

2022 CEO INVESTOR DAY



“ **Road to Electrification** ”



Hyundai Motor will be 100% carbon-neutral by 2045
Genesis brand 100% electrification by 2030, 100% electrification by 2035 in EU market,
100% electrification by 2040 in major markets



Top player in global EV market
EV sales of 1.87 million units by 2030 (Hyundai + Genesis),
HMG global EV M/S 12%, EV sales of 840K units by 2026



From Vehicle to Experience
Establish a roadmap for 3 key factors to achieve EV sales target

<p>1</p> <p>Capacity</p>	<p>2</p> <p>Product</p>	<p>3</p> <p>Software</p>
<p>Expand local production in major markets including localized sourcing of batteries (Develop next gen. battery technology and stabilize sourcing)</p>	<p>Apply next generation Modular Architecture (Enhance competitiveness in vehicle system)</p>	<p>Secure S/W competitiveness and expand investment → Achieve S/W Transformation</p>

01

CARBON NEUTRALITY

Summary of carbon neutral strategy

Road to Net Zero



02

2021
REVIEW

2021 Review

Despite challenging market conditions caused by chip shortage issue and rising raw material prices, HMC generated solid business results in **2021 with global sales of 3.9 million units** and consolidated operating profit margin of 5.7%

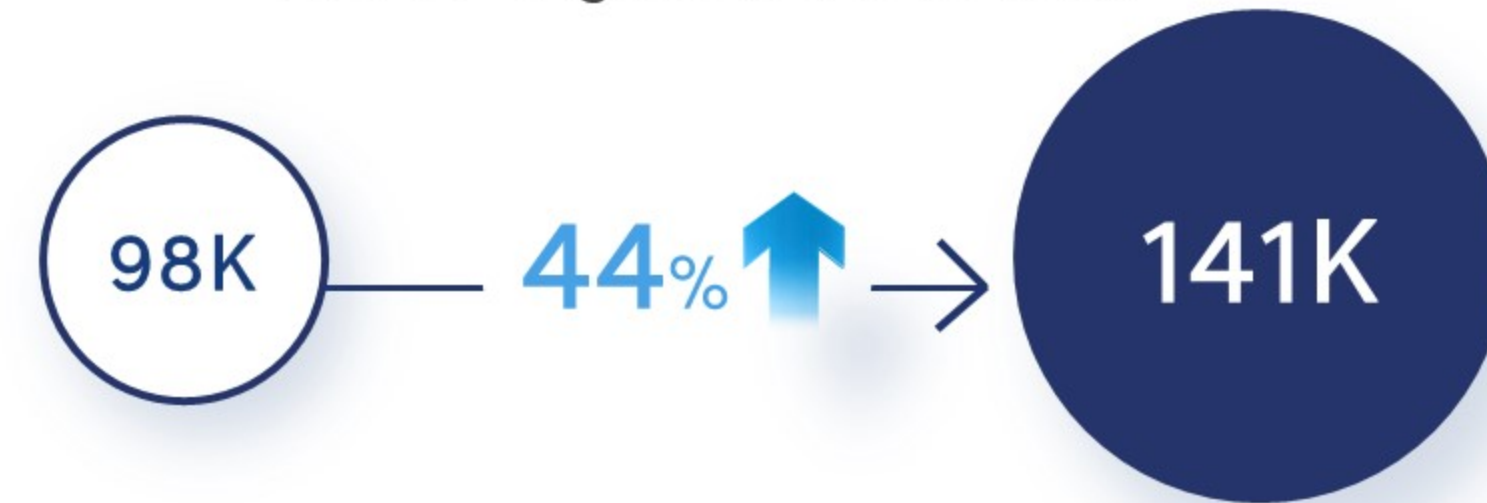
Carbon Neutral

Hyundai is progress to achieve carbon neutrality by 2045.



