

Responsible Social Acceptance "Participation Principles" in the "Traffic Space"

RSA, "Responsible Social Acceptance"

- It is also necessary to do some efforts by society to increase social acceptance. It is a responsibility of our society. RSA "Responsible Social Acceptance".
- By utilizing RRI (Responsible Research and Innovation) and RSA, the expected benefits of innovative technologies are realised for society more quickly.

Economic Commission for Europe

Inland Transport Committee

Global Forum for Road Traffic Safety

Eighty-fourth session

Geneva, 7-11 March 2022

Item 3 (d) (i) and 5 (c) of the provisional agenda

Convention on Road Traffic (1968):

Human factors and automated driving as key issues for future road traffic

Human factors and automated driving-

Consolidated Resolution on Road Traffic (R.E.1):

Personal mobility devices and other devices facilitating sustainable and inclusive mobility

Started from WP.1 84th session

Revolutionary Transformations “in the Road”



“Use of animals”



“Introduction of automobiles”

The first revolutionary transformation is “Use of animals”, and the second revolutionary transformation is “Introduction of automobiles”.

Third Revolutionary Transformation

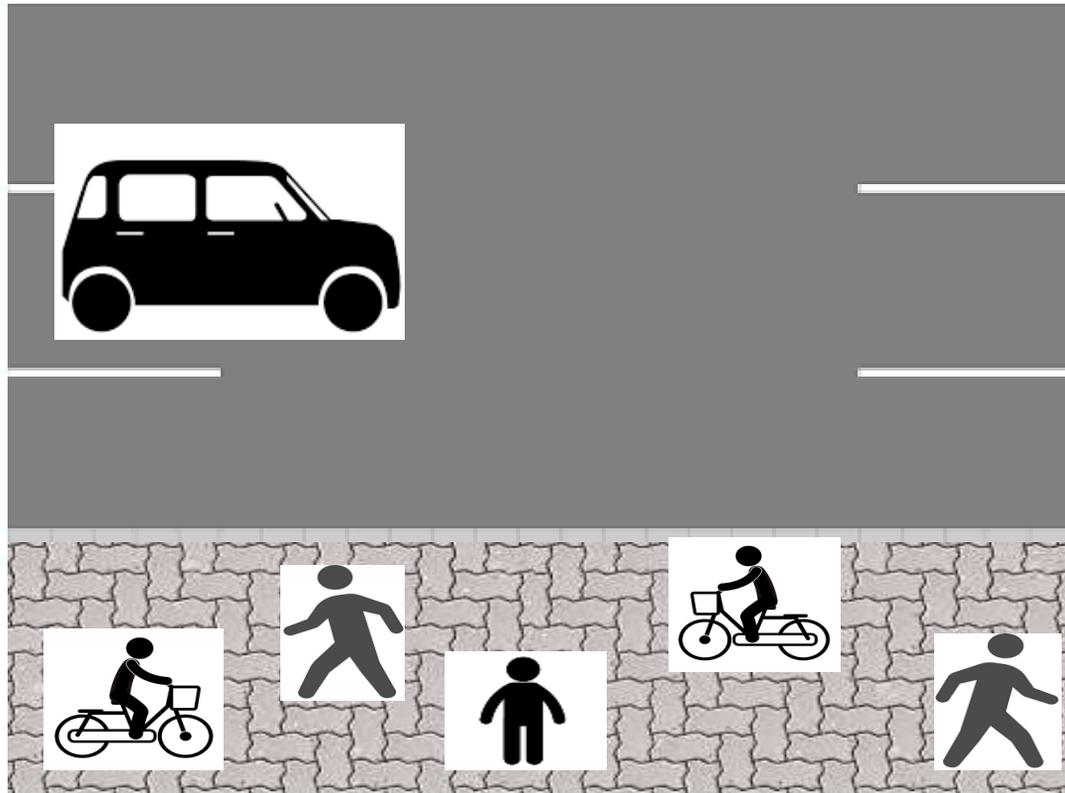
Emergence of micro and personal mobility



