

Motorcycle AEB Safety Strategy

- Motorcycle AEB -

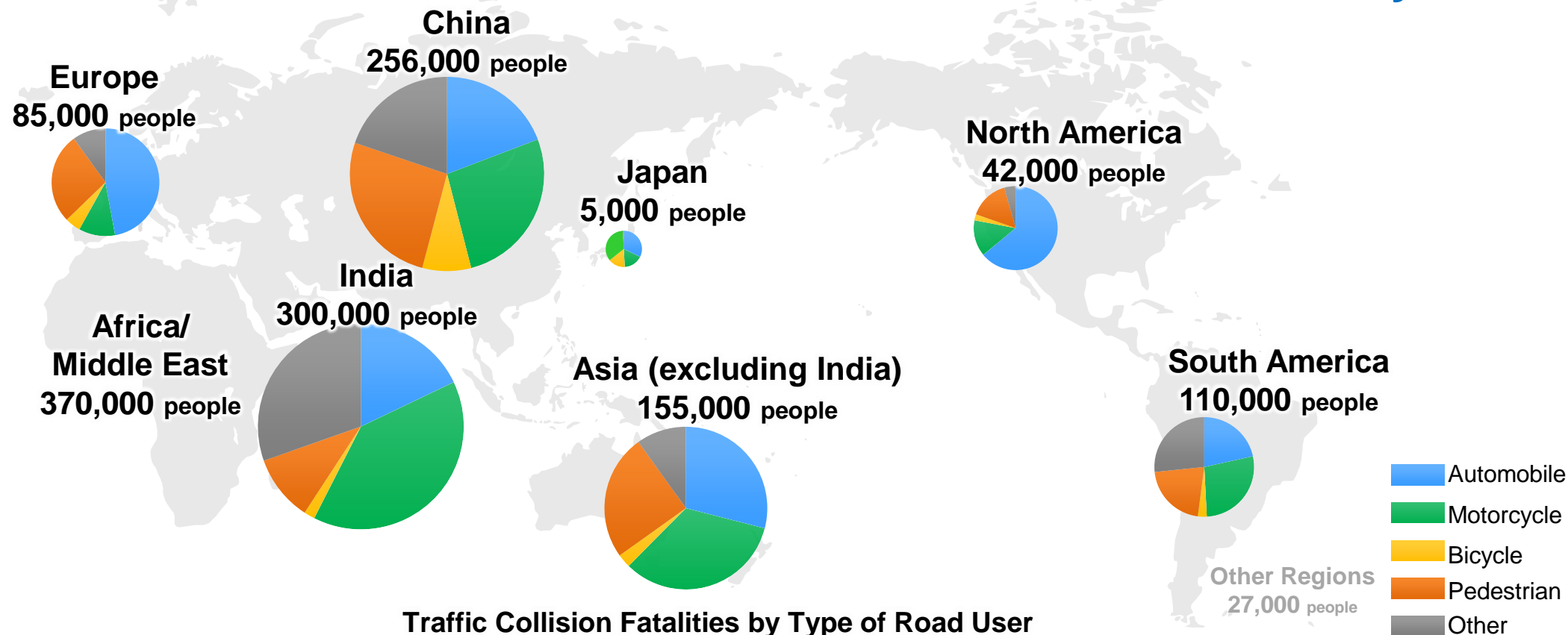
Honda R&D Asia Pacific Co., Ltd.



