K E I H I N Keihin Waterfront Area Reorganization Master Plan



September,2018 Yokohama City, Japan

Global Innovation & Entertainment

Area Keihin industrial global

Innovation&EntertainmentAreaKeihin

The "technological innovation" will bring

World-leading industrial space

Crowded with many people Attractive "industrial tourism

The Keihin Waterfront Area has developed over its long history since the opening of the

global trends.

leads the world through technological innovation Industrial Entertainment: Attractive "industrial tourism" that attracts many people

than 100 years of history as an industrial area, our accumulated technology, our blessed location, and the power of the people who are involved in the community.



- port, always keeping abreast of the changes of the times and aware of
- The world is changing rapidly, and the Keihin Waterfront Area is responding to this new era,
- We must continue to develop as a world-leading region. Global Innovation Industrial space that
- With the concept of "a community of people", we will continue to evolve, taking advantage of our more



Introduction.

The history of the Keihin Waterfront Area's development began with the opening of the port in 1859. As a trading port connecting Japan to the rest of the world, later as one of the world's leading industrial areas centering on heavy industry, and now as a center of international logistics and manufacturing industry, the Keihin Waterfront Area has always led Japan and the world.

During this period, social and economic conditions in the world have changed dramatically, but Soichiro Asano and his predecessors, who laid the foundation of industry in this region, overcame many difficulties and achieved development by evolving the way things are here with a global perspective and a frontier spirit, and without being bound by preconceived ideas.

More than 150 years after the opening of the port, the world economy is nowfacing new changes, such as corporate restructuring on a global scale, the establishment of global supply chains, and technological innovation due to the spread of advanced technologies such as IoT and AI. In addition, as Yokohama City wasselected as a "Municipal SDGs Model Project" by the Japanese government, there is a growing demand both inside and outside of Japan for the creation of a sustainable society.

In order to accurately respond to these social trends and to ensure that the Keihin Waterfront Area continues to be a world-leading area in the future, the "Master Plan for the Reorganization and Development of the Keihin Waterfront Area" formulated in 1997 has been revised for the first time in 20 years.

In this revision, we have strongly emphasized the two pillars of "Global Innovation: World-leading industrial space through technological innovation" and "Industrial Entertainment: Attractive industrial tourism that attracts many visitors" to maximize the potential of the Keihin Waterfront Area, which has the geographical advantage of being adjacent to Haneda Airport and the Ports of Yokohama and Kawasaki, and the concentration of excellent industries and human resources, and to enhance its ability to create new value. Industrial Entertainment: Attractive industrial tourism that attracts many people.

By promoting comprehensive and powerful urban development in terms of urban environment, transportation, environment, disaster prevention, etc., and by creating synergy with the adjacent waterfront area of central Yokohama and other highly commercialized areas, we will realize our vision of the future in 20 years: "a new era of industrial space that creates and transmits new values by connecting diverse people, goods, and regions, We will realize our vision of a "new age industrial space that creates and transmits new value by connecting diverse people, goods, and regions.

We would like to thank the members of the Yokohama City Keihin Waterfront Area Reorganization and Development Master Plan Revision Council for their great efforts in revising the plan, and the many people who provided valuable opinions through the citizen opinion survey. We would like to express our sincere appreciation once again.

In order to promote and realize this new plan, it is essential to have the support of local citizens and businesses who have continued to support the development of this area. We will work hand in hand with all of you to make Yokohama a center that attracts attention from inside and outside the city, attracts many people, attracts many people, and transmits cutting-edge technology to the world. We ask for your continued support.

I

September 30, 2008

横浜市長

Ε K

Keihin Rinkai Area Reorganization Master Plan

[Order

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(Ref.)

1 History of Keihin Waterfront Area Frontier connecting Japan and the world

Since the opening of the port of Yokohama in 1859, the Keihin waterfront area has led the modernization and internationalization of Japan, initially as a center for student trade and later as a core area for engineering in the metropolitan area.

When Japan opened its doors to the world, its goal was to catch up with and surpass the world's leading

industrialized nations.

The Keihin Waterfront Area has grown as an industrial nation. The Keihin waterfront area has become a growth engine for industrial products, such as

The Japanese economy was supported by the international economic position of Japan through the production and export of

Japanese products.

[1859-] Opening of the port

The beginning of Japan's internationalization.

leading the internationalization of Japan

The Port of Yokohama opened in 1859 as Japan's

first modern international trading port, and rapidly

developed into the largest trading port in Japan by

using the best technology for the student fiber trade,

Opening Museum

The potential of the Keihin Waterfront Area lies in its history of change over more than 100 years and its ability to remain a leading industrial center.

With this frontier spirit, we will continue to develop even in the coming era when the world is changing rapidly.

Japan's largest industrial area

As the center of the nation's economy. The Keihin waterfront area's remarkabl development supported Japan's economic growth and improved international standing. After World War II, in 1972, the Keihin Coastal Area became a center for the development of Japan's economy and its international position.

In the 10 years between 1972 and 1982, the value

of manufactured goods shipped and the number

of business establishments both doubled, and the

1890 - Industrialization and land reclamation To be on par with the leading nations of Europe and North America

After touring the United States, Britain, Germany, and other European and American countries, Asano Sohro was shocked to find the old-fashioned port of Yokohama, and planned to build a modern coastal industrial zone that would combine factories and harbors. This private land reclamation project would lead to the creation of the first modern coastal

industrial zone in the world. The Keihin waterfront area. which used to be a commercial port, is now a large-scale The area was rapidly transformed into an industria

area with factories.



(Courtesy of Yokohama Port Opening Museum)

country became the growth engine driving Japan's high-level economic growth, which was even dubbed "Japan as number one". This growth was fueled mainly by heavy industry, but with this remarkable growth came pollution problems.



[2018-] To further change

We will gather people and share our technology with the world

It is necessary to create and enrich urban spaces.





1985-] Changes in industrial structure

From quantity to quality.

The Plaza Accord of 1985 triggered the appreciation of the yen, which made Japanese products less competitive in overseas markets and led to the transfer of manufacturing functions overseas. In the Keihin waterfront area, there were signs of hollowing out of the industry due to the relocation and concentration of manufacturing functions to other areas, and a change in the industrial structure was required.

In response to this trend, the City of Yokohama established the Yokohama City

The "Master Plan for the Reorganization and Development of the Keihin Waterfront Area" was formulated in 2006 to promote changes in the region, including a shift from "quantity to quality.



Keihin Waterfront Area Reorganization and

Global Innovation & Industrial Entertainment

Innovation&Entertainment

the Master Plan was formulated in 1997, the inte national divi ion of labor has been progressing in the manufacturing industry, and techn evelopment is no longer logical carried out by a single company, but by various entities. In addition to the concentration of R&D functions in addition to the functions of residence, the demand for industrial areas is also increasing in terms of the work environment, recreational functions in the region, the environment supporting the region and disaster prevention.

For the Keihin Waterfront Area to continue to be a vibrant industrial region, it must not only be an attractive place for businesses and workers, but also a new attraction for researchers from all over the world and for visitors looking for fun in the area.

Therefore, we have revised the master plan this time and aim to aim for the Keihin Waterfront Area as a new industrial space suitable for the coming era, while making the best use of the history and potential of the area as an industrial area to date.





business in the area.

The Keihin Waterfront Area is located in the Tokyo metropolitan area, one of the largest urban areas in the world, with an economy and population comparable to that of a country, and is in close proximity to Haneda Airport and Narita Airport, and the Port of Yokohama, one of



The Tokyo metropolitan area has two hub airports, Haneda Airport and Narita Airport, and since the re-internationalization of Haneda Airport in 2010, the number of international flight users has rapidly increased by approximately over the past six years, and is expected to increase further as the number of international flight arrivals and departures increases. In addition, the number of users of passenger vessels has increased significantly in line with the strengthening of the entry function of passenger vessels at the Port of Yokohama, and the number of foreign visitors to Japan is expected to increase further.

The number of visitors has been steadily increasing.

On the other hand, the Port of Yokohama has maintained a high level of trade in the past and has a strong

presence.

However, in recent years, there have been changes in the balance of exports and imports in line with changes

in the industrial structure.

1985

10



Haneda

Airport Narita

10,00

5.000

Transition of International Flight Users [2010 (羽 re-internationalization)⇒2016]







Keihin Waterfront Area in the Tokyo

2

Metropolitan Area

The Keihin Waterfront Area is a major industrial area in the Tokyo metropolitan area and has a strong relationship with the Tokyo metropolitan area and neighboring business areas as an energy supply base for electricity and LNG. The area is also interconnected with many industrial and logistics hubs in the inland areas of the metropolitan area, as well as the Yokohama metropolitan area, including the Minato Mirai 21 district, where companies are moving in and out of the surrounding area, creating a synergistic effect. The synergistic effect is created by the mutual connection of these areas.



Chapter 1: Overview of the Keihin Waterfront Area



GDP of metropolitan areas and share of national

GDP (2013)

(Source: Ministry of Land, Infrastructure, Transport and Tourism, "White Paperor Metropolitan Areas, 2009 Edition")



Concentration of Major Research Facilities in the

Yokohama Keihin Waterfront Area

(Source: Yokohama City Urban Development Bureau, "FY2008 Keihin Waterfront Area Reorganization and De Commissioned Report) lopment Master Plan Revision Draft Study



4

Chapter Keihin Waterfront

Area Overview

2 Potential of the Keihin Waterfront



handled. The Keihin Waterfront Area is constantly changing, responding to the ever-changing movement of people

Area

1

and continues to grow.

Port of Yokohama Trade

Value

5

[1985 (Plaza Accord) ⇒ 2017]

(Source: Yokohama Customs)

比率変化

Percentage of cargo handled at the Port of Yokohama by major cargo type (2017)

(Source: Port and Harbor Bureau, City of Yokohama)

Trends in the location of logistics facilities along highways

Along the outer ring road

Tokyo Bay Waterfron

Along ti Ken-O Express

0

Along Kita Kanto Expresswa

(Source: Ministry of Land, Infrastructure, Transport and Tourism, "Fifth Tokyo Metropolitan Area Goods Flow Survey (Survey of Business Function))"



Excellent transportation infrastructure

The Keihin Waterfront Area has excellent access by rail, air and road, providing a comfortable environment for people and goods. The Keihin Waterfront Area is directly connected to terminal stations such as Tokyo, Shinagawa and Yokohama, as well as Nagoya and Osaka by Shinkansen bullet trains. Convenience will be further enhanced when the Linear Chuo Shinkansen starts service. Haneda Airport is also within easy reach, providing quick access to major cities in Japan and abroad.

The area also offers direct access to the wide-area highway network via the Wangan and Yokohane Lanes, which run through the area, and is connected by a network of high-speed roads to industrial centers throughout Japan, including the Ken-O Expressway, where a number of large logistics facilities are located. The Yokohama Loop North-South Route, scheduled to open by the Tokyo 2020 Olympic and Paralympic Games, will directly connect the area to the Tomei Expressway, further improving accessibility.