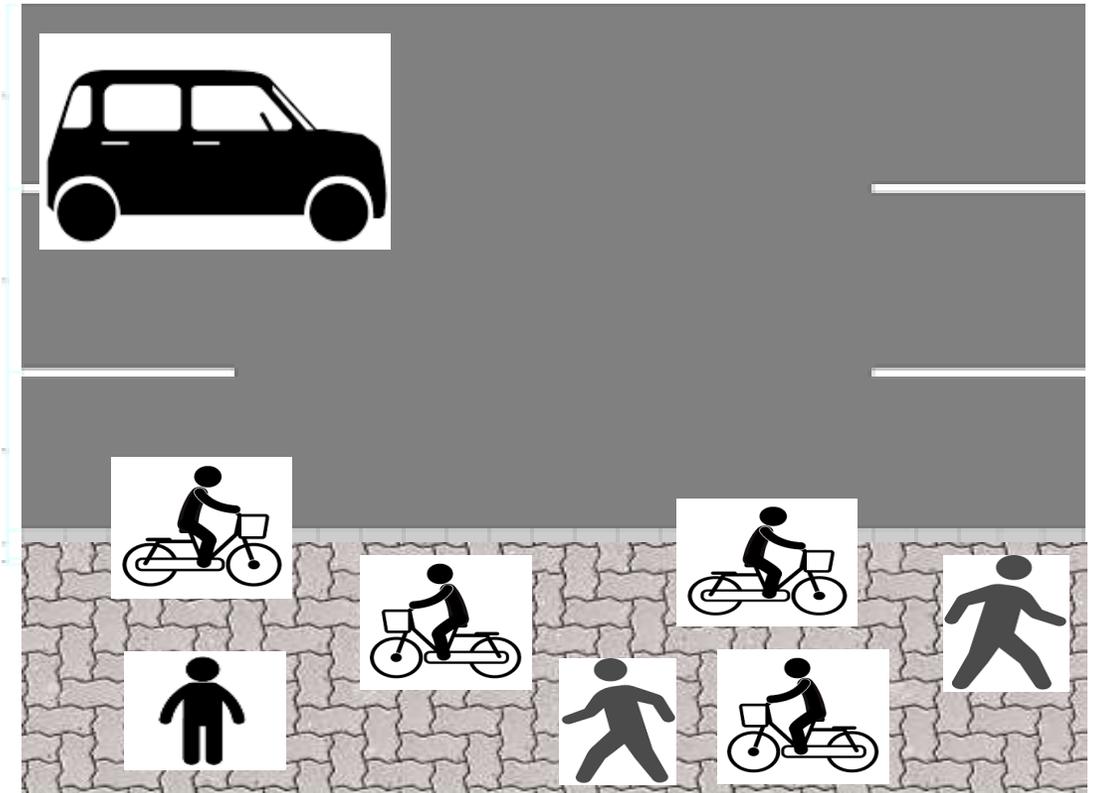
Personal Mobility has been recognized as “Means of medium-distance transportation” and/or as a “Means of assisting the movement of the elderly”

