

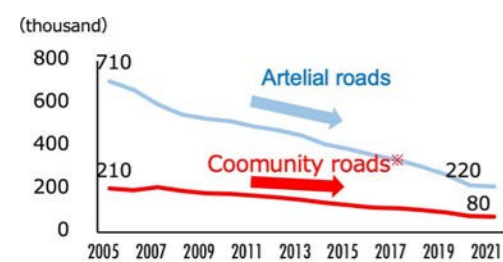
# Creating safety, security and activity in road space - Creating regions and towns -

In order to achieve a society in which all people can live in safety, security, and comfort, we will promote traffic safety measures, universal design, the removal of utility poles, and the development of spaces for bicycle traffic, as well as initiatives to meet the diverse needs of road space, such as the creation of new forms of mobility and regional activities.

## Creating safe and secure road space

Although the number of traffic accidents is on the decline, the rate of decrease in the number of fatal and injury accidents on roads is small, many accidents still occur.

### Trends in the number of accidents resulting in death or injury by road type



\* Roadway width less than 5.5m, arterial roads: counted as roadway width of 5.5m or more  
Source: based on annual report of traffic accident statistics



Elementary school students passing on the narrow shoulder

In Japan, with its declining birthrate and aging society, it is necessary to develop safe, secure, and universally designed spaces.

### Universally designed walking space



### Universally designed bicycle lane



National Highway 246: Aoyama area

## Realization of diverse needs for road space

Diverse needs for road space, including the installation of open cafes and parklets on sidewalks\* to create liveliness and improve the attractiveness of the city

\*Efforts to create stagnant space mainly by utilizing shoulders and stopping lane

### Open cafe on the sidewalk



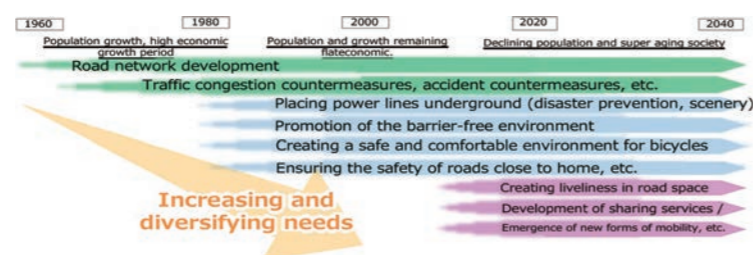
Bandai City Street: Niigata City

### Installation of parklets



Honeycomb Square: Shizuoka City

## Road policies diversify in response to the needs of the world

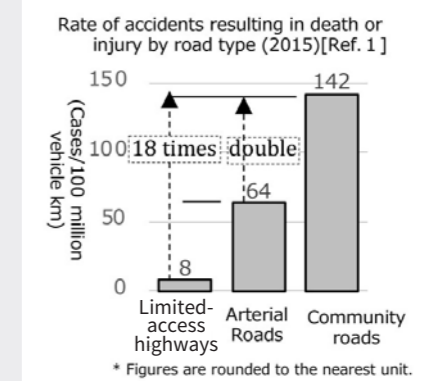


## Development of a safe and secure transportation space

While further improving the safety of arterial roads, we will promote the creation of pedestrian- and bicycle-oriented spaces by diverting automobile traffic, and implementing comprehensive measures to control the speed of traffic and the entry of through-traffic on community roads.

### Background / data

- The number of traffic fatalities in 2022 was 2,610, the lowest in the postwar period
- On the other hand, the rate of fatal and injurious accidents on community roads is significantly higher than on other roads
- As a result of joint inspections of school routes (Ref.2), measures have been completed at approximately 17,000 of the 40,000 spots that need to be addressed by road administrators (as of March 31, 2022).
- "Zone 30 Plus" (Ref.3) development plans have been established in 33 districts nationwide (as of July 31, 2022).