Good rail and air access





High-volume industrial clusters

The Keihin Waterfront Area covers an area of approximately 4,400 hectares in total, with the Yokohama City portion covering more than 1,600 hectares. The Keihin Waterfront Area has a high concentration of various industries and a large number of workers, and a large scale of economic activity is developing in this large area.



Yokohama City Ordinance for the Promotion of Corporate Location (p. 11) The program is designed for companies that are planning to locate a new business site or rebuild or expand a factory or other facility, under certain conditions. The company supports the location of companies by providing "subsidies.

Section under investigation

Keihin Waterfront Area Reorganization and Development Master Plan

Chapter 1: Overview of the Keihin Waterfront Area



development plan,

The Keihin waterfront area as a whole will develop through close

In particular, we will focus on the King Sky Front in the Tonomachi

area and the International Strategic Comprehensive Special Zone for

Life Innovation in the Keihin Waterfront Area on the Yokohama City

side, and we will also collaborate with the adjacent Haneda Airport site

cooperation between Yokohama City and Kawasaki City.

Industrial distribution and integrated

development of the entire Keihin waterfront area

The Keihin Waterfront Area is characterized by the concentration of many industries in a large area of approximately 4,400 hectares, spanning the cities of Yokohama and Kawasaki, and by the concentration of various functions in each area. The RIKEN Yokohama Institute, which opened in 2000is one of the largest research institutes in Japan.

The concentration of R&D functions is also increasing.



Alignment with Kawasaki City's vision for the waterfront area

In March 2018the City of Kawasaki formulated the "Vision for the Waterfront Area" to show the future vision of the Keihin Waterfront Area and the measures to realize it.

In 30 years' time, under the name of "SUPER HYBRID FRONT KAWASAKI," the city will continue to be a region where various industries, people, intellects and cultures are fused together at a high level to create new values that will lead social change, as well as a place where the waterfront will be a major source of new value.

Yokohama City has decided to make Kawasaki City the gateway to the city, a place where people can enjoy the city's social life. In order to realize this goal, various projects are expected to be carried out based on the basic strategy consisting of nine items, including the creation of new industries, functionalization of key industries, and improvement of the living environment.



Keihin Waterfront Area Reorganization and Development Master Plan (formulated in 1997 - former Master Plan)

In response to the rapid hollowing out of industry due to the offshoring of manufacturing functions since the Plaza Accord, the Keihin Waterfront Area Reorganization and Development Master Plan was developed in February 1997. At the time, the plan called for



Changes in the international community since the formulation of the former Master Plan

Intensifying international competition and changes in human capital

The environment surrounding the manufacturing industry is rapidly becoming more severe due to "stagnation of labor productivity" and "decrease in the workforce" in Japan, and "intensifying competition in technological development" due to the rise of Asian countries.

The 4th Industrial Revolution and the arrival of Society 5.0

The use of IoT, human intelligence (AI) big data, and the sharing economy are accelerating changes in society, and open innovation is gaining momentum, requiring structural changes in all industries.



Comparison of labor productivity by country

(Source: Compiled from "International Comparison of Labor Productivity 2017," Japan Student Productivity Center

Chapter1: Overview of the Keihin Waterfront Area

The master plan is divided into four: "waterfront near the main road and railroad station," "waterfront area near the canal," "waterfront area near the canal," and "waterfront where large cargo ships can dock.

Expanding Asian Ports in the Logistics Environment

The volume of cargo handled at Asian ports, including China, increased significantly, while the volume of cargo at Japanese ports increased only slightly.

The gap between the two is widening significantly.

Social demands for natural environment and disaster prevention

The focus on the natural environment, such as "further reduction of greenhouse gas emissions," "biodiversity," and "countermeasures against soilpollution," is increasing. In addition, the use of

The Great East Japan Earthquake and the growing flood damage caused by

(Source: Created from the Ministry of Land, Infrastructure, Transport and Tourism and other sources)

New Keihin Waterfront Area Reorganization and

Development Master Plan

big

In order for the Keihin Waterfront Area to continue to lead the world in the face of drastic changes in the world's industrial pict stuft economic situation , it is necessary to form a comprehensive logistics hub that responds to the "Sustainable nent Goals (SDGs)," the most advanced R&D and growth industries in industrial technology, and the innovation of logistics, and to grow and develop. It is necessary for the city to grow and develop. In addition, it is necessary to utilize the historical characteristics and high-level technology that have been cultivated since the Meiji era, and to aim to realize an innovative environment that attracts people and goods from all over the world, and an attractive space that attracts visitors from all over the world.

Therefore, the vision for the future in 20 years is "an industry that creates and transmits new value by connecting diverse

people, goods, and regions.

The new Keihin Waterfront Area Reorganization and Development Master Plan is to promote "Global Innovation" and "Industrial Entertainment" as the pillars of the strategy, with 2030 as the target year, as well as to improve the urban environment of the entire area and to establish an implementation system. The plan also includes the development of a new master plan for the Keihin Waterfront Area.

20 years from now.

An industrial space that creates and transmits new value by connecting diverse people,

products, and regions.



blocked

. **Strategy II** Urban Environment (• Formation of urban space to create Improvement of the transportation environment of the transportation environment of the transportation environment of the transport environment of the transpor comr B Formation of environmental systems the systems of environmental systems and the systems of the systems and the system of th sustainability of society O Formation of disaster-resistant in

S Formation of "logistics hubs" that can survive international competition

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	chest or	[Strategy III
Chapter 4)	throat,	Establishment of an
e new attractions	due to	implementation system
onment to support the	grief,	(Chapter 5)
hat contribute to the	anxiety,	Establishment of organizational structure by local
Ŋ	illness,	companies
ndustrial space	etc.)	Ocoperation between government and community
		organizations
		Cooperation among governments for the integrated Reference and the integration and the integration of the integration and t

development of the regionevelopment Master Plan

concentration, land use, and traffic environment. Therefore, in promoting this master plan, we will take into consideration the strategies for the region as a whole, and by understanding the characteristics of each district, we will make efforts to realize the future vision for the entire Keihin Waterfront Area. We will also strive to create an environment where researchers, engineers, and many other people who are responsible for regional innovation can gather, and where new products and technologies can be developed.

The city will gain worldwide recognition as a birthplace of industrial space and will continue to develop as an attractive and attractive potential location for both domestic and foreign companies and investors in addition to those already located in the area.

Industrial concentration by district

Anz	enchoDistrict	zenTownDistrict
Sue	hirochoDistrict	-loward
Ogj	shimaDistrict	Manufac
Oya	maiPisAea	Logistisfadiles
Tae	gamachiDistrict	Ohsaka
Мо	riya-machi, Ehim	iezu-machi, Takai
De	zada-machi, Shin-	Urashima-machi,
		Logisticsfadili
Th	eareasurroundingthe©	ianaiWharf

Map of the entire Keihin Waterfront Area



Chapter 2 New Keihin Waterfront Area Reorganization and Development Master Plan



-Logisticsfadiliesenergyrelatedpmanufacturingetc.

-----Manufacturingcompanies,publicresearchinstitutions,venturecompanies,publicutilities duingenegysupply

-----Manufacturingenergysupply/ogisticsfacilities

ramachi area — Manufacturing, R&D, logistics facilities

and Chijiwaka-machi areas — Manufacturing, public utilities

liesmilaryfadliesin.lapan

-----Landforportandharbor(tentativeuse)

Global

1 Innovation

Theworld'sleading industrial space through "technological innovation

1 Formation of a "World's Most Advanced Technology **Creation** Center

In order to continue to develop as an internationally competitive industrial center, we aim to become an advanced industrial technology center that produces high value-added technology through research and development, creates highlevel manufacturing know-how, serves as a mother factory and an advanced technology center, and disseminates technology to the world. We aim to become a center of advanced industrial technology that transmits technology to the world.



Integration of R&D functions with manufacturing functions

The city will take advantage of the fact that a large manufacturing industry is already located in the area, and will also seek to integrate the research and development functions of the manufacturing industry,

The city will become an international industrial hub where manufacturing and R&D functions will be combined to create new technologies and products for the world to see.

Ordinance on the Promotion of the Establishment of an

Enterprise Zone

Yokohama City to promote the concentration of manufacturing and R&D functions,

Yokohama City has established the "Yokohama City Ordinance on Supporting Measures in Specified Areas Promoting the Location of Businesses" (Yokohama City Ordinance on Promoting the Location of Businesses), which provides support for the establishment of business locations.

subsidy rate (maximum amount: ¥2 billion)



Frant (assertifientstaristarises areas ar Head office research center offices, leased offices-laboratories...10%



Located in the Tokyo metropolitan area, the Keihin Waterfront Area is an international industrial center with excellent transportation infrastructure, including the Port of Yokohama and Kota Airport, and boasts a high level of technology that has supported Japan's manufacturing industry for over 100 years. By utilizing the potential of the region, we will aim for further development by increasing the level of our manufacturing functions, concentrating on high-growth industries, and creating a revolutionary environment to create a major industrial cluster that leads the world in various fields.



High-level manufacturing technology supporting society

The Keihin waterfront area has a large heavy and chemical manufacturing base, as well as a concentration of food and other consumer goods manufacturing, processing, and energy supply centers. The Keihin waterfront area's advantages for manufacturers, such as its proximity to the sea for export, proximity to major consumption areas, and use of land for industrial use, will be utilized to improve manufacturing efficiency and achieve higher levels of performance through the introduction of new technologies and the renewal of facilities.

Improve competitiveness through facility renewal

We will improve the efficiency and altitude of our production functions by updating aging manufacturing facilities and introducing higher-volume equipment

Supporting the efforts to strengthen the competitiveness of the company.



Chapter 3: Strategy I [Two Pillars for Strengthening International Competitiveness and Attractiveness

Improve competitiveness by

introducing new technologies

The introduction of new cutting-edge technologies such as AI a n d IoT will make it possible to improve the quality and efficiency of the student production system. We aim to produce and supply high value-added

products by improving the efficiency of our systems and developing new products.

Efficiency Improvement by Upgrading Facilities - Example of High-Level (Courtesy of Tokyo Electric Power Fuel & Power Co.)





industries

We will promote industrial concentration in the growing fields of AI, IoT, health and medical care, and other areas of future growth, to create a world-leading

We aim to improve the industrial potential of the region by developing new technologies.



(Center-right photo courtesy of Euglena Co.

Clustering of R&D functions and creation

of an environment

Promote the supply of labs for R&D by private companies and co-working spaces for venture companies.

The public and private sectors will work together to create an environment in which venture companies can flourish, including the following

Field testing of new technologies

We will continue to conduct demonstration tests of new technologies such as personal mobility and the use of renewable energy. The city will promote efforts to create an attractive urban space as a region where cutting-edge technology is put into practice, such as by actively implementing and incorporating it into urban development.

Special National Strategy Zone

The National Strategic Zone is a breakthrough air strip for implementing drastic regulatory and institutional reforms to strengthen the international competitiveness of industry and create a base for international economic activities in order to revitalize the Japanese economy, The project is to be promoted by the national government and the national, regional, and local governments.