Bicycles and Pedestrians

Conventional bicycles coexisted with pedestrians before

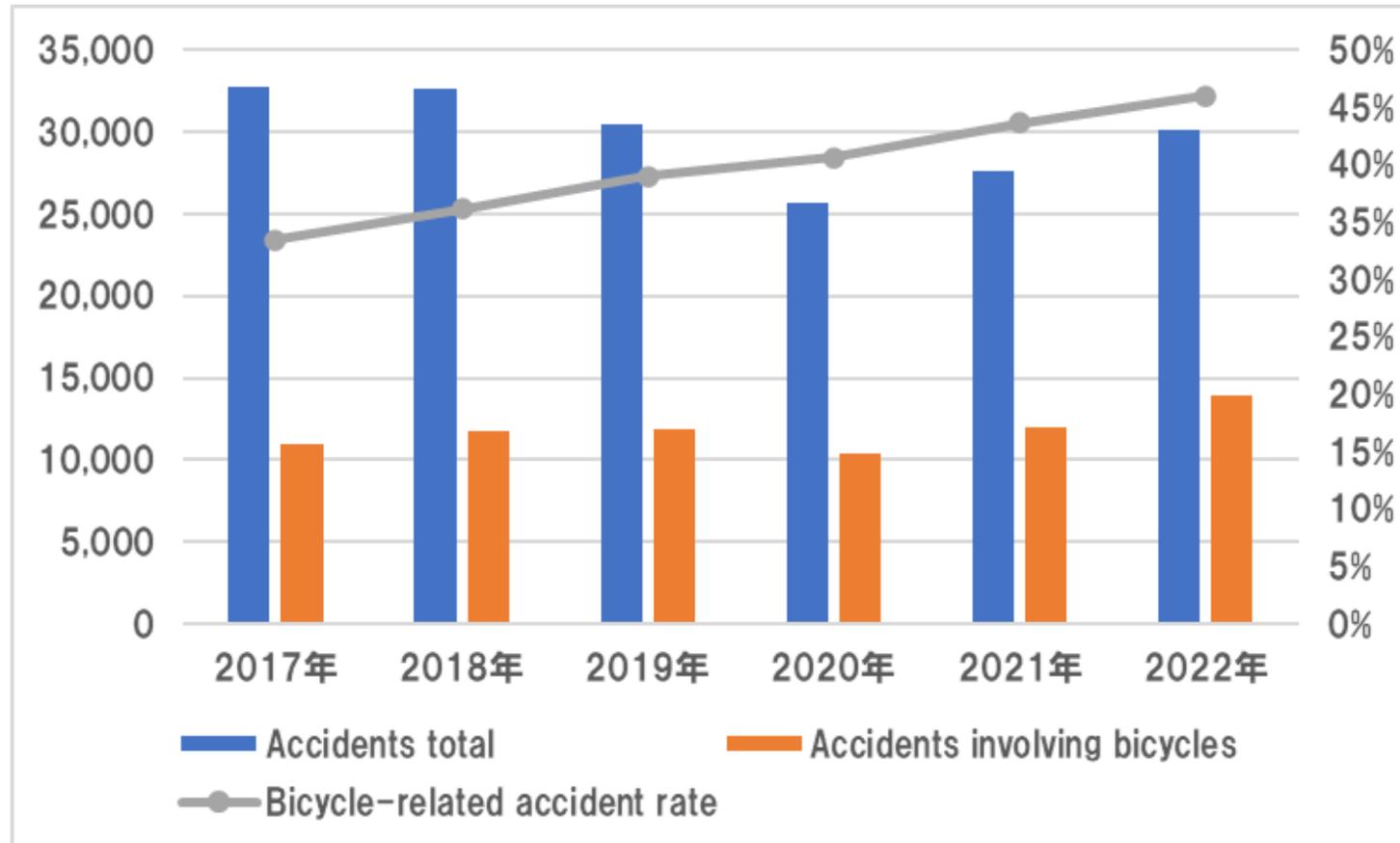


Rapid increase of bicycle users \Rightarrow safety threat

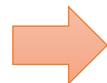


Traffic accidents involving Personal Mobility

Changes in Bicycle Accidents in Tokyo



33.4% in 2017



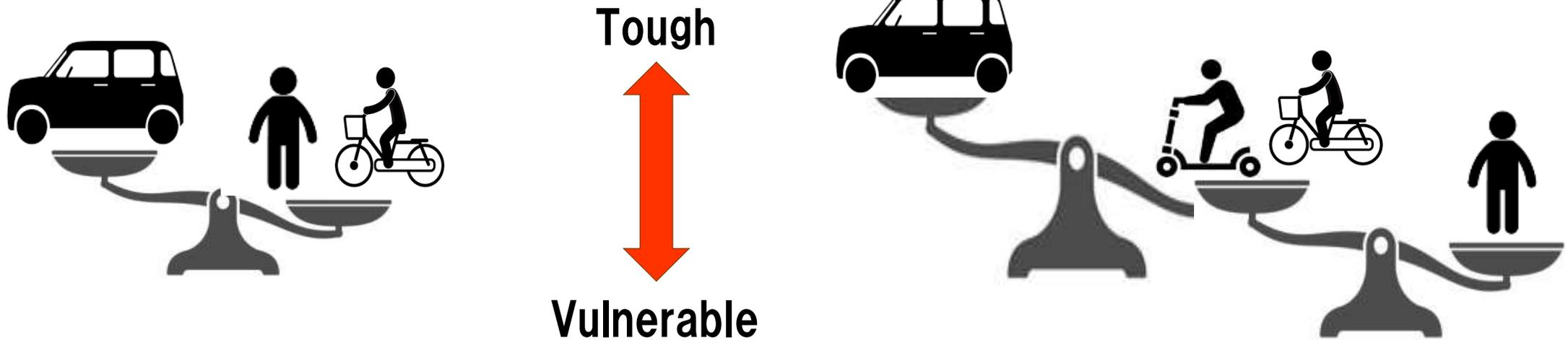
46.0% in 2022



**Increased by about 3%
each year!**

Quote source : Metropolitan Police Department

Strong / Vulnerable Road Users of three axes



Automobiles

V.S.

