



mazda



Ichiro Hirose

Senior Managing Executive Officer
Oversight of R&D and Cost Innovation
Mazda Motor Corporation

Major Changes in Business Environment

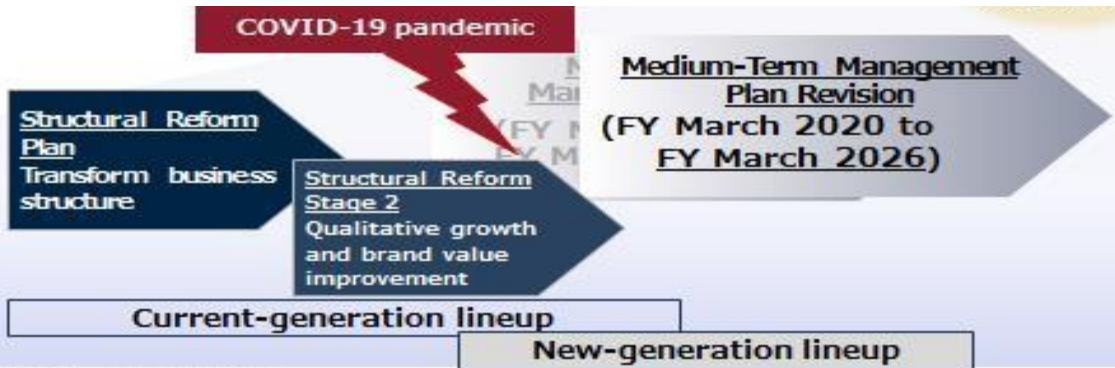
Centenary in 2020, and for the next 100 years



Transportation vehicle of COVID19 patients

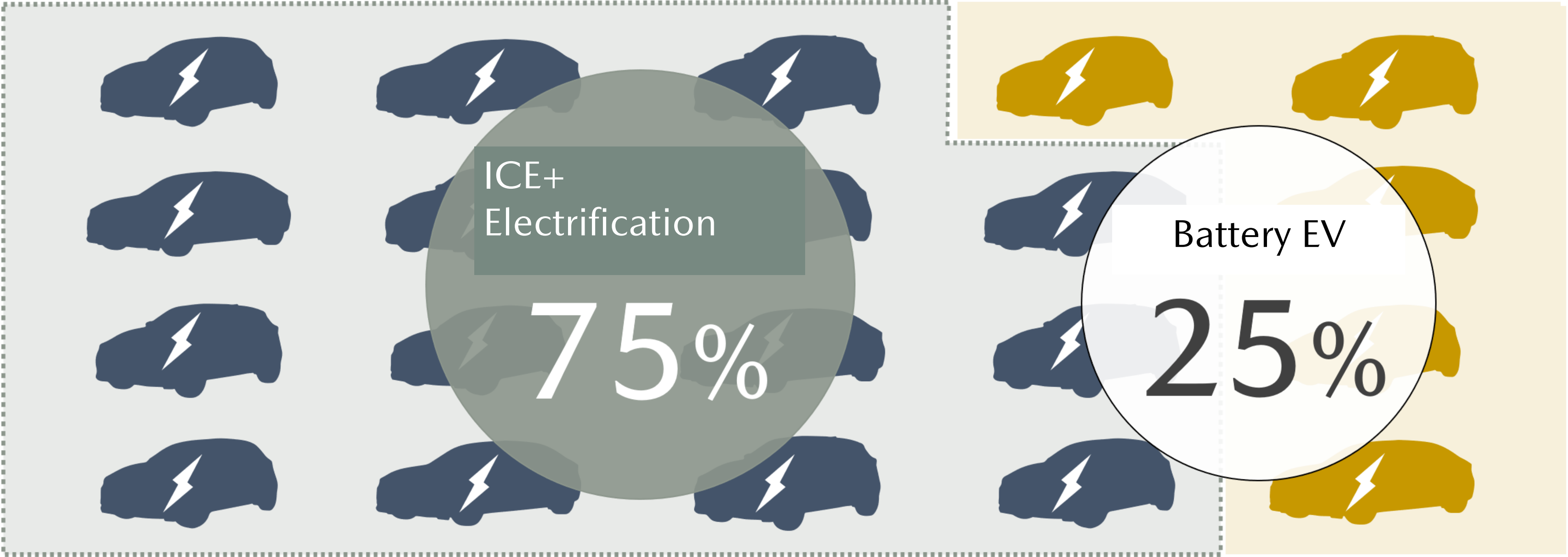
Positioning of Medium-term Management Plan

- Co-creation, heighten brand value
- Shift to Brand Value Management
- The 1st stage for the next 100 years



Endeavor for Carbon Neutrality in 2050

Globally 100% electrification in 2030
25% of total production consists of BEVs



MAZDA

Medium-Term Technology and Product Policy Briefing

Mazda Corporate Vision

We love cars and want people to enjoy fulfilling lives through cars.
We envision cars existing sustainably with the planet and society,
and we will continue to tackle challenges with creative ideas.

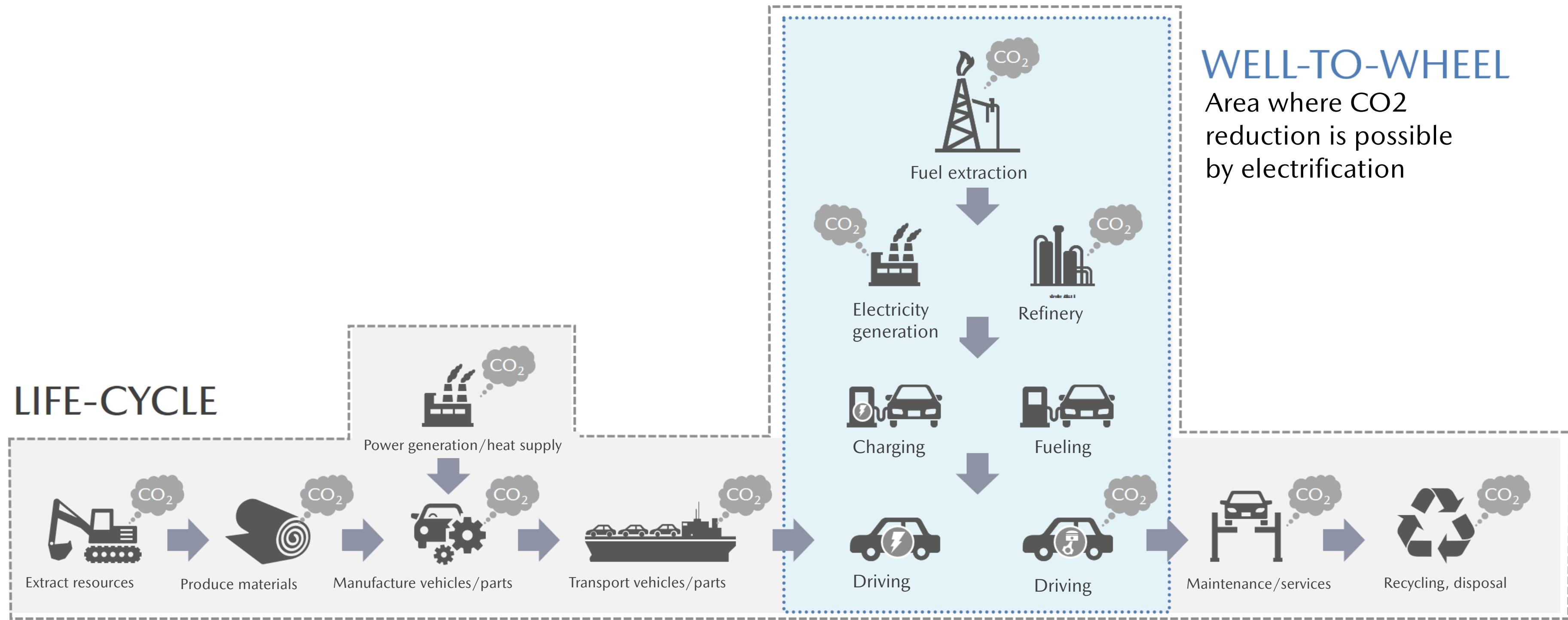
1. Brighten people's lives through car ownership.
2. Offer cars that are sustainable with the planet and society to more people.
3. Embrace challenges and seek to master the Doh ("Way" or "Path") of creativity.