In May 2014 the City of Yokohama was designated as a National Strategic Special Zone, and is working to maximize the opportunities for deregulation and institutional reform, and to link Yokohama's economic growth to Japan's economic growth through collaboration between the public and private sectors.

Advantages of special zones: application of special measures for regulations, financial support, taxation support

Keihin Waterfront Area International Strategic Comprehensive Special Zone for Life Innovation

The "Keihin Waterfront Area Life Innovation International Strategic Comprehensive Special Zone" was designated by the Japanese government in December 2011is designed to stimulate the pharmaceutical and medical device industries, led by global companies, to improve their international competitiveness, to

Main designated



Case Studies

Standard Law (Floor Area Ratio Mitigation)

Special Exception to the Building

organization and

< Yokohama Station Kita-SoHan_SoHan_2EC4⇔Tsuruya

Promoting Open Innovation

In order to develop products and services that meet diversifying We are promoting IoT and life innovation initiatives. This will create new needs and values, a wide variety of entities, including companies, businesses, including the development of high value-added products universities, and research institutions, are combining their and services, in collaboration with many players in industry, academia, government, and finance, as well as with related knowledge and technologies to create new value in the form of product and service development. The current focus is on "open organizations in the city, the national government, and domestic and innovation", a method of creating new value through the development of international organizations. In addition, products and services by bringing together a wide range of We will strengthen support for small and medium-sized enterprises knowledge and technology from companies, universities, research (SMEs) that take on challenges such as improving productivity and institutions and other diverse actors. developing domestic and overseas sales channels. We will also work Yokohama City link two platforms, "I • TOP Yokohama (IoT Open to solve social issues through the use of new technologies, including Innovation Partners)' and "LIP. Yokohama (Yokohama Life Innovation science and technology, and the development of services.

Platform)" to each other and utilize the special zone system, etc. to promote the development of new business opportunities for companies in the city.

Target



Exchange of Innovation Talen



Creation of opportunities for exchange of innovators Creation of next-generation industries

The City of Yokohama will work with motivated businesses to create a "place for innovative human exchange" where engineers, researchers, entrepreneurs, students and other new value creators

Chapter 3: Strategy I [Two Pillars for Strengthening International Competitiveness and Attractiveness

13

I . TOP Yokohama, LIP. Yokohama



mpetitiveness and attractivene

1 Innovation - World-leading industrial space through "technological innovation

interact on a daily basis to create new business opportunities.

Image of initiatives

Provide a unique opportunity for your innovation professionals to work

together on a day-to-day basis across industries and business categories.

Creating a place for exchange





Chapter 3: Strategy I [Two Pillars for Strengthening International Competitiveness and Attractiveness]

Keihin Waterfront Area Reorganization and Development Master Plan

COLUMN

- -Building an environment in which private companies support the growth of venture companies
- -Supporting young engineers, etc. to improve their skills and promoting exchange with students who will lead the next generation
- -Information on innovation in the city, including the location of research and development facilities

Share function of

Exchange case: Yokohama Gadget Festival



Chapter 3 Strategy I [Two pillars for strengthening internati

1 Innovation - World-leading industrial space through "technological innovation

4 Creation of new value through "open innovation

In the Keihin waterfront area, we see locations for companies in fields that are expected to grow significantly, such as life sciences and new energy. In addition to the research and development conducted by individual companies, the Keihin Waterfront Area will be an area where innovation can take place through open connections between people from various fields, including companies and venture businesses, universities and other educational institutions, and public research and development organizations.

Creating an environment for open innovation

Exchange of people from companies and research institutes in the region, as well as from outside the region through international academic conferences, etc.

We will promote the development of an environment conducive to open innovation, such as





Formationof"logisticshubs"thatcan survive international

competition

Logistics facilities such as warehouses are becoming increasingly important as the supply chain of the manufacturing industry progresses. In the Keihin waterfront area, there is a concentration of logistics facilities with high level technology and know-how that have been cultivated over the years, centered on the Tama Pier. We aim to further strengthen the competitiveness of logistics as an industry by maintaining and developing these facilities while enhancing and integrating high value-added logistics functions.



Strengthening and integration of high-level logistics functions

Developing logistics facilities with high-level distribution and processing capabilities with high-performance equipment - Efforts toward concentration

In addition, we will promote the upgrading of existing facilities by taking advantage of the government's support system. Taking advantage of the concentration of logistics facilities, we will promote initiatives such as joint deliveries through round trip pickups, and in light of the growing need for cross-dock (transshipment center) in recent years, we will work toward the formation of a systemized cross-dock center that achieves high efficiency and low cost. In addition, we will work toward the formation of a systemized cross-dock center that will realize high efficiency and low cost.

Reinforcement of export/import function of finished car models

The Port of Yokohama, the largest handling center for finished automobiles in eastern Japan, saw exports of used cars and construction machinery grow in addition to new cars.

In addition, CCA's loading technology is highly regarded. In addition, the loading technology of autos is highly regarded, and there is a growing need for a transshipment center for autos manufactured overseas. In addition, the handling of imported autos is increasing, and PDI (pre-delivery inspection) and other functions are also required. In addition to the concentration of container handling functions at Honmoku, Minami Honmoku and Shin-Honmoku wharfs, we will continue to strengthen

International Container Strategic Port Yokohama Port

In 2010, the Port of Yokohama was designated as an "International Container Strategic Port", and in 2016, Yokohama Kawasaki International Port Corporation was established to operate the container terminals at the Port of Yokohama and the Port of Kawasaki in an integrated manner. Designated as a port operator under the Port Law, the company is the core of the port's

terminals, and the use of large container vessels.

We are taking steps to strengthen our international competitiveness, such as the development of a new international trade center.

Keihin Waterfront Area Reorganization and

Development Master Plan

Competitiveness and Attractiveness

Chapter 3: Strategy I [Two Pillars for Strengthening International





The government and private operators are working together to maintain and expand keyshipping routes, including cargo collection, large deep-water container

Industrial

2 Entertainment

Afascinating"industrial tourism" for many people...

1 Enhancement of brand power through "industrial tourism

The Keihin Waterfront Area has a long history of industrialization in Japan, and the world's most advanced technology in the manufacturing industry. This will lead to the further development of technology and industry.

Introduce functions to feel and enjoy the technology and industry.

The exhibition will feature a number of features, such as the introduction and experience of cutting-edge technologies, as well as a tour of the world's most prominent large-scale manufacturing facilities.

The city will promote initiatives appropriate for a world-leading industrial center, such as communicating its potential, improving the image of local industry, and securing future leaders through experiences that allow visitors to experience and enjoy its technology and industry.



The industrialization of the area due to land reclamation at the end of the Meiji period (1868-1912) and the development of many other industries have long been the driving force behind Japan's development. By presenting the history of the Keihin Waterfront Area, we will enlighten people about the strong will and achievements of

our predecessors, who were always conscious of the world and continued their efforts, leading to the further development of the area.





Development Master Plan

The area has a history of supporting Japan's manufacturing industry, world-class high-level technology, and is located near the Tokyo waterfront area. By creating an attractive urban environment not only for workers and researchers, but also for those who have never had the opportunity to visit the Keihin Waterfront Area, we aim to create a new industrial center that will attract attention from Japan and abroad, and to secure future human resources by improving the image of the industry.

Creation of new attractions by applying advanced technologies

The new facilities are designed to provide a high level of entertainment, including new experience-based facilities that apply the advanced technology of the local companies.

The Keihin Waterfront Area is expected to enhance the image of the Keihin Waterfront Area and to create and revitalize the entire area through the promotion of the "Keihin Waterfront Area's image" and "Keihin Waterfront Area's liveliness.

Example 1: Strawberry Park

At the Tokyo Electric Power Fuel & Power Yokohama Power Station, located in Oita Town, Tsurue-tsuwa Ward, strawberries are grown year-round on an eco-farm using energy management technology cultivated in the power generation business.



Kirin Brewery Yokohama, located in Residence, Tsuruya-ku, offers a tour of the brewery, where visitors can experience the production process through attractions, and a restaurant where they can enjoy freshly brewed beer and meals on board. The Kirin Beer Yokohama Beer Hall, located at the Kirin Brewery in Yokohama, features a factory tour with attractions to see how the beer is made, as well as a full-fledged beer and restaurant, and is accessible via water transportation via the Kirin Pier, creating a lively complex that combines a scenic view of the port with the experience.



hapter 3: Strategy

2 Entertainment - Attractive "industrial tourism" for many people



Creation of "liveliness" connecting Yokohama with the

sea and with the center of the city.

The Keihin Waterfront Area is located in an excellent location adjacent to the "Focus Area" in the center of the city of Yokohama. We will create a lively atmosphere in the entire port area by linking the activities in the prime areas of the city and the Keihin Waterfront Area, which attracts many tourists from Japan and abroad, with the entertainment value of the Keihin Waterfront Area.

Introduce a new transportation mode that connects to the "real" areas of the city and

the surrounding seas.

The best areas in the city and the surrounding seas a Yokohama is a symbolic area of the port city of Yokohama visited by tourists, and many cruise ships call at the Taisanbashi Bridge and other wharves. Therefore, we will introduce a new transportation mode centered on water transportation that will attract visitors from the surrounding areas to the Keihin waterfront area



Coordination of efforts to attract visitors to the city and to communicate the

attractiveness of the city.

The Keihin waterfront area offers a variety of entertainment facilities, including experience-oriented facilities and facilities where visitors can enjoy history.

The entire community will create a lively atmosphere by linking the facilities of the "Kashiwa City Center" and "Kashiwa City Center". We will actively promote collaborate with each facility to convey the attractiveness of the entire region to the many visitors who come for research, sightseeing, etc.



Keihin Waterfront Area: Increased port calls

by large-sized cruise ships

In recent years, there has been a global cruise boom, particularly in Asia, and the expansion of the cruise market has been accompanied by a marked increase in the size of cruise ships.

The Port of Yokohama is also one of Japan's leading cruise ports, with a large number of cruise ships calling at the port. In 2017, the number of calls by cruise ships reached a record high of 178, and a new cruise ship terminal is under construction at the Shinko Wharf to accommodate the increased calls.

In addition to the many public wharves and other port facilities, the Oyamatsubo Wharf takes advantage of its location offshore from the Bay Bridge to receive very large passenger ships that cannot pass through the Bay Bridge.

CIQ (Customs, Immigration, and Quarantine) facilities are being built near the quayside for the reception of passenger vessels, and efforts will be made to improve the environment for passengers when they land, and to facilitate smooth transportation.

The port of call by passenger ships at Oyoshi Pier is expected to create a new bustling area.



apter 3: Strategy I [Two Pillars for Str Competitiveness and Attractiveness

UMN

The first is to offer a full-board tour of the Strawberry Park to passengers who call at the port of Oyasaka. For example, we will offer an optional tour to passengers calling at Oshikaga Pier, which includes a full-size meal and strawberry picking experience at the Strawberry Park.