Promote intensive countermeasures at accident-prone spots (Ref.4)

Promote the conversion of automobile traffic to trunk and arterial roads, and promote the functional differentiation of roads from community roads.

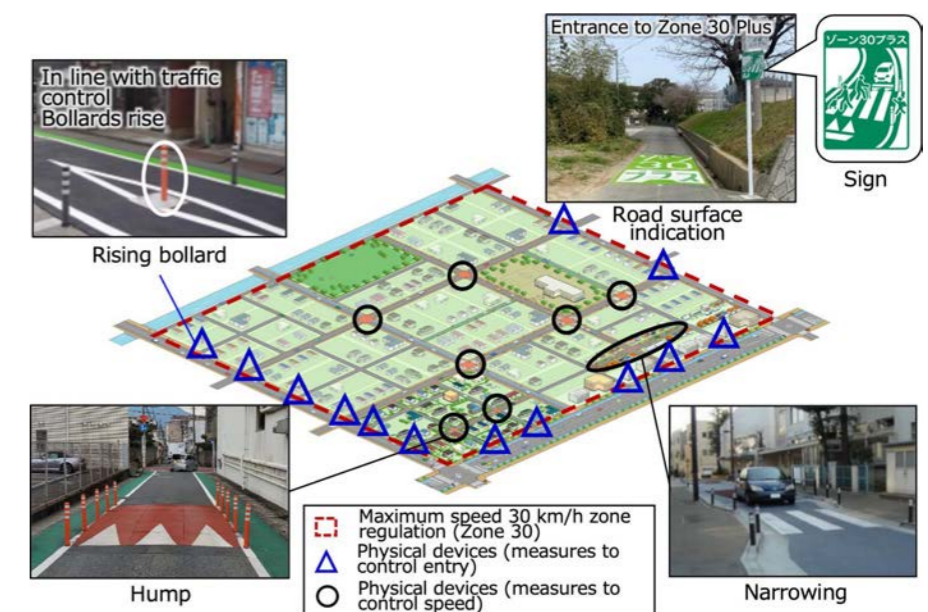
Promote measures such as the construction of sidewalks and protective fences based on the results of joint inspections of

school routes through the Traffic Safety Measures Subsidy System (Emergency Measures for School Routes)

Promoting the use of big data for efficient and effective traffic safety planning and community consensus building

Promote "Zone 30 Plus" on community roads through traffic safety measure subsidy system (in cooperation with other districts), etc.

### Image of "Zone 30 Plus"



Ref.1: Arterial roads (national highways, major regional roads, prefectural roads (excluding limited-access highways)), and community roads (roads other than limited-access highways and arterial roads (including roads other than those under the Road Act))  
 Ref.2: Implemented in response to a traffic accident that occurred on a school road in Yachimata City, Chiba Prefecture, in June 2021  
 Ref.3: Cooperative measures to ensure traffic safety for pedestrians and others through close cooperation between police and road administrators from the study stage and through an appropriate combination of zone restrictions (Zone 30) with a maximum speed of 30 km/h and physical devices  
 Ref.4: Areas on arterial roads where there is a high risk of accidents (frequent accidents, potentially dangerous areas, etc.) and where countermeasures are intensively implemented, as designated jointly by the Ministry of Land, Infrastructure, Transport and Tourism and the National Police Agency



## Promotion of railroad crossing countermeasures

In accordance with the Act on Promotion of Railway Crossings, promote the designation of railroad crossings to be improved, measures such as grade-separated crossings, and barrier-free measures

### Crossing countermeasures

#### Background / data

- Railroad crossings requiring urgent consideration of countermeasures (chart crossings) 1,336 locations
- Ministerial designation of railroad crossing roads to be improved 241 locations
- Ministerial designation of railroad crossing roads with disaster management methods 372 locations

Support for railroad crossing improvement projects through the use of the railroad crossing improvement project subsidy to systematically and intensively support crossing roads that need to be improved.