“Strong Road User” = Automobiles

V.S.

“Vulnerable Road Users” = Pedestrians and Bicycles

Conventional bicycles + micro and personal mobilities (all of them together referred to as “Personal Mobilities”)

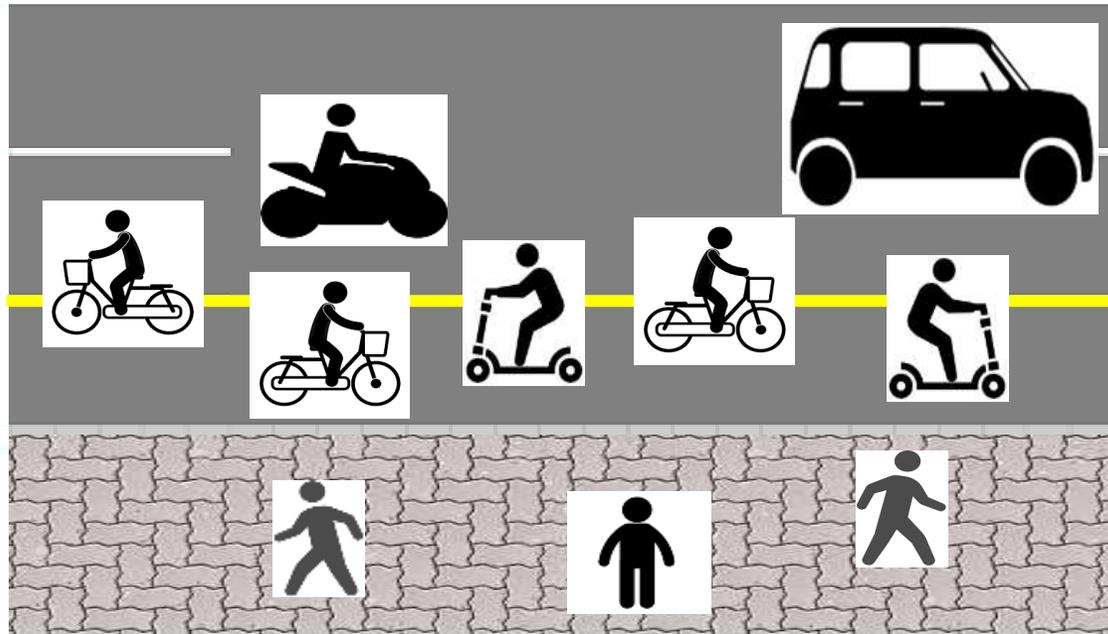
V.S.

Pedestrians

Desirable road situation and Real road situation

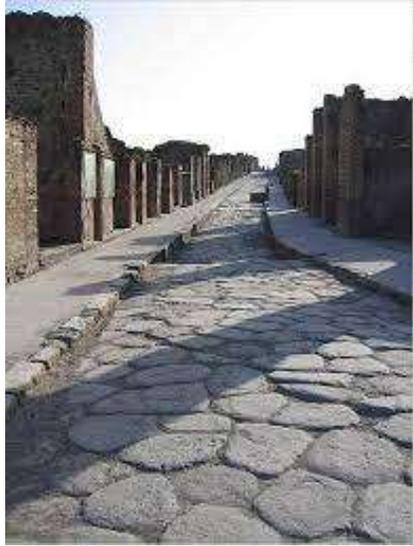
Desirable

“Roads” can be used without sharing by three categories. “vehicles,” “personal mobilities,” and “pedestrians.”