Electrification

2021 EV global sales (units)



Dedicated EV platform (E-GMP)

Launched IONIQ5 and GV60, first dedicated EV models under Hyundai and Genesis brand



03

EV SALES TARGET



EV Sales Target



1.87 million units by 2030

HMG M/S 12%



Core Strategy

EV Line up Expansion

Expand line ups of SUV/mid-large sized EVs ·
Electrification of Genesis · Regional strategic models

Production Optimization

Optimize EV production in major markets ·
Improve production efficiency

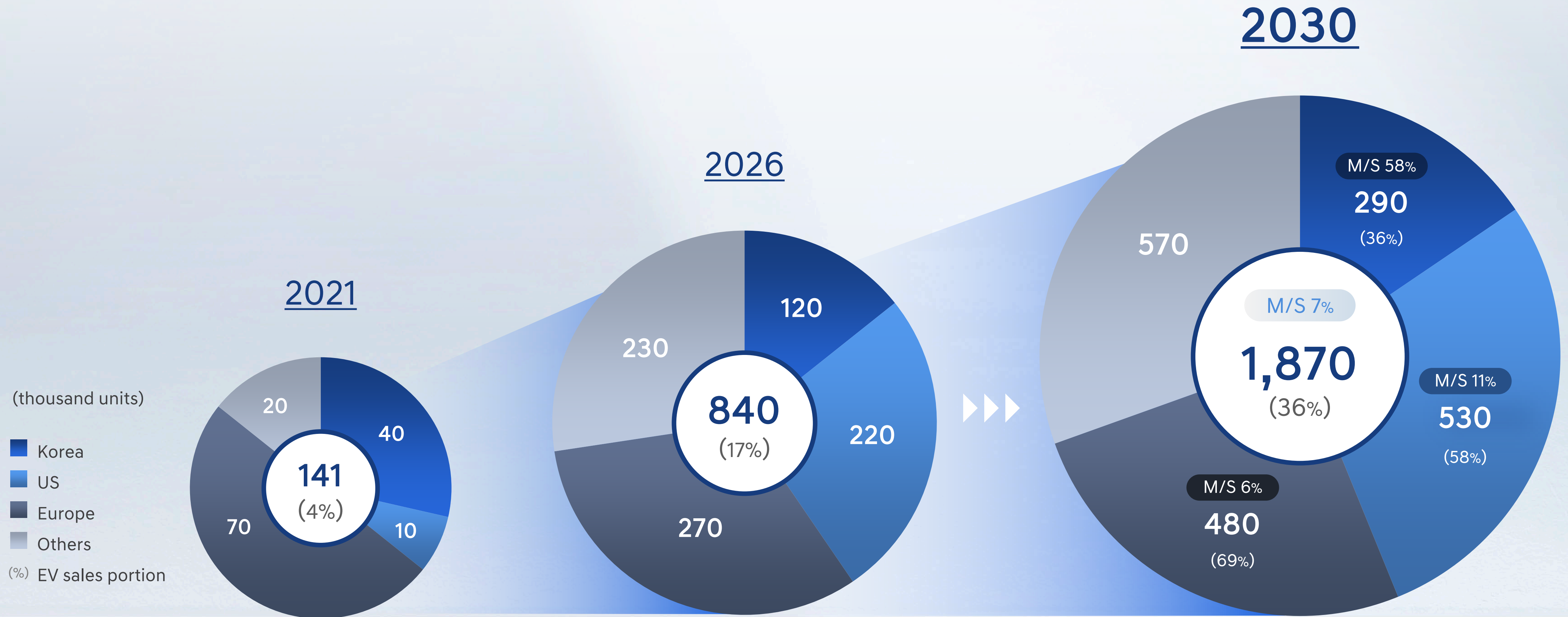
Product Competitiveness

Launch next-gen platform ·
Strengthen S/W technology



EV Sales Target by 2030

EV Sales of 1.87 million units & HMG M/S of 12% by 2030



Expansion of EV line ups

Establish 17 EV models by 2030 (11+ models for Hyundai, 6+ models for Genesis)

100% electrification of Genesis & Line up expansion focusing on SUVs & Regional strategic models

	2016~2020	2021	2022	~2030
Sedan	Ioniq EV La Festa EV	Mistra EV G80 EV	IONIQ 6	Expand line up focusing on SUV 11+a models 3 sedans, 6 SUVs, 1 commercial, 1 other model
SUV	Kona EV	IONIQ 5 GV60	GV70 EV	100% Electrification 6+a models 2 sedans, 4 SUVs
Truck	Porter EV			Regional strategic models EM ...