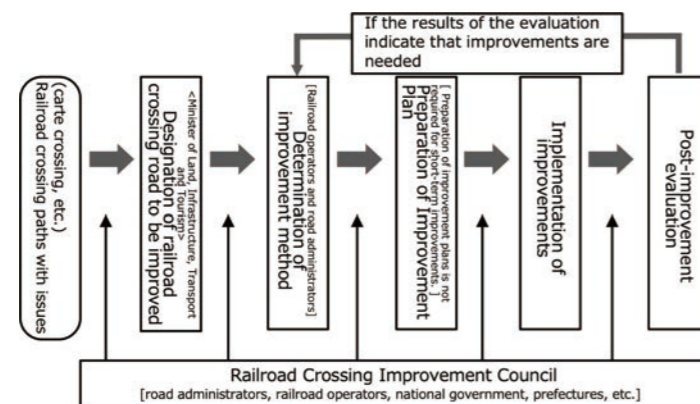
Promoting transparency of the consultation process by opening railroad crossing road improvement council meetings to the public, and "visualization" of the status of countermeasures by publishing the "Railroad Crossing Road Safety Passage Chart"

Promote barrier-free measures at railroad crossings by studying detailed specifications and structures based on the guidelines (Ref.1) revised in response to accidents at railroad crossings involving persons with visual impairment

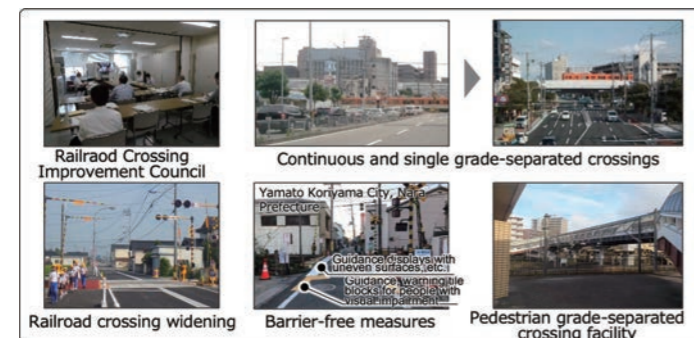
Designate railroad crossing roads for which disaster management methods are to be determined, and promote efforts to ensure that priority is given to openings and other measures to prevent long-term blockages in the event of a disaster

- Number of railroad accidents (2025): Approx. 10% decrease from FY2020
- Time lost due to railroad crossing blockage (2018 -> 2025): 1.03 million man-hours/day => 980,000 man-hours/day

#### Flow of measures based on the Act on Promotion of Railway Crossings



#### Example of a railroad crossing countermeasure



Ref.1 : Guidelines for Facilitating Road Transportation(revised June 2022)

## Improving the safety and reliability of expressways

To prevent head-on collisions, new technology will be installed on long-span bridges and tunnel sections on a trial basis on actual roads to verify its effectiveness.

With the aim of achieving zero serious accidents due to wrong-way driving by 2029, we will promote measures to prevent wrong-way driving on expressways, as well as measures to prevent pedestrians and mopeds from entering expressways by mistake.

### Measures to prevent head-on collisions in provisional two-lane sections

#### Background / data

- The rate of fatal accidents on temporary two-lane sections of expressways is about twice that of sections with four or more lanes.[Ref. 1]
- As of November 2022, out of 6,257 contact accident, there were 13 accidents in which the driver ran into oncoming trafficking wire rope barriers into oncoming traffic, of which there were no fatalities .[Ref. 2]

New technology that meets the performance requirements for preventing vehicles from deviating from the road on long bridges and tunnel sections is being installed on a trial basis at 6 locations (approx. 1 km) on actual roads nationwide to verify the effectiveness of the new technology

■ New technologies that are to be installed on actual roads on a trial basis among publicly solicited technologies



Selected 2 technologies for long-span bridge and tunnel sections

Plans are in place to expand the trial locations by approximately 13 km to verify the effectiveness of the technology

### Countermeasures to prevent wrong-way driving and wrong-way entry

#### Background / data

- The average number of incidents of wrong-way driving on expressways has been approximately 190 per year for the past four years.
- Of the 3,392 incidents (Ref.4) of pedestrians and other vehicles entering expressways (in FY2021), 57% were mopeds, 30% were pedestrians, and 13% were bicycles.