Hospitality when a large-sized cruise ship calls at a port of call

Imageof smooth transportation

1 Formation of urban space to create new

attractiveness



Formation of attractive and comfortable urban space

In order to present itself to the world as a cutting-edge industrial cluster, it is necessary to create an urban space that attracts people, including workers supporting business activities and visitors to the area.

We will promote the creation of a space where workers and visitors can feel comfortable, and create an attractive and comfortable urban space suitable for an advanced region, as well as improve the image a n d brand of the region as a whole.

Formation of a pleasant landscape befitting a progressiv

In order to appeal to the world as an advanced region with a diverse range of industries, we will actively incorporate new technologies, such as the introduction of sensing technology, which continues to evolve, into the city, and make it a cutting-edge industrial region.



It forms a suitable landscape

In addition, in order to provide a place where workers and visitors can relax and feel at ease, we will promote efforts to create a comfortable urban space and improve the aesthetics of the city, including the development of a promenade and other facilities that provide a sense of intimacy and openness, and pleasant green spaces.

Creating a Global Residential Environment

To meet the accommodation needs of researchers visiting from around the wor The aim is to create an area where people can stay comfortably regardless of their nationality, by introducing functions that meet the various needs of a diverse social and cultural background and by promoting multilingualization, as well as by introducing accommodation functions such as apartments and serviced apartments.

Introduction of functions that enable comfortable working

In order for workers to work comfortably, the region's convenience and variety of Therefore, we will improve the working environment by introducing convenient facilities and further promoting barrier-free access, in addition to improving the space in front of the station, in order to enhance the convenience and attractiveness of the area.

Consideration of improving local branding in cooperation with compan

It is a rich field of global companies.

We will promote initiatives to enhance the brand value of the area by making the best use of the facilities. For example, we will consider the introduction of promotion facilities, sports science research functions, sports training facilities, and other functions that will contribute to improving the attractiveness of the region and enhance the image of the





In order for the Keihin Waterfront Area to continue to develop as a leading industrial area not only in Japan but also in the world, it is necessary to enhance the attractiveness of the urban space supporting the industrial activities. We aim to create a comfortable and human-attractive urban space suitable for an area with a high concentration of cutting-edge industries, responding to changes in the surrounding environment and new needs.



Supporting Urban Functions入

The area is an industrial use area and has a high concentration of industry, and functions that support the city as a whole are located here to contribute to urban activities.





Yokohama Power Statior Courtesy of Tokyo Electric Power Fuel & PowerQo



contribution facilities

region.





Northern Sludge Recycle Cente



Ogishima ING Termin (Courtesv of Tokvo Gas Co

The water reclamation center, the sludge recycling center, the recycling facility, and the power plant will be located in order to supply energy, use resources, and make effective use of them.

Efforts to realize effective use of land

In order to respond to the occurrence of idle land and unused land, and to promote the appropriate and effective use of land as an attractive urban space, it is necessary to take measures that are not bound by the current policy of land use, so we will promote the relaxation of regulations and the effective operation of the system.

(Photo courtesy of Shin Toyosu Brillia Running Stadium)



Appropriate understanding of land conditions

Grasp the situation of idle land and unused land of companies, etc. - Share information and consider the direction of land use in cooperation

Mizuho Pier

Mizuho Pier is located in the center of Yokohama Port, directly in front of the Yokohama Bay Bridge, and is an important location that connects the Tokyo and Keihin waterfront areas. Currently, the

A large part of the site is being used as the Yokohama North Dock, a military facility. We are persistent in our efforts to have the site returned to the government as soon as possible, as it has great potential to play a vital role in the revitalization of Yokohama.

Chapter 4: Strategy II [Development of the Urban Environment]

Keihin Waterfront Area Reorganization and



tiveness of the area,

2 Enhancing the Transportation Environment in Support of the Community



Formation of wide-area transportation network

The enhancement of the wide-area transportation network plays an extremely important role in the development of the Keihin Waterfront Area. The city will enhance the railroad network to improve convenience for commuters and visitors from the wider region, and form a wide-area road network to strengthen mutual access between the adjacent Tokyo-Kawasaki waterfront area to facilitate logistics,

We aim to realize an environment where people and goods can move comfortably and conveniently.



The transportation network is an extremely important infrastructure that supports and energizes the Keihin Waterfront Area from the perspective of the movement of people and goods. In addition to providing convenient transportation services for commuters to and from the Keihin Waterfront Area, we will create a traffic environment that is easy to understand and use for visitors, and form a road network that supports business activities and facilitates the movement of goods. In addition, in order to meet the various transportation needs of visitors to the city, we will improve convenience by introducing a hub-and-spoke transportation system and new transportation services utilizing advanced technologies such as AI and IoT.

railroad

Initiatives to enhance terminal functions of Tsuruppoi Station and the Sotetsu/JR Direct Line In addition to increasing the number of commuters from the areas between Tokyo and the center of the city, we will work in cooperation with railroad operators to realize a direct Sotetsu-JR line stopping at Tsuruppan Station, which will increase the number of visitors from a wide area, as well as business travel to and from places for use in Tokyo. In addition, efforts will be made to enhance terminal functions and convenience of Tsuruppan Station, such as improving access to Haneda Airport by strengthening the connection between JR Station and Keikyu Tsuruppan Station.

Yokohama Loop Railway (Dayoshi-Tsuruewa)

The line is expected to enhance the city's railroad network, and in the Keihin waterfront area, it is expected to improve the proximity of jobs and residences by strengthening the connection with the northern part of the city. We will work over the long term to examine ways to ensure business feasibility, including coordination between railroad development and urban development, as well as measures to stimulate traffic demand along the rail line.

Study on the use of the Tokaido Freight Line for both freight and

passengers

If the Tokaido Freight Line is upgraded to a dual-use freight and passenger line, the Keihin Waterfront Area will be connected to the Tokyo Waterfront Subcenter, Haneda Airport, and the Minato Mirai 21 district, which will increase the movement and exchange of people, goods, and information, and is expected to strengthen international competitiveness and revitalize the entire region. Based on the trend of land use and future demand along the railway line, and in parallel with efforts to create demand, we will promote long-term studies in cooperation with the Tokaido Freight Line Freight/Passenger Consolidation Study Council, which is comprised of local governments along the railway line.

road

Examination of the Tsuruya Waterfront Highway

It is expected to become a major logistics artery in the Keihin waterfront area by strengthening communication with the Kawasaki waterfront area.

We will conduct a long-term study, including the necessity of maintenance, taking into consideration the continuity with the Kawasaki City side and the future land use along the road

Promoting the development of Route 357

National 357 is being developed as a general national highway that runs parallel to the Shuto Expressway Wangan Route, connecting the major hubs of the Tokyo Bay area. The new route will contribute to the development of the Keihin waterfront area and the Port of Yokohama by reducing logistics costs and providing multiple distribution routes, and will also enhance access to Haneda Airport. For this reason, we will continue to encourage the national government, which will be responsible for the construction of the unimproved section between Oyasumi Wharf and Ohgishima, to improve it, while taking into account the progress of the Kawasaki and Tokyo sections.

Development Master Plan



icy Council Report No. 198 (2016.4 Prepared by Yokohama City





nancement of regional transportation network

We will study ways to improve convenience for rail users, such as revitalizing the JR Line, which is an important means of transportation in the Keihin waterfront area, and enhancing the functionality of Tsurui Station.



Strengthening the transportation axis connecting the



Status of the temporary use section of the Harbor Trunk Highway (Yamauchi Pier)

railroad

Initiatives to Strengthen Transportation and Improve Convenience on the JR Tsuruya Line The JR Tsurui Line is essential for commuting to companies and schools in the Keihin waterfront area and is not considered a viable alternative for the entire area.

In addition to ensuring transportation during morning and evening hours, we will work with railroad operators to create a comfortable and convenient railroad line by improving service levels during daytime hours in conjunction with demand creation efforts. In addition, we will promote studies for the formation of a railroad network in the waterfront area in cooperation with the Kawasaki Approach Line, which is being considered by Kawasaki City as a key transportation axis for the waterfront area.



road

Promoting the development of waterfront arterial roads

The unimproved section of the Mizuho Pier to Shinkoyasu Oyasaka line (Ebisu-cho) was constructed in consideration of land use and traffic demand along the route.

In addition, we will promote the study for the construction of a pedestrian space around the Yamauchi Pier in the tentative use section, along with the full-scale construction of the area due to landfill, etc.

Reinforcement of the transportation axis connecting the waterfront area and the built-up area

We will strengthen and expand the transportation axis in response to changes in land use, such as the creation of a comfortable pedestrian space suitable for new industrial clusters, so that workers and visitors can comfortably access their destinations from the railroad station.

Maintenance and improvement of roads in the district

When responding to new land use, road maintenance and improvement will be carried out along with the development of the land area, such as land readjustment, in order to improve the transportation infrastructure.

Chapter 4: Strategy II [Development of the Urban Environment

Congestion on the Tsuruya Line (JR Tsuruya Station)

3

Conceptual diagram of new transportation services

Introduction of new regional transportation services

In addition to improving the transportation environment to meet demand, such as improving the commuting environment for workers and the circulation of visitors, we will improve transportation convenience in the area by utilizing the existing stock, introducing new transportation systems that incorporate new technologies such as Al and IoT, and introducing water transportation that takes advantage of the waterfront line, which is unique to the waterfront area. We will improve transportation convenience in the region by utilizing existing stock, introducing a transportation system that incorporates new technologies such as AI and IoT, and introducing water-based transportation that takes advantage of the waterfront line unique to the waterfront area.



Tsurum Formation of regional transportatio n hubs stations/regi transportatio Meticulous detail to meet nd Small Quantity ine-tuned to Transportation Services Small Ouantity Transportation Services Fine-tuned to Small Quantity Transportation Services Formation of regiona



Leads to improved mobility environment for workers

Efforts to introduce new transportation services

The Keihin waterfront area has many areas that are far from the stations that serve as hubs for commuting to work, school, and visiting the area. Buses and other public transportation services are heavily congested during the morning and evening commute, and service levels are low during daytime hours.

For this reason, the base station and regional transportation hubs will be connected by medium-volume transportation services such as articulated buses, and new transportation and corporate shuttle buses will be operated from the regional transportation hubs to enable fine-tuned transportation in response to demand. The company will promote efforts to introduce a hub-and-spoke type seamless transportation system, including the implementation of a "hub-andooke" transportation system.

Efforts to introduce new transportation services that will improve visitor flow and give visitors a sense of innovation

New transportation services such as on-demand transportation systems and low-cost mobility sharing services, as well as water-based transportation utilizing the waterfront line, will be developed to meet the need for high convenience and mobility in regional transportation.

We will work with companies in the area to promote the entry of new businesses, including the active implementation of social experiments.

AI-based Transportation Systems

As a new transportation service, we will not fix the route of the service, but will operate the service according to the travel demand of visitors to the city by utilizing AI. The introduction of a shared-ride transportation system is being considered. In addition to improved convenience for users, benefits can be expected from this system for operators.