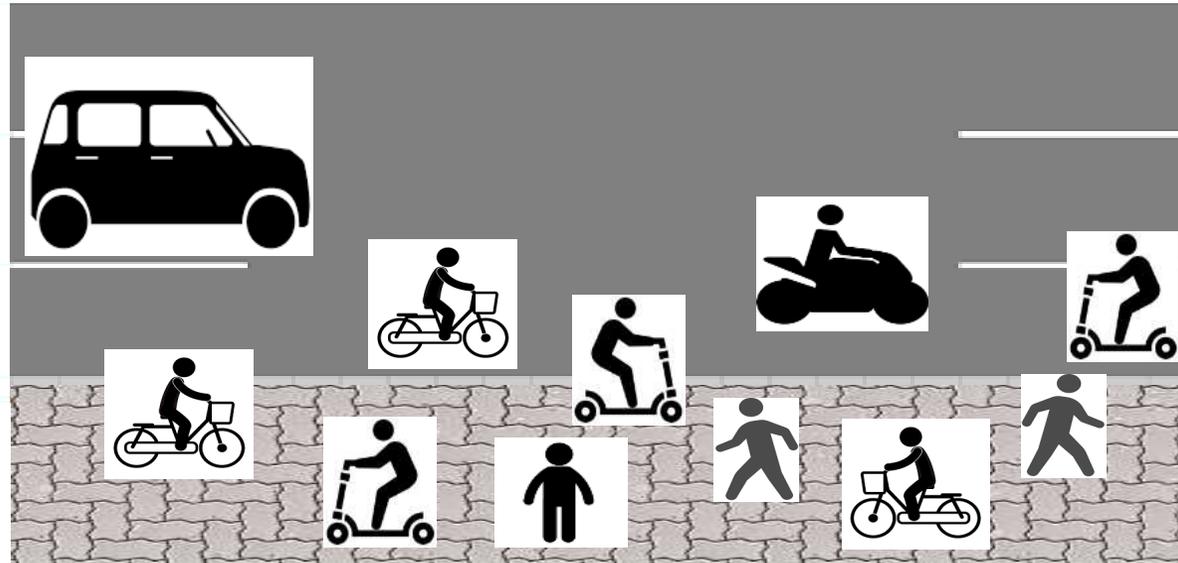
Real
Road environment has been completed especially in urban / historical areas.

Anyone can freely use road

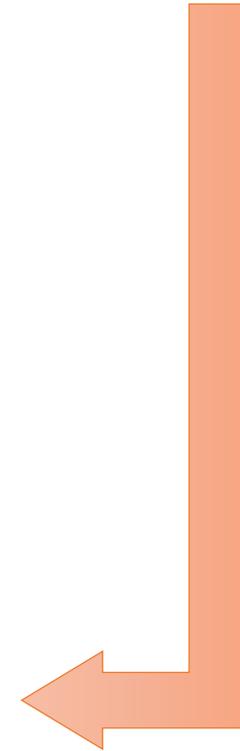
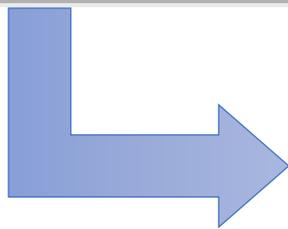


- Movement has a great impact on individual lives.
- Movement has great influences to the maintenance and improvement of healthy life of the elderly.

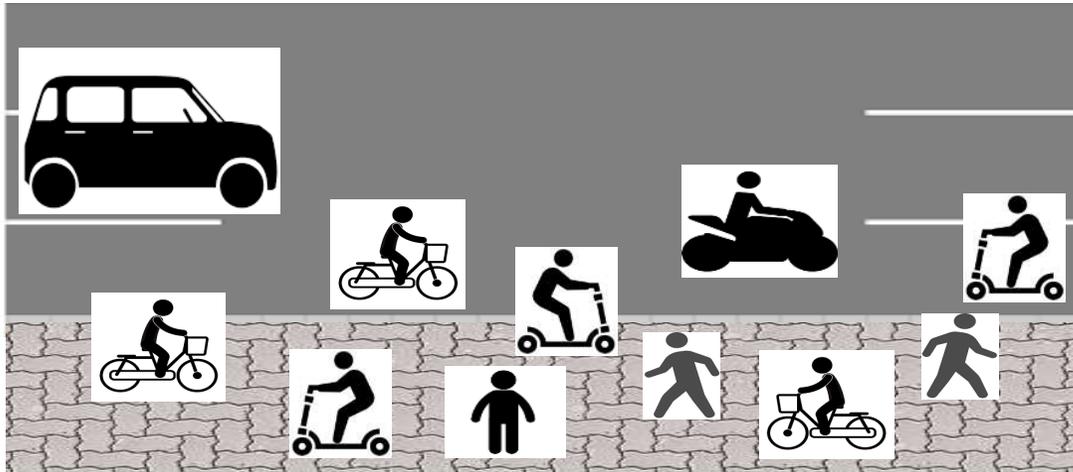
“Road”
Indispensable social infrastructure.
Supported the history of human beings.



