"FutureCity" Initiative

Cabinet Secretariat
Government of JAPAN

Concept of "FutureCity" Initiative

1. Background of the Initiative

Urban populations have increased sharply and now comprise half of the world's population. This is projected to grow to around 6.4 billion — 70 % of the world's population by 2050. This rapid urbanization is seen prominently in developing regions such as Asia and Africa and has caused various environmental and urban problems. The 21st century is referred to as the age of the city. In this age, the challenge of realizing an affluent life without increasing the burden on the urban environment is a challenge common to all human-beings — a challenge based on an urban perspective.

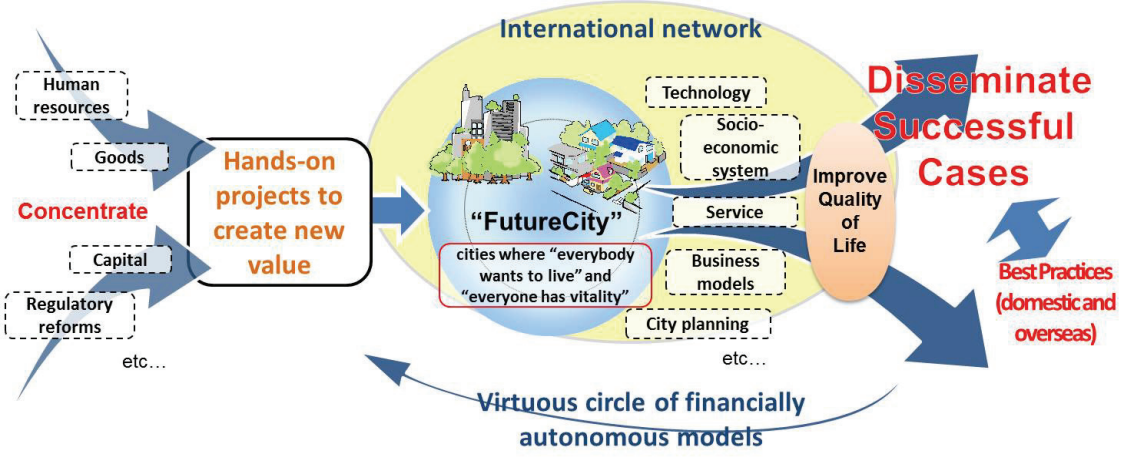
Japan is known as an "advanced country" in terms of challenges of both a rapidly decreasing birthrate and rapid aging. It is projected that in 2050 seniors over age 65 will comprise 40% of the population. Realizing cities and regions where senior citizens can live a fruitful, healthy and secure life in a vital society is an acute challenge. In the near future, many countries, starting in Asia, are expected to experience this challenge. Therefore, Japan is in a position to first tackle this problem and to offer solutions to the common human challenges.

In this context, it is extremely important to mutually recognize the problems, to pose the problems in a general way, and to think about the framework for solutions to such common human challenges as the environment, aging and revitalization of societies and economies.

The Japanese government identified the "FutureCity" Initiative (hereinafter "Initiative") as one of the National Strategic Projects in its "New Growth Strategy" in June 2010. The objective of this initiative is to challenge common human problems and to try to propose model solutions as a forerunner.

2. Purpose of the Initiative

The purpose of the Initiative is to select a few cities as "future cities," to realize world-leading successful cases in terms of technology, socioeconomic systems, services, business models and city building in order to resolve common 21st century human issues such as the environment and aging, and to disseminate them not only within Japan but also to the world. The ultimate goal is to achieve a revitalized and sustainable society



with a new socioeconomic system.

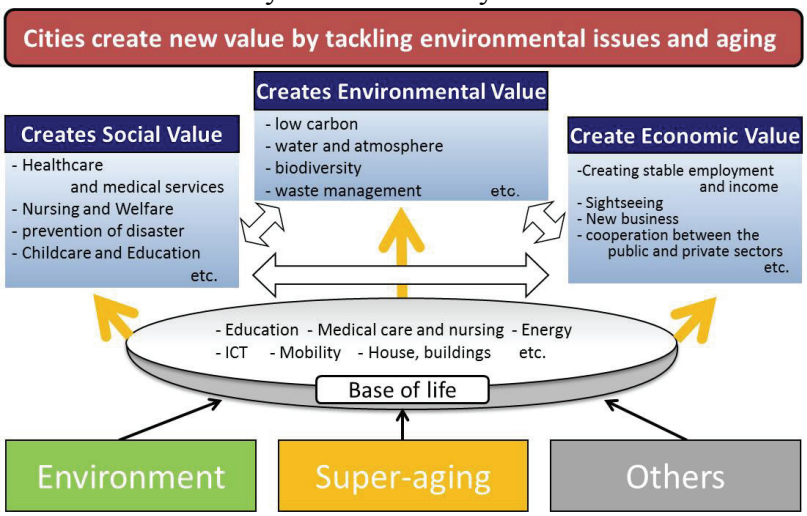
The selected cities are expected to lead to innovations in socioeconomic systems that can create successful cases. The Japanese government will support the selected cities by concentrating related budget appropriations on them, effecting deregulation and reforming the legal and tax systems.

To realize the Initiative, it is important to adopt an open-source innovation strategy which is open both at home and abroad. This strategy is aimed at sharing various experiences, developing intellectual networks, and disseminating the successful cases both inside and outside Japan, at the each development stage in creating concepts, planning and developing technologies and systems and realizing them.

3. Basic concept of the Initiative

The basic concept of the Initiative is to realize "human-centered cities while creating new values to resolve the challenges of the environment and aging." It is first necessary to solve global challenges such as global warming, resource and energy limits, and super-aging by establishing sustainable socioeconomic systems as well as by recovering social solidarity. Secondly it is necessary to realize cities where "everybody wants to live" and "everyone has vitality" as well as cities that create new values continuously. Thirdly, we must increase the quality of life of the people.

To realize a sustainable society, considering the value of the environment, society and economy is essential. The "FutureCity" where "everyone wants to live" and "everyone has vitality" is defined as a city where the value of the environment, society and economy is innovatively enhanced, based on the premise that a minimum level of value in each of these three areas has been satisfied.



4. Future vision and Efforts of individual cities of the "FutureCity" Initiative

The selected cities are to set the strategic future vision in accordance with the abovementioned basic concept in ways that will maximize the total of environmental, social and economic value. When setting the future vision, it is important to adopt both a "backcasting" approach of looking back from the targeted future ideal and a "forecasting" approach of looking forward from the present situation to enhance feasibility. Moreover, it is important to set the vision in a way to maximize city's attractions, showing their variety and originality as well as their unique natural and social resources.

The selected cities have to tackle challenges of the environment and aging as a

minimum requirement and then can take on such additional challenges as increasing their originality and comparative advantages. The selected cities are expected to tackle challenges in cooperation with other cities both inside and outside Japan. It is important to gather worldwide wisdom by absorbing other cites' successful cases all over the world, to integrate various efforts in different areas to realize synergistic effect, with the goal of socioeconomic systems where value is created continuously. This process should be more than just a real-world experiment and should lead to real innovations. By creating successful cases continuously and outgrowing subsidy dependence, the cities are expected to acquire a self-financing independence and establish financially autonomous models applicable both inside and outside Japan.

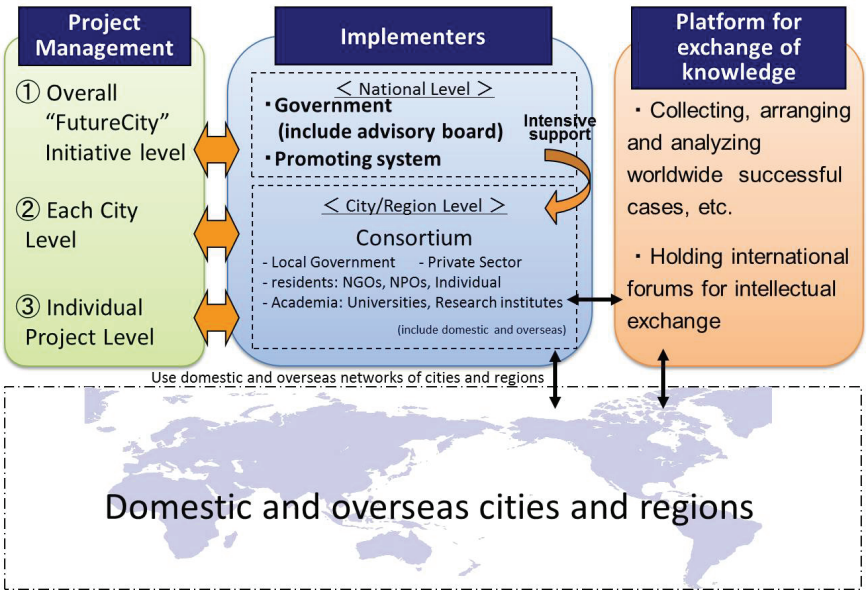
5. A scheme to promote "FutureCity" Initiative

Three important elements are necessary to make the Initiative a success: implementation of steady project management, establishment of a powerful and speedy executive organ, and strengthening cooperation between cities.