Keihin Waterfront Area Reorganization and

3 Formation of environmental systems that contribute to the

sustainability of society



High efficiency - low-carbon energy system

Aiming to be an advanced region in energy use, we aim to build a low-impact, high-efficiency and low-carbon energy use system through energy saving in local companies, efficient use of energy in the region, and promotion of the use of renewable energy.

Energy saving in local companies, etc.

We will also work to ensure the appropriate management of energy use, the introduction of cogeneration and fuel cells, and the upgrading of high-efficiency materials and equipment. Promote energy conservation at local companies, such as by building new buildings.

Efficiency of energy use in the region

ICT, including the use of hydrogen energy such as by-product water, and energy and heat transfer between sites We will study the efficiency of energy use and the multiplexing of power sources in the region, such as the construction of an energy management system that utilizes the energy-saving technology "energy management system", which will not only improve the environment, but also lead to the improvement of disaster prevention, such as securing energy in the region at the time of a disaster.



Introduction of low-carbon energy sources

For a low-carbon energy supply that contributes to combating global warming, the use of water and renewable energy sources, such as electricity from wind power, are being promoted.

We will promote the introduction of renewable energy.

Social experiment on carbon-free water (water from renewable energy)

We have conducted experiments using carbon-free water as a fuel at the Yokohama Municipal Power Plant (Hamawing) and an autonomous water fuel cell system (carbon-free water fuel cell using solar power generation) the Yokohama Port Distribution Center.



velopment Master Plan

With the conclusion of the Paris Agreement, there is a growing social need to reduce greenhouse gas emissions, focus on renewable energy, maintain urban green spaces and vegetative diversity, and meet environmental requirements. In the Keihin Waterfront Area, we will contribute to the sustainability of society at the surface of the environment by creating a space where the natural environment and industry are in harmony, including the role of a demonstration field that contributes to the introduction of advanced technologies for industrial areas, such as energy saving and low carbonization, compatibility with green spaces and vegetative diversity, and resource recycling. We will contribute to the sustainability of society as a whole from the surface of the environment.



the next generation.

民 -We are working on global warming countermeasures in cooperation with various entities, including businesses. We are working on global warming countermeasures in cooperation with various entities, including businesses.

Yokohama's overall future vision for decarbonization

With the conclusion of the Paris Agreement, the global trend toward decarbonization in the second half of the century is accelerating. Major countries are promoting thorough energy conservation, which is the key to decarbonization, and a significant introduction of renewable energy, and a "race to transition to a decarbonized economy" has begun, which is expected to lead to major changes in industrial structures and other aspects of society.

In Yokohama City, the "Action Plan for Global Warming Countermeasures" includes the

following



SDGs Future Cities

In June 2018, Yokohama City was the Japanese government as an "SDGs Future City" to further develop the "Environmental Future City" by simultaneously solving economic and social issues centered on the environment, utilizing the advanced urban development efforts and achievements that Yokohama City has made as an Environmental Model City and Environmental Future City.

In addition, we will continue to promote measures to combat global warming in accordance with the characteristics of the Keihin Waterfront Area, which will become a world-leading industrial space in the future.

- We have set a goal of "achieving zero greenhouse gas emissions (decarbonization) as early as possible in the second half of the century ("Zero Carbon Yokohama)"
- To achieve this goal, we must "maximize the use of renewable energy and realize a water-based society.
- We will promote various initiatives based on the policies of "thorough energy conservation," "realization of a state-of-the-art smart city;advirtuous cycle between the environment and the economy.

was selected by the government in June 2018 as an SDG Future City.

*Part of this initiative is through 2018.

Yokohama City is a city that is committed to becoming an "SDG Future City," mathematical city that takes advantage of the unique resources of the Keihin waterfront area, such as the indineration plantand the port, to create an environmentally friendly, sustainable, and environmentally friendly city. By advancing initiatives at the level of the 面, we will develop initiatives to create new value that will lead to the creation of economic benefits and the resolution of social issues.



Respondent reation of high quality green spaces and waterside environments Functions that contribute to the realization of a recyclingoriented society

From the viewpoints of improving the attractiveness of the area, creating liveliness, realizing a good working environment, preserving, re-creating and creating vegetal diversity, and improving disaster prevention and disaster mitigation functions, we will promote public/private partnerships to appropriately preserve existing greenery, and to create a rich natural environment using effective water and green centers and axes. In addition, we will create a rich natural environment by focusing on effective water and green centers and axes.

Create an effective green and waterfront environment that utilizes the water's edge

line.

In order to create an advanced industrial space, it is important to create an environment where workers and visitors can feel enriched.

It is essential to create an open green and waterside environment.

We will promote the utilization of greenery and water through the common use of green spaces and the development of open waterside spaces, while taking into consideration harmony with existing buildings and the surrounding environment, and we will improve the working environment and enhance disaster prevention functions that are unique to the waterfront area.



Green and waterside axis. image of a cohesive green space

In the case of land use conversion it is necessary to develop green space for each site, and there are issues such as scattered small-scale green spaces that people do not come into contact with Therefore we are planning to create cohesive greenery through the joint creation of green spaces, etc., and to create a green space for people to enjoy. We will work with businesses to develop a waterside space that utilizes the water's edge line, creating a space where people

can relax and feel enriched.

Greening Initiatives

In the Suehiro and Residential Shinkoyasu areas, a community greening plan was formulated to create greenery appropriate to the area through collaboration between the public and private sectors, and each area has been greened in accordance with this plan.



Efforts to conserve, rehabilitate, and create vegetative diversity

In the Suehiro area, companies, local citizens, the local government, and pro-

to create a dragonfly

Through the survey, educational activities are carried out to conserve and build the local ecosystem.



and efficient use of resources by taking advantage of the location of companies with environment-related technologies and public utility facilities.

Introduction of functions that play a central role in a recycling-oriented society, and making it into an

experimental field.

To realize a recycling-oriented society by promoting biomass power generation from waste water treatment and waste disposal processes. In addition, the center will serve as an experimental field for new technologies and as a world-leading center for the dissemination of technology.



Biogast Initiatives

In tistes)uehiro area, J Bio Food Recycling Co. The project is designed to increase the rate of whole-load recycling and to reduce the amount of waste that is reused and recycled. The creation of renewable energy is expected to contribute to the realization of a recycling-oriented society



Chapter 4: Strategy II [De Urban Environment

We aim to become a region that contributes to the realization of a recycling-oriented society through the recycling of waste



Proper soil management in accordance with laws and regulations

If there is soil contamination, we will take appropriate measures to prevent human suffering in accordance with the Soil Contamination Countermeasures Law and other related laws and regulations. In addition, we will also raise the ground level by using construction generated soil to seal in the contaminated soil.

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4 Formation of Disaster-Resistant

Industrial Space



Infrastructure for Disaster Prevention and Mitigation and mitigation

To prepare for large-scale disasters such as earthquakes, floods and other major disasters, we will implement measures from the ground up, focusing on infrastructure development and other hardware to mitigate human and material damage, while incorporating the latest information, including lessons learned from the Great East Japan Earthquake and other major earthquake responses and countermeasures against flood damage caused by typhoons, which have grown in size in recent years. We will implement measures to mitigate human and material damage.

Promotion of tsunami and storm surge countermeasures

In order to prevent flooding due to tsunami and storm surge, coastal protection facilities have been installed at Taegae Wharf in accordance with the Coastal Protection Master Plan

In addition, we will also promote the raising of the ground level of private land adjacent to the waterfront line, as well as the upgrading of buildings and conversion of land use, and the placement of important facilities such as electrical rooms on the upper floors. In addition, we will also promote the raising of the ground level and the placement of important facilities such as electric rooms on the upper floors of the building.

Promotion of liquefaction countermeasures

For liquefaction of the ground, the topography as well as the timing of completion and degree of deterioration of landfill sites, buildings, and structures

We will promote effective and feasible measures such as ground improvement or building foundation improvement, taking into consideration the cost of the measures.

Ensure earthquake resistance

The project will promote the strengthening of seismic resistance and noncombustibility in buildings and equipment, such as factories, and various structures, such as seawalls,

We will continue to take earthquake resistance measures for bridges in accordance with the plan to mitigate human and material damage and secure evacuation routes.



The economic activities of the Keihin coastal area, including infrastructure and energy industries, are directly and indirectly related to the lives of the people of Yokohama and the rest of the country. We are committed to disaster prevention and mitigation, both in terms of hardware and software, so that even in the event of a major disaster, the safety of workers can be ensured and facilities can be restored quickly so that corporate activities can continue.



Promotion of regional cooperation in disaster prevention

The Keihin waterfront area is characterized by its many islands and peninsulas, so it is effective for each area to work together to implement measures.

In addition to the individual efforts of each company in the area, the entire community will promote disaster prevention and disaster mitigation through the formulation of a district disaster prevention plan and other measures, with all parties involved working together to share the goals of the community. In the Keihin waterfront area, there are also disaster sites such as the Yamauchi Pier Marine Transportation Base and the Suehiro Disaster Prevention Base, so we will also consider the use of waterborne transportation.

Promotion of disaster prevention and mitigation activities and establishment of a disaster prevention area

management system

To be prepared in the event of a disaster, companies in the area should prepare their own disaster prevention plans, secure evacuation routes and shelters, and stockpile supplies,

In addition to ensuring the safety of employees and those who have difficulty returning home, a business continuity plan (BCP) must be established and a system put in place to ensure the early resumption of corporate and social activities.

In the event of a disaster, it is extremely important to share information within the community. For this reason, it is important to organize a council for disaster prevention in each area, consisting of local businesses, government agencies, and related organizations, and to share information among them.

Improve the disaster preparedness of the district by sharing information on disaster prevention and disaster mitigation efforts by local businesses and by developing a district disaster prevention plan.

Cooperation with Disaster Prevention Centers

The Keihin waterfront area is home to the Sannai Wharf marine transportation base and the Suehiro Disaster Prevention Base. Emergency We will consider initiatives that take advantage of the functions of disaster prevention centers, such as the supply of emergency supplies and the transportation of water and manpower during emergencies, in order to improve disaster prevention functions in cooperation with the local community and each other.

Securing energy at the time of a disaster

The Great East Japan Earthquake has brought to light the constraints on energy supply and the vulnerabilities of centralized energy systems. In the past, the company has been working with companies to develop a disaster-resistant region. Therefore, we aim to create a network within and between regions by introducing self-distributed energy systems, etc., and to create a disasterresistant region that can secure energy in the region even in the event of a disaster.

- The government will provide information and support for corporate initiatives, such as consultation and support, to promote their efforts.

Efforts to improve disaster preparedness through intra-

regional energy integration

NogeGenetial Officite Build GS to Minami-ku and the University **Genter** The electricity generated by the CGS is transmitted to the new general government building in Minami Ward, and the heat generated in the process of power generation is effectively utilized at the University Center Hospital, thereby improving disaster preparedness, environmental friendliness and economic efficiency through multiple power sources.

