

Technology Development Plan

MAZDA PRODUCT DEVELOPMENT - FROM MILLENNIUM PLAN TO TODAY

Introduced new “Zoom Zoom” models as well as environment/safety technologies.

- Introduced clean DE engines (EU cars/ JPN commercial cars with DPF)
- Introduced Tribute HEV to North America
- Introduced world's first “RX-8 Hydrogen RE”
- SU-LEV ratio: 90% or above
- Introduced “MPV” with Mazda Pre-Crash safety
- Eco-products Excellent Prize (MPV 2.3L DISI Turbo)



Zoom-Zoom
Stylish .Insightful .Spirited



Zoom-Zoom
Stylish .Insightful .Spirited



Present

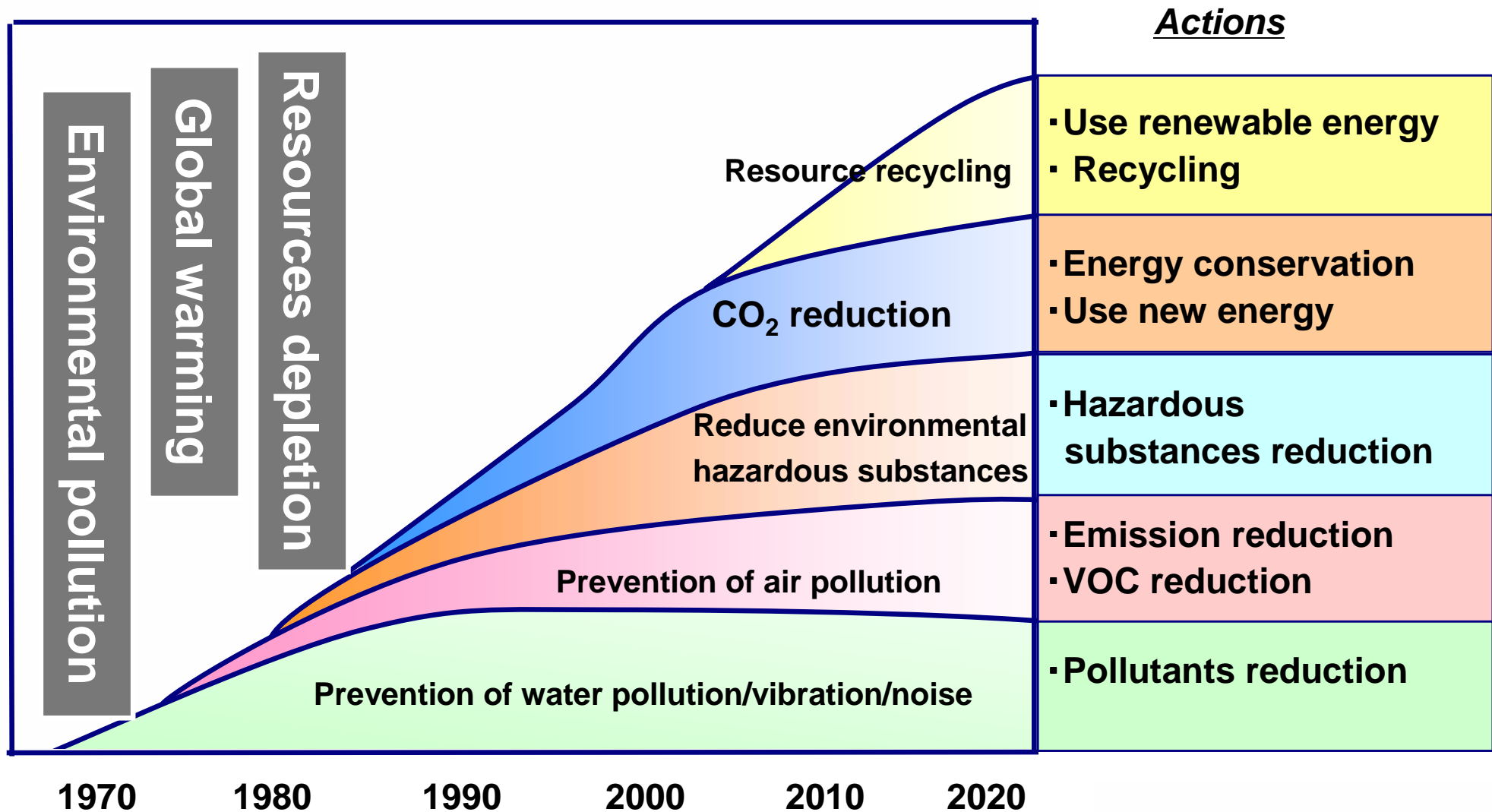


2002



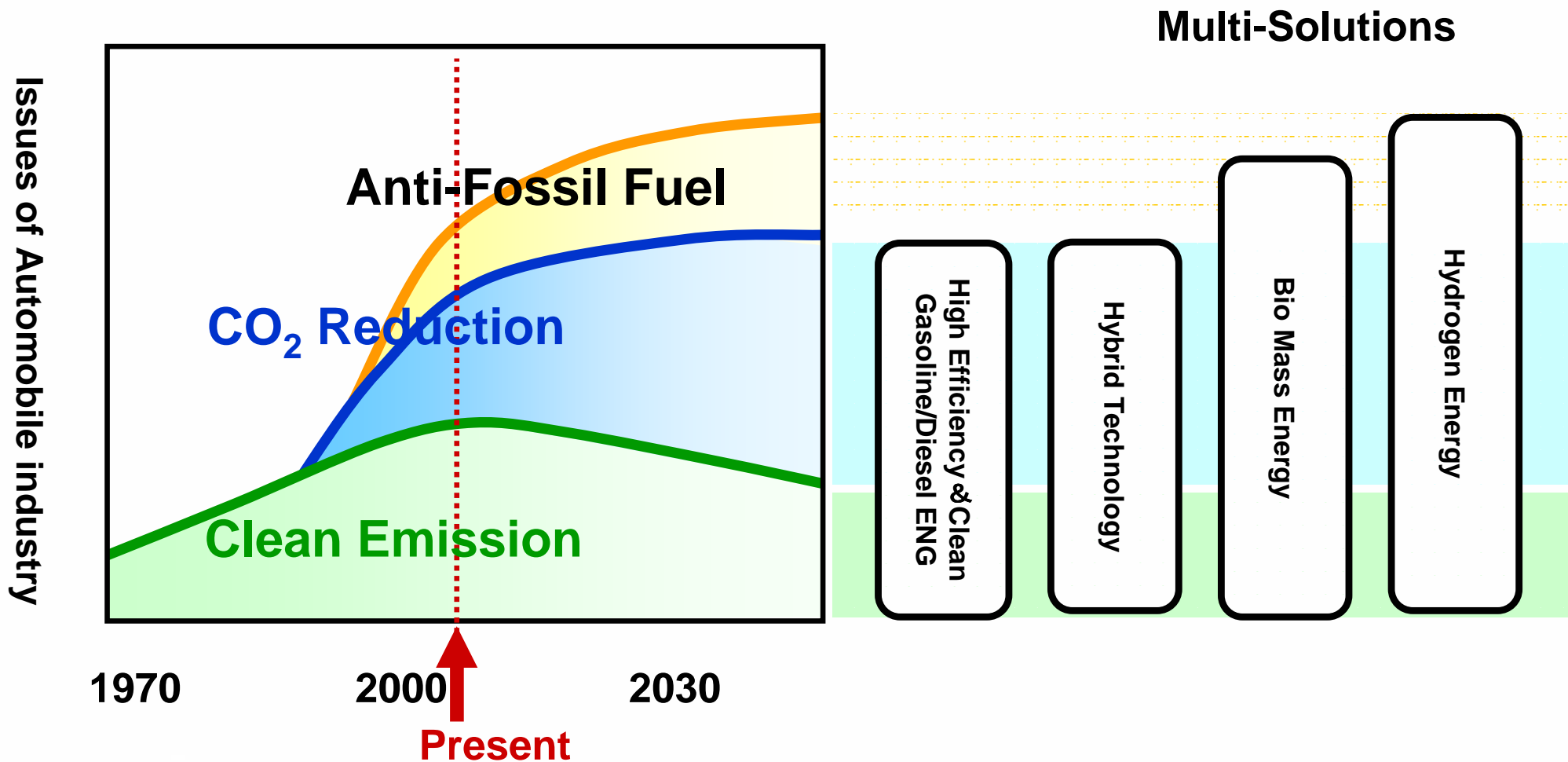
FOR A SUSTAINABLE FUTURE OF THE GLOBAL ENVIRONMENT