“Anyone can freely use road”

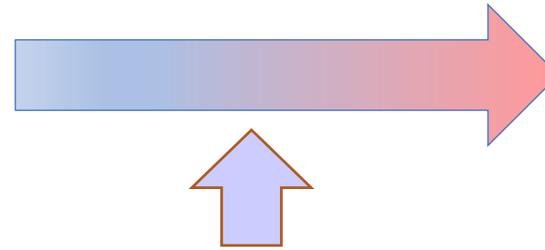


“Responsible Social Acceptance“ for the “Third Revolutionary Transformation”



“Roads” can be used freely by everyone

The Third Revolutionary Transformation, (such as the emergence of Personal Mobilities)

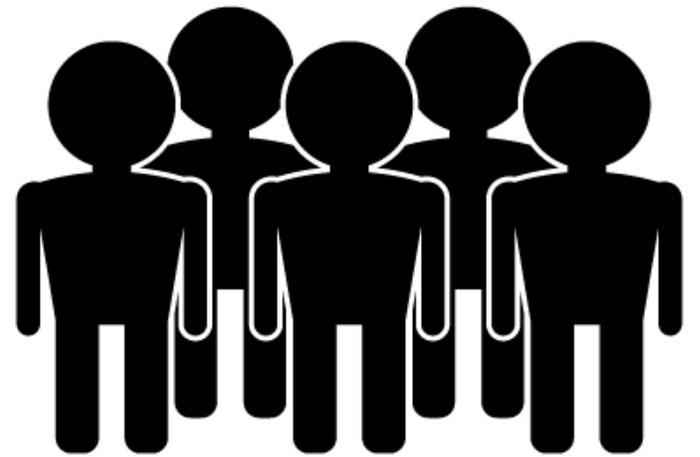
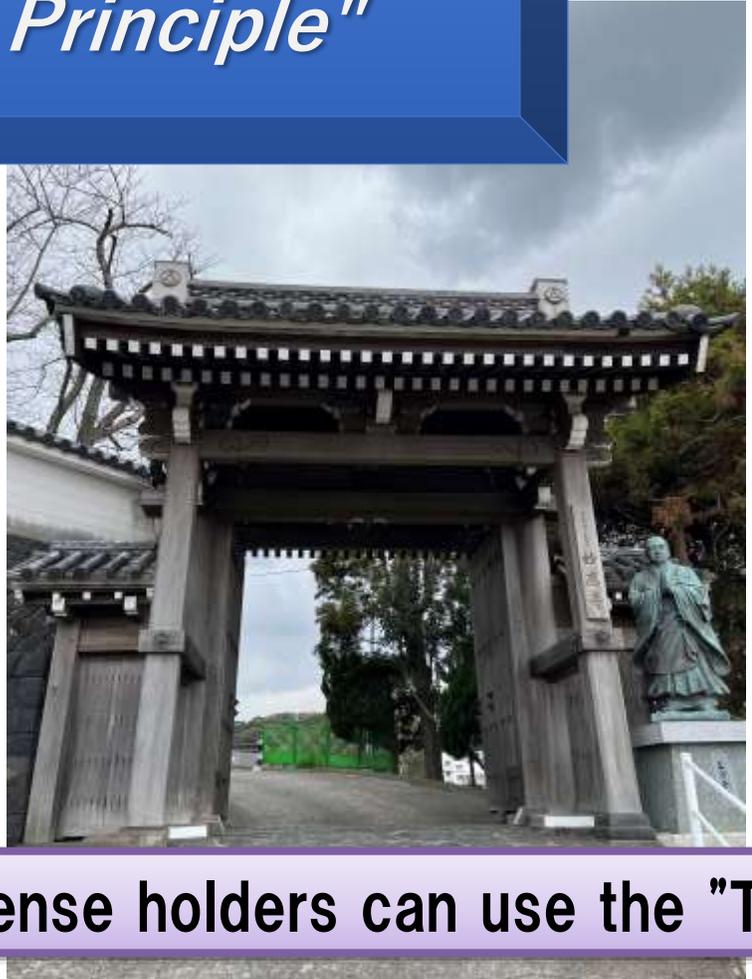


- “Roads” is limited “Traffic Space” for movement.
- “Participation Principle” for using this “Traffic Space”

“Participation Principle” = “Observance of traffic laws”