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5

implementation system

Structure for Plan Realization

In order for the Keihin Waterfront Area to develop as an excellent industrial area that can quickly respond to rapid social changes and lead Japan and the world, it is important to take into account the intentions of the companies located in the area and to set a goal with an awareness of the time axis. Therefore, we will share our objectives with the government, and create a system to maximize the characteristics of each party, in order to increase the effectiveness of our efforts.



Establishment of an organizational structure by local companies

In the Keihin Waterfront Area, two councils the Keihin Waterfront Area Revitalization Council and the Oshikaga Pier Liaison Council) have already been formed to address a variety of local issues.

Since there is a wide range of objectives and issues to be addressed by each region, it is considered effective to carry out community development through area management based on the characteristics of each region.

Therefore, in addition to the above-mentioned councils, the government will proactively work toward the establishment of regional organizations for area management, consisting of companies located in each area, as necessary, to establish a system to promptly solve individual issues.



Cooperation between administration and community organizations

Because local issues cover a wide range of areas, the administrative airplanes and airplanes in charge are divided into different areas. In order to solve local issues smoothly, a system that avoids vertical division within the administration and brings the relevant bureaus together is required, and close and strengthened cross-divisional cooperation between departments.

Then, the administration and the community will work together to promote city planning by dividing roles according to the issues, such as the administration taking the initiative, the community taking the initiative, and both parties working in cooperation.



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Cooperation between Administrations for the Integrated Developme

The Keihin Waterfront Area is a large area straddling the cities of Yokohama and Kawasaki, and has developed as one of Japan's leading industrial areas. Although it is divided into two administrative regions, it belongs to the same Kanagawa Prefecture, and urban infrastructure such as roads and manufacturing functions are continuous and cohesive. In 2018 the City of Kawasaki formulated the "Vision for the Waterfront Area" and has been displaying various projects to realize the vision of a future where "industries that realize affluence are vibrant" and "diverse human resources and culture resonate".

Through a two-way collaboration with the "Waterfront Vision" and partnerships between prefectural and city government organizations, the entire Keihin waterfront area will be

Keihin Waterfront Area Reorganization and Development Master Plan

Aiming for integrated development.



region's overall thinking, and by taking initiatives that reflect the characteristics of each district. Therefore, we will present a "strategic map" depicting the future of the entire area, as well as "area plans" for the "Suehiro-cho area," strategic map "Moriya-cho, Ebisu-cho, and part of the Takaramachiarea (Shinko ya su a rea)" and "the area around Yanai Pier" where new land use is expected in the near future, to clarify the future image of the area, before proceeding with measures. The "Area Plan" will be presented to clarify the future image of the area, and efforts will be made. Yokohama Loop Tsurumi station stop on Sotetsu/JR **Global Innovation** Improved accessibility within and Railway direct line mprove convenience of Tsurumi outside the region (Hiyoshi - Tsurumi) station **Tsurumi Station** Tokaido Freight ort capacity of Bornon I I I I B JR Line offreight and Strengthen and passengers improve convenience Gathering human Medium-volume Center for the creation of Clustering of Regional Transportation Hub open innovation ormation of resources, HAREADAL 10205 transportation services Tsurumi cutting-edge technology new industries technology and (conceptual) Formation of **regional** transportation hubs and improve<u>ment of</u> capital from around the world convenience Anzen Town District Guiding appropriate land Canalsandriver use in consideration of the location of Utilizing the manufacturing and R&D functions and the Shinkoyasu waterline Station ater and green axis surrounding (in Japanese history) traffic **Small Quantity** (e.g., when U.S. military high-level manufacturing high-level Water transportation Daikoku-cho District Suehirocho District Regional Reinforcement Creation of innovation through land is returned to the **Transportation Services** production and logistics base functions by logistics diverse industrial clusters and formation of an entertaining transportation hubs U.S.) The service in the image is for illustrative purposes only upgrading manufacturing region to enjoy technology Part of Moriya-cho, Ebisu-cho and and Takara-machia rea logistics functions, etc. when Forming a region Deida-cho, Shin-Urashimainnovation is created through the concentration of R&D functions and the integration of cho,andChiwaku-cho areas Guiding appropriate land existing industries Industrial use in consideration of diverse industrial Entertainment **Ogishima District** ithin the rea locations, with traffic Harbor highway Further upgrading of convenience and activities industrial internationally competitive promotion energy tran taken into account. production functions Higashi-Kanagawa Station maintenanc Reintor aversportation of ormation of Mizuho Pier Area Creation of a new space through eisure and kational Routess mprehensive study sunami/s Formation of attractive urban space of the entire district (at Creation of a bustling space that takes advantage of the waterfront environment Yokohamana proximity to the urge awarenes (in Japanese history) the time of the return of the U.S. military land) Improvement of the vironment along the Yamauchi Pie **Enjoy the Technology** waterfront area and oast frastructure the central wholesale market Daikoku Wharf District Reinforcement of advanced transport service logistics and import/export functions and smooth ormationofwa **Creation of new** transportation in conjunction Lots of people visitand the place with the acceptance of superransportatior attractions is bustling with activity. large passenger vessels Getting in Touch with Acceptance of super-large History cruise ships waterfront area in central Tokyo

The Keihin Waterfront Area Reorganization and Development Master Plan will link the development of each district to the realization of the future vision of the Keihin Waterfront Area as a whole, by taking into consideration strategies based on the

Leading the world Creating



Area Plan 1: Twin Frontier Suehiro (tentative name)

Twin Frontier Suehiro



AreaConcept

In addition to the higher level of manufacturing functions in support of society and the further concentration of R&D functions, we will take advantage of the strength of the concentration of diverse industries to create and disseminate new value through the fusion of knowledge and technology, and to create a society where people from all walks of life can work together to create new value.

The region will be an entertainment area where people can interact with, become familiar with, and enjoy the technology of



Suehirocho is served by the JR Line, which begins at Tsuruppan Station and includes Bentenbashi, Asano, and Kaishibaura Stations. Located in the eastern part of the Keihin Waterfront Area, the area consists of two peninsulas, with the Tsurumi River to the west, the Asahi Canal to the east, and the Tsurumi Tsubasa Bridge across the Keihin Canal to the south. The industrial area is home to large manufacturers of heavy electrical equipment, steel, glass, and chemical materials; research institutes in the life science and new energy fields, including RIKEN; venture companies developing cutting-edge technologies; and resource recycling facilities.



Formation of the world's most advanced R&D field

The program will also provide a platform for local R&D organizations and venture firms to collaborate more closely with each other and with the region's attractions.

The location of further companies, together with the improvement of the power and the experimental environment.

In addition to the conventional concentration of R&D functions, land use Consider initiatives to induce R&D functions at the time of conversion to use



World's Largest Manufacturing

We not only show the world the high level of craftsmanship that has been cultivated over a long period of time on the surface of the product, but also provide the technology to the world.

Through the inheritance and promotion of power, we aim to strengthen the continuity and international competitiveness of the industry.

IoT implementation and Promote high-level and efficient manufacturing, including new products, and promote technological development in cooperation surrounding R&D with stitutions



Formation of a hub function to integrate research and manufacturing

We will promote open innovation by creating functions that allow local businesses, research institutions, and people from inside and outside the region to interact with each other. At the same time, the center will promote research and development by integrating multiple functions, such as accommodation and food/drink facilities.



Example of Benten Bridge hub function

The project aims to create a hub function that will serve as the nucleus of the region through the creation of an wironment where people can stay comfortably.

Introduce functions to enjoy and disseminate local history and technology.

The aim is to revitalize the region by putting into practice the advanced technology cultivated by the companies, and by introducing an entertainment function that allows visitors to enjoy the history and manufacturing technology of the region, and to promote the potential of the region by encouraging interest in and affection for the local companies, and by securing future leaders.

Introduce entertainment features such as attractions using the latest technology.



Chapter6:Strategic Map and Area Plan

of Improvement local transportation access. including experiments in auto-driving, etc., taking advantage of the area's industrial status



vice in the image isfor illustrative purposes only (Courtesy of DeNA Inc.)

Attendance at nearby high sch Promoting technical improvement and humar resources developmen through various collaborations, such lectures, factory tours, and joint skills training.



Introduce cutting edgetechnologies, such as in the environmental field Introduce the role of a technology show window bypracticing



Area Plan 2ShinkoyasuGateIsland (tentative name)

Shinkoyasu Gate Island







AreaConcept

The city's geographical advantage of convenient access to transportation and its historical background as a location for many chemical and other manufacturing industries will be utilized to create a concentration of R&D functions in new growth fields, and to create a new urban space through the regeneration of the area, where innovation will be generated.



The Moriya-cho, Ebisu-cho, and Takaracho area is located near JR Shinkoyasu Station and Keikyu Shinkoyasu Station, and is conveniently located for transportation, with Keikyu Shinkoyasu Station providing a direct connection to Airport Terminal southern end of the island-like area is a waterfront line overlooking the Minato Mirai 21 district and the Port of Yokohama, and has a largearea berth that can accommodate ships. The area is also home to a large berth facility that can accommodate vessel landings,

Since the land reclamation in the Taisho and Showa periods, the area has developed as a manufacturing area for chemicals and machinery.



Formation of R&D hub where people from all over the world gather

In addition to companies with a long history in the region, there are also new companies and academic institutions, as well as a wide variety of mainstays from all over the world.

We will promote the formation of a forum where organizations can come together and integrate their unique technologies and opinions.

Leading to various forms of lab-office functions, such as a hybrid warehouse and research facility, or a mother



Utilizing the favorable location overlooking the Port of Yokohama, the development of an R&D hub with a social space, conference facilities, and other functions to promote interaction and information





Creation of an attractive and comfortable working space that attracts a diverse range of people

The special features of the area at the level of the Port of Yokohama are essential to make it an attractive urban space for the "human resources" essential to the formation of an R&D hub.

While taking advantage of the area's unique characteristics, we will introduce convenient facilities that will improve the working environment and

enhance the environment for pedestrians.

JR Shinkoyasu Station - Keikyu

Shinkoyasu Station

Improvement of the working environment by making it an "Inland Gateway" and introducing convenient facilities such meals and daycare centers.





Chapter6:Strategic Map and Area Plan





The area where the existing highlevel berths are located will be Gateway", and the entire area will be made more attractive through the introduction of water transportation systems that allow people to enjoy their own transportation, and to visit nearby attractions.



Improvement of the urban landscape and the mobility of pedestrians in the designated as the "Waterfront area through the development of



42

Area Plan 3ActivitySpotYamauchi(tentative name)

Activity Spot Yamanouchi





AreaConcept

In cooperation with the central wholesale market, we will create a lively atmosphere with a theme of food and beverage, and a promenade that takes advantage of the new waterfront line extending from the Minato Mirai 21 district, creating a space where visitors can relax and enjoy themselves, as well as an urban space that contributes to health and wellness for the city and its residents, who can also enjoy running and other activities. The promenade, which takes advantage of the new



The area around YOKOHAMAUCHI FOUNDATION, which is the junction between Yokohama's central business district and the Keihin coastal area, is adjacent to the Central Wholesale Market, which handles seafood and fruit. It is also located in close proximity to the Yokohama Station area, which has the largest number of passengers of any terminal station in the city, and the Minato Mirai 21 area, which attracts many visitors to the city.