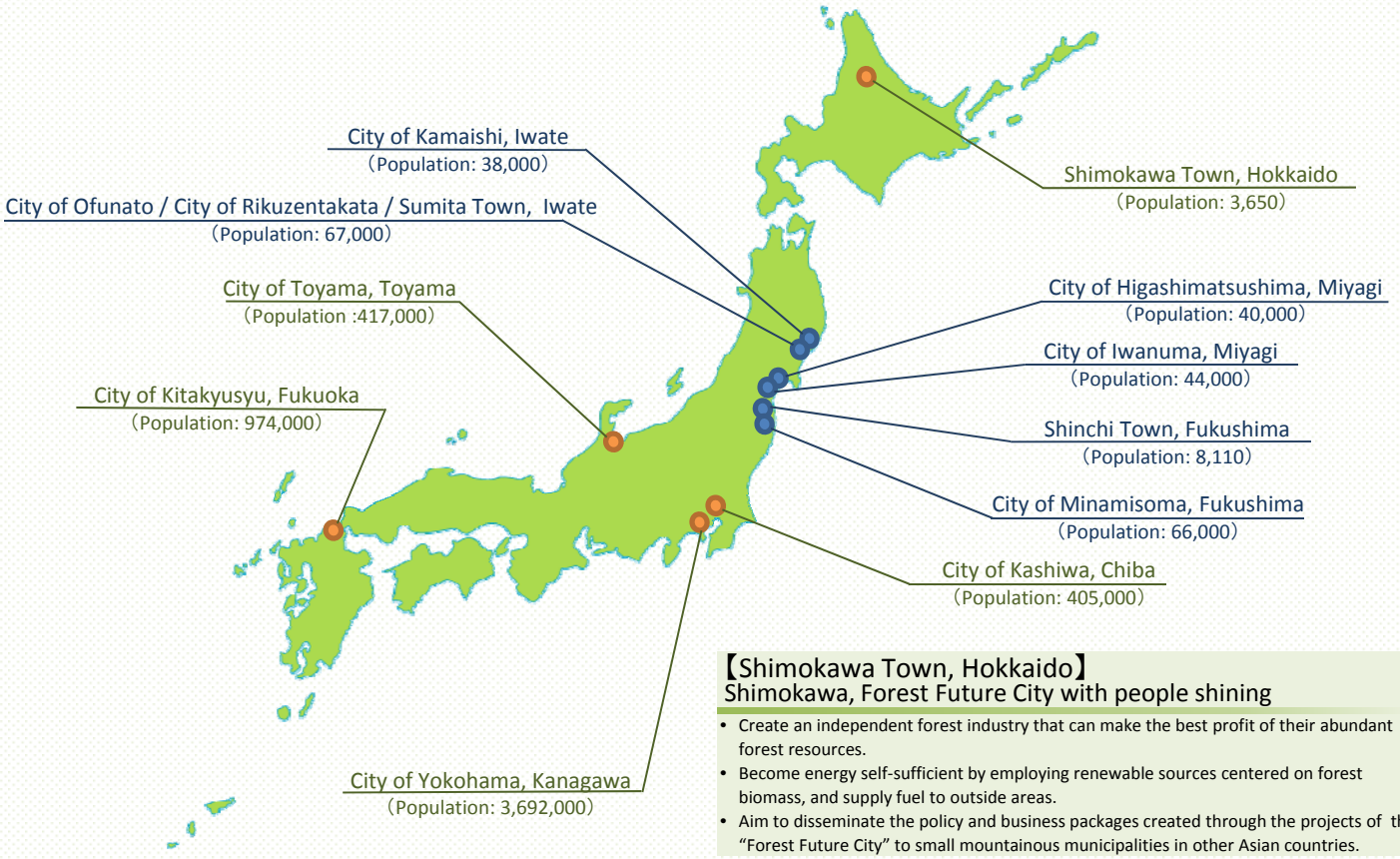
In the Initiative, three areas of project management are crucial: how to promote the Initiative effectively, how to manage all projects in individual cities, and how to monitor progress of each project. Steady project management employing the PDCA cycle in each of these areas will increase the possibility of success.

It is essential to have a powerful and speedy executive organ to create successful cases and disseminate them both inside and outside Japan. The national government will not only give advice to the cities but also establish a promoting system to coordinate financing, deregulation and various reforms. The selected cities will form a consortium with corporations, universities and local governments.

Improving successful cases and speeding up dissemination will be realized through strengthening cooperation among cities. The national government will construct an international intellectual platform by collecting, arranging and analyzing worldwide successful cases, disseminating them, and holding international forums for intellectual exchange. The selected cities will exchange successful cases with other cities both inside and outside Japan by utilizing the abovementioned platform as well as deepening cooperation with those cities continuously, including the exchange of citizens.



"FtureCity": Cities selected in 2011



【Shimokawa Town, Hokkaido】 Shimokawa, Forest Future City with people shining

- Create an independent forest industry that can make the best profit of their abundant forest resources.
- Become energy self-sufficient by employing renewable sources centered on forest biomass, and supply fuel to outside areas.
- Aim to disseminate the policy and business packages created through the projects of the "Forest Future City" to small mountainous municipalities in other Asian countries.

【City of Kashiwa, Chiba】 Kashiwanoha Campus City Project

"Autonomous urban management with partnership among public, private and academia"

- Leverage leading-edge knowledge that is possessed by universities and other research institutes
- Conversion to a smart city upgrading the regional energy management system
- Hire retired people as health supporters
- Support ventures by establishing and utilizing a Gap Fund that fills the gap between the university's fundamental research and business

【City of Yokohama, Kanagawa】 OPEN YOKOHAMA

-Creative Port City where People, Things and Events Connect and Develop-

- Leverage citizen's power of the city's population of 3,692,000, the historical background of the first port opening the country to the world, and accumulated knowledge on the environment and energy
- Promote the Yokohama Smart City Project (YSCP)
- Enhance mutual assistance of people in the local community by encouraging activities of NPO and other network, introduce life support function for the elderly to the houses and renovate and revitalize big size housing complex

【City of Toyama, Toyama】 Construction of Toyama style urban management with compact city strategy

-Towards sustainable and value creating city filled with social capital-

- Promote a compact city using public transportation centering on LRT
- Promote the shift from automobiles to public transportation/walking/ bicycles
- Utilize renewable energy such as marine/forest biomass and small hydroelectric energy
- Enhancement of crude medicine production system that will utilize both leading-edge biotechnology and the traditional technology of oriental medicines

【City of Kitakyushu, Fukuoka】 Kitakyushu FutureCity

- Leverage the experiences of overcoming pollution and global environmental cooperation, manufacturing technologies and achievement of tackling the issues of aging
- Deploy wind-power generation in other Asian countries and international water business in collaboration with the public and private-sectors.
- Maintain and Promote health level of citizens by local cooperation and citizen-centered wellness promotion
- Support the reconstruction efforts in Kamaishi City, by utilizing the achievements of the smart community creation project

- Areas affected by the Great East Japan Earthquake -

【City of Ofunato, City of Rikuzentakata, Sumita Town, Iwate】 Kesen Regional FutureCity

- Aim to be a world model for small cities and to be Tohoku Region's restoration model as a future disaster-preventing city
- Promote the installation of mega-solar power plants with the world's first regionally distributed storage battery system
- Promote regional development based on polycentric ideas

【City of Kamaishi, Iwate】 Kamaishi FutureCity Initiative

- Realize a "Kamaishi Recycling Society with a low-carbon (LC) , energy saving, and resource saving" by encouraging local energy production for local energy consumption as well as by creating industries utilizing various types of energy
- Realize a "Kamaishi Industrial Welfare City" by creating community where elderly people are motivated to live activity

【City of Iwanuma, Miyagi】 Reconstruction with Love and Hope

- Create harmony with nature by creating a "Hill of Thousand-Year Hope" using rubble from the disaster
- Promote a smart grid plan based on mega-solar businesses
- Utilize cloud technology to promote health management and cooperation among medical organizations, and establish base for advanced medical technology

【City of Higashimatsushima, Miyagi】 Reconstruction from the Great East Japan Earthquake

- Renewal of Higashimatsushima, Towards the future together without forgetting that day -

- Aim to achieve sustainable growth while realizing a safe and secure city
- Implement independently distributed power generation system with renewable energy, promote low-carbon building and EV
- Promote healthy housing by utilizing the CASBEE health checklist

【City of Minamisoma, Fukushima】 Recycle City connecting to the next generation, Minamisoma

- Realize an "energy cycle" by introducing renewable energy massively and by shifting to smart-grid based energy consumption
- Realize a "generation cycle" where several generations reside together in apartment complexes and co-housing
- Realize an "industry cycle" with independent processing/distribution routes with focus on the primary industry

【Shinchi Town, Fukushima】 "Of cource, Shinchi is the best town"

-Town where you can see the future and hope of environment and life-

- Promote local energy production/consumption and power generation businesses by utilizing large scale solar power generation as well as the town's publicly owned forests and thermal power plants
- Establish public transportation infrastructure as well as information and telecommunications infrastructure by using ICT (hardware infrastructure)
- Effectively leverage the local community (software infrastructure)

Shimokawa , Forest Future City with people shining
[Shimokawa Town, Hokkaido]

Future Vision

Shimokawa town will achieve the model of "Forest Future City" by 2030

Shimokawa Town, Hokkaido

◇Population: 3,645 (November, 2011)

◇Population aging rate: 37.2%

◇Area: 644.2 km^2 (Same size as Tokyo 23 wards)

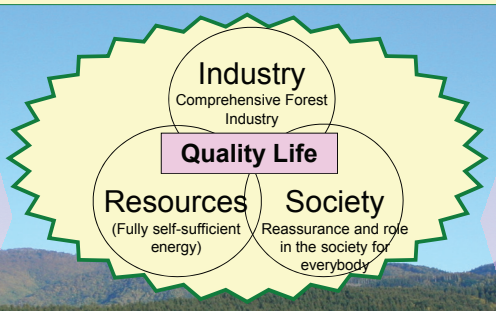
◇Forest land area: 569,8 km^2 (88% of the size of the town)

◇Comparative Advantage: Forest/Forest products industry, Use of Forestry biomass

- "Forest Future City" model -

"Forest Future City", is where people can live a spiritually rich life surrounded by wood and developing mental/physical health, as well as having fun in the forest, learning, and gaining sufficient income from the forest

Package promotion to small villages in the Asian countries



Self-sustaining energy and transition to low-carbon society

Fully self-sufficient energy supply (heat, electric) for the areas utilizing small-scale renewable energy distribution. Achieve the supply of energy for other local autonomies

By 2018
Achieve the 100% self-sufficient energy

Comprehensive Industry

Innovate the forest/forest products industry system, reduce costs, aim for high-value added products, and achieve self-contained profitability by promotion of use of wood.