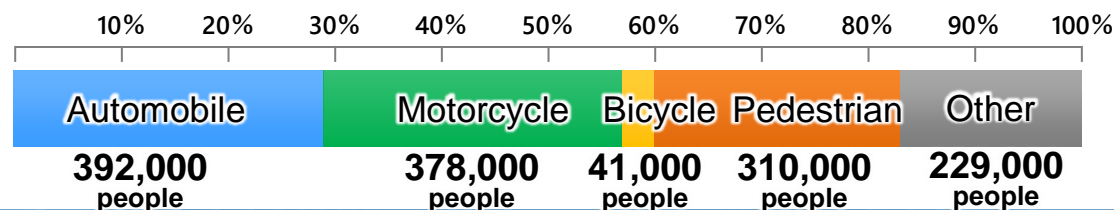
HONDA
The Power of Dreams

Current Situation of Traffic Collisions

Number of Traffic Collision Fatalities Worldwide: 1.35 million/year



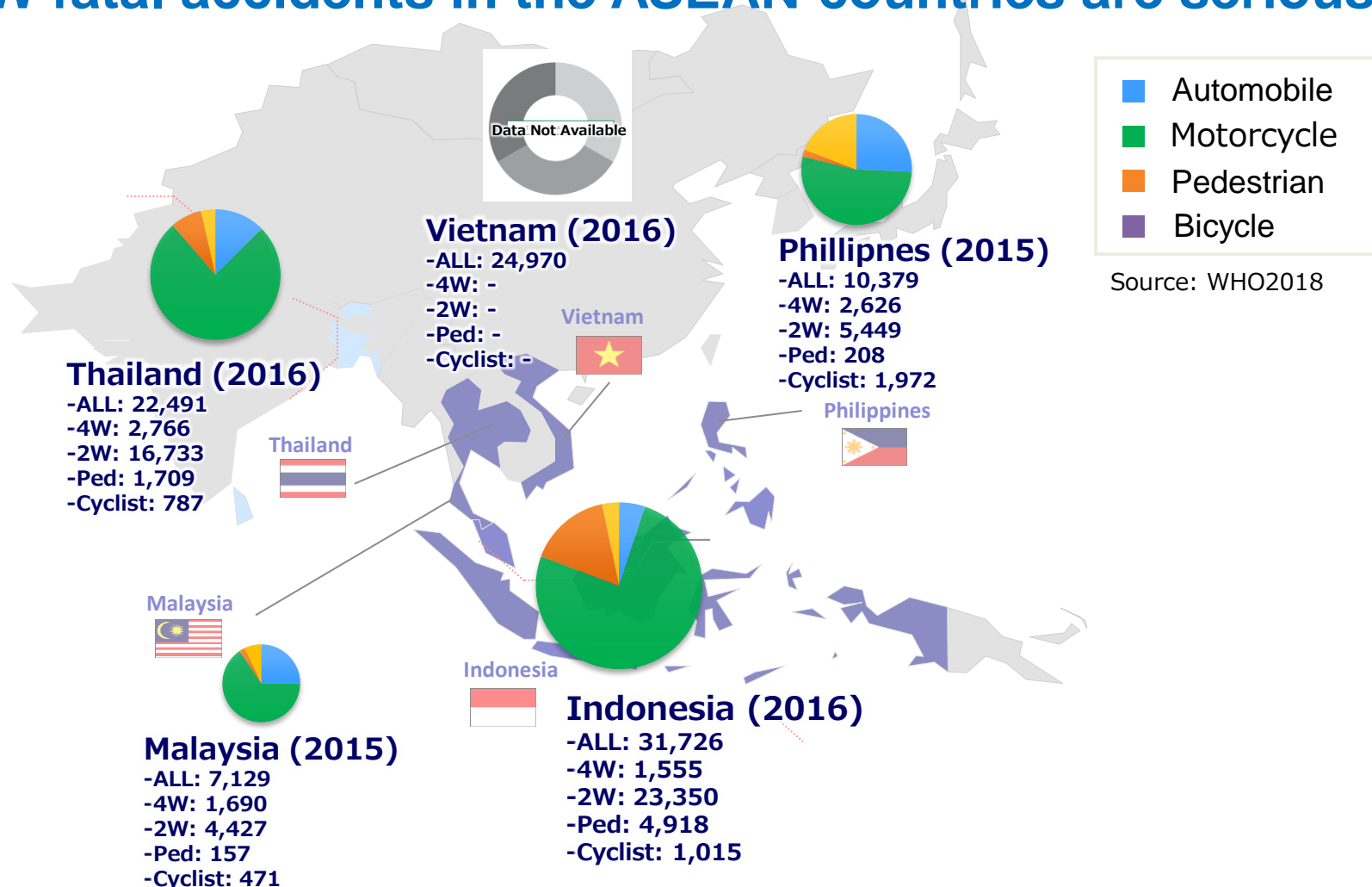
Traffic Collision Fatalities by Type of Road User