*“Roads” as limited “Traffic Space”
Participants understand and comply
with the “Participation Principle”*

If “Study and observe
traffic laws” as a
“Participation Principle”



Only driver's license holders can use the “Traffic Space”

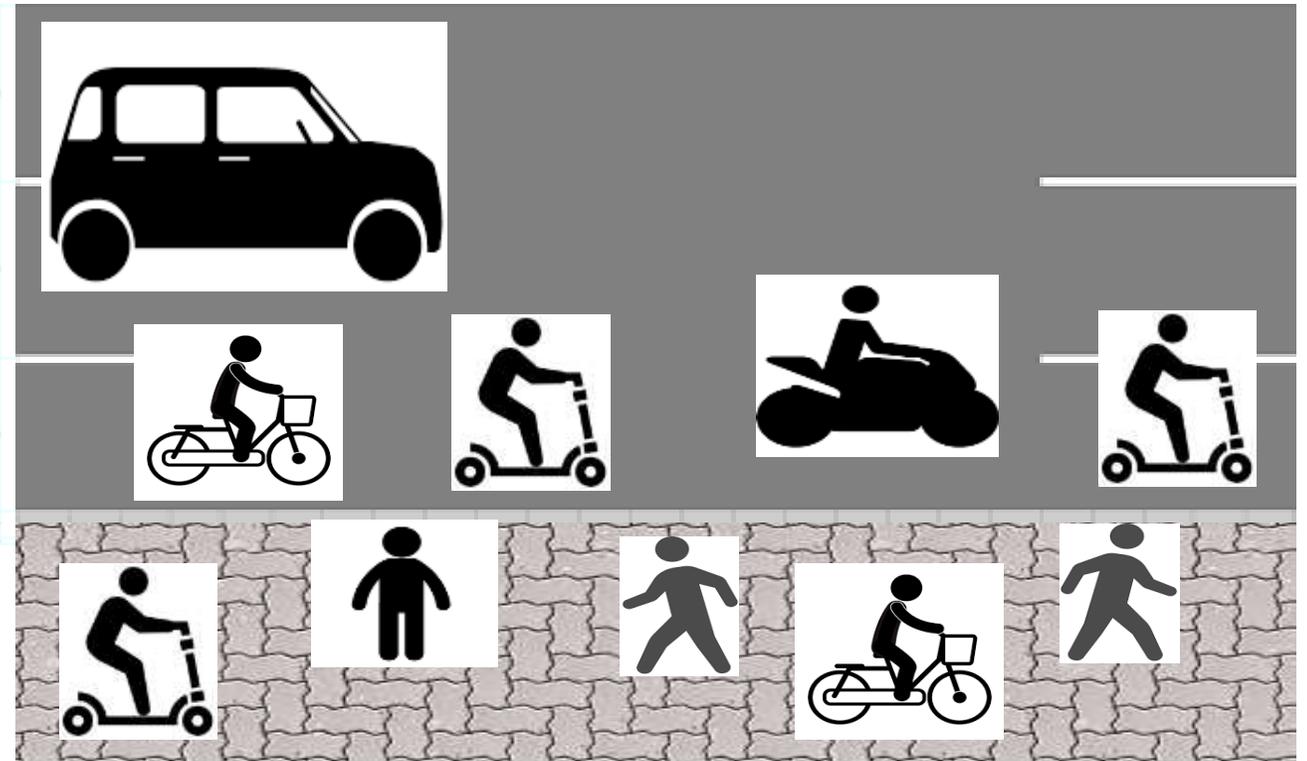
Idea of "Participation Principle"

The threat of Personal Mobility



- ① Driving anywhere on the road, sidewalk, bicycle pass, etc.
- ② Driving freely on the right or left side of the sidewalk.
- ③ Driving at a speed dangerous to pedestrians.

"Personal Mobilities drive on the right side, and other traffic participants understand that"



Reason for Idea of “Participation Principle”



- ① Pedestrians paying attention to only one direction to Personal Mobilities.
- ② Personal Mobilities no longer run face-to-face.
- ③ Automobiles no longer runs face-to-face with Personal Mobilities, and no need to deal with passing each other.
- ④ Automated-driving vehicles make it easier to predict driving of Personal Mobilities.

Concept of the "Road"

*"Roads" as limited "Traffic Space"
Participants understand and comply
with the "Participation Principle"*



**Thank you
For your attention.**