Promote the practical application of color pavement on public roads as a countermeasure for expressway entrances and exits, which account for approx. 30% of reverse driving incidents, and communication technology vehicle to road infrastructure using image recognition technology.

At the entrance and exit of the expressway, measures to prevent pedestrians and mopeds from entering the expressway by mistake will be promoted in addition to measures to prevent wrong-way driving.



Measures at the entrance and exit of expressways (Colored pavement)



The in-vehicle camera recognises the wrong-way driving and warns the driver



Signs for image recognition

Ref. 1: Expressway (toll) (2013-2021) Ref. 2: Wire rope installed: approx. 1,430 km (as of November 2022)  
 Ref.3: Number of cases of wrong-way driving: 2017: 207, 2018: 200, 2019: 200, 2020: 148, 2021: 188  
 Ref.4: Number of cases of wrong-way entry: 2017: 3,733, 2018: 3,823, 2019: 3,998, 2020: 3,662, 2021: 3,392

## Utilization of space to meet various needs

In order to respond to various needs for roads, such as the creation of liveliness, and to improve the attractiveness and revitalization of the community, we will work on the flexible use of sidewalks and shoulders, and the realization of "road spaces focused on people".

### Background / data

- Needs for road space is diversified, such as "liveliness," "safety," and "support for new mobility"
- In order to create lively roads, the Hokomichi (Pedestrian Convenience Road System) system was established (Ref.1) and 92 routes were designated by 33 road administrators (as of November, 2022)

## Flexible use of sidewalks, shoulders, etc.

Promoting the Hokomichi system to create a lively community

To make effective use of road space and create a bustling atmosphere,

- Establish and disseminate guidelines for flexible use of road shoulders
- Consider multifaceted use of space, including shoulders

To improve road maintenance and management, promote the development of a road cooperative group system (Ref.2) and linkage with the Hokomichi system

### Examples of Hokomichi utilization (Kobe City)



Sannomiya Chuo Dori

### Example of multifaceted use of shoulders (Sendai City)



Roadside car sharing

### Background / data

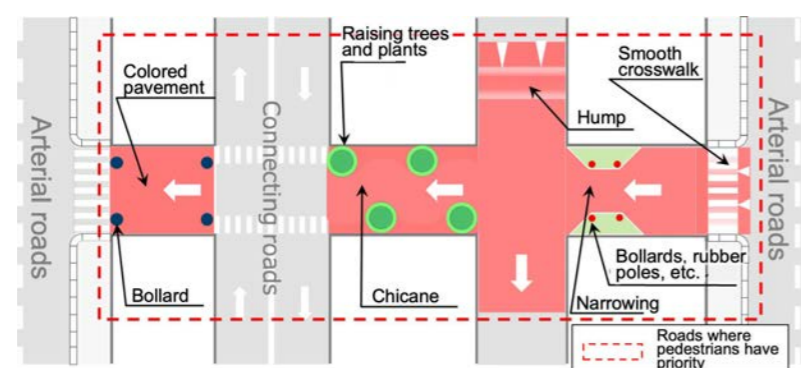
- Increasing needs for safe and secure walking spaces that prioritize people and road spaces where people can stay and interact with each other have led to the need to realize "road spaces focused on people"

## Realization of road spaces focused on people

Promote spatial reorganization by analyzing existing cases, developing good practices, and disseminating "Guidelines for Roads Responding to Diverse Needs" in order to create bustling spaces