Source : WHO Global status report
on road safety 2018

Current Situation of Traffic Collisions

The 2W fatal accidents in the ASEAN countries are serious



Results of survey on collision classification

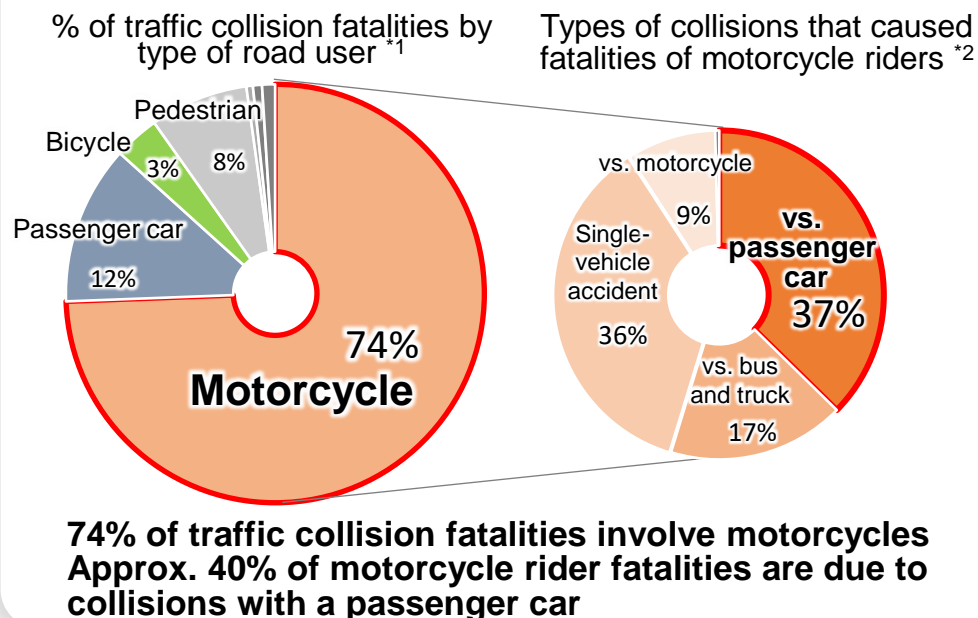
Need to address issues with both “safety technology” and “safety education” through combined efforts in the areas of both motorcycles and automobiles

Results of traffic collision investigations (Thailand)



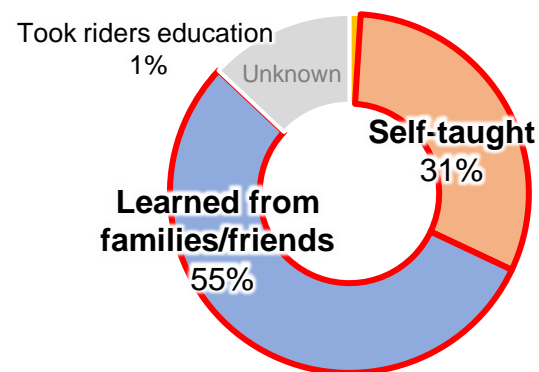
Obtained through cooperation between governments and automobile/motorcycle makers