SUSTAINABLE ZOOM-ZOOM 2030

Mazda takes it as its mission to help realize the beautiful earth, and continues to inspire people's minds through the value provided by cars



Approach to Substantively Reduce CO2





MAZDA VISION

Building Blocks to Achieve our Vision



Carbon Neutrality by 2050

“Once-in-a-Century Transformation”



ONLY THE SKY IS THE LIMIT
pushing the limits
SKYACTIV TECHNOLOGY Phase 1

SKYACTIV SCALABLE ARCHITECTURE
dedicated to Internal Combustion Engine

Skyactiv Technology Phase 1

STEP-3 Motor Drive Technology

STEP-2 Regenerative Braking Technology

STEP-1 Idling Stop Technology

Base Technology Evolution – SKYACTIV TECHNOLOGY



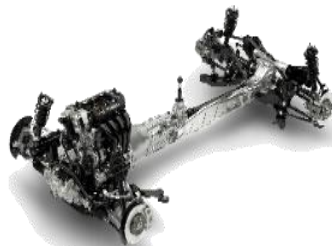
SKYACTIV-G



SKYACTIV-D



SKYACTIV-DRIVE/MT



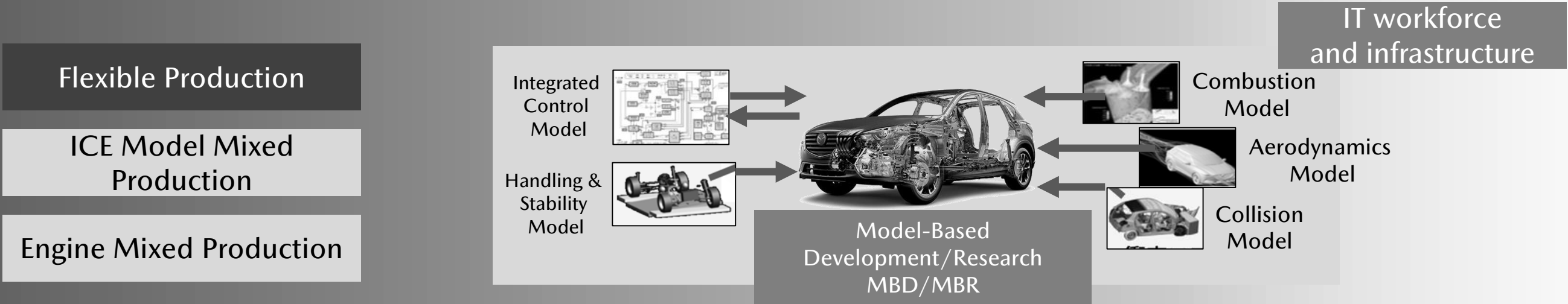
SKYACTIV-BODY/CHASSIS

Technological Innovation

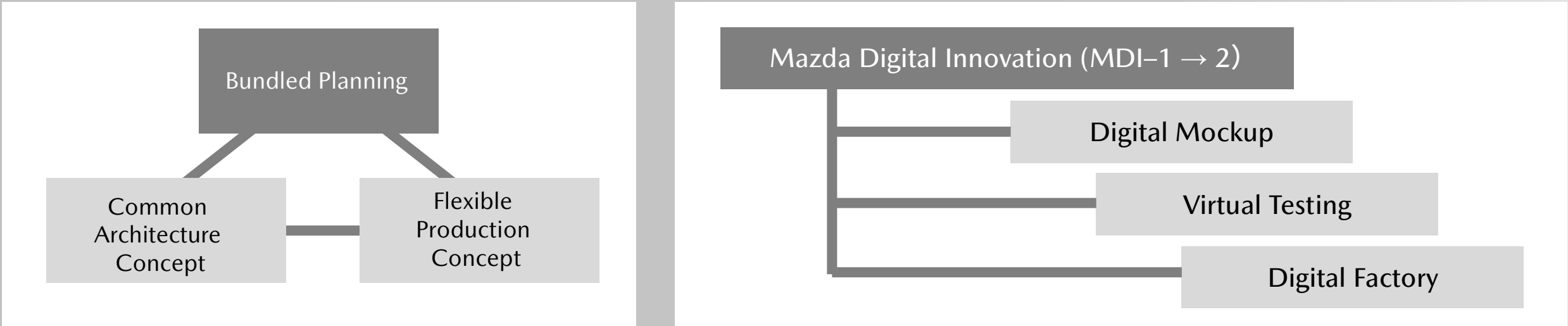


Introduced 9 Models in 6 Years

Highly Efficient, low investment development and manufacturing

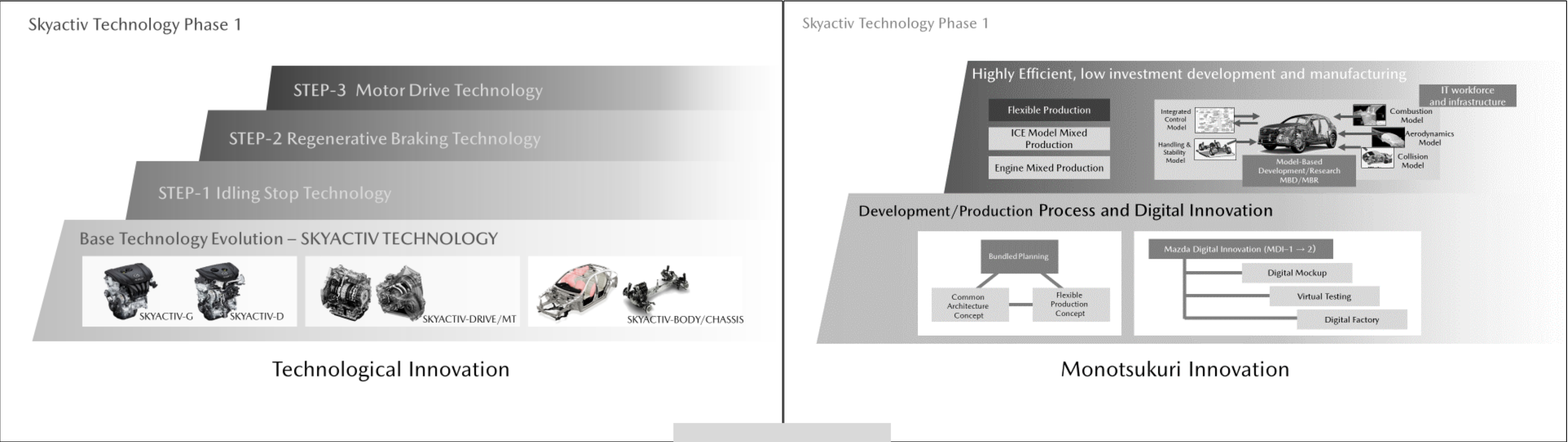


Development/Production Process and Digital Innovation



Monotsukuri Innovation

Skyactiv Technology Phase 1



SKYACTIV TECHNOLOGY Phase 2

SKYACTIV MULTI-SOLUTION SCALABLE ARCHITECTURE

Skyactiv Technology Phase 2

Small Product Group – Transverse Layout



SKYACTIV-X



MILD HEV24V



EV



RE Multi-electrification



Skyactiv Multi-Solution Scalable Architecture

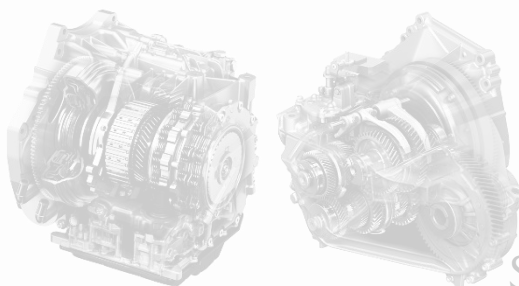
Evolution of Base Technologies – SKYACTIV TECHNOLOGY



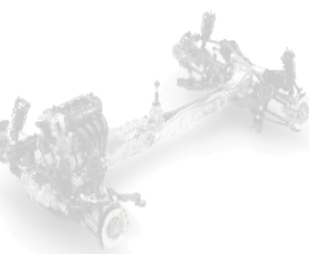
SKYACTIV-G



SKYACTIV-D



SKYACTIV-DRIVE/MT



SKYACTIV-BODY/CHASSIS

Skyactiv Technology Phase 2

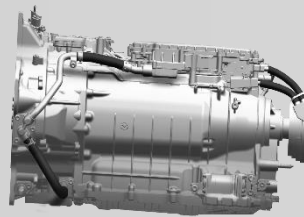
Large Product Group– Longitudinal Layout