Economic growth and environmental issues



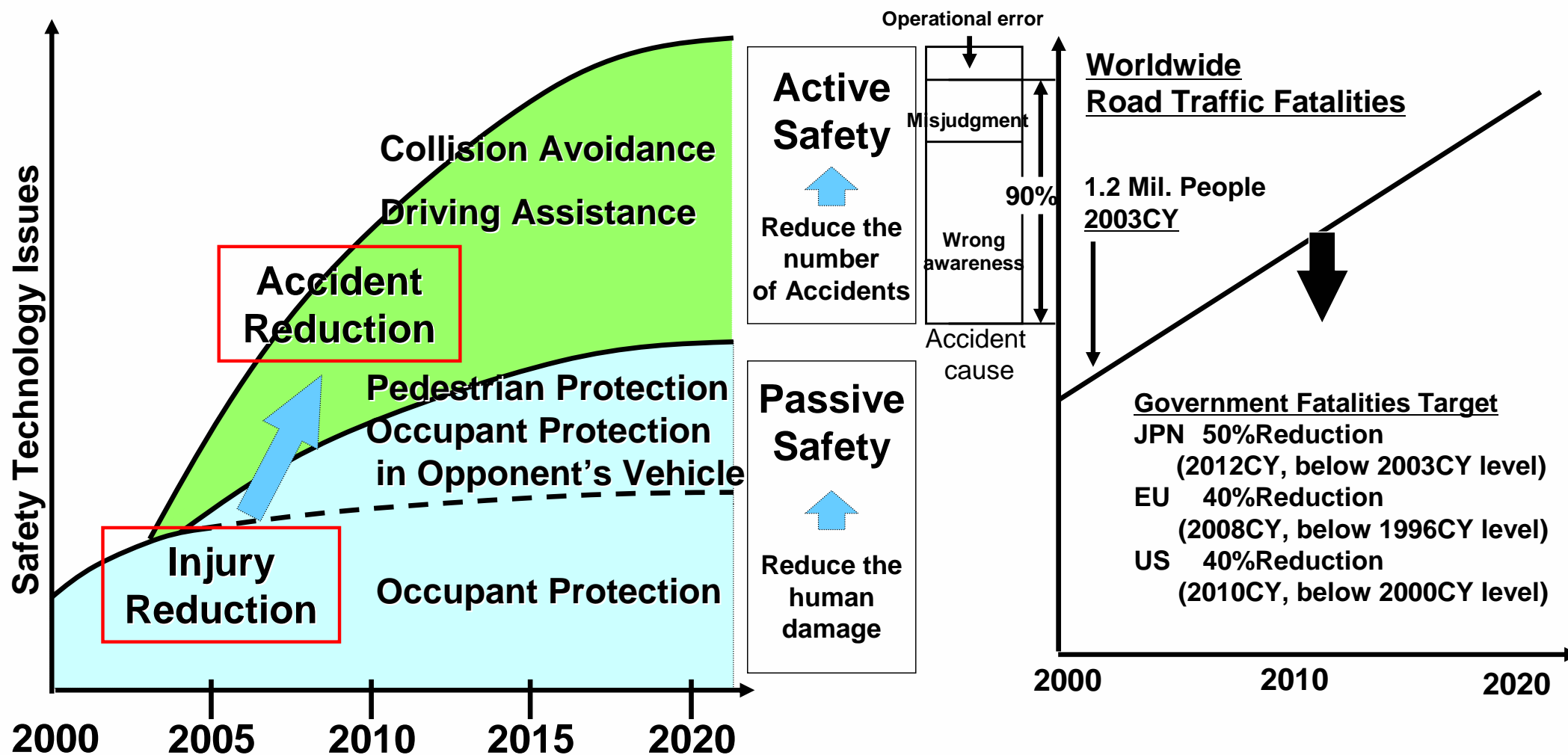
ISSUES OF AUTOMOBILE INDUSTRY AND EFFORTS

Multi-solutions are required in the automobile industry.