The construction of a waterfront highway (currently in provisional use) and land reclamation are planned.



Creating liveliness in cooperation with the central wholesale market

Before the landfill, we will make use of the low unused land adjacent to the market, and while taking into consideration the business activities in the surrounding area, we will work in cooperation with the market. The city will promote initiatives to create a lively atmosphere, such as a "marche" event focusing on sales of seafood, fruits and vegetables, and other "foods" using meals and drinks.



New land use by landfill and

bustle formation

In conjunction with the planned landfill, the market is linked In addition, we will make full-scale use of the land as a bustling area, and through the formation of a waterfront promenade connecting the area with the Minato Mirai 21 district, we will work toward the creation of an urban space where visitors can relax and enjoy themselves and an urban space that contributes to the health of the city's residents.

Improvement of circulation to and from

In order to increase the number of visitors to and from the adjacent coastal areas in the center of the city, we will introduce new transportation systems, such as buses that connect to the Minato Mirai 21 district and the Yokohama Station area, and water transportation systems that allow visitors to enjoy the ocean.

Development Master Plan





eas of the city

reference data

background of an investigation

Date		Details of the study		
February 24, 2009	Establishment of "Yokoham Council Ordinance".	a City Keihin Waterfront Area Reorganization and Development Master Plan Revision		
March 28, 2009	Establishment of "Yokoham Council	Establishment of "Yokohama City Keihin Waterfront Area Reorganization and Development Master Plan Revision Council		
April 27,2009	1st Council Meeting	 (1) Election of Chairman and Chairman's Alternate (2) Revision of the Keihin Waterfront Area Reorganization and Development Master Plan (3) Others 		
June 19, 2009 June 19, 2009 July 7, 2009	2nd Council Meeting (Site visit)	Tours of the TEPCO Tower, JFE Engineering Plant, etc.		
10,2017 月 13th	3rd Council Meeting	 (1) Revision of the Master Plan for the Reorganization and Development of the Keihin Waterfront Area (2) Others 		
January 30,2008	4th Council Meeting	 (1) Revision of the Master Plan for the Reorganization and Development of the Keihin Waterfront Area (2) Others 		
June 1, 2008	Citizens' Opinions			
July 6, 2008	5th Council Meeting	 (1) Proposed Revision of the Master Plan for the Reorganization and Development of the Keihin Waterfront Area (2) Report to the City of Yokohama 		
September 5,2008	Report from the Council on t Waterfront Area	the "Revised Draft Master Plan for the Reorganization and Development of the Keihin		
September 21,2008	Revised "Keihin Waterfront /	Area Reorganization and Development Master Plan		

List of members of the "Yokohama City Keihin Waterfront Area Reorganization and Development Master Plan Revision Council".

Name of the film	Affiliation
Ikeda, Tsunehiko	Vice President, The Open University of Japan
Satoshi Inoue	Visiting Professor, National Graduate Institute for Policy Studies
Tomoko lwasa	Associate Professor, Faculty of International and Comprehensive Science, Yokohama City University
Okonogi U tazo	Chairman, Taegae Wharf Liaison Council
🔿 Takayuki Kishii	Professor, Nihon University College of Science and Engineering
Satoshi Sadohara	Dean, Faculty of Urban Innovation Research, TUAT Yokohama
Manami Fujikura	Professor, College of Liberal Arts, J. F. Oberlin Univ.
Mariko Nibimura	Professor, Faculty of Modern Liberal Arts, Tokyo University
Hiroki Matsukawa	Chairman, Keihin Waterfront Area Revitalization Council
Hiroshi Mano	Advisor to the Board of Directors, The Research Institute of Taiwan Industrial Area, Ltd.
Miki Murakami	Professor, Graduate School of Engineering, Chiba University
◎ Shigeru Moriji	Director of the Center for Policy Research, TUAT

© Chairperson, ○ Deputy Chairperson (as of the 5th Council Meeting) (Affiliation, etc.) (Pamphlets listed in alphabetical order, titles omitted)

Summary and Results of Public Opinions

Outline of Implementation

(1) Application period

June 1, 2008 (Friday) through June 15, 2008 (Friday) (15 days)

(2) How to apply

(1) Postcard attached to the leaflet soliciting public opinions(2) E-Mail

(3) FAX

④Mail or bring (City Hall, 6th floor)

(5) Reception Form for City Opinions

2. Implementation Results

(1) Number of submissions: 14

Submission MethodReceipt Form for Receipt of City Opinions 5E-mail 8 FAX 1 copy

(2) Number of opinions 58

45

Keihin Waterfront Area Reorganization and Development Master Plan reference data

Classification and number of opinions (multi-sector opinions were selected and categorized by representative items)			
	Overall Master Plan Revision Proposal	7 cases	
Chapter 1	About Keihin Waterfront Area Overview	2 cases	
Chapter 3.	1. about global innovation	6 cases	
Chapter 3.	2. about Industrial Entertainment	5 cases	
Chapter 4.	1. the formation of urban space for the creation of new attractiveness	6 cases	
Chapter 4.	(2) Improvement of Transportation Environment Supporting Local Communities	14 cases	
Chapter 4.	3. the formation of environmental systems that contribute to the sustainability of society	7 cases	
Chapter 4.	4. on the creation of industrial space that is resilient to disasters	3 cases	
Chapter 5.	System to realize the plan	1 case	
Chapter 6.	About Area Plans	3 cases	
Other		4 cases	

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glossary

[A].

Sohro Asano

Founder of the Japanese cement industry and later general manager of the Asano Zaibatsu. In 1883, Asano acquired the Fukagawa Industrial Branch of the government-run cement works, and 1998 established the Asano Cement Joint-Stock Company (the predecessor of Nippon Cement) on the basis of this property. In 1883, the government-owned Fukagawa Engineering Sub-branch of the cement works was disposed of, and the Asano Cement Joint-Stock Company (the predecessor of Japan Cement) was established in 1998.

The shore was reclaimed to create a large industrial area, and iron and steel mills and shipyards were established(Encyclopedia BritannicaEncyclopedia)

innovation

1 New innovation. Innovation.

2 The concept that economic development and business cycles are brought about by the development of new products, the introduction of new modes of production, the development of new markets, the development of new raw materials and resources, and the formation of new organizations. Schumpeter's term. In a narrow sense, it also means technological innovation.

Use.(Kobogakkan "Digital Taejisen")

Area Management

A project in which local peopletake the initiative in actively carrying out community development and local management in a specificarea. Currently, area management initiatives are being implemented in many parts of Japan, including in the typical areas of urban centers in large cities, commercial areas in regional cities, and residential areas in the suburbs, in response to expectations for community development led by local residents and with the cooperation of the public and private sectors. (Website of the Headquarters for the Creation of New Towns, Cities and Workplace)

open innovation

The development of new technologies **and** new products involves the bringing together of knowledge **and** technology from a wide range of sources beyond the framework of an organization. Examples **itde** industry-academia-government collaboration projects, cross-industry exchange projects and joint research between large companies and venture companies. (Kobogakkan "Digital Taejisen")

on demand

On demand" means "on demand. Theprovision of services on demand. (Excerpt from "Digital Taejisen" by Kobogakkan)

[Ca.]

Basic Plan for Coastal Conservation

In accordance with the revision of the Coastal Law in 1999, based on the basic policy of coastal conservation that defines the basic direction of coastal conservation, the prefectural governor determines the basic items of coastal conservation including environment and utilization, and items related to facility development.

conference

conference. refers to a meeting or council in English. Here, it mainly refers to academic conferences, study groups, councils, review groups, etc.

cluster

A cluster, a group of like things or persons. A group. A group. In this case, an industrial cluster (a state in which industries with a competitive advantage become the nucleus of a wide-area industrial concentration by creating a business environment in which new businesses can be created one after another (Ministry of Economy, Trade and Industry website)

global

The global scale. Also, the way it covers the whole area. Comprehensive. (Kobogakkan "Digital Taejisen")

construction generated soil

The soil and sand removed from the construction process is not considered waste as defined by the Waste Disposal and Public Cleansing Law.

Construction soil includes (1) Soil and soil equivalent to soil used exclusively for land

development, and (2) Soil used exclusively for land development.

 Dredged soil (dredged soil)(2) Sediments generated by dredging of ports, rivers, etc., and other similar materials. (Excerpt from the website of the Ministry of Land, Infrastructure, Transport and Tourism)

International Main Line

Generally, it refers to long-distance container routes between East Asia, North America, and Europe.

cogeneration

Efficient use of energy by generating electricity with gas turbines or diesel engines and using the exhaust heat to meet the heat demand such as hot water **and** air conditioning. Heat and power supply. Combined heat and power supply. Waste heat power generation. (Excerpt from "Digital Taojisen" by Kobogakkan)

coworking space

A place where individuals working independently can share a working environment including desk, chair and network facilities. The conceptis different from traditional rental offices in that it encourages community building, active interaction and collaboration amongst users. (The company is also a leader in the development of new business models.)

[Sa.]

Serviced Apartments

High class apartments with hotel-like front desk service and housecleaning service. Furniture, appliances, and full suite of appliances are available. The rooms are furnished with daily necessities so **ta**you can start your daily life as soon as you move in. (HOME'S homepage "Glossary of Real Estate Terms" (NEXT Co.,Ltd.))

supply chain

In the manufacturing industry, the name given to a continuous system of raw material procurement, student management, logistics, and sales. (Sanseido "Taojirin")

industrial tourism

Industrial tourism is a tourism activity that promotes human exchange as well as the use of industrial cultural properties (so-called industrial heritage, such as old machinery and equipment, factory remains, etc.) production sites (factories, workshops, etc.) and industrial products of historical **and cultural** value as tourism resources, and through these, allows visitors to get in touch with the manufacturing process in a practical way. (Ministry of Economy, Trade and Industry "FY 2015 Survey Report on Regional Revitalization Cases Utilizing Industrial Tourism")

sharing economy

A social system in which goods, services and places are shared and exchanged with many people. Various sharing services have emerged, including car sharing, which allows individuals and companies to share automobiles, as well as using social media to mediate the lending and borrowing of vehicles between individuals. (Koboeakkan "Digital Taoiseki")

Business Continuity Plan (BCP)

Business continuity planning is a plan that defines the activities that should be carried out under normal circumstances and the methods and means for business continuity in the event of an emergency, such as a natural disaster, major fire, or terrorist attack, in order to minimize damage to business assets and ensure the continuation or early recovery of core business operations. The plan defines the activities to be carried out under normal circumstances, as well as the methods and means for business continuity in the event of an emergency. (Excerpt from the website of the Small and Medium Enterprise Agency)

Sustainable Development Goals (SDGs)

Sustainable Development Goals, Millennium Development Goals established in 2001

T h e MDGs were adopted at the UN Summit in September 2015 as the successor to the MDGs $% \left({{{\rm{D}}_{{\rm{S}}}} \right)$

The 2030 Agenda for Sustainable Development, 2016 and beyond, as described in the The SDGs are the international targets for the period from 2000 to 2030, consisting of 17 goals and 169 targets to achieve a sustainable world. The SDGs consist of 17 goals **and** 169 targets to achieve a sustainable world and pledge to leave no one behind on the planet.