Straight 6 SKYACTIV-G/D/X



PHEV



MILD HEV48V

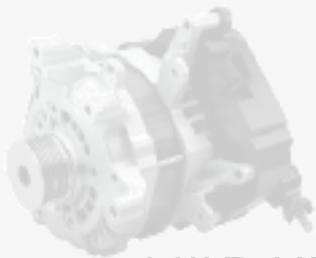


Skyactiv Multi-Solution Scalable Architecture

SMALL Group – Transverse Layout



SKYACTIV-X



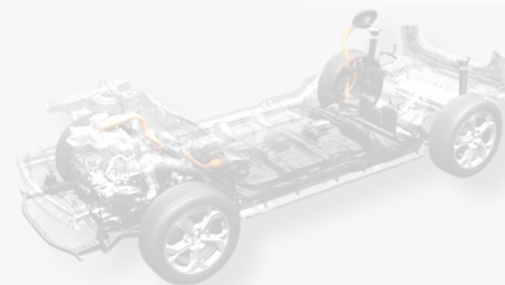
MILD HEV24V



BEV



RE Multiple Electrification
Technology



Skyactiv-Multi-Solution Scalable Architecture

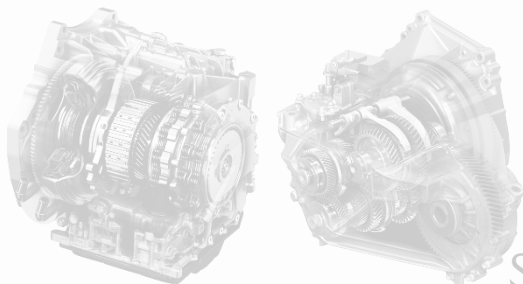
Evolution of Base Technologies – SKYACTIV TECHNOLOGY



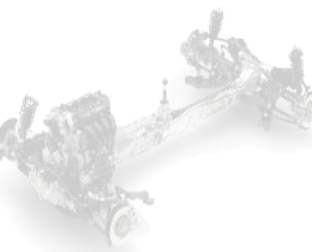
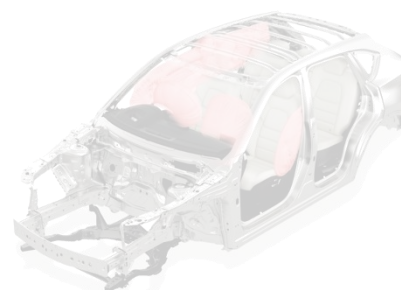
SKYACTIV-G



SKYACTIV-D



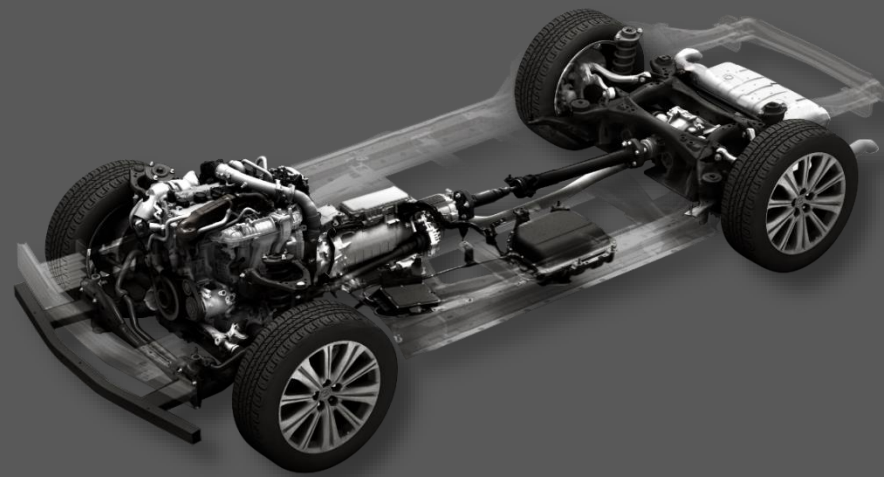
SKYACTIV-DRIVE/MT



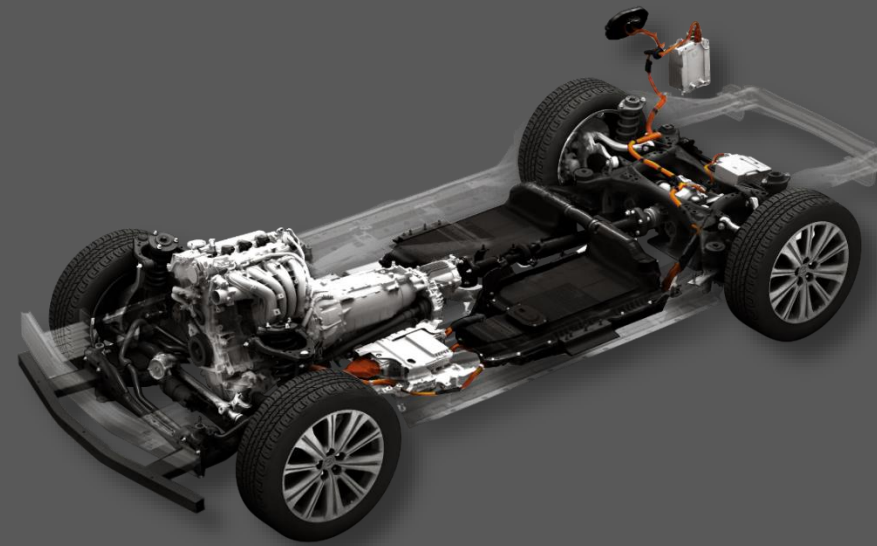
SKYACTIV-BODY/CHASSIS

SKYACTIV MULTI-SOLUTION SCALABLE ARCHITECTURE

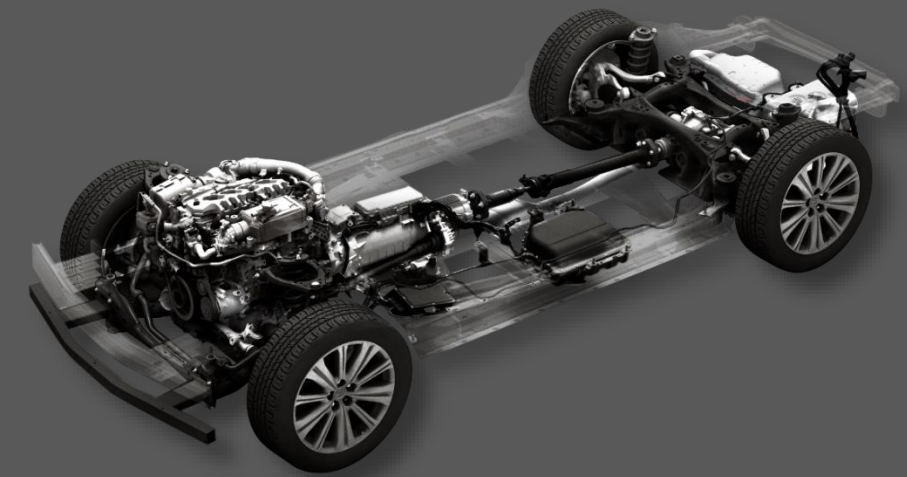
LARGE Group – SKYACTIV Multi-Solution Scalable Architecture