Results of survey on collision classification



Experience of motorcycle rider training

Experience of motorcycle riders training ^{*3}



Most riders do not have any experience of rider training/education program

Honda Automobile Safety Technologies

**Japan
first**

1987



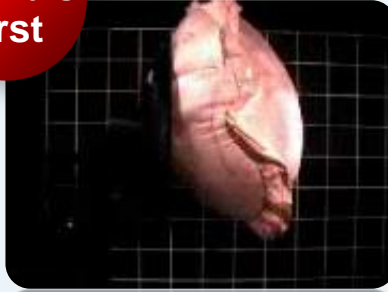
SRS Airbag

**World's
first**



**Top dashboard-mounted
passenger side
SRS airbag**

**World's
first**



**I-SRS driver side
airbag system
Continuous capacity
change type**

**World's
first**



Pedestrian dummy

**World's
first**



**Indoor all-weather and omni-directional
crash test facility**

**World's
first**

2003



**Collision Mitigation Braking System (CMBS)
(Known as "automatic emergency braking" or AEB)**



Advanced Compatibility Engineering (ACE) Body

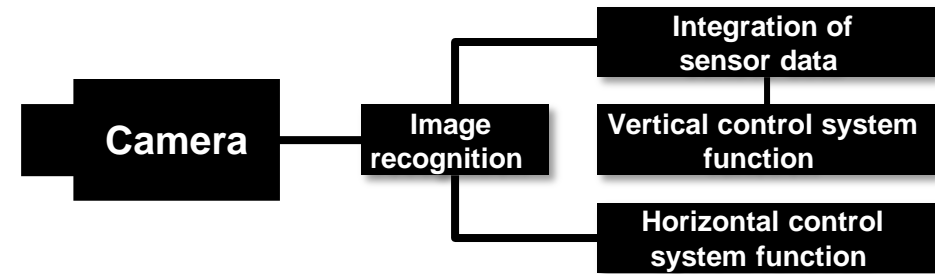
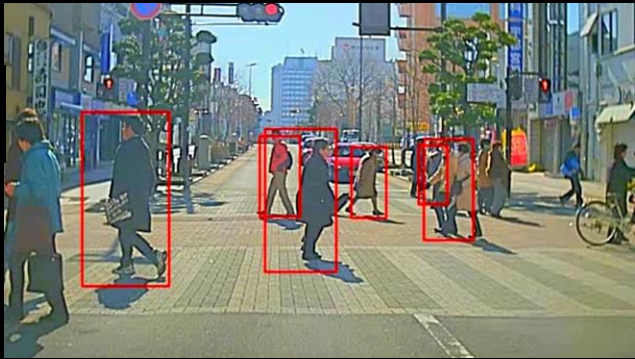
Advanced Driving Assist Systems (ADAS)

Driving Support not only for daily driving but also for collision avoidance

Responds to diverse accident scenarios

Camera

Recognition of target object attribute and size



Camera



Responds to high speed

Radar

Recognition of target object position and speed

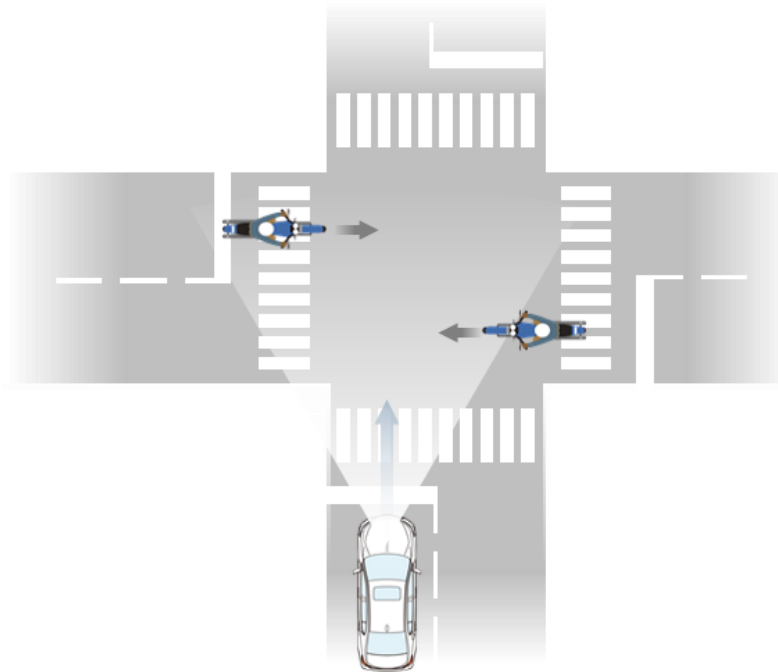


Millimeter-wave radar

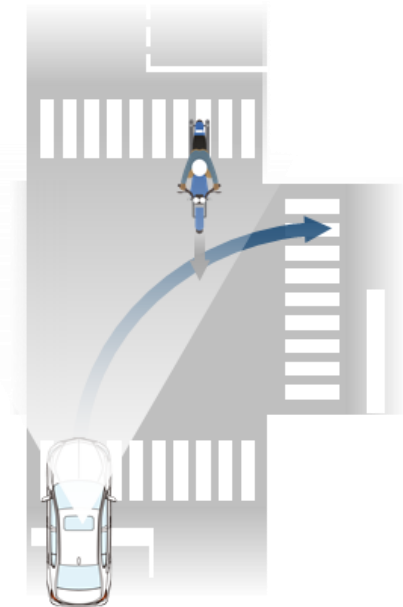
Motorcycle AEB is one of the technologies that car save motorcycle