04

CAPACITY



Improvement of EV Production Efficiency _HMGICS

Adopt production flexibility system, real-time customized logistics system, and utilization of digital twins* to innovate overall value chains and promote customer-centric manufacturing platform

* Digital twins : A technology that makes a digital replica of an actual car for simulation not only in a virtual space but also in the physical world to innovate products by linking data obtained through it to the actual car

Demand Driven,
Pull Method Production System

Eliminate unnecessary process in value chain,
Lean Production

Industry 4.0,
Digital Transformation

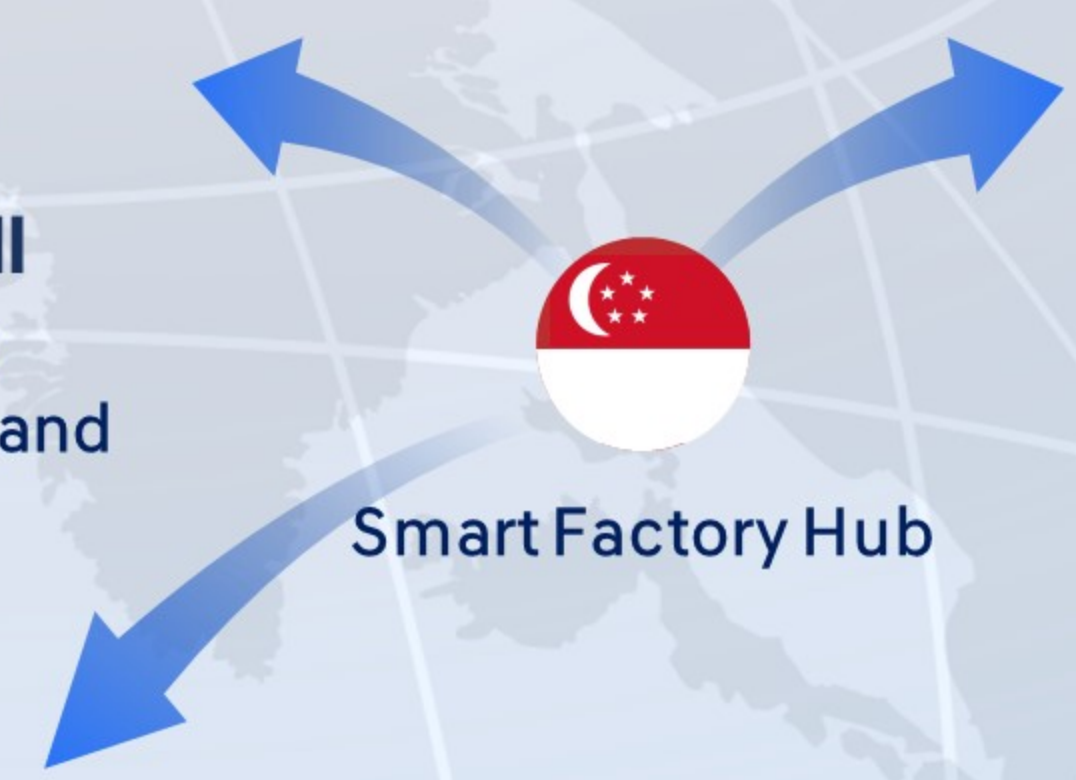
HMGICS : Pilot for HMG's future innovated manufacturing system



HYUNDAI
The Most Innovative Brand



Smart Factory Hub



Optimization of Global EV Production

- Optimize EV production in major electrified markets
- Continue sourcing through long-term supply agreement with major battery makers and secure additional sourcing by forming strategic partnerships with multiple battery suppliers

Production optimization to expand market presence in the global EV market

More than **1.87** million units 



Comprehensive Battery Strategy

Enhance comprehensive battery strategy from sourcing/development/modular to improve profitability and achieve sales target in 2030

Secure battery from strategic partnerships with battery makers

- Formed JV with LG Energy Solution to produce 10GWh lithium-ion battery
- Response to high EV demand in major markets from entering new partnerships
- 50% of next generation lithium-ion batteries after '25 will be sourced from JVs

Expand markets by diversifying sourcing of NCM / LFP battery

Improve pricing from diversifying sourcing

Sourcing

2030



to secure
170GWh of batteries
by 2030

Combine modular architecture platform and modular battery system to improve battery performance and reduce cost