To create road spaces where pedestrians can coexist with vehicles, a mechanism to focus on curbing the entry and speed of cars will be studied as a way to "create roads where pedestrians have priority"

### Image of measures to suppress entry and speed



Ref.1: Due to the enforcement of the revised Road Act (November 2020)

Ref.2: A system for road management through cooperation between road administrators and private organizations that utilize roads

## Improving the environment for bicycles and promoting their use

Based on the Second Bicycle Use Promotion Plan, which was formulated in May 2021, we will promote the creation of a safe and comfortable environment for bicycle use by promoting formulation of bicycle utilization promotion plans in local governments.

## Creating a safe and comfortable environment for bicycle use

### Background / data

- Extension of bicycle traffic space separated from pedestrians: approx. 3,599 km (as of the end of FY 2020)
- Following the revision of the Road Traffic Act in 2022, new mobility devices such as electric kickboards entered the bicycle traffic space

Accelerate the development of appropriately separated bicycle traffic space through the review of guidelines (Ref.1) and other measures

Establish a regional promotion system to strengthen cooperation among related parties and promote the formulation of Local Bicycle Use Promotion Plans (Ref.2) through the provision of new know-how.

- 89 municipalities developed the plans (Ref.3) ⇒ 400 municipalities (2020→2025)

### Bicycle traffic space



Bicycle Track



Bicycle lane

## Promoting the introduction of bicycle commuting

Promote the introduction of bicycle commuting through the "Bicycle Commuting Promotion Company" declaration project (Ref.4)

- Share of bicycles used for commuting (2015→2025): 15.2% → 18.2%

## Promotion of cycle tourism

Promote the development of the riding environment on the National Cycle Route (Ref.5) improve the reception environment through cooperation with commercial facilities and public transportation and disseminate information domestically and internationally

Prepare a collection of case studies on cooperation with public transportation systems and disseminate them to relevant parties

- The number of model routes aiming to develop an advanced bicycle user environment (2020→2025) : 56 routes ⇒ 100 routes

### Example of collaboration with public transportation



Cycle Train(JR Kinokuni Line, Wakayama Prefecture)

## Promote the purchase of bicycle liability insurance

### Background / data

- Status of subscription obligation by ordinance, etc.: Mandatory in 31 prefectures, effort required in 9 prefectures (as of October 2022)

Provide support to prefectures and other entities in enacting ordinances and providing information on the need for insurance coverage.

- Purchase rate of bicycle insurance (2020→2025) : 59.7% ⇒ 75%

Ref.1: Guidelines for Creating Safe and Pleasant Cycling Environment (July 2016)

Ref.2: According to the Bicycle Use Promotion Act, prefectures and municipalities must endeavor to establish local bicycle use promotion plans

Ref.3: Number of local Local Bicycle Use Promotion Plans that include a plan for bicycle networks

Ref.4: Number of declared companies: 55 (as of November 2022)

Ref.5: Designation status: 6 routes (as of November 2022)



## Promotion of universal design

We will promote the universal design of roads around major railroad stations throughout Japan in order to achieve communities where all people, including elderly and disabled, can move around smoothly and safely.

Promote the development of child-rearing support facilities at Michi-no-Eki (roadside rest area) nationwide.

### Background / data

- Expansion of the designation of specific roads [Ref. 1] based on the Barrier-Free Act (July, 2019)