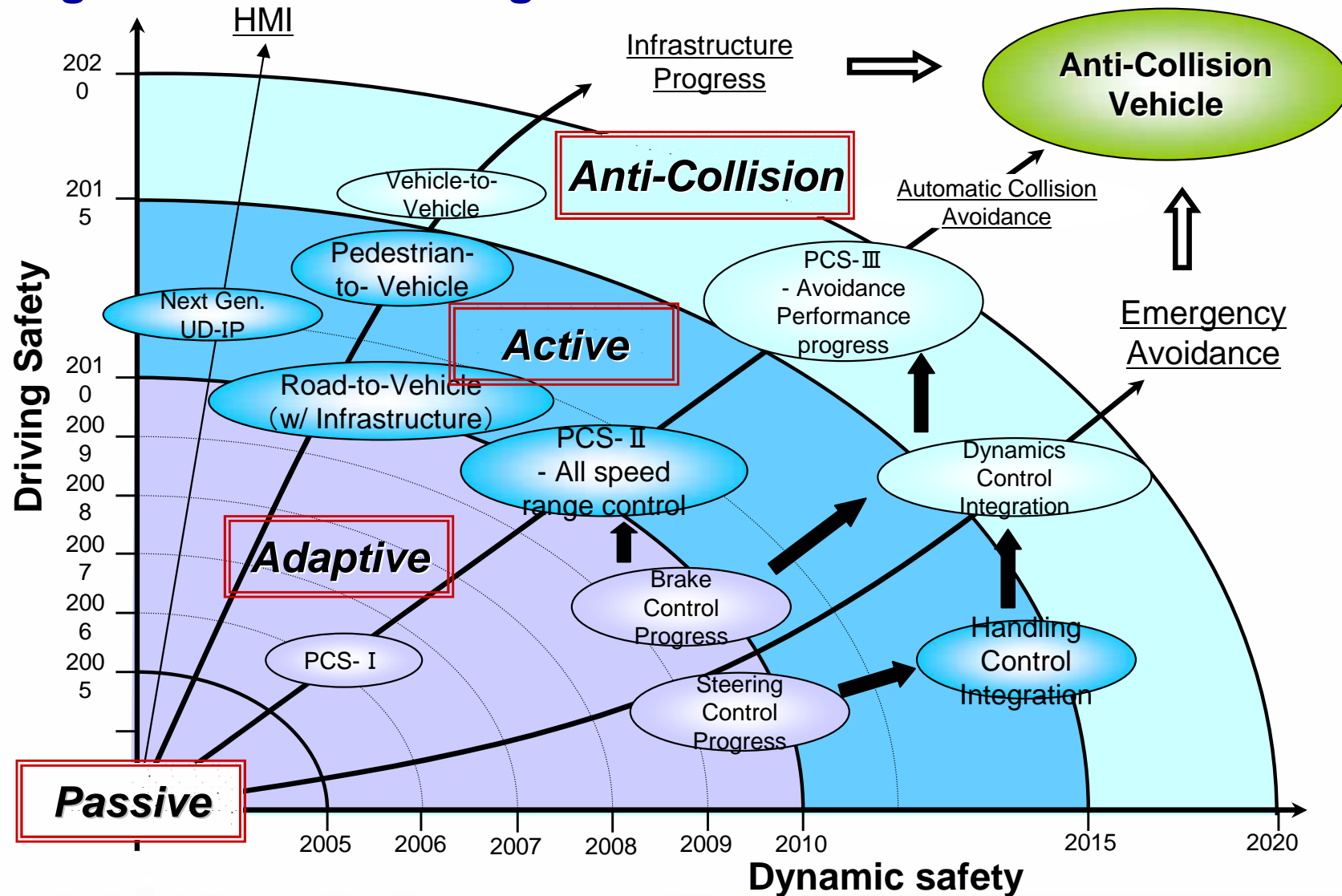


TOWARD THE SUSTAINABLE FUTURE OF ROAD TRAFFIC ENVIRONMENT

The number of worldwide fatalities in road traffic accidents has been increasing year by year. We have to reduce accidents as well as human damage in accidents.