Gasoline Engine
48V Mild Hybrid



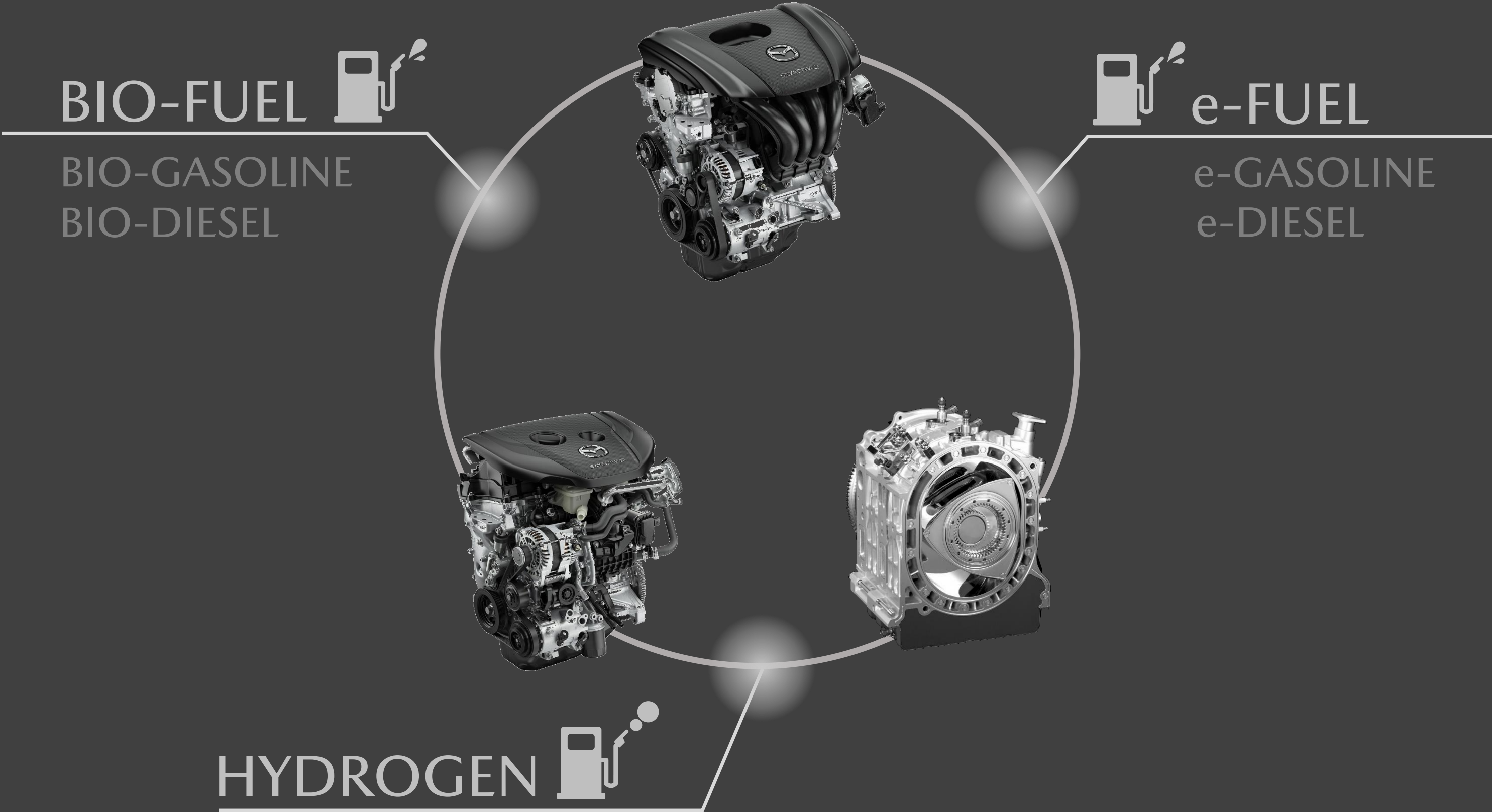
Gasoline Engine
Plug-in Hybrid



Diesel Engine
48V Mild Hybrid

- Engine to mount : Inline 6 cylinder SKYACTIV-G/D/X, Inline 6 cylinder SKYACTIV-G
- Applied electrification tech: 48V Mild Hybrid system, Plug-in Hybrid system

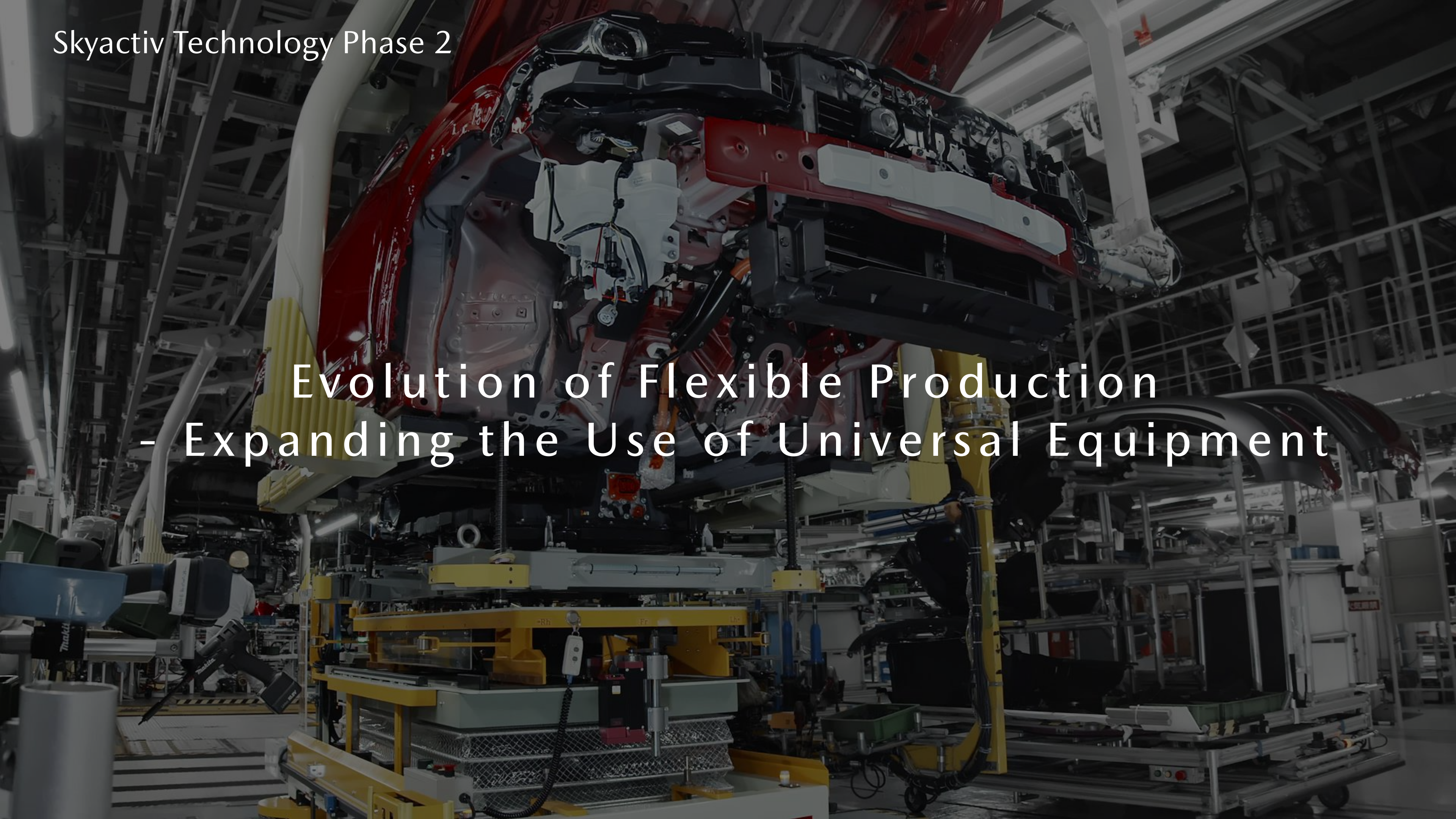
Skyactiv Technology Phase 2



Actions for *Multi-Solution* in Manufacturing

Skyactiv Technology Phase 2

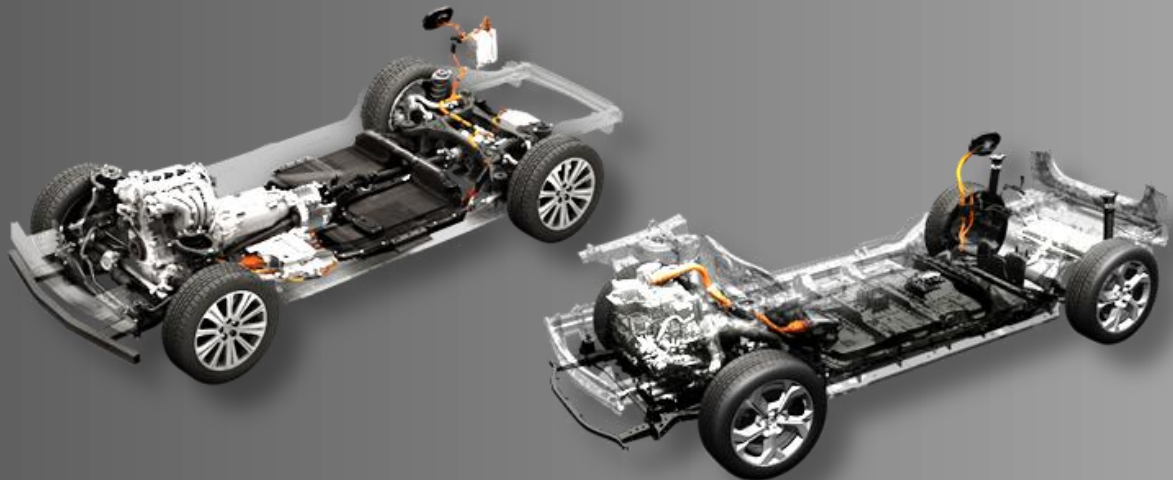
Evolution of Flexible Production - Expanding the Use of Universal Equipment