Apply cell-to-pack and review adoption of cell-to-frame from advancing modular architecture

Modularization

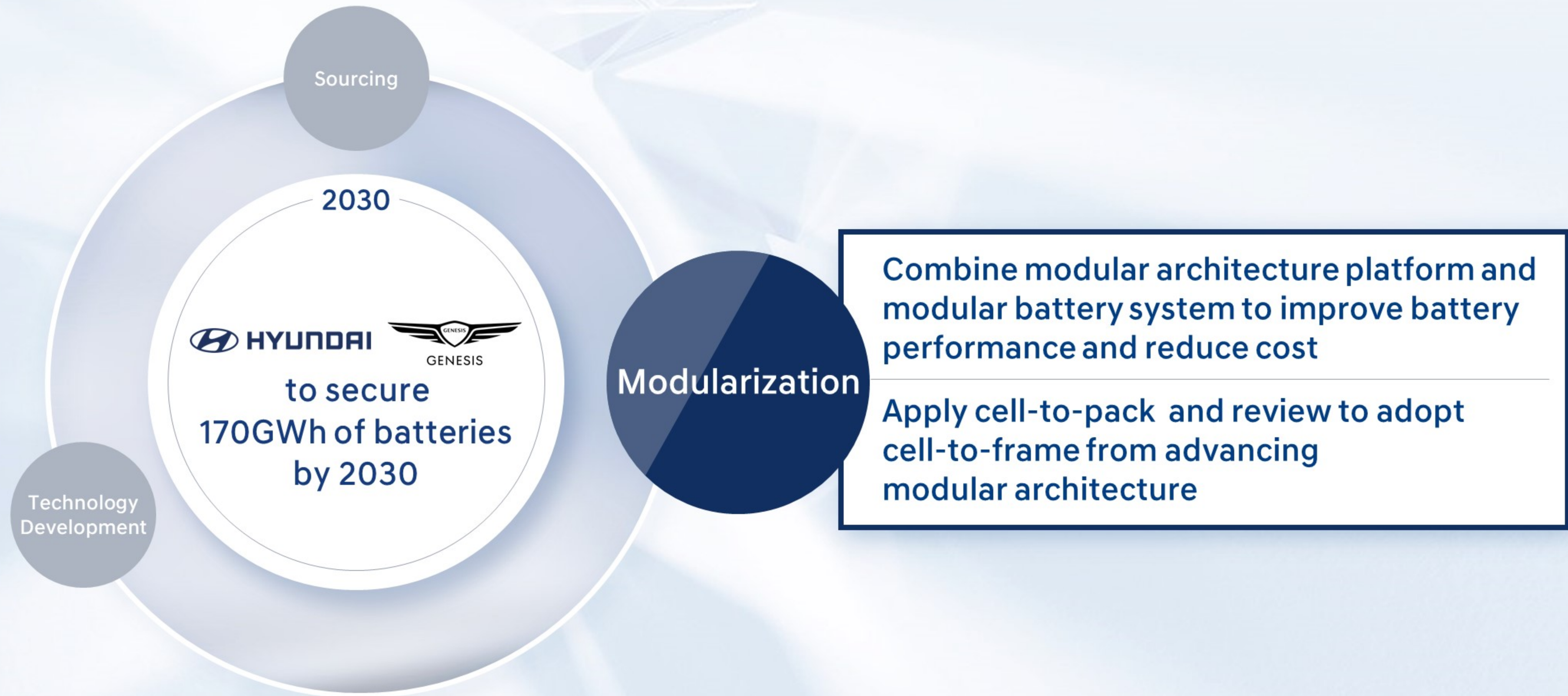
Enhance performance and reduce cost from next generation battery development

- Improve lithium-ion battery performance
- Invest in solid state battery and technology development
- Next-generation battery technology development with various startups

Technology
Development

Battery Modular Strategy

Enhance comprehensive battery strategy from sourcing/development/modular to improve profitability and achieve sales target in 2030



05

PRODUCT



Adopt Integrated Modular Architecture (IMA)* concept by 2025

→ Efficient expansion of EV line up, increase of profitability, enhancement of performance