Expanded designation: approx. 1,700 km -> approx. 4,450 km

- Major child-rearing support facilities at service areas and Michi-no-Eki

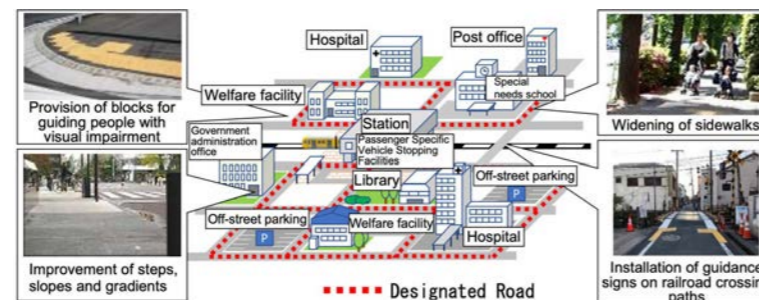
Maintenance rate (as of April 2022)	Baby Corner available 24 hours a day	Covered priority parking spaces for pregnant women
Michi-no-Eki in Japan (1194 facilities)	18% (218 facilities)	21% (256 facilities)

\*Completed at 220 SAs with commercial facilities on expressways

## Promotion of Barrier-Free Accessibility of Specified Roads

Promotion of barrier-free access to specified road designated under the Barrier-Free Act.

\* Rate of creating barrier-free specified roads (2018 -> 2025): approx. 63% -> approx. 70%



## Development of road space with consideration for universal design

Dissemination of the Guidelines for Facilitating Road Transportation (revised June 2022) which set forth barrier-free standards and universal design for roads, etc.

Continued consideration of measures to accommodate the various characteristics of disabilities and the installation of guidance signs at railroad crossings, based on hearings with concerned parties, etc.



inspection concerned parties



A curb that allows buses to stop at the stop without leaving gaps



Edge structure of crosswalk which considers for the visually impaired, wheelchair users, etc.

### Image of a child-rearing support facility

Promote the development of childcare support facilities at Michi-no-Eki nationwide



Baby corner available 24 hours a day.



Covered priority parking spaces for pregnant women

Target for development of childcare support facilities at Michi-no-Eki nationwide (2019-2025): approx. 4% => approx. 50% or more

## Promoting the removal of utility poles

From the perspective of improving the disaster-prevention capability of roads, ensuring safe and comfortable traffic space, creating a favorable landscape, and promoting tourism, we will promote the removal of utility poles in accordance with the Removal of Utility Poles Promotion Plan [Ref. 1] formulated in May, 2021.

### Background / data

- Japan is behind other major cities in other countries in terms of removing utility poles.

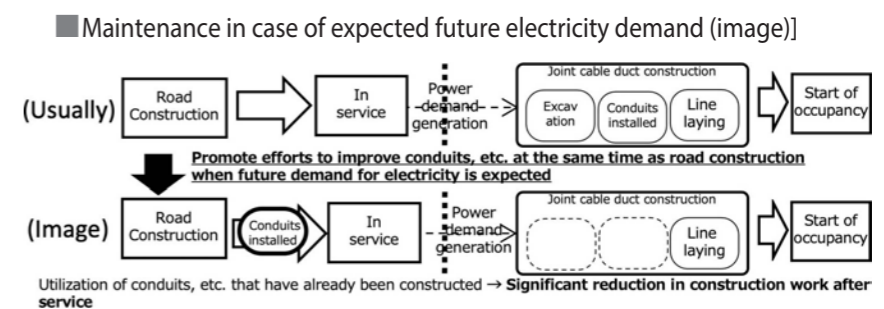
◇ Tokyo 23 wards: 8%, Osaka City: 6% (2020) \*Road extension base  
◇ London, Paris, Hong Kong: 100% (2004), Taipei: 96% (2015) \*Cable extension base

- Based on the Removal of Utility Poles Promotion Plan, the company started to eliminate approximately 4,000 km of poles over a five-year period starting in FY2021
- The number of utility poles nationwide is approximately 36 million, and the number of new poles increased by 48,000 in FY2021.
- The implementation rate of occupancy restrictions on new utility poles on emergency transportation roads is approximately 85% (100% for national highways under jurisdiction of MLIT)

## Dealing with new and existing utility poles

Related ministries and agencies collaborate to promote measures to control new utility poles Ref.2

- In principle [Ref. 3], when implementing road projects and urban development projects, etc., install no utility poles
- Promote efforts to improve conduits at the same time as road construction when future demand for electricity is expected



Start restricting occupancy of existing utility poles on emergency transportation roads as soon as possible, in accordance with the order of priority.