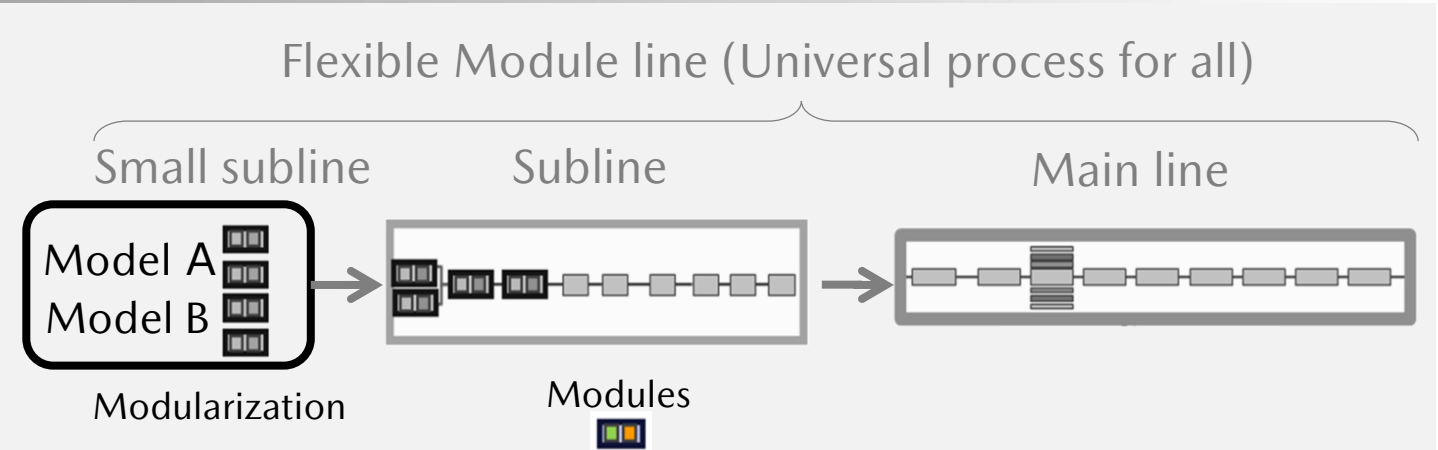
Skyactiv Technology Phase 2

Accelerate the Use of Universal Production Equipment ~ Reduce Investment, Prepare for the Future

Mixed production of different platforms, EVs and ICEs
More multi-purpose-focused equipment



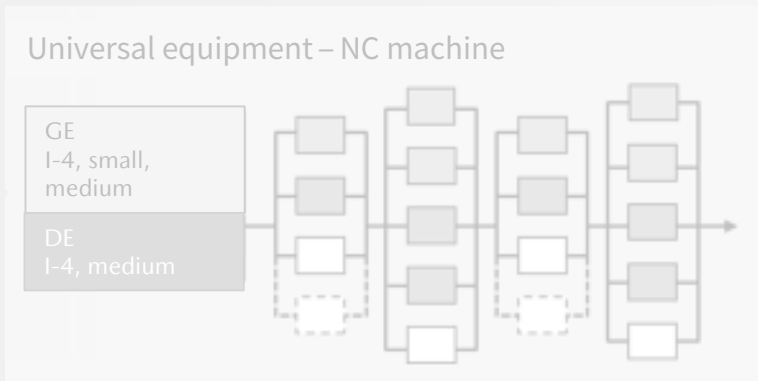
Skyactiv Multi-Solution Scalable Architecture



Mixed-models Production /Mixed ICEs Production



Universal Equipment by Each Process



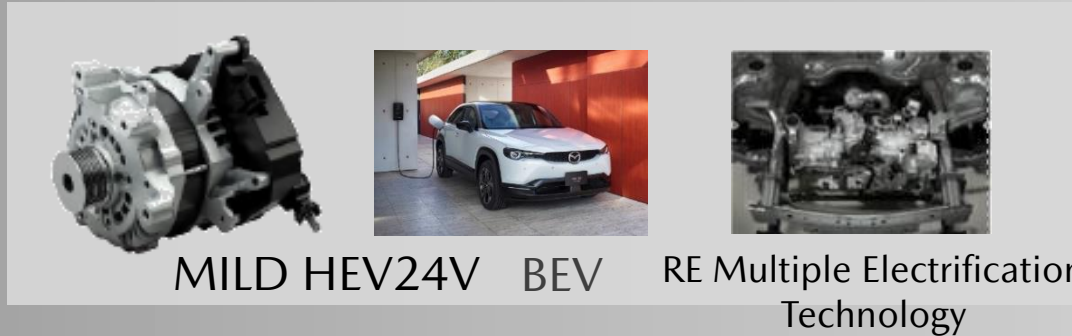
Monotsukuri Innovation : Common Architecture/Flexible Production Concept