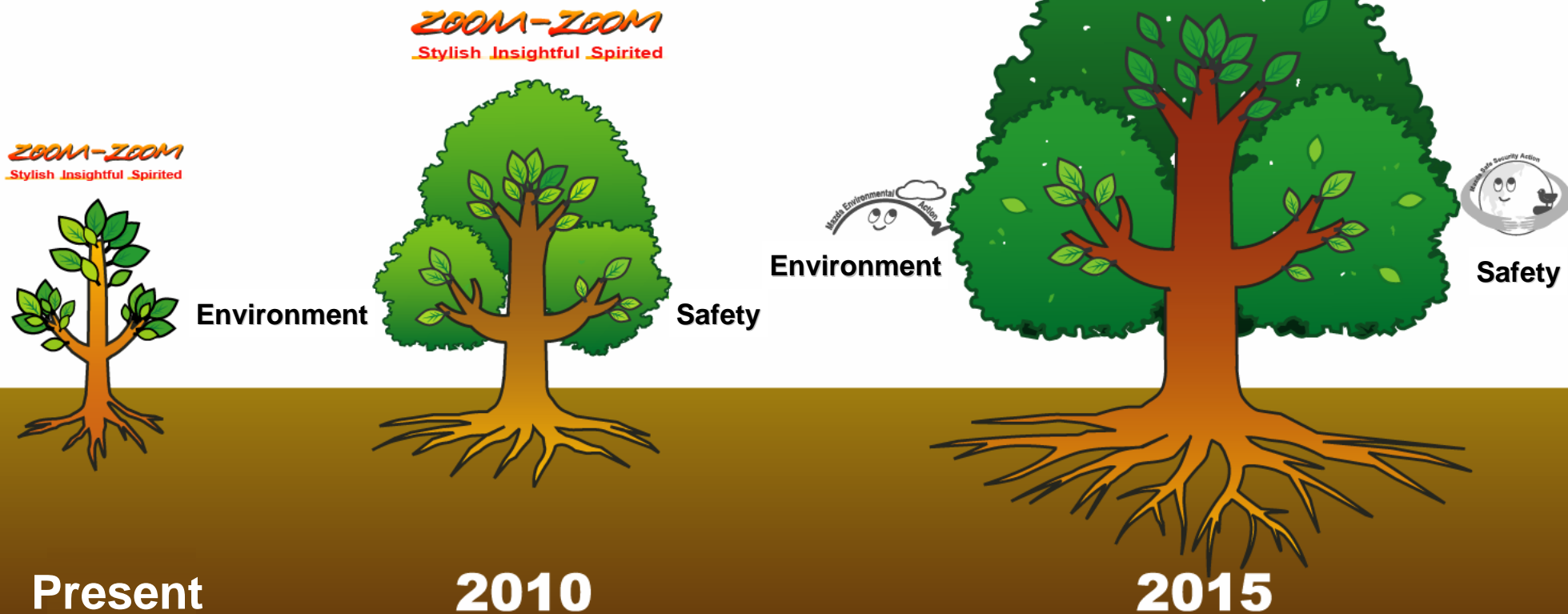


The automotive industry has been developing anti-collision vehicles through various technologies.



LONG-TERM VISION - SUSTAINABLE ZOOM-ZOOM ANNOUNCEMENT

Mazda is working towards a sustainable future that brings continued happiness and excitement to people in a global society, by developing vehicles that never fail to excite, visually capture the customer's heart, and provide a fun driving experience that keeps bringing them back to Mazda.



MAZDA POWERTRAIN

Vision

Pursue the powertrain technology that never fail to excite, visually capture the customer's heart, and provide a fun driving experience that keeps bringing them back to Mazda.

