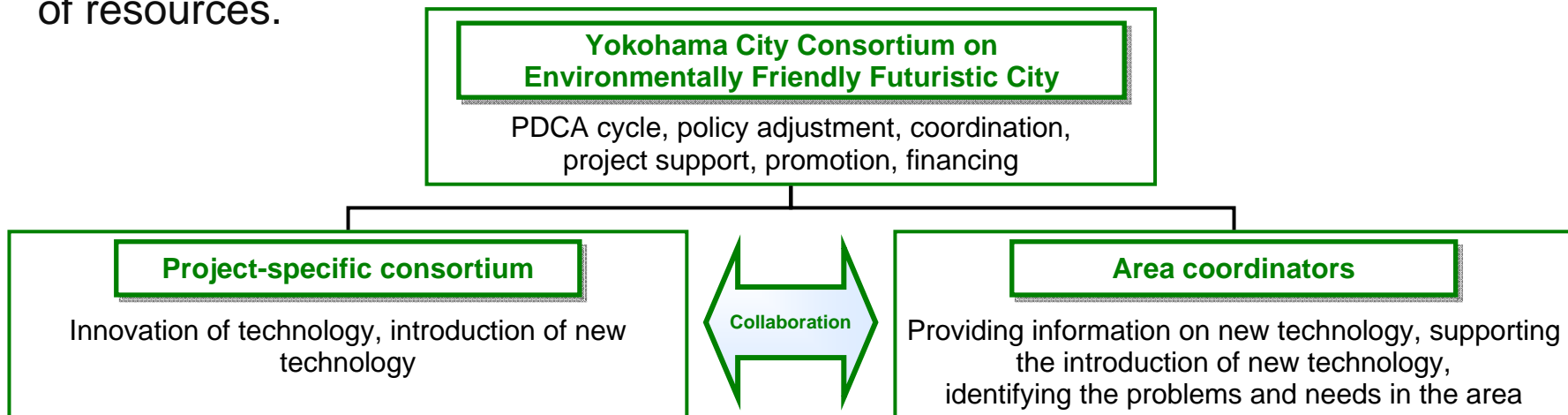
Provisions of Reconstruction Assistance to Devastated Area

The City of Yokohama will make appropriate contribution to the early recovery and reconstruction of the cities which were devastated by the Great East Japan Earthquake, through the establishments of cooperation between Yokohama and local governments in the disaster-stricken regions with the developed leading-edge technologies and accomplishments of the YSCP and the knowledge of the environmental administration which we have accumulated.



System for Promoting the Concept of FutureCity

- Organizing a consortium of government authorities, academia, business enterprises, and NPOs
 - Project-specific consortium (consisting mainly of business enterprises) and action-specific coordinators (consisting of citizens and local organizations)
 - Working together
 - Hire experts for performing business/risk assessment and ensure proper allocation of resources.



- Involving citizens to accelerate project implementation

- Strengthening the function of Yokohama Eco School (which offers opportunities for citizens to learn and act)



(Example of a seminar)
“Relay Talk” by green media editors



総合的な価値創造のためのキーファクター： 再生可能エネルギー／アート・クリエイティビティ

共通要素：「動力源」であり「媒介」である

■再生可能エネルギー

- ✓ 大規模電源と異なるデマンドサイドからのアプローチで他分野とのクロスオーバーが可能に
+ 建築（住宅・ビル）
- ✓ 大規模電源と共生できるエネルギーネットワークとして成熟することによる大規模化
+ 都市・街区、交通
- ✓ スマートグリッドとして情報インフラを内包することによる媒介性の深化
+ 情報コミュニケーション
+ コミュニティマネジメント
- ✓ 建築、都市との共存、新素材の活用によるデザイン需要の発生
+ アート・クリエイティブ



総合的な価値創造のためのキーファクター： 再生可能エネルギー／アート・クリエイティビティ

共通要素：「動力源」であり「媒介」である

■アート・クリエイティビティ

- ✓ 言葉によらず、新たな価値を発信
- ✓ 新たな視点の設定による、埋もれていた地域の歴史や人々の日々の営みの発掘

+ コミュニティデザイン・マネジメント

+ (精神) 医療

- ✓ フィジカルな要素を持つ分野と広く共生

+ 医療・福祉

+ 建築・都市・交通

- ✓ デジタルな要素を持つ分野との共生可能性の拡大

+ 情報コミュニケーション



複合的価値創造の萌芽： アートの視点から

アート・クリエイティブが高める シビックプライド



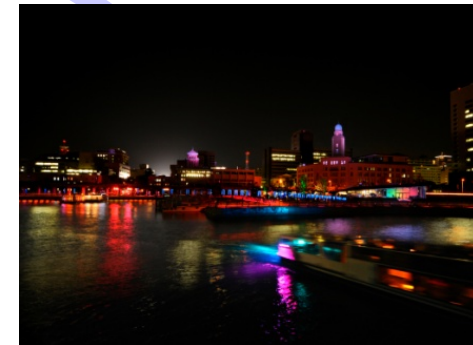
「横浜ランデブープロジェクト」
福祉作業所における商品作成の様子



「横浜ランデブープロジェクト」
SLOW LABEL-THE FACTORY
ースローワークしませんか？

障害者施設とアーティスト
による特色を生かした
商品づくり

最新の省エネルギー技術とアートの
創造性を融合する「光の祭典」



スマートイルミネーション横浜ー省エネ技術と
アートでつくる「もうひとつの横浜夜景」
2011年 象の鼻テラス
藤本隆行+Rhizomatiks (真鍋大度、石橋素)
《The Organic Nucleus/有機中心の「象の鼻」》
Photo: Hideo Mori
会場：象の鼻テラス/横浜三塔 (神奈川県庁本庁舎/
横浜税関/横浜市開港記念会館)

アーティストによる
コミュニティの
新たな交流機会の創出



「関内外OPEN」

複合的価値創造の萌芽： 再生可能エネルギーの視点から

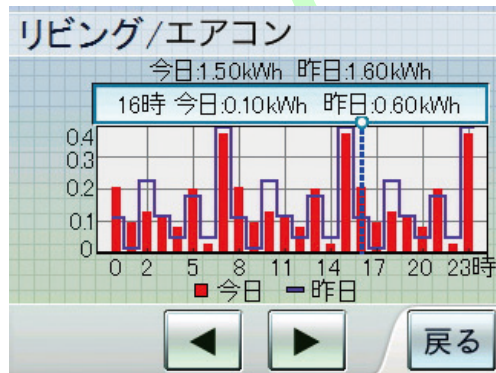
エネルギー・コミュニティ マネジメント

ICTの活用による
高齢者の見守り

スマート
ハウス



エネルギーの見える化・
地域間エネルギー融通



テレビ画面でエネルギー状態を
確認しながらの環境会議の様子