Rear-end collision



A collision with crossing motorcycle while going straight at an intersection



A collision with oncoming motorcycle while turning into an intersection

Overall ASEAN market Safety Improvement for Motorcycle (OASIM)



BY ASEAN NCAP & UTAC

Overall ASEAN market Safety Improvement for Motorcycle

Improve the motorcyclist safety in the ASEAN region

WP1	WP2	WP3	WP4	WP5
<ul style="list-style-type: none"> • Accident data study • Literature review • ASEAN national & in-depth databases • Cluster analysis • Motorcycle against passenger cars accidents 	<ul style="list-style-type: none"> • Motorcyclist target development • ASEAN-region-most-representative motorcycles • Target's ISO specifications development • Propulsion system evaluation 	<ul style="list-style-type: none"> • Vehicle to motorcycle test and assessment protocol definition • Test procedures for the selected use case definition • ASEAN-region main accident situations 	<ul style="list-style-type: none"> • Project synthesis • Results compilation • Discussions sum-up 	<ul style="list-style-type: none"> • Results dissemination • Feed into ASEAN NCAP Roadmap • ASEAN NCAP assessment integration
Sept. 2020 → Sept. 2021	March 2021 → Feb. 2022	June 2021 → Aug. 2022	Sept. 2022 → Nov. 2022	From December 2022