Skyactiv Technology Phase 2

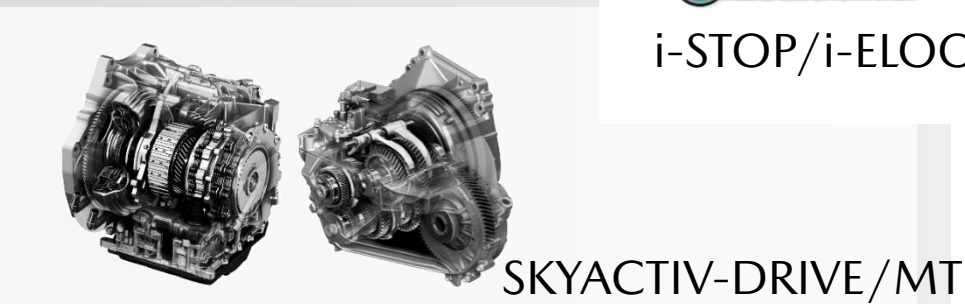
LARGE Group – Longitudinal Layout



SMALL Group – Transverse Layout



Base Technology – SKYACTIV TECHNOLOGY

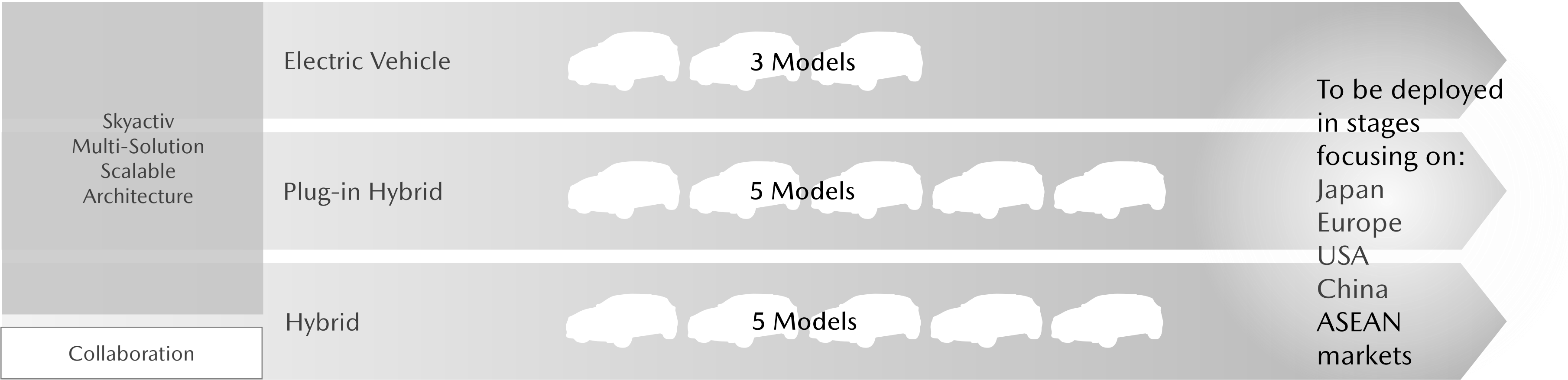


Monotsukuri Innovation

Skyactiv Technology Phase 2

2022 2023 2024 2025... 2030

Future Plan for Electrified Products

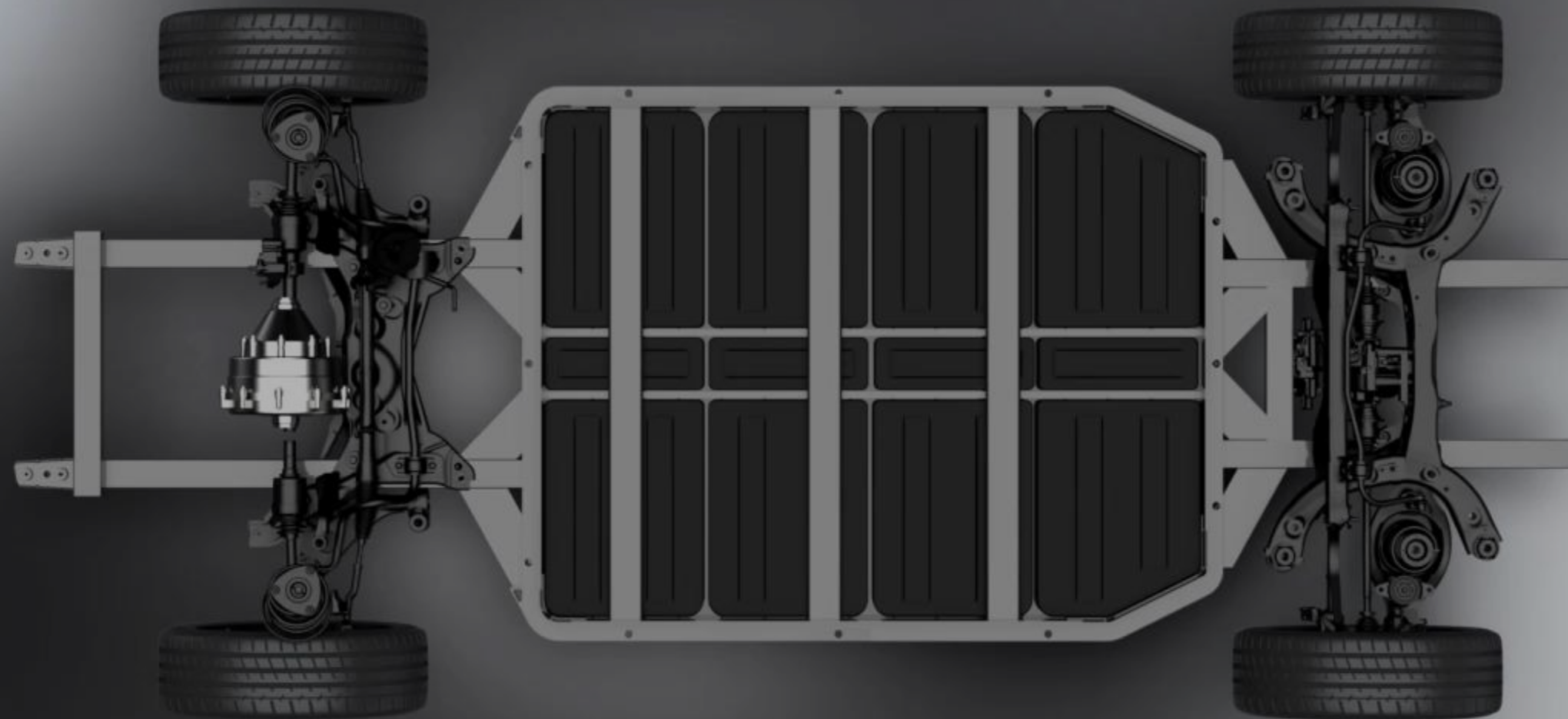


* Mild-hybrid is not included



SKYACTIV TECHNOLOGY Phase 3

SKYACTIV EV SCALABLE ARCHITECTURE



※ for illustration purpose only

SKYACTIV EV SCALABLE ARCHITECTURE

Compatible with EVs of various vehicle sizes and body types

Skyactiv Technology Phase 3

2022

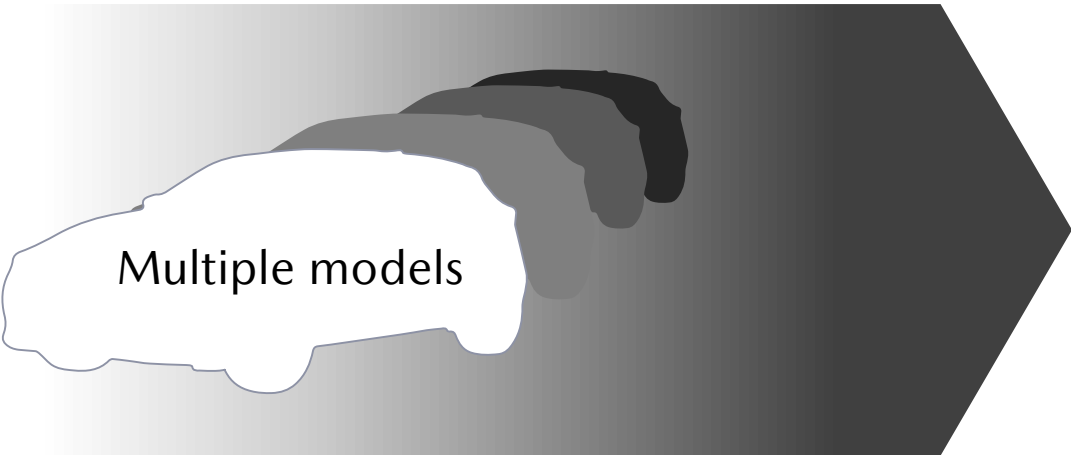
2023

2024

2025...

2030

Skyactiv EV Scalable Architecture



Skyactiv Multi-Solution Scalable Architecture

EV



Plug-in Hybrid



Hybrid



Collaboration

* Mild-hybrid is not included

Toward a Safe and Secure Automotive Society



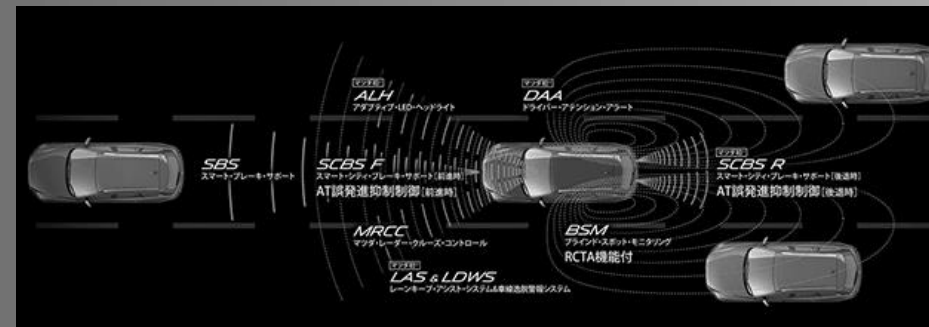
MAZDA PROACTIVE SAFETY

Human-centric safety technology
supporting “driving pleasure” of drivers
to move freely
at their will

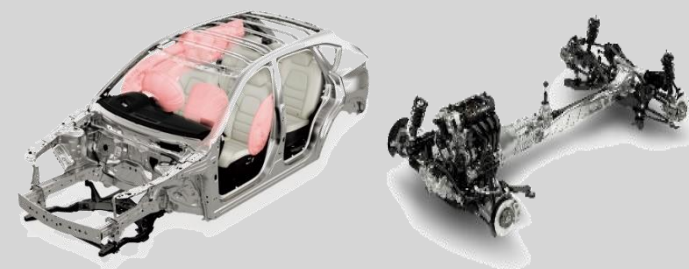
Aims to ensure everyone, including
drivers, their families, and those around
them, can drive safely and with peace of
mind anytime, anywhere

Continuous evolution of advanced safety technologies
assisting the driver to recognize hazards and make good judgment

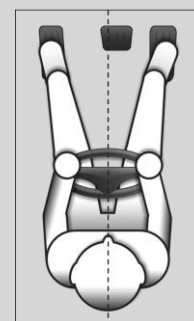
i-ACTIVSENSE



Continuous evolution of basic safety technologies (Crash safety / good visibility)