### Utility poles on emergency transportation roads



### Road blockage caused by collapsed utility pole



August 2012 Tornado Disaster (Kochi Prefecture)

Commenced operation of the "Notification and Recommendation System," which recommends that utility poles and other objects along emergency transportation roads be relocated to locations that will not block the road in the event of a collapse

## Extensive cost reductions

Further cost reductions through the use of low-cost methods such as shallow burial and the introduction of new technologies.

Reduce costs by an average of 20% by FY2025 Ref.4

## Speeding up the project

Promote innovations in ordering, such as the introduction of comprehensive ordering, and the use of private-sector funds through the adoption of PFI methods

Target to halve the project period by FY2025 (from an average of 7 years to 4 years) Ref.4

Ref. 1: May 25, 2021 Ministerial Decision Ref.2: April 20, 2022 Publication Ref.3: Except in cases of technical difficulties Ref.4: Covers joint cable conduits to be started within the period of the promotion plan



## Promotion of the third stage of "Michi-no-Eki (Roadside rest area)"

The third stage of "Michi-no-Eki" will be comprehensively promoted in order for "Michi-no-Eki" to become "bases for accelerating regional development and tourism" and to contribute to the design of vibrant regions through networking.

### Background / data

- 1,198 rest areas installed nationwide (August 2022)
- 39 "Disaster Prevention Michi-no-Eki" were selected (June 2021) and 332 Michi-no-Eki were designated as "Disaster Prevention Base Parking Areas" (March 2022)

## Efforts to strengthen disaster prevention functions

Promoting the enhancement of disaster prevention functions of "Disaster Prevention Michi-no-Eki" [Ref. 1] and "Disaster Prevention Base Parking Areas"

Promote installation of high value-added containers [Ref. 2] that can be used even in times of disaster and renewable energy power generation equipment (solar panels, etc.) at "disaster-prevention Michi-no-Eki" and other facilities

### Efforts to create a disaster prevention center



Image of "Disaster Prevention Michi-no-Eki"

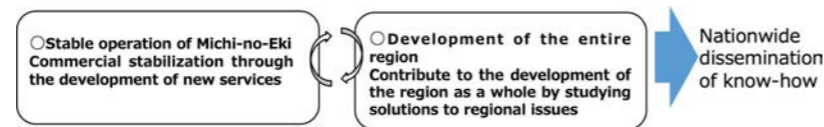
## The "new normal" and region-centered response

Promote horizontal development of initiatives such as promotion of improved sanitation, cashless payment, mail order and e-commerce support, etc.

## Implementation of model projects

Utilizing data on the actual usage of "Michi-no-Eki", etc. to ensure the stable operation of "Michi-no-Eki" and the development of the region as a whole

### Image of model project



Implement initiatives and disseminate the know-how gained throughout the country.

## Strengthening on-site support

Strengthen on-site support for issues such as aging facilities by introducing support menus that can be utilized for renewal and establishing a consultation service

### Example of renewal ((Mutsuzawa Smart Wellness Town, Michi-no-Eki, Tsudui no Sato)



Right side photo source: <https://mutsuzawa-swt.jp/>

Ref. 1: Requirements for selection as a "Disaster Prevention Michi-no-Eki"  
 ① Positioning as a wide-area disaster prevention center in prefectural wide-area disaster prevention plans and new wide-area road transportation plans  
 ② The facility must have a BCP (Business Continuity Plan) in place (or a concrete plan to establish facilities and systems within about 3 years of selection), with facilities that can conduct business even in the event of a disaster by making the building earthquake-proof, uninterruptible, and ensuring communication and water supply, and a parking area of 2,500 m<sup>2</sup> or more  
 Ref. 2: Promote utilization of high value-added containers  
 Movable containers capable of providing services such as rest and regional promotion are to be installed at "Michi-no-Eki" and transported to disaster-stricken areas for wide-area utilization in the event of a disaster. Direct project cost (1,595.3 billion yen)