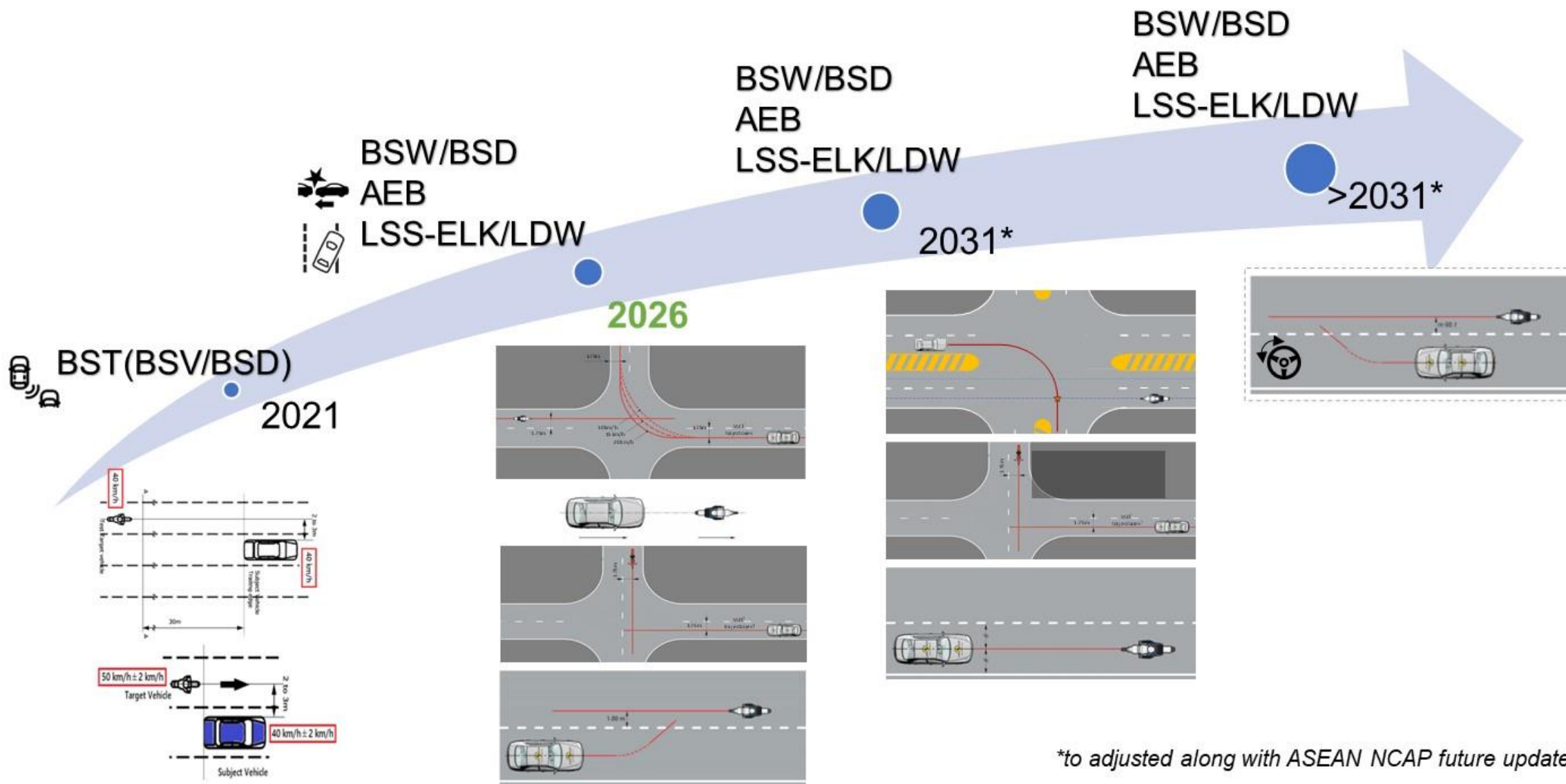
Partners



Contributors



Overall ASEAN market Safety Improvement for Motorcycle (OASIM)



HondaSENSING with Motorcycle Detection Function

Introduce motorcycle-automobile coexistence measures
by leveraging unique strengths of Honda

First to obtain 5★ in the latest ASEAN NCAP
With a vehicle equipped with motorcycle detecting function

Honda
SENSING



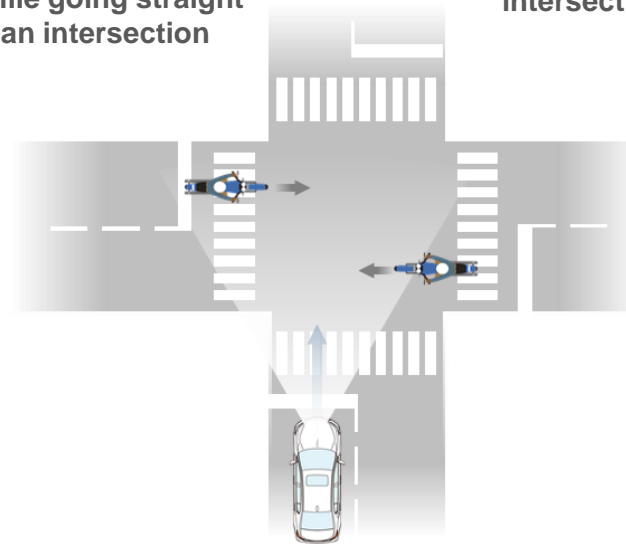
Rear-end collision

from 2021 CIVIC
2022 BR-V,
2022 HR-V
2022 WR-V...

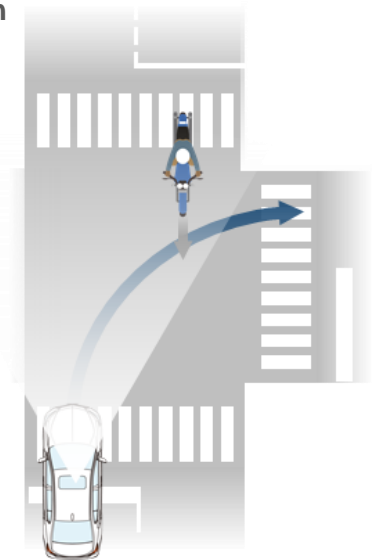


<Honda plans to expand the range of scenarios covered>

A collision with
crossing motorcycle
while going straight
at an intersection



A collision with
oncoming motorcycle
while turning into an
intersection



※When speed of the motorcycle
is slower than that of the vehicle.

Safety for Everyone