The "Japan-United States" project is a universal one, and Japan is actively involved in this project. (Outside of Japan) The primary industry, the mechanization of the workshop by water and steam engines since

(Excerpt from "JAPAN SDGs Action Platform", Ministry of Finance, Japan)

Heavy and long-lived industries

Basic industries such as steel and shipbuilding. The main industries in Japan are the steel and shipbuilding industries, which are large consumers of raw materials and have large industrial centres. Japan was hit hard by two oil crises and subsequent changes in industrial structure. However, restructuring and rationalization have enabled Japan to maintain high international competitiveness in the high-end sector. The opposite term is "light, thin, short, compact industry. (Encyclopedia Mypedia, published by Heibonsha)

smart city

Also called smart community. A new social system that optimizes the use of energy by comprehensively managing local energy supply and demand through an energy management system that utilizes technologies such as IoT and storage battery control, while using distributed energy such as renewable energy and cogeneration systems in a community of a certain scale in which a variety of consumers participate. Is a new social system that optimizes energy use and utilization through an energy management system utilizing technologies such as IoT and storage battery control, and also incorporates other services to support livelihood, such as outdoor life checks and care for the elderly. (Taken from the Ministry of Economy, Trade and Industry website)

vegetal diversity

It is a concept that combines all living species (animals, plants, and microorganisms), the ecosystems in they live, and the genes that the living organisms pass on from past to future.

The diversity of life respects the existence of a variety of life forms, and is a key to a

society that sustains and conserves it, as well as to a society that is sustainable. It occupies an important position as a basic concept in ecological thought, which aims at the realization of a life for humans. In recent years, in addition to the ethical viewpoint that recognizes the intrinsic value of the conservation of a variety of living organisms and their coexistence with humans, there is a growing demand for the conservation of wildlife as a valuable resource for humans in terms of biotechnological breeding and the development of medicines. In Japan, based on the Convention on Biological Diversity, the National Strategy for Student Diversity was formulated in 1995, and the Cabinet approved the third National Strategy for Student Diversity in 2007. (Excerpt from "Mypedia, the Encyclopedia" published by Heibonsha)

Sensing Technology

Sensing technology is a general term for technologies that measure and quantify various information using sensors (sensing devices). It includes all technologies that collect and apply quantitative data on factors such as temperature, volume of sound, brightness, and impact strength.

Remote sensing is a type of sensing technology that allows remote sensing and measurement of objects at a distance (without contact). Remote sensing technology is used as an important technology in the fields of space, aeronautics and geochemistry(IT Dictionary Binary)

Advanced Technology Center

The company is a research center with a research institute, and the results of research and

development conducted at the research institute are reflected in the products.

A facility where new products are created by technological innovation, or where productivity is continuously improved by reflecting the results of such innovation. Excerpt from "Regulations for the Support Measures in Support of Specific Areas for Establishing Yokohama City Business Establishments")

[**Ta**]

The Fourth

Industrial

Revolution

the end of the 18th century.

Eterm "industrial revolution" refers to several core technological innovations such as IoT and AI following the first industrial revolution of the 20th century, the second industrial revolution of the early 20th century, which was based on the division of labor and mass production using electricity, and the third industrial revolution of the early , which was based on the increased automation of electronics, engineering, and information technology. (Excerpt from "Japan's Economy 2016 - 2017," Cabinet Office)

[Ha]

Biomass power generation

Biomass is a general term for a living resource derived from plants, animals, and other organisms. In biomass power generation, power is generated by "direct combustion" or "gasification" of the biomass resources. Biomass power generation, which uses unused waste as fuel, leads to the reuse and reduction of waste, and is said to make a significant contribution to the creation of a recycling-oriented society. (Excerpt from the Agency for Natural Resources and Energy website)

personal mobility

A mobile device for one person. Imany cases, it refers to electric vehicles that use advanced technology. Metropolitan

Proposal for the "Focusing on the Focused Coastal Area - Inner Harbour Development Concept" (March 2010)

(Yokohama Inner Harbor Study Committee))

hub-and-spoke

A method of transportation in which cargo is concentrated at large hub, such as an airport, and then distributed to individual hubs (spokes). It is reminiscent of the hub of an auto-car (the center of the wheel) and the spokes leading to the tires, and wæsfirst used in air cargo transport in the United States. (Excerpt from "Glossary of Logistics Terms" on the Nippon Express website)

hub airport

An airport that serves as a hub. An airport where air routes radiate out like the hub and spokes of an automatic bicycle. Compared to airports that are connected to each other, the limited number of aircraft can be used more efficiently. For passengers, although they have to change planes once, they have the advantage of being able to enjoy airline service with a full range of flights and routes. (Heibonsha "Encyclopedia Mypedia")

Paris Agreement (1985)

A n agreement that establishes an international framework to combat global warming after 2020. 12/2015

Adopted at the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21) ParisNovember 2016. °CThe goal is to limit the increase in global average temperature to less than 2 degrees Celsius above preindustrial levels (target of 1.5 °C) and to achieve virtually zero greenhouse gas emissions in the second half of the 21st century. Excerpt from the Encyclopedia Britannica International Encyclopedia)

Big Data

Data that is large, diverse, and complex. Information generated by individuals through smartphones, purchasing information at convenience stores, car navigation systems, etc.

47	Keihin Waterfront Area Reorganization and	reference
	Development Master Plan	data

It is not only large, but also has the characteristics of being non-standardized, increasing and changing in real time. It is not only bulky, but also unstructured, increasing and changing in real time.

Since around 2010 the development of this method has led to its use in a variety of fields, including industry, academia, government **and** disaster prevention, for decision-making, future forecasting and event analysis. (The use of this method has led to the development of the "digital dictionary" (Kobogakkan "Digital Taoiisen").

Plaza agreement (1985 agreement of G5 nations)

月 The agreement reached at a meeting of the finance ministers and central bank governors of the five countries of Japan, the United Kingdom, France, and Germany on September 22, 1985. The agreement included a plan to correct the imbalance in international payments by adjusting the exchange rate, which triggered a shift from a strong dollar-weak yen to a strong yen. The goal was to support the U.S., which was suffering from a trade deficit by intervening in the exchange rate, and by the end of 1987 the exchange rate was trading at 120 yen to the dollar, compared to 230 yen to the dollar before the agreement. The Japanese economy fell into a recession due to the strong yen for a period of time, but speculation accelerated due to the low-financialrate policy, and the bubble economy expanded toward the end of the 1980s. (Kobogakkan "Digital Taojisen")

borderless

It means "without boundaries" or "without borders". (Kobogakkan "Digital Taejisen")

[Ma].

Mother plant system

A facility with strong technical, development 力 - management 力 - and investment decision-making capabilities to support a manufacturer's expansion by establishing a facility outside the country. The mother plant is often located in the home country. Provide locally appropriate technology and support by dispatching engineers and managers. (Kobogakkan "Digital Tagen')

marché

marché, French for "market". In this case, in the area An "urban marché" where people bring their own agricultural, water, and livestock products, as well as processed and handcrafted goods, to sell.

[Yah!]

Yokohama City Global Warming Action Plan

This is a plan that defines measures to reduce greenhouse gas emissions in the entire city area, based on Article 20-3 of the Law Concerning the Promotion of the Measures to Cope with Global Warming. The former plan was established in March 2011, but was revised in March 2014 to aim for a vibrant and sustainable community through a low-carbon society, taking into account the changes in the situation surrounding Japan's global warming countermeasures and energy policy since the Great East Japan Earthquake. As of September 30, 2008, the revision is in progress.

[La.]

life science

Life science, the comprehensive study of living organisms and life phenomena, including biology, biochemistry, medicine, $\dot{\omega}$ science, biology, ecology, and social sciences. The science of life. (Kobogakkan "Digital Taojisen")

logistics

The logistical activities of a company or its methods. Originally, this term referred to logistics or rearguard support in the military, and specifically to procurement and transportation activities or methods. This concept was adopted in the business world in the United States in the 1960s.

The term "logistics" has come to refer to organizational management aimed at economically streamlining the flow of goods. Recently, efficient logistics closely linked with information systems has been gaining in popularity. (Excerpt from "Mypedia, the Encyclopedia" published by Heibonsha)

A to Z

AI

Humanandartificial intelligence. There is no clear definition paims to accurately perform high-level reasoning on large amounts of knowledge data.

(The first boom was in inference and search (1956-1960s) and the second boom (knowledge representation, 1980's). In the past, there was a first boom (inference and search 1956-1960s accord boom (knowledge representation 1980s), and now (from 2012), "deep learning" (a form of machine learninghas become a breakthrough and machine learning is in the spotlight. The technological advances in AI have been made possible by the recent remarkable improvements in computing power and the accumulation of large amounts of data through the use of ICT. Deep learning has led to the acquisition of image recognition capabilities that exceed human capabilities, and based on this, to the mastery of motor functions that were previously impossible for machines, and when combined with sensors, machines can have "eves" (Ministry of Health, Labor and Welfare -1st Advisory Council for the Promotion of Al Utilization in the Health and Medical Fields document)

ICT

Abbreviation for Information & Communication Technology. ¥okohama City Minato Mirai 21 District Smart Urban Development Policies <Report> (2014)) (Yokohama City Minato Mirai 21 District Smart City Development Council)

ΙοΤ

Abbreviation for Internet of Things. By connecting to the Internet and exchanging information with all kinds of things, including automobiles, home appliances, robots, and facilities, the data-intensive automation of things will progress, and new added value will be generated. This will contribute not only to the sale of products, but also to the development of services using products. (Ministry of Internal Affairs and Communications - "White Paper on Information and Communications", 2015 edition)

MICE

An acronym for Meeting (corporate meetings), IncentiveTravel (corporate incentive and training trips). Convention (general meetings, academic conferences, etc. hosted by international organizations and academic societies), Event or Exhibition. -A general term for business events that are expected to attract large numbers of visitors. Yokohama City Culture and Tourism Bureau, Tourism Promotion Division, "Action Plan for the Realization of an International Tourism and MICE City (January 2011))

Societv5.0

A concept proposed by the Japanese government in its Fifth Science and Technology Basic Plan as a vision of the future society to which Japan should aspire. A society that uses human-centered technology to combine economic development and the resolution of social issues through a system that highly integrates cyberspace (virtual space) and physical space (real space). Hunting society

(It refers to the new society following Society 1.0, Agricultural Society (Society 2.0) Industrial Society (Society 3.0) and Information Society (Society 4.0). (Excerpt from the Cabinet Office website)

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