Policy

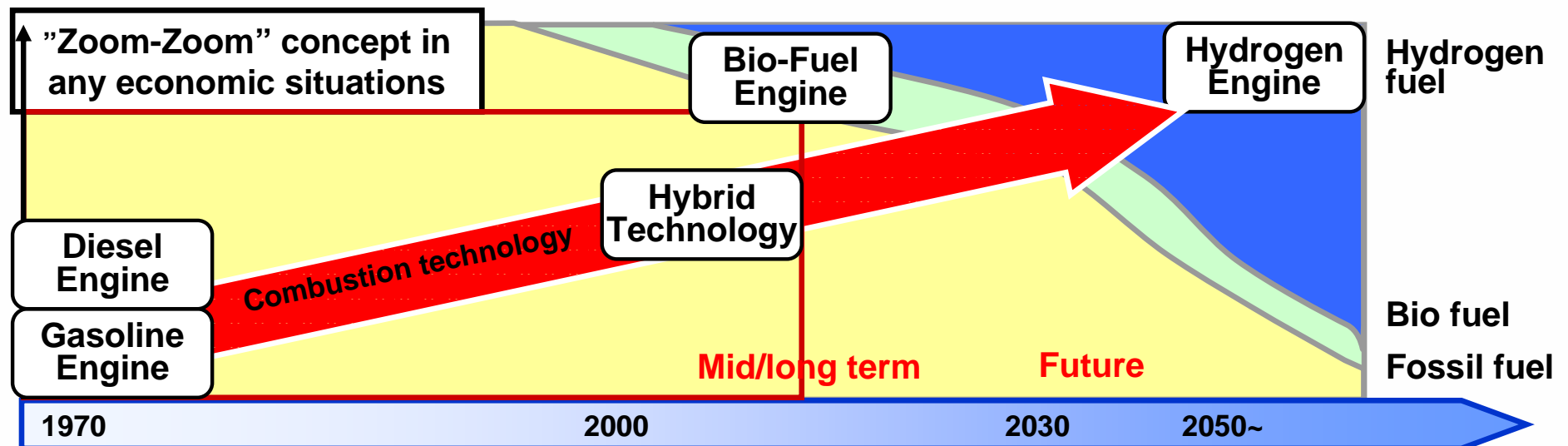
Mid/Long Term

✓ Combine strong dynamic performance and product appeals to repeat customers.

For the future

✓ Pursue the hydrogen combustion technology, evolving the combustion technology.

✓ Introduce practical technology in evolution process.



MAZDA POWERTRAIN

Gasoline Engines

New Gasoline Engines (I4)

- ◆ Dynamic performance: Improve 15-25%
- ◆ Fuel economy: Improve 20%



Flex Fuel Engines

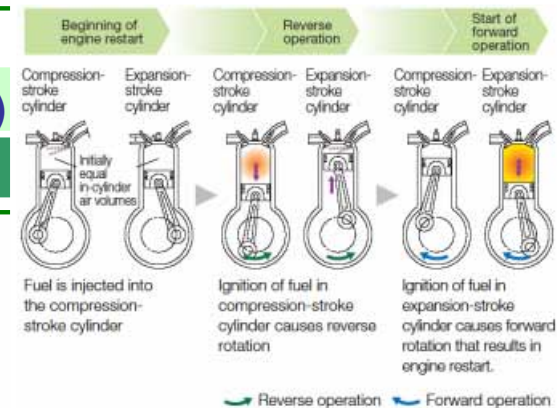
- ◆ E85

Smart Idling Stop

- ◆ Fuel economy: Improve 10% (in JPN)
- ◆ DISI + Combustion re-start system

DISI 2.0L

DISI-Turbo 2.3L



2000

2010

2020

Diesel Engines



New Clean DE engines

- Fuel economy : Improve 10%
- Emission : EU “Euro6”
US “Tier2 BIN5”
JPN “H12 standard”

Euro4

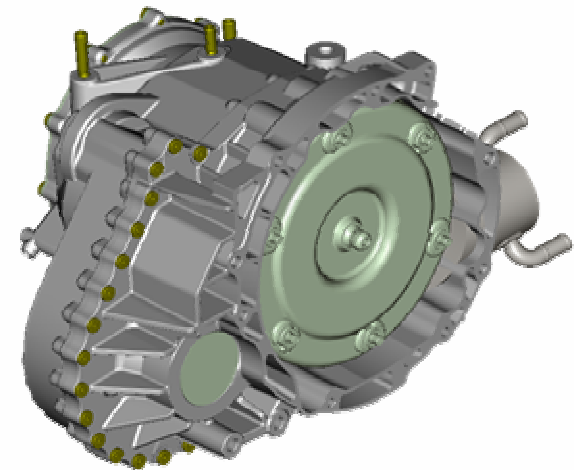
Euro5

2000

2010

2020

Transmissions



New Automatic Transmissions

- ◆ Driving performance: Realize “direct feel” comparable to MT
- ◆ Fuel performance: Comparable to MT

5AT

2000

2010

2020

MAZDA POWERTRAIN

Rotary Engine

New Hydrogen Rotary Engine



New Rotary Engine

- ◆ Dramatically improve dynamic/fuel performances.

RENESIS

2000

2010

2020

MAZDA POWERTRAIN

Future Technology

New Hydrogen Rotary Engine

- ◆ Dynamic performance:
currently comparable to V6 3.0L gasoline engines
- ◆ Cruising distance : 400km

High-efficient hybrid system

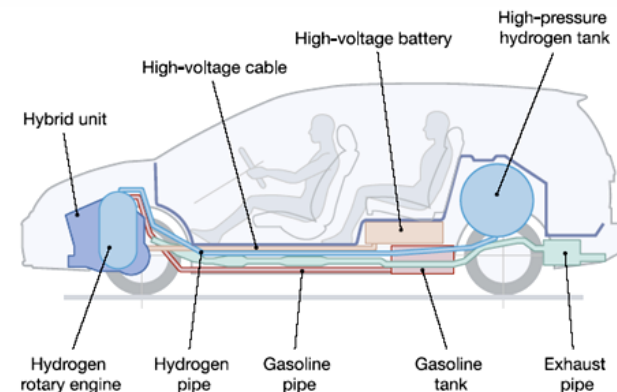
- ◆ Fuel economy: Improve 100%

Premacy hydrogen RE hybrid

- ◆ Dynamic performance: Improve 40%
- ◆ Cruising distance: 200km
- ◆ Original hybrid system



RX-8 hydrogen RE



2000

2010

2030

MAZDA DESIGN

Vision

Pursue Mazda design that never fails to excite, visually captures the customer's heart, and provides a fun driving experience that keeps bringing them back to Mazda.

Policy

- ✓ Establish family taste, which visually captures the customer's heart.
- ✓ Propose new design cues.
- ✓ Innovate proportion.



MAZDA VEHICLE TECHNOLOGY

Vision

Pursue the platform technology that never fails to excite, visually captures the customer's heart, and provides a fun driving experience that keeps bringing them back to Mazda.

Policy

- ✓ Support attractive styling
- ✓ Provide the driving-pleasure and safety
- ✓ Support fair driving skill and realize anti-collision technology.
- ✓ Realize CO2 reduction as well as driving performance enhancement through weight reduction.

MAZDA VEHICLE TECHNOLOGY

Design & Platforms

New Design & Platforms

- ◆ Distinctive design (New proportion)
- ◆ Excellent dynamic performance
- ◆ Safety & lightweight

NEW Demio / Mazda2

- ◆ Distinctive design & Excellent dynamic performance
- ◆ CO2 reduction
- ◆ About 100kg lighter than the previous models



2000

2010

2020

MAZDA VEHICLE TECHNOLOGY

Safety

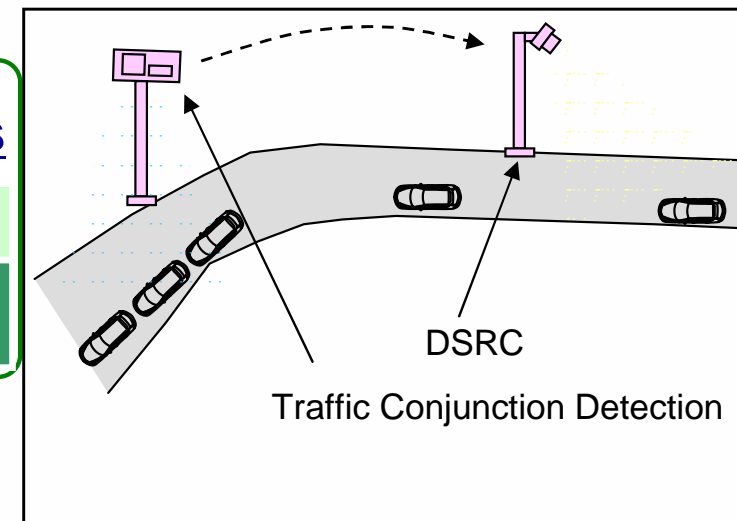
HMI / Dynamic Safety

- ◆ HMI supports correct risk awareness & judgment
- ◆ Dynamic performance to drive easily and avoid risk

ITS Prevention of traffic jams and accidents

- ◆ Demonstration in Hiroshima
- ◆ Driving support system linked with infrastructure

Mazda pre-crash safety



2000

2010

2020

MAZDA VEHICLE TECHNOLOGY

Material & Manufacturing technology

Original Water Based Paint System

- ◆ VOC reduction

Bio-Plastic/ Bio-Seat Fabric

- ◆ Carbon-neutral materials made of plants



Bumper-to-Bumper Recycling

Three Layer Wet Paint System

2000

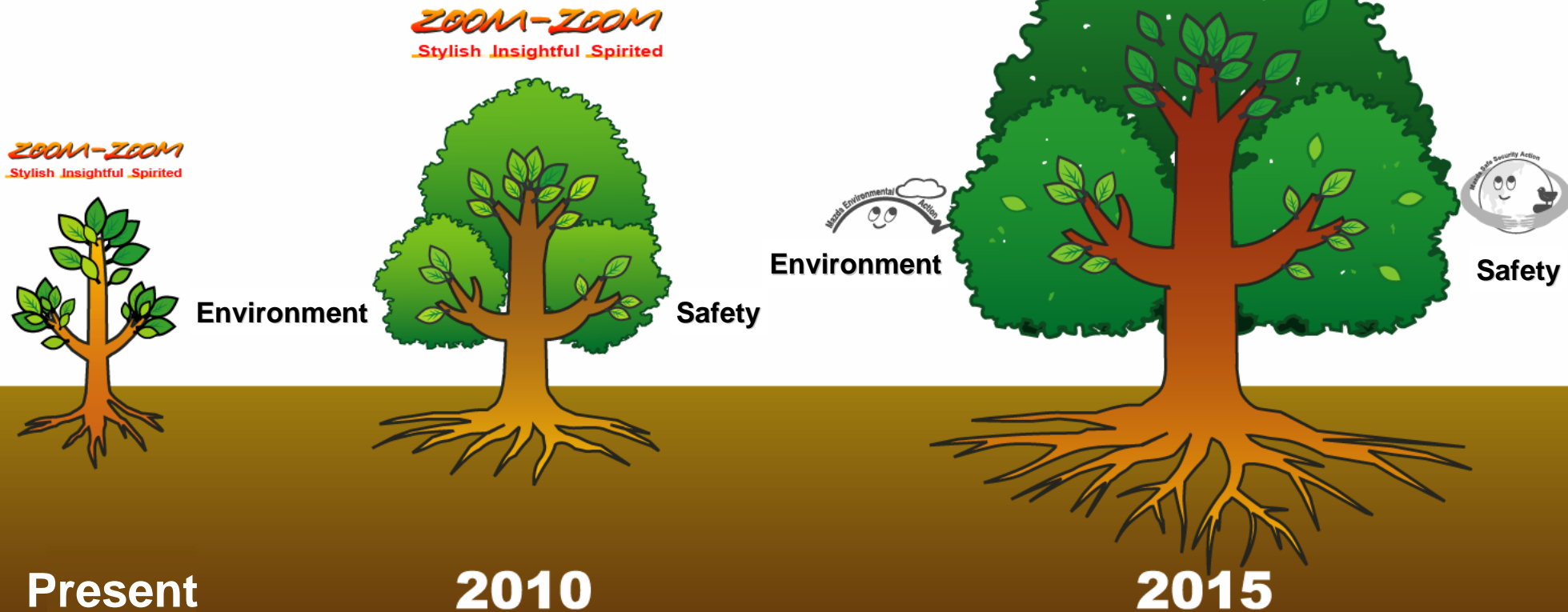
2010

2020

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ZOOM-ZOOM
Stylish Insightful Spirited





mazda

DISCLAIMER

The projections and future strategies shown in this presentation are based on various uncertainties including without limitation the conditions of the world economy in the future, the trend of the automotive industry and the risk of exchange-rate fluctuations.

So, please be aware that Mazda's actual performance may differ substantially from the projections.

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