By 2015
Amount to 3 billion JPY of production value from the forest industry

Society model corresponding to the super-aging society

Create the model of local society where everybody can create a comfortable life through mutual support and cooperation as well as maintaining mental/physical health

By 2030
Medical benefit for people aged 75 and over
Achieve 600,000 per year (per person)

Self-sufficient/independent foundation for development

Progress Management

Consolidate autonomous research development/incubation function, funding/outputting method, and the checking system

Approach

Comprehensive Forest Industry

Innovation of Forest Industry
Significant improvement of efficiency in management by implementing high-performance forest industrial machines and consolidating high-density forest roads.

Innovation of Forest Products Industry
Cost reduction on COC by utilizing ICT technology and transition to high-value added products.

Creation of Forest Culture
Familiarization of local material, wood products, environmental education

Self-sufficient Energy and Transition to Low-carbon

Consolidate a small-scale distribution system of renewable energy supply
Accelerate consolidation of biomass energy supply including private businesses

Create a business for cultivating energy producing plants
Business creation and ensuring profitability by cultivation of the willow trees and mechanization

Build the low-carbon-oriented structure
Create a system to give a economical incentive to various low carbon products

Society model corresponding to the super-aging society

Construction of collective housing
Transition into collective housing and formulation of autonomous community by local cogeneration

Enlargement of employment for the elderly
Expand businesses by organizations managed by the elderly and create more employment for the elderly

Long-term health management
Health management by promoting waking in the forest and easting local food products.

Self-sustanable Independent Development Foundation

Establish organizations for incubation institution/research development/training
Base consolidation that conducts date collecting, technology development, incubation support, and information

Build a local fund
Create a structure to inject funds into each project from local/outside source

Create the index of affluence
Regular measurement and development of the total performance indication by each projects from the citizen's view point











Structure

Shimokawa Promotion Conference

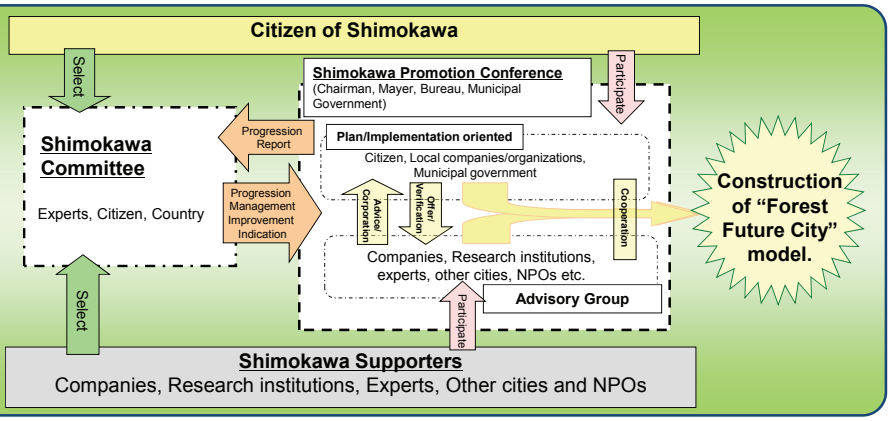
Business promotion organization where the citizens of Shimokawa Town, local companies/associations, and the municipal government, as well as outside companies, research institutions, and experts participate. The project will be conducted with the advices from the experts.

Shimokawa Committee

Governance organization made of a few experts and the local people. It will maintain autonomy by giving suggestions for improvement, conducting objective reviews of each project's progress and its direction of all the businesses of the Shimokawa Promotion Conference

Shimokawa supporters

Fan group composed of companies, research institutions, and experts interested in the foundation of the model of "Forest Future City"



Kashiwanoha campus city project

"Autonomous urban management with pertnership among public, private and academia"

City of Kashiwa, The University of Tokyo, Chiba University, Mitsui Fudosan Co., Ltd., Smart City Planning Inc., Urban Design Center Kashiwa-no-ha and TX Enterpreneur Partners

Future Vision

Autonomous Urban Management in Cooperation with Public/Civic/Academia

CO-CREATE ECO-SYSTEM, sustainable co-creation system, that allows universities to make plans as to the greatest resources of Kashiwanoha campus combining their cutting-edge knowledge with that of the local citizens and companies to manage the project sustainably and independently and to allow everybody who wants to contribute to the area, from the elderly, young people, and children with fresh ideas, to participate in urban development.

Smart City

Prosperous local energy management with the utilization of 100% natural energy and the participation of the citizens

[Numerical Goal]

◆Decrease in amount of CO_2 emissions from the joint development
→**About 40%** cut down Per work facility: **About 50%** cut down (2014)

◆Decrease in amount of CO2 by implementation of smart meter
→**About 15%** cut down (2014)

◆**Ensuring the minimum power** needed in local disaster prevention in Kashiwanoha Campus Station and five surrounding area for **three days** (2014)

◆**Decrease in number of automobiles and increase in number of bicycles** (2028)

Healthy Long-life City

A society where people can live an active and self-sustaining life by active participation in the society and utilizing mobility environment utilizing ICT

[Numerical Goal]

◆Installation of total health care stations
→ three **stations** (2014) → **seven stations more** (2016)

◆Increase in number of service cases by ambulatory rehabilitation office/in-home rehabilitation
→**1.5 times more** (2016)

◆Improvement the situation of service participants

New Industrial City

International environment with an active industry which cultivate businesses in the local area utilizing Japanese technology

[Numerical Goal]

◆Increase in number of investments utilizing a tax system promoting investment for the local universities/research and development venture companies
→**5** (2016)

◆Increase in the amount of support for the venture companies in the city by TEP
→**70** (2016)

◆Increase in number of fieldwork-style verification experiments in the city
→**80** (2016)

Achieve the safe/reassuring/sustainable city where everybody wants to live





Approach

[Local Issues]
- Increased CO_2 emission
- Traffic jams
- Rapid super-aging
- Static Manufacturing

Existing Solidarity Body Including Universities

Kashiwanoha Urban Design Center	Tokyo Uni. Academic-industry Consortium Gerontology
Kashiwa ITS Promotion Committee	Chiba Uni. College Link./Network
Kashiwanoha Urban Ecology Promotion Committee	NPO Plant Factory Collegiums
Smart City Planning Company	TX Entrepreneur Partners

[Local Resources]
- Accumulation of universities and research institutions
- Development centered on the station
- Rich nature, agriculture, Bearer of the local area

Approach Policy to Achieve the Goal

		15 Specific Approaches
[Environment] Smart City	Utilization of local energy	1. Consolidation of Kashiwanoha AEMS Center 2. Carbon offset system 3. Local production/consumption of renewable energy 4. Installation of large-scale gas power generator
	ITS Smart town which is good for both people and the environment	5. Interchange power between cities in an emergency 6. Enlargement of the multiple transportation sharing/system 7. Establish Kashiwa ITS information center
[Super-aging Society] Healthy Long-life City	Total healthcare installation of health stations	8. Create total healthcare station
	Construction of a community where the elderly can contribute	9. Construction of a community where the elderly can contribute to the area 10. Comprehensive support for ventures from universities/research institutions
[Other] New Industrial City	Create a model district for initiation training	11. Achieve a model case of support for individual initiation 12. Networking of ventures from Asian universities
	Establishment of urban management model in collaboration with the public/private/academic	13. Regional power point system that cultivate the region's energy in the area 14. Flexible maintenance and operation of roads based on local rules 15. Construction of a network and urban development center in collaboration with public/private/academic

Structure

Existing initiative and follow-up structure

Kashiwanoha International Campus Town Initiative (March, 2008)

Follow-up by public/private/academic, Progress management of businesses (2008 –present)

-Establish the follow-up task force every fiscal year organized by Kashiwanoha urban design center [UDCK] as the Head office.
-Organize a liaison conference and conduct progress management and adjustment
-Publish the follow-up report every fiscal year

Application of PDCA

FutureCity Project Promotion Structure

Kashiwanoha Campus/FutureCity Consortium (Project Manager: UDCK)

Public: Kashiwa City
Private: Mitsui Real Estate Co. Smart City Planning Co
Academic: Tokyo Uni. Chiba Uni.
TX Entrepreneur Partners [TEP]
Kashiwanoha Urban Design Center [UDCK]

1. Environment Section	2. Super-aging society Section	3. Initiation Training Section
-Utilization of local energy ITS smart town which is good for both people and environment	-Installation of health stations -Construction of a community where the elderly can contribute	-Create the model district for initiation training -Establishment of urban management model in collaboration with the public/private/academic

Kashiwa Chamber of Commerce and Industries — participate / Deploy — Local Company

FDC Business Consortium — participate / Deploy — Domestic/International Company

Company

UDCK Station Area Committee — participate / Deploy — Citizen

-Project promotion by promoting the participation of the citizens and private investment based on an open platform
-Promotion by the transmission of information and taking in opinions from the citizens
-Progress management, judging the priorities, and overall adjustment based on the experience of the Project Manager (UDCK)

OPEN YOKOHAMA

-Creative Port City where People, Things and Events Connect and Develop- [City of Yokohama, Kanagawa]

Future Vision

Urban renovation that introduces the new system and services to various kinds of established cites by enterprising spirits since the opening of the port and the cooperation of the citizens that innovates society continuously.