## Promotion of Tourism

In order to realize a tourism-oriented country, we will promote the creation of a post-COVID environment, the creation of local tourism content, and regional congestion countermeasures in tourist areas

### Background / data

- Japan is No. 1 in the world in terms of the countries and regions where people would like to take their next sightseeing trip[Ref.1]
- Interest in outdoor activities and seeing nature and scenery increased as things people want to experience when they travel to Japan[Ref.2]
- The percentage of domestic travel by private car, etc. increased after the spread of COVID-19 [Ref.3](54% (July-September 2019) → 71% (July-September 2021))

## The post-COVID environment

Promote initiatives (e.g., holding hands-on events, selling specialty products along scenic roads) in collaboration with the Japan Scenic Byway and Michi-no-Eki (Roadside rest area), etc.

Promote directions that are easy for everyone to understand, including multilingual signs, use of map signs.

Expanding the average 30% discount of the expressway excursion pass to about 40% discount only on weekdays to equalize tourism demand

### Promoting weekday use of the excursion pass



Example from NEXCO East

### Support for wide-area sightseeing tours

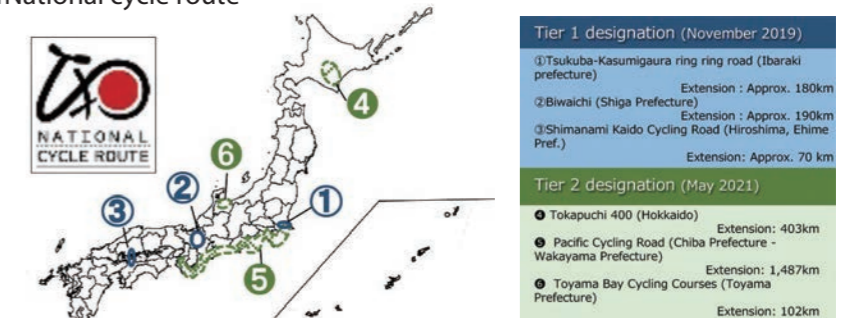


World Heritage guide sign (Hagi City, Yamaguchi Prefecture)

## Creation of local tourism content

Create world-class cycling environments such as national cycle routes and promote them domestically and internationally

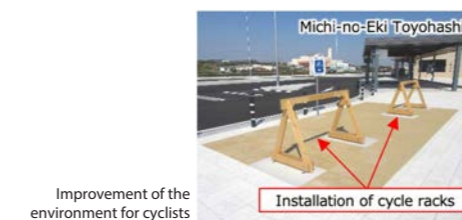
### National cycle route



## Measures to prevent traffic congestion in tourist areas

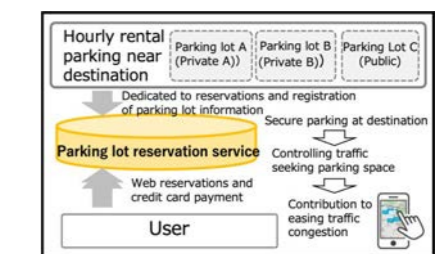
Promote surface congestion countermeasures through the use of parking reservation services, Park & Ride, etc.

### Creating a cycling environment



Improvement of the environment for cyclists

### Parking Reservation Service



Ref. 1: Development Bank of Japan and the Japan Travel Bureau Foundation, "Survey on Tourist Travel to Japan from Asia, Europe, the United States, and Australia (October 2021)"  
 Ref. 2: From the 2022 White Paper on Tourism  
 Ref. 3: Compiled by the Road Bureau from the Japan Tourism Agency's "Survey of Travel and Tourism Consumption Trends".