Skyactiv-Body/Chassis
Crash Safety



Driving Position



Visibility

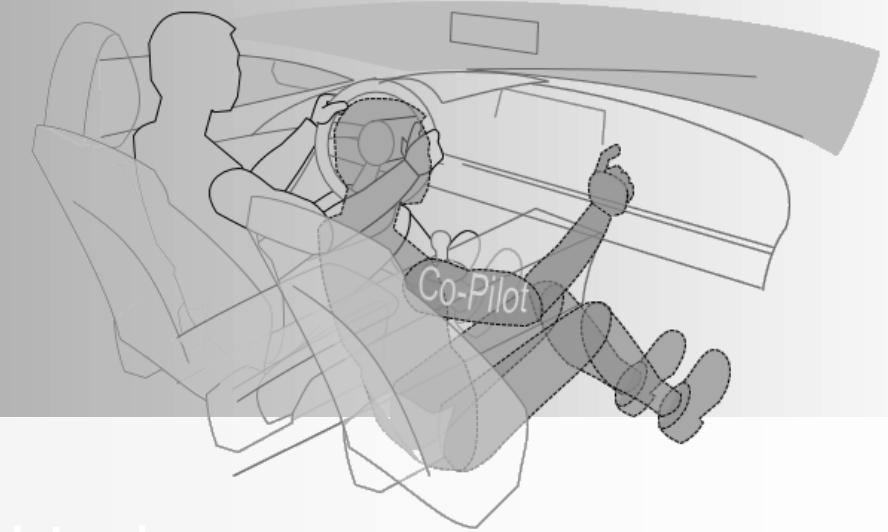


Heads-up Cockpit

Building blocks toward the realization of an 'accident-free society'

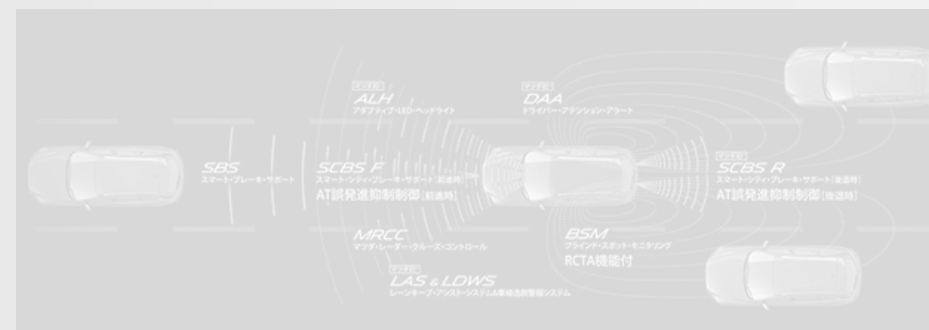
MAZDA CO-PILOT CONCEPT

Driver Sensing Technology
monitoring driver conditions and
protecting lives



Continuous evolution of advanced safety technologies
assisting the driver to recognize hazards and make good judgment

i-ACTIVSENSE



Continuous evolution of basic safety technologies (Crash safety / good visibility)



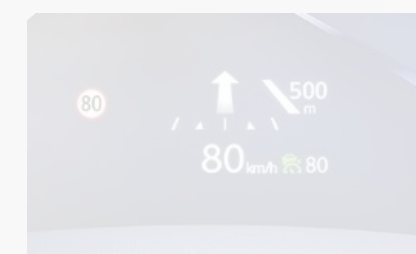
Skyactiv-Body/Chassis
Crash Safety



Driving Position



Visibility



Heads-up Cockpit

Building blocks toward the realization of an 'accident-free society'

MAZDA CO-PILOT CONCEPT

Peace of mind
Safety

MAZDA CO-PILOT 1.0

Roads limited to motorized vehicles:

- Pull over to the shoulder

Ordinary roads:

- Stop on the same lane



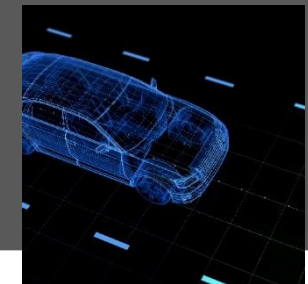
MAZDA CO-PILOT 2.0

Roads limited to motorized vehicles:

- Pull over to the shoulder

Ordinary roads:

- Pull over to the shoulder



i-ACTIVSENSE

2022

2025...

The Next Era - Mobility as a Service -

Provide new value of cars that
Connects people with one another and people with society
through sharing the experience and excitement felt through cars,
enabling people to feel 'the joy of driving' and 'the joy of life'



MAZDA CONNECT

Connect Human and Car

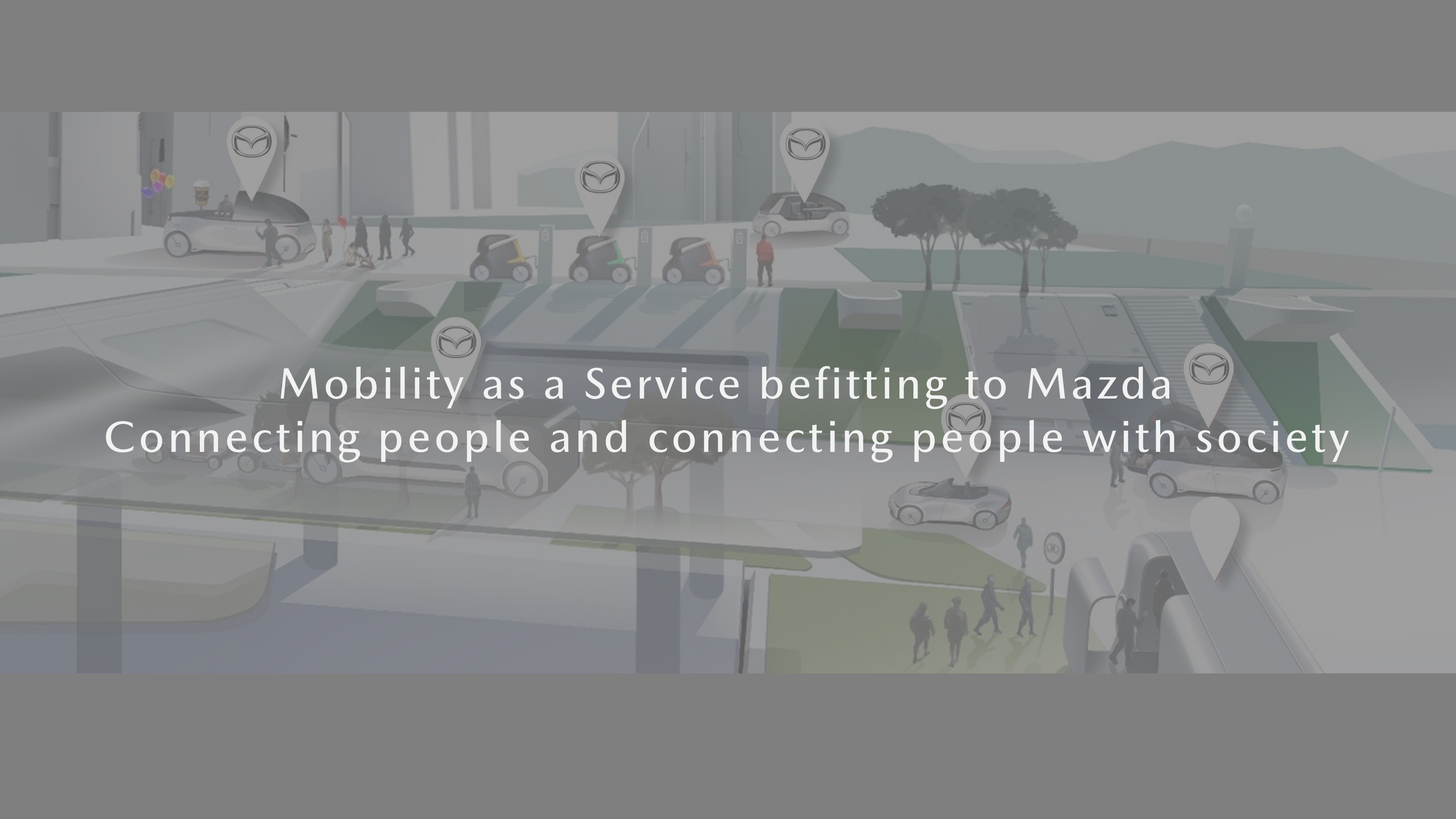
Infotainment
Navigation/
i-DM
Customize vehicle setting