Happy citizen life supported by the continuous cooperation of the low carbon energy network, medical care, nursing care, welfare, and parental care.

Attractive cityscape where people can enjoy both functional business space and living space rich in nature.

Creation of industries utilizing Yokohama's strengths such as environmental technology, life innovations, and the interaction between people/city in places where people can enjoy culture art

Yokohama's expected issues

- **The population increased 3.5 times after the war, it is apt to keep increasing until 2020 > Energy consumption is apt to increase as well**
- **Expected "a million elderly" society, and the simultaneous deterioration of group housing**

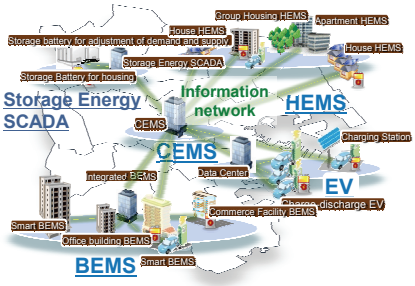
[Example of numerical goal]
Implementation of renewable energy: 27 MW, Number of new locations/Attract enterprises: more than 60 per year

Approach

Low-carbon/ Water

➢ **Formulation of Community Energy Management System (CEMS)**

-Large participation of the citizens/Partnership among power systems



- Specific electrical industry in Minato Mirai area
- Low-carbon transition plan at Yokohama port

➢ International contribution utilizing the Yokohama's water and sewage technology

- Support the water business of private enterprises
- Water purification of the port and the waterfront


Technical aid in Vietnam

Super-aging

➢ **Effect of social contributions of the elderly to economic activation**

- Build the structure where the elderly can participate local activities and maintain their health in an enjoyable format

Yokohama Health City
Health management for a million people

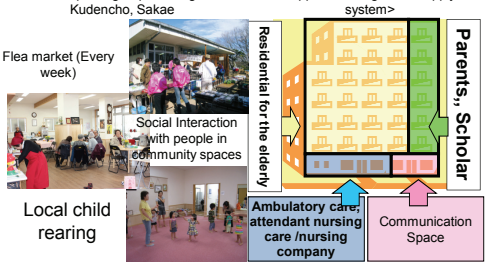
➢ **Construct a warm compact city**

(large-scale residential complex, regenerating railways.)

- co-living of the elderly, parents generation, and the young people
- Construct a structure to support the elderly in collaboration with the citizens, NPOs, and welfare organizations.
- Support with the cooperation of medical care and welfare

Local mutual support <Example of group housing in Kudencho, Sakae

Image of Yokohama style mutual support housing <new supply system>



Creativity/ Challenge

➢ **Consolidate global urban brand**

- Spread the highest standard culture art at various bases
- Attract MICE by the vogue of the culture art

*Collective term for business events expecting many guests

➢ **Pioneer of the industry continuously creating innovations-**

- Attract global companies' headquarters office/the bases of research and development
- Construct the base of life science

Urgent Urban renovation area

International Strategy Special District


Urban development in Kitanakadori North area (image)


Yokohama Bio Industrial Center

Shared office for female entrepreneur "F-SUS YOKOHAMA"

Contribute to the reconstruction of the disaster-affected area
(Aizuwakamatsu in Fukushima, Yamamotocho, Minamisanrikucho in Miyagi)

Structure

- Project consortium and area coordinator will cooperate together and promote the project with the overall effort of the city
- Recruit technical personnel who verify the business and its risk assessment, and divide the resources properly

Yokohama FutureCity Consortium

PDCA, Government Policy Alignment, Coordination/Project Support/Promotion/ Funds Arrangement

Project Consortium (Corporation centered)

Technical Innovation/Early Implementation

Collaboration

Area Coordination (Participation of the citizen, the local organizations)

Offer information service, support implementation of new technology, and raise awareness of the issues and needs of the local area

Construction of Toyama style urban management with compact city strategy
-Towards sustainable and value creating city filled with social capital- [Toyama City, Toyama]

Future Vision

Urban Development

●**Compact urban development based on public transportation**

Achieve a compact city with various collected urban functions such as residential and commercial facilities along with convenient transportation

Location promotion of residential houses and commerce facilities	Improvement corporation productivity	Increase local employment	Increase in tax revenues by utilization of the whole local area	Improve government cost efficiency

Achieve efficient urban management (Create a sustainable suburban city)

Citizen Life

●**Comfortable town centered on people with no need for automobiles**

●**Convenient life with integrated urban functions within the city**

People have easy access from within the city/to the city center, and important life service facilities such as medical care centers with no need for an automobile, if they live along the public transportation routes,

[Numerical Goal] Public transportation users: 62,432 (2009) → **64,000 (2016)**

[Numerical Goal] The ratio of the population in the area which has convenient access to public transportation compared to the total population: 32% (2005) → **35% (2016)**

●**Slow, village style life**

Natural areas such as forests and rural landscape are properly maintained/preserved, this allows people in urban areas to experience agriculture and nature. Also, environments for settled life such as medical care/welfare in rural areas are well maintained.

[Numerical Goal] Dimension ratio of the certified farmers: 29.3% 2010) → **70% (2016)**

Industrial Activities

●**International Competitive Medical City Toyama**

Drug discovery ventures will gather, centering on major medicinal product manufacturers which have high drug-discovery technology and a background in the history/technology of medical products.

[Numerical Goal] Shipment value of pharmaceutical related companies: 161.7 billion yen (2009) → **268.6 billion yen (2018)**

-Promotion of renewable energy industry

Natural properties such as the Toyama gulf, mountains at a height of 3000 m, steep streams and other renewable energy are diffused and utilized in various industries at a maximum.

[Numerical Goal] Installed renewable energy capacity:

0.3 GJ/year (2005) →**1,217,891 GJ/year (2030)**

Suggest Solution Model of Issues in Suburban Cities

Approach

[Environment]

- Activation of public transportation
- Collect urban functions in the city center/along the public transportation
- Utilization of renewable energy

[Super-aging Society]

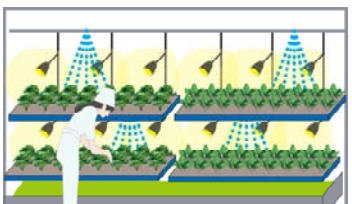
- Walkable urban construction
- Construction of natural medicine production system
- Care prevention/in-home nursing service by interaction between people

[Other: Agriculture and Forestry]

- Blanding of Toyama in cooperation with agriculture/commerce/industry
- Construction of self-sustained forest industry by effective use of forest resources
- Consolidation of the base for cultivation of the human resources who will support the rejuvenation of secondary forest.

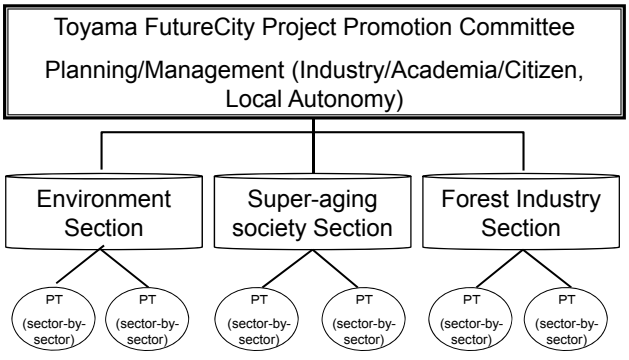
Construct LRT Network

Construct the resource recycling system utilizing the sea biomass



Construct the natural medicine production system

Structure



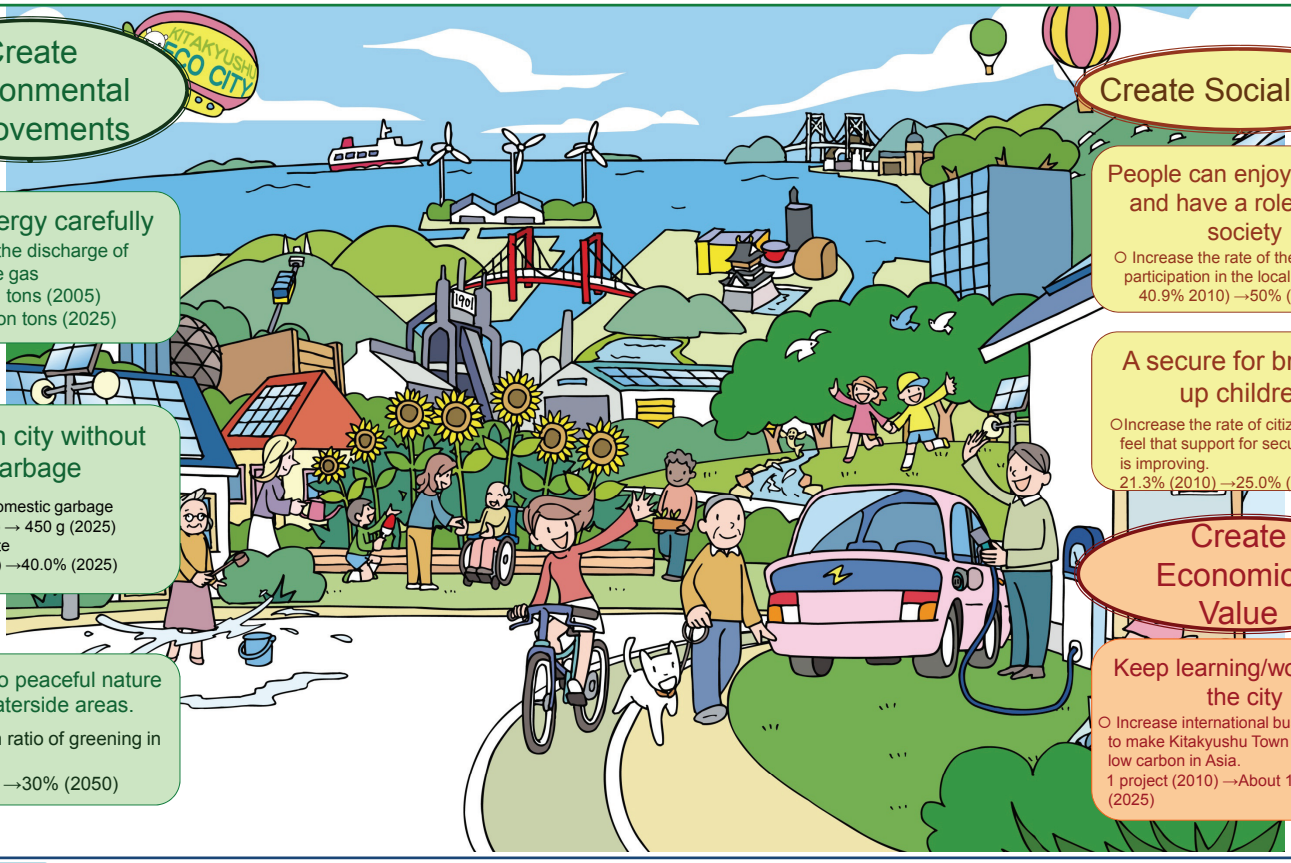
○ Put a project manager who is responsible, and has authority for the whole organization in the promotion committee.

○ At the promotion committee, deliberate the progress of each project, and the project as a whole, manage flexibly as well as strictly, and decide changes/discontinuation depending on the situation.

Kitakyushu FutureCity [City of Kitakyushu, Fukuoka]

Future Vision

A bustling, secure, and vigorous city where people can shine.
-Utilizing the experience from dealing with pollution and the innovation of sustainable creation-



Create environmental improvements

Use energy carefully
○Decrease the discharge of greenhouse gas
15.6 million tons (2005)
→11.8 million tons (2025)

A clean city without garbage
○Amount of domestic garbage
506 g (2009) → 450 g (2025)
○Recycling rate
30.4% (2009) →40.0% (2025)

Close by to peaceful nature And Waterside areas.
○Increase in ratio of greening in the city
17%(2010) →30% (2050)

Create Social Value

People can enjoy their life and have a role in the society
○ Increase the rate of the elderly participation in the local activities
40.9% 2010) →50% (2025)

A secure for bringing up children
○Increase the rate of citizens who feel that support for security projects is improving.
21.3% (2010) →25.0% (2025)

Create Economical Value

Keep learning/working in the city
○ Increase international business plans to make Kitakyushu Town a center for low carbon in Asia.
1 project (2010) →About 100 projects (2025)

Approach

Environment

○Smart Community Created Business
○Strategic International Environmental Cooperation
○Forest-in-town Project
○Construction a method of recycling Kitakyushu's resources

Super-aging Society

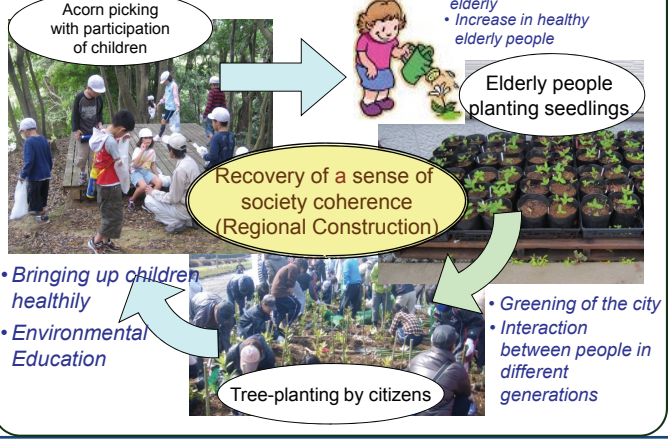
○Fulfill the emergency medical system and rehabilitation system.
○Promotion of a local-oriented health maintenance
○Enhancement of the Kyusyu model of local welfare network

International Environmental Business Renovation Support

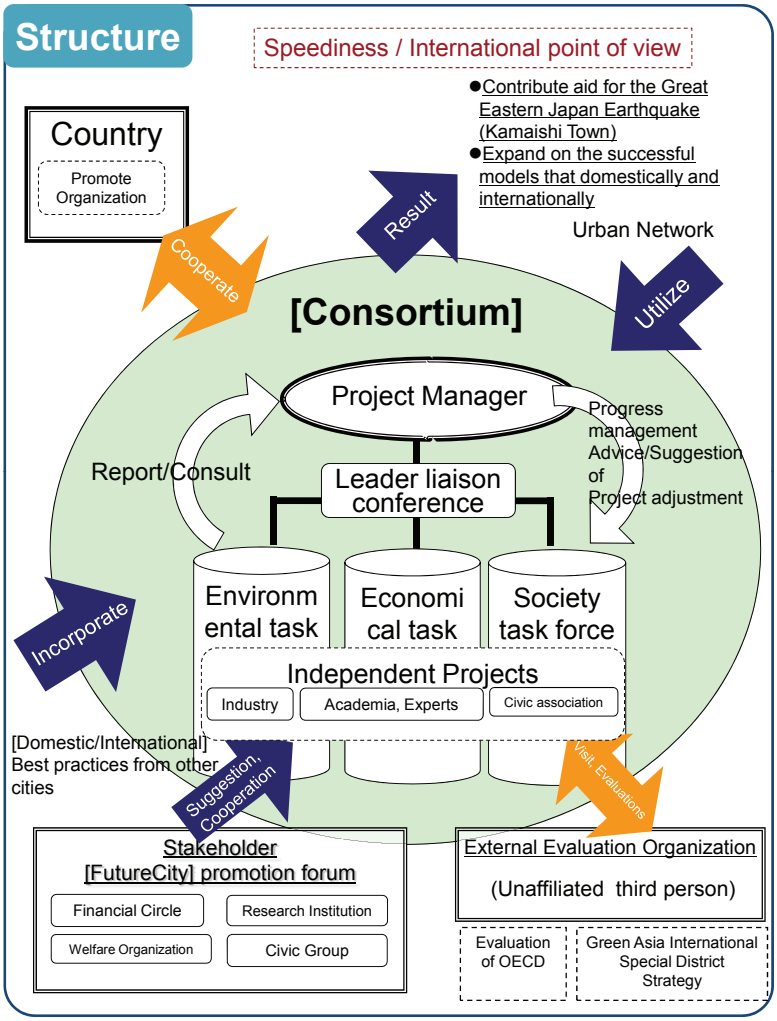
○An Asian low-carbon center (International water business etc.)
○Support for the disaster-affected areas by utilizing the result of smart community business creation etc.

●Independent approaches Kitakyushu aims for
-Strength of the local community is beyond the generation/family unit, it utilizes the connection of the community-

○Forest-in-town Project (Environmental capital, planting a million trees



Structure



Kesen Regional FutureCity

[City of Ofunato, City of Rikuzentakata, Sumita Town, Iwate and Forum for East Japan Smart City Project]

Future Vision

Kesen region will aim to reconstruct the disaster-affected city. By valuing the environment, society, and economy synergistically as a world-leading environmentally disaster-prepared city of the future, it will aim to be a model of Tohoku's urban reconstruction and a world model for small-scale cities.

It will also intend to diffuse/expand the urban society system created in the Kesen region (City of Ofunato, City of Rikuzentakata, Sumita Town) domestically and internationally.

It will build a mega solar power generating plant with a locally-distributed energy storage system to stably supply electricity to the region and to achieve a society where the citizens can have a safe and secure life. It will also construct either a local production/consumption system for a distributed energy society.

They aim to achieve a flat compact, consolidated city with a senior-friendly transportation environment and advanced transportation methods regarding elderly housing, medical care/nursing facilities, places for employment, as well as achieving a social environment where life of people, from children to the elderly, are well connected.

They aim to achieve innovative progress for social infrastructures such as promotion of the secondary industries, medical welfare, agriculture, forestry and fishery industries, transportation and distributions in collaboration with the features of each town, which is also tackling the issue of super-aging societies with more than 30 percent of population over 65 years old. They hope to construct a town where people can live safely and comfortably. Also, they will aim for an advanced life style (sharing, recycling and re-using materials) by implementing eco-friendly projects, such as mutual support and shifting to using from owning utilizing ICT.

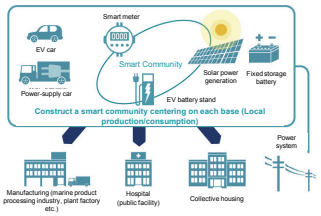
Approach

Environment

Build a solar power plant with storage battery

Achieve the world's first local energy production/consumption in a small-scale city by solar power generation with a locally distributed energy storage system

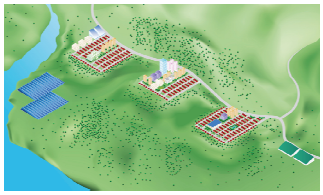
Construction of a hybrid energy system for existing electricity and renewable energy



Super-aging Society

Create a senior-friendly linked-compact city utilizing a hill

Create a compact city with elderly housings, public facilities, places for work, houses of families, and commerce facilities nearby



Consolidate a senior-friendly transportation environment and an advanced transportation method

Enhance the disaster-prevention for the elderly housing

Create an advanced model for nursing care and welfare

Create places of employment for the elderly including agriculture reconstruction

Other: Reconstruction of industry

Promotion of the large-scale stationary storage battery industry

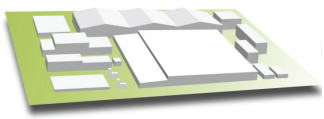
Attract large-scale stationary battery manufacturers and build a base for the renewable energy related industry

Promotion of agriculture, forestry and the fishery industry utilizing know-how and advanced technology

Method for utilization of timber with the of coexistence with the sea and forests

Plant factories and distribution system

Development model for wooden eco-housing complexes



Large-scale stationary battery manufacturing plant

Structure

Executive team	Chairman: Mayer of Ofunato (Representative of Kesen region)
Member	Project manager officials of two cities and one town coordinator of each project

A Project Team | B Project Team | C Project Team | D Project Team | E Project Team

Officials of two cities and one town, Business operators, Citizens

Clarify its goal and the project contents and implement the project management properly with the support of the Eastern Japan FutureCity Collegiums for those municipalities

The executive team composed of the municipalities of Kesen region and members of the Eastern Japan FutureCity Collegiums will conduct project evaluation for the goal and the project contents as well as promotion, management, and adjustment for each project with some correction of the course.

Place the Kesen's reconstruction project as a project centered on participation of the citizens, and incorporate opinions from the citizens through conversations between the citizens and people from industry-government-academia

Establish a project team for business, and conduct the best management for each team

Kamaishi FutureCity Initiative

[City of Kamaishi, Iwate]

-Kamaishi's new challenges leading other small-scale cities

Future Vision

Kamaishi in 2050

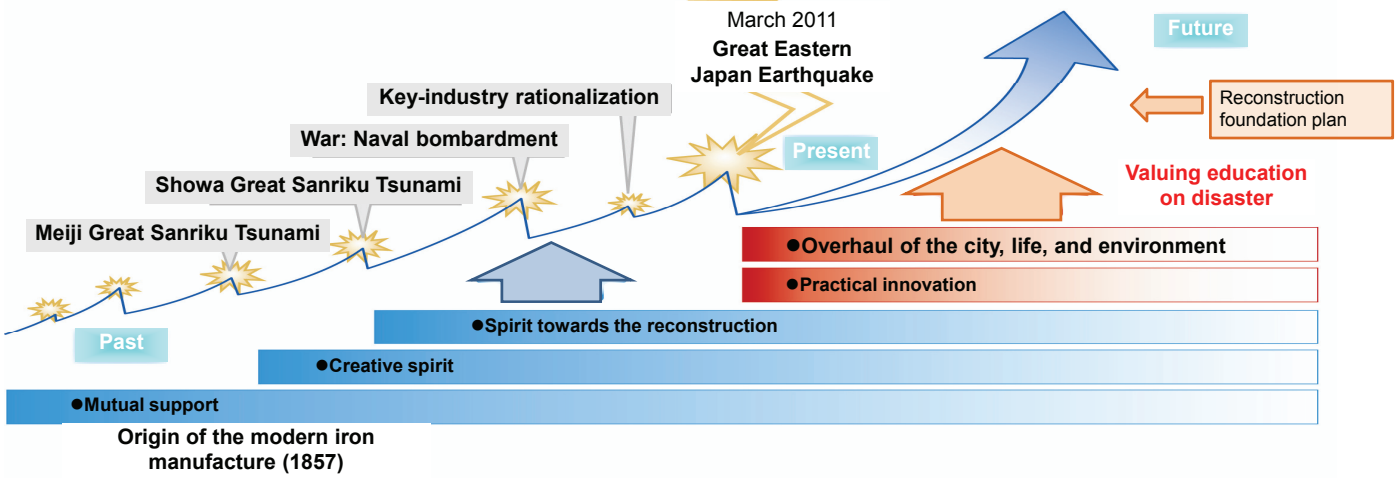
Rich environment and comfortable life	Fulfilling life with places to work for	Interaction between people, things and information
Resource cycling society by promoting low carbon, power saving/resource saving	Town of mutual support where people can enjoy their role in society	Interconnected city where people and cities are connected

Kamaishi FutureCity Initiative






"Town shining on the land of Sanriku, filled with hope and smiles



Approach

Environment

–Resource Recycling Society by Low-carbon, Energy Saving and Resource Saving

1. Promotion of local production/consumption of energy

- Promote implementation of various types of energy utilizing the storage of electric generation facilities.
- Expand the verification business by establishing a collective reconstruction model "New energy community model"
- Promote the independency of the energy environment of base facilities in town

2. Create industries utilizing various types of energy

- Research the best combination of various types of energy and create new industries utilizing local energy and exhaust heat.
- Utilize their specialty: abundance of forest, establishment of effective wood supply system by cooperation with other industry sector.

Main Numerical Goal

-Local Energy Generating Ability
181.470 kW (2011) > 240.000 kW (2015)

-Percentage of renewable energy within local power generation
25% (2010) > 45% (2015)

-Percentage of employed elderly over 65 years old
12.2% (2005) > 15% (2025)

-Percentage of people who want to stay in Kamaishi
64% (2009) > 80% (2015)

Super-aging Society

–Structure of Industrial Welfare City Kamaishi

1. Urban development where the elderly can have their motivation for life

- Employment support for the elderly to consolidate the environment where people can work for their entire life
- Create chances to interact with people for the elderly and the local people by utilizing the community center for the elderly
- Create structure where the elderly can contribute to society through the interaction with the young people

2. Coalition of health, medical care, welfare and nursing care

- Enhance the role of the life support center
- Build a caretaking structure by ICT in the new energy community model
- Build a local network of healthcare, medical care, welfare and nursing service utilizing ICT
- Enhance the support system by the home care center after leaving the hospital .

Urban development with the effective use of historical environment

–Kamaishi Field Museum Initiative

1. Deployment of the field museum initiative

- Create a structure that shows the town's history and the progression of the reconstruction as it is to the visitors.
- Crystallize the participatory approaches that heighten the awareness of disaster prevention as a way of sharing local identity

2. Information transmission on industrial heritage to abroad

- Share the value of the remains of Hashino blast furnace and deploy civic activity aiming for the registration to UNESCO
- Spread "the miracle of Asia", construction of the modern iron manufacture, and rebuild the citizens' self-respect

3. Approach to attract the Rugby World Cup

- Attract the Rugby World Cup in 2019, the citizens' shared goal
- Attract sports tournaments/training camps/induction courses and deploy the related hard/soft businesses aiming to send the players as representatives from Japan

Structure

Mayer

Project Manager

-Preside -Contact adjustment with the town and the conference
-Progress management
-Suggestion to the council

Bureau: Kamaishi promotion head office, leading business promotion room

Promotion conference(1. Environment)	Promotion conference(2. Super-aging)	Promotion conference(3. Other)
•University •Power Generation company •Local Company •Chamber of Commerce and Industry and such	•Medical Association •Medical Institution •Healthcare Center •Social Welfare Council and such	•Social Education Organization •Sports Organization •Kamaishi Mine •Iron History Museum and such

Reconstruction of Love and Hope [City of Iwanuma, Miyagi]

Future Vision

• Iwanuma aims to be an ecologically compact city where the elderly can have a rich and secure life and which utilizes the historical rural landscape surrounded by the Sadayama Canal and Igune built in the Edo period.

• An ecological compact city with a rebuilt community made by group relocation from the coastal areas to the east part of the city will be put into place by 2020.

• The town will use the medical cloud for health management so that the elderly can live securely. It will build an independent energy system as well as the Hill of Thousand-Year Hope, which can also be used as an evacuation center in an emergency. It will also aim for well disaster-preventing urban development, which is also good for both people and the environment.

• By 2050, it aims to be Iwanuma, a city where the citizens can live a rich life in good health with sustainable economic activities, the promotion of the medical industry, and the next generation agribusiness that will provide places to work comfortably for the elderly.

Image of FutureCity that Iwanuma Suggests

Approach

[Environment]
Nature Environment/Biodiversity, Low Carbon, Energy Saving

•Construction of the Hill of Thousand-Year Hope and an ecological compact city (January 2013: Launch on building the hill)

•Implementation of an energy management system utilizing natural energy (April 2012: Start attracting the mega-solar business associations)

[Super-aging] Medical Industries, Local Medication

•Coexist with nature and consolidate the international medical industrial city
(By March 2015: Attract medical-related companies: Three companies)

•Promote local preventative medicine business via the medical could
(By March 2014: Promotion of networking between medical institutions and welfare facilities within the ecological compact city)

[Other: Agriculture]

•Reconstruction of agriculture by next generation agribusiness
(By October 2012: Create 20 places of employment for the disaster-affected people

Structure

Iwanuma Disaster Restoration Committee

Decision-making institution (PDCA checking institution)

- Task force for the Hill of Thousand-Year Hope
  - Consider the possibility of making use of rubble from the disaster as construction material/agricultural material for the next-generation agribusiness
- Task force for the ecological compact city promotion
  - Consider the possibility of group relocation area/rejuvenation of Igune/method for promoting preventative medicine by implementing the medical cloud in the elderly housing
- Task force for the promotion of international medical industrial city
  - Review of the international advanced medical technology, consider steps to attract medical industries/areas to attract those medical industries
- Task force for the next-generation agribusiness promotion

Reconstruction from the Great East Japan Earthquake
- Renewal of Higashimatsushima, Towards the future together without forgetting that day –
[City of Higashimatsushima, Miyagi]

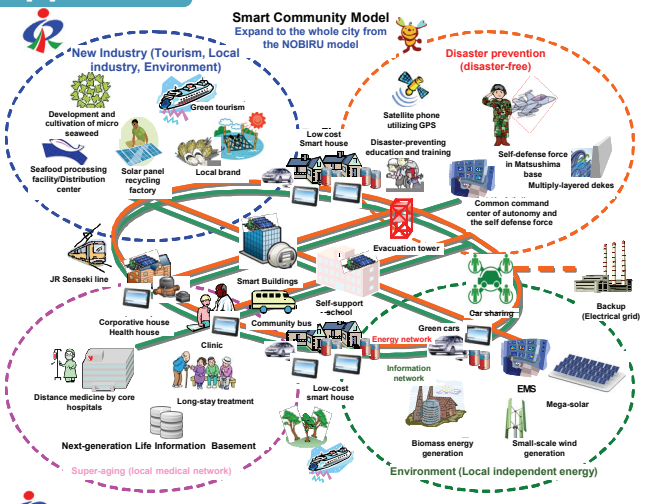
Future Vision

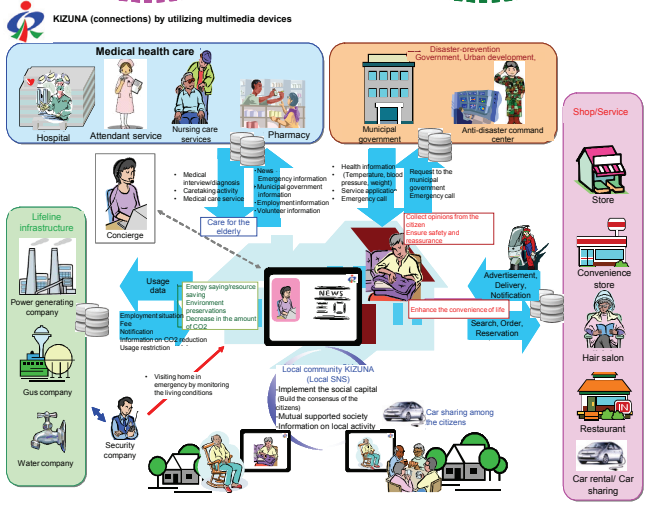
Urban Reconstruction Plan = FutureCity

Higashimatsushima aims to be a town in 2050 where people can be proud and live a healthy life, with hope for the future, attracting tourists from all over the world as a symbolic town that recovered from a natural disaster, and the generation that experienced the Great Eastern Earthquake supports the urban development with the next generation together.

Aerial photo of Higashimatsushima before the disaster

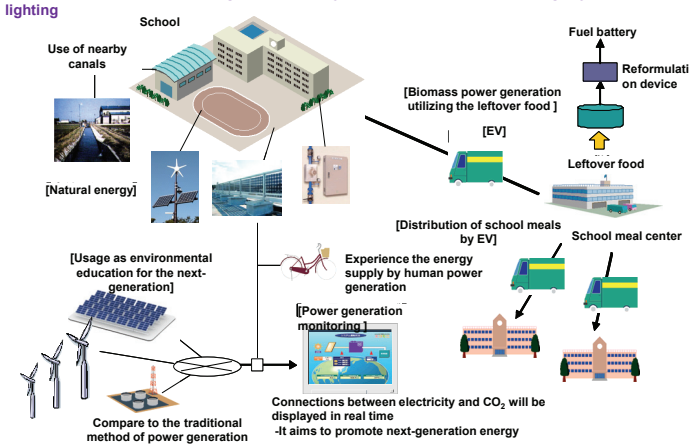
Approach





Self-support school initiative

[Utilize as a power supply to evacuation sites during a disaster
...Consider countermeasures against electricity demands such as water/sewage system, A/C, lighting



[Numerical goals of the project]

1. Environment

Energy-sufficiency ratio in town:
Less than 1% (2011) ⇒ 120%(2026)

2. Super-aging Society

Annual medical cost for people covered by national health insurance:
241,682 yen (2011) ⇒ 217,513 Yen (2026)

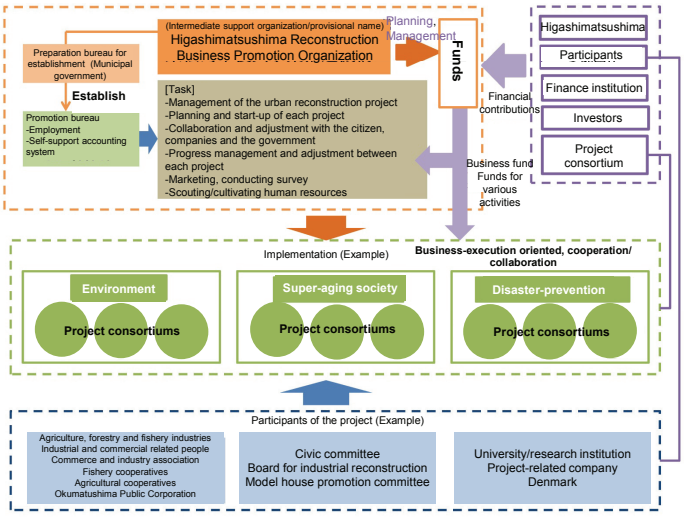
Employment ratio for people older than 65 years old
29.29% (2011) ⇒ 33.44%(2016)

3. Disaster Prevention

Energy sufficiency rate at evacuation sites: 0% (2011) ⇒ 100% (2016)

People who come for observation/inspection of the disaster-preventing town :
0 (2011) ⇒ 2,500 people (2016)

Structure



Recycle City connecting to the next generation, Minamisoma
[City of Minamisoma, Fukushima]

Future Vision

- Area with sustainable and self-sufficient power
- Transition to an energy saving society
- Secure environment

Energy Cycling City

Goal

Local production/consumption of energy

- Construct an infrastructure where people can enjoy their work for the whole life
- Enhancement/recovering of the community
- Promotion of universal design

Generation Circulating City

Goal

•Revitalization of the community, and verification, expansion and development of the model area

- Create circulating industry tat supports a part of regional industry
- Create stable employment
- Create new industries

Create circulating local industries

Goal

•Diffusion and promotion of the EDEN plan

•Reconstruction of farmland and primary industry

By 2050

No Nuclear Power Station

Low Carbon Society

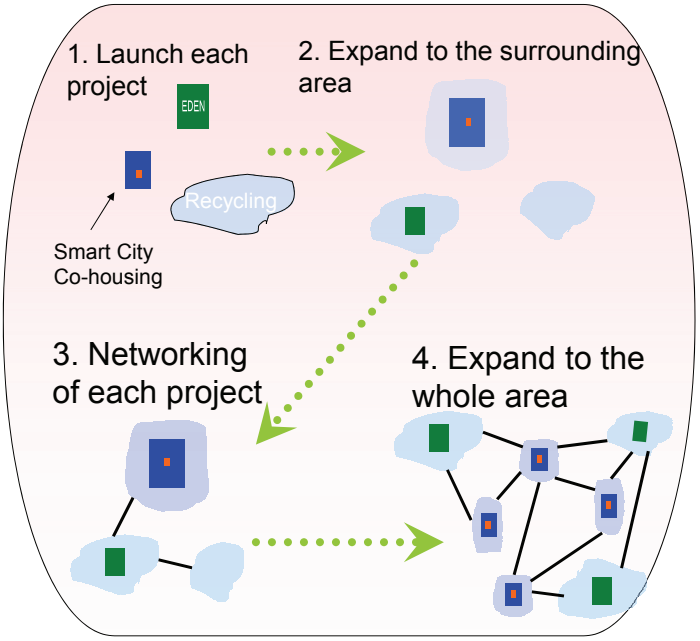
Nevertiree

Compact City

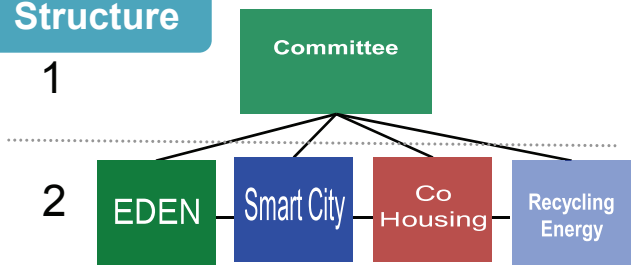
Construction of new industries

Activation of industries

Expansion to the whole city



Structure



1 FutureCity Promotion Committee

- **Progress management of the projects, adjustment of each team, collecting suggestions from the citizens**

Structure

Committee — Experts, Team leaders from each team, Municipal government

Organize the FutureCity initiative as the leader of section meeting

2 Team by projects

- **Decide the project contents –Progress managements of projects –Adjustment of issues**

Structure

Smart City	Experts, Local citizens, Local companies, Power companies, Related companies, Municipal government
Co Housing	Local citizens, Medical-related people, Municipal hospitals, NPO, Related companies, Municipal government
EDEN	Experts, Farm area for enrichment, Agriculture companies, Related companies, Authorized farmers, Municipal government
Recycling Energy	Experts, Local citizens, Power companies, Municipal Government

3 Municipal government/ Government

- **Utilization of reconstruction area –Conference management**
- **Collaboration and coordination with the country**

Structure

Minamisoma — Planning/Management Division, Person in charge of the related division

Approach

[Environment] Energy Cycling City by Smart City

-Build/organize renewable energy generation facilities

-Construction and diffusion of solar-power generation and new energy saving collective area utilizing EV

-Active innovation on environmental study and improvement in environmental awareness

[Super-aging Society] Generation Circulating Town where is comfortable for everybody

-Construct a "collective" with features of co-housing.

*Co-housing: (As a collective)

-Build residences using a universal design and super-insulated material

-Provide spaces for the local community by setting an inner garden and common facility in the center of the settlement housings

-Decrease the environmental load by using renewable energy

-Continue projects such as the reduction of waste/recycling as a collective

[Industry] Create Circulating Local Industries Centered on the EDEN Plan (Future style farming utilizing the renewable energy)

-Consolidate plant/flower nurseries and produce agricultural products stably.

-Conduct reconsolidation/intensification of farm fields and establish an agricultural product association with the proper management scale.

-Create sustainable circulating industries and support a part of local employment by creating an independent organization that conducts diversifications of distribution/processing routes, marketing outlets, and research and development.

"Of course, Shinchi is the best town"

-Town where you can see the future and hope of environment and life-[Shinchi Town, Fukushima]

Future Vision

As a vision of 2050, Shinchi aims to be a town where the local people and new residents and those that visit Shinchi can feel the spiritual affluence through the abundance of nature, rich life, and connections between people, and they can feel that they like Shinchi.

1. Town with the sea that coexist with nature

Complete the consolidation of the thermo power plants and mega-solar unit and achieve the creation of new industries as well as achieving a stable power supply in the local/surrounding area

2. Town where people are connected by KIZUNA

Build connections between people who support the participation of the elderly in the society, in cooperation with a new service that contributes to citizen's life support through consolidation of an on-demand transportation and value-added network (VAN).

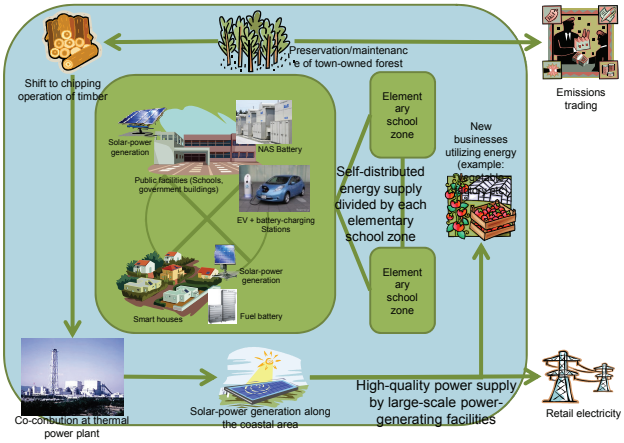
3. Life as the top priority

Establish a disaster-prevention structure and complete the consolidation of infrastructure towards the expected tsunami.

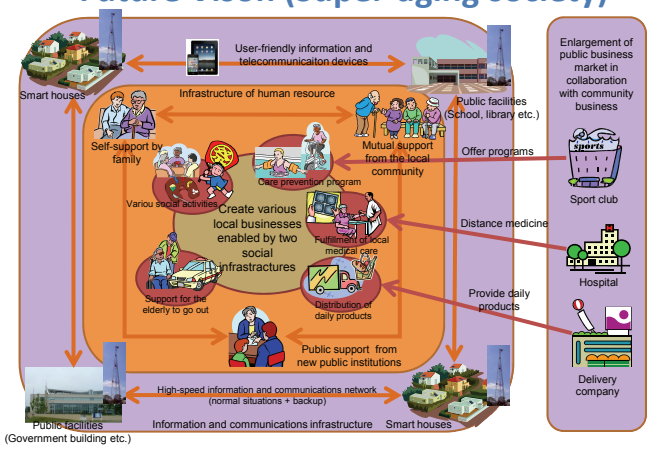
Main Numerical Goal (Within next 10 years)

- Self-sufficiency ratio in natural energy toward the power demand in town (0% → 100%)
- Energy usage of forest biomass (0 ton → 200,000 tons)
- Self-sufficiency energy ratio in public facilities and residential (Less than 10% → About 60%)
- Disperse tablet information terminals (412 → About 2500)
- Local community business situation (A few → About 400 people)

Future Vision (Environment)



Future Vison (Super-aging society)



Approach

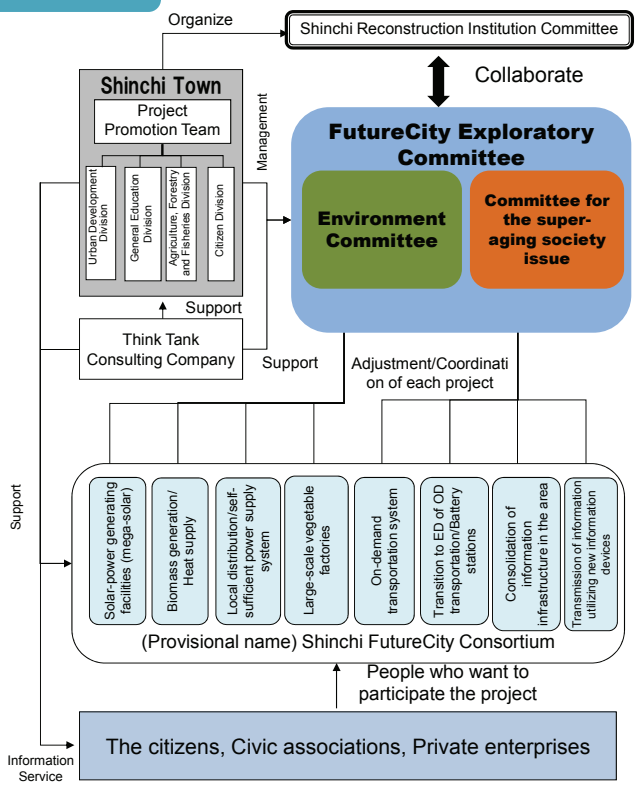
[Environment] Low Carbon, Energy Saving Society

- Solar-power generating facilities (Mega-solar system)
- Biomass power generation/Heat supply
- Construction of the local power distribution/independent power supply systems centered on local elementary schools
- Large-scale vegetable factory

[Super-aging Society] Nursing Care and Welfare in the Local area

- Upgrading of the on-demand transportation system
- Establishment of battery stations for each area, and the transition to EV of on-demand transportation
- Consolidation of information infrastructure in the area
- Transmission of local information by utilizing new information devices

Structure



Development of the "FutureCity" Initiative

2010

Jun. **Cabinet Decision on the New Growth Strategy (June 22)**

The "FutureCity" Initiative was identified as one of the 21 National Strategic Projects.

Oct.

Nov.

Dec.

Concept Study of the "FutureCity" Initiative (Oct. – Feb. 2012)

The concept of the "FutureCity" Initiative was studied by an expert/a wise men's Group for the "FutureCity" Initiative (Chairman: Shuzo Murakami, President, Building Research Institute)

2011

Jan.

Feb.

Mar. **Public Solicitation of Proposals (March 8 - May 9)**

Proposals on ideas regarding projects and governmental assistance are publicly solicited to consider concrete support measures for the implementation of the Initiative (93 proposals from 79 proposers).

Apr.

May **Forum on the "FutureCity" Initiative (April - May)**

The Forum to disseminate the concept of the "FutureCity" Initiative to the public was held in 7 regions of Japan (Tokyo, Hokkaido, Chubu, Kinki, Chugoku, Shikoku, and Kyushu).

Jun.

Jul.

Aug.

Sep. **Public Solicitation of "FutureCity" Candidates (Sept. 1 – 30 with the exception for the disaster-affected area by Oct. 25)**

30 proposals including 6 from the disaster-affected area were submitted.

Oct. **Selection Process of model cities of the "FutureCity" Initiative (Oct. – Dec.)**

Selection process was held by the expert/wise men's group for "FutureCity" Evaluation and Research (Chairman: Shuzo Murakami, President, Building Research Institute).

Nov.

Theme Evaluation (documents examination : 30 applications)
⇒ *Comprehensive Evaluation (documents examination 30 applications)*
⇒ *Hearing (18 applications)*

Dec. **Selection of model cities of the "FutureCitiy" Initiative (Dec. 22)**

11 cities were selected

2012

◆ ***5 cities/town from those areas unaffected by the Great East Japan Earthquake***
Shimokawa Town, City of Kashiwa, City of Yokohama, City of Toyama, and City of Kitakyushu

◆ ***6 cities/towns in the disaster-affected area***
City of Ofunato, City of Rikuzen-takata, Sumita Town and others ***(cities/town alliance)****,*
City of Kamaishi, City of Iwanuma, City of Higashi-matsushima, City of Minami-soma, and Shinchi Town

Jan.

Certification Ceremony of selected cities (Jan. 18)

Certificates was presented by the Prime Minister of Japan to the delegates of cities

Feb.

Drafting the "FutureCity" Plan by each city (Feb. - March)

International Forum on the "FutureCity" Initiative (Feb. 21)

Mar.

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