MAZDA CONNECT 2

Connect Human and Mazda

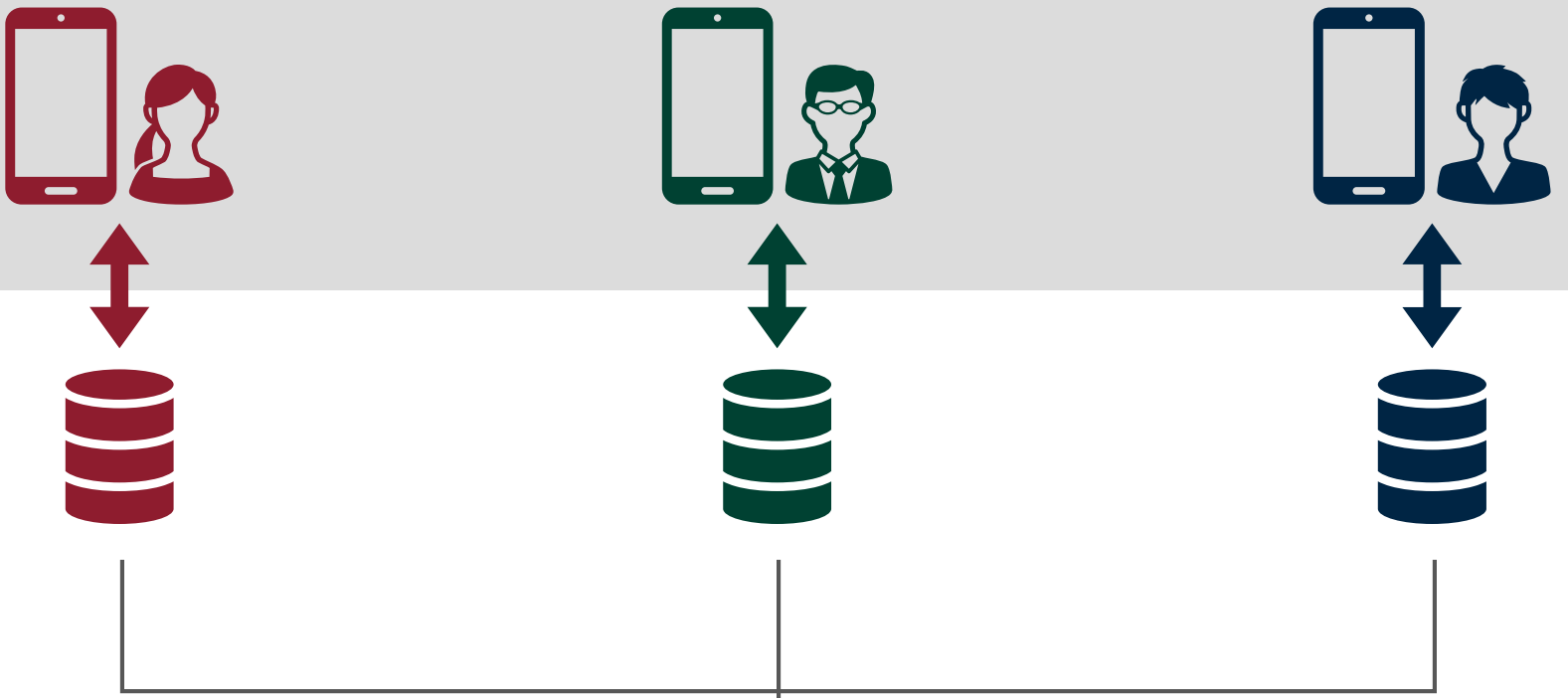
Operability/Function improvement
Software update (map)
via onboard communication device
- Mazda Connected Service
- My Mazda App

Evolution of MAZDA CONNECT



Mobility as a Service befitting to Mazda
Connecting people and connecting people with society

Individual customers and servers

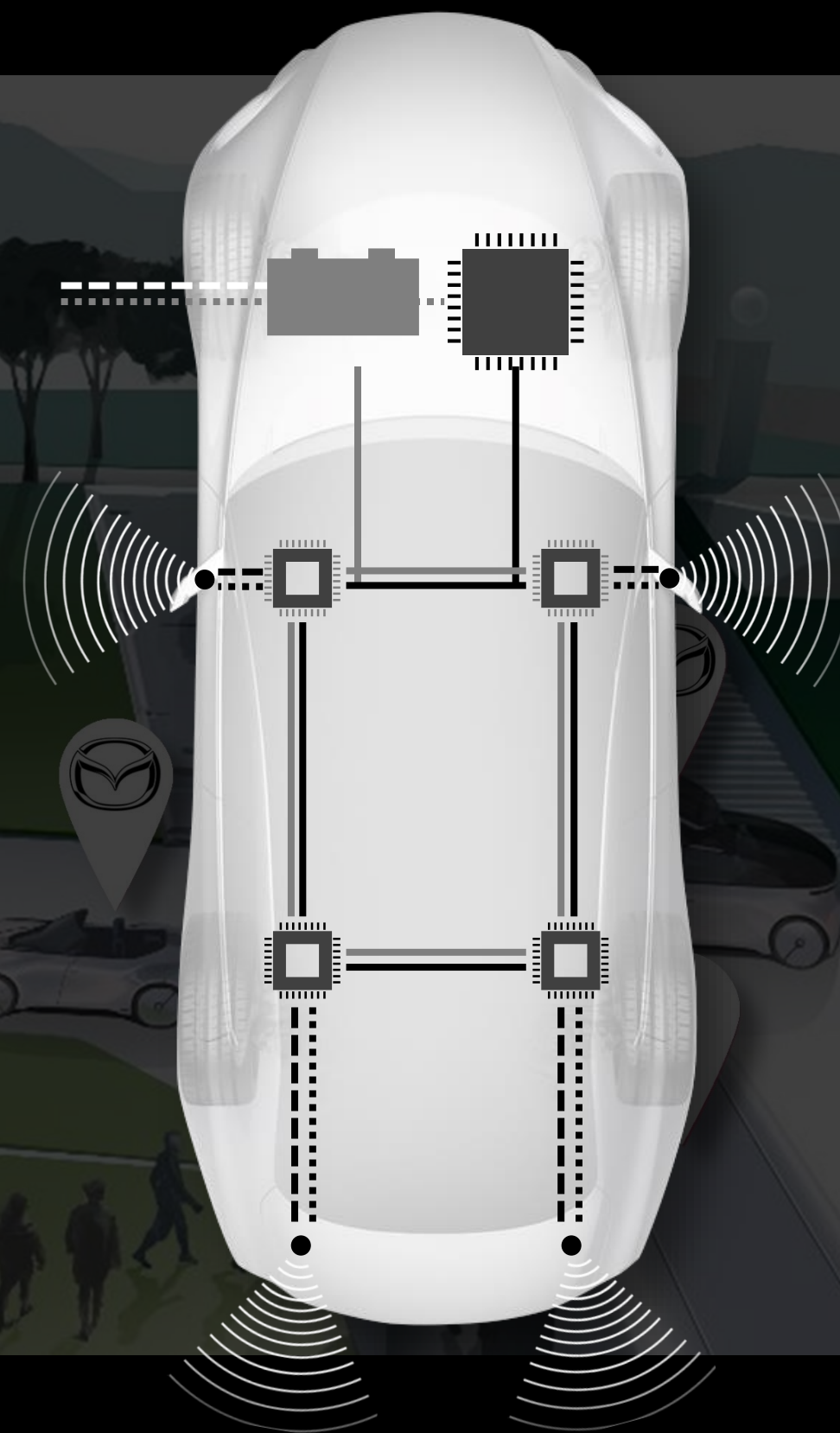


Common telecommunication device
and connection function



Individual vehicles

Develop Electric/Electronic Architecture as the foundation that supports the evolution of Mazda Co-Pilot Technology & Connected Technology as well as the creation of new values





Human-Centric Development Philosophy



Mazda Corporate Vision

We love cars and want people to enjoy fulfilling lives through cars.
We envision cars existing sustainably with the planet and society,
and we will continue to tackle challenges with creative ideas.

1. Brighten people's lives through car ownership.
2. Offer cars that are sustainable with the planet and society to more people.
3. Embrace challenges and seek to master the Doh ("Way" or "Path") of creativity.

Mazda's Evolution Will Continue,
Pursuing the Ideals for a Company that Provides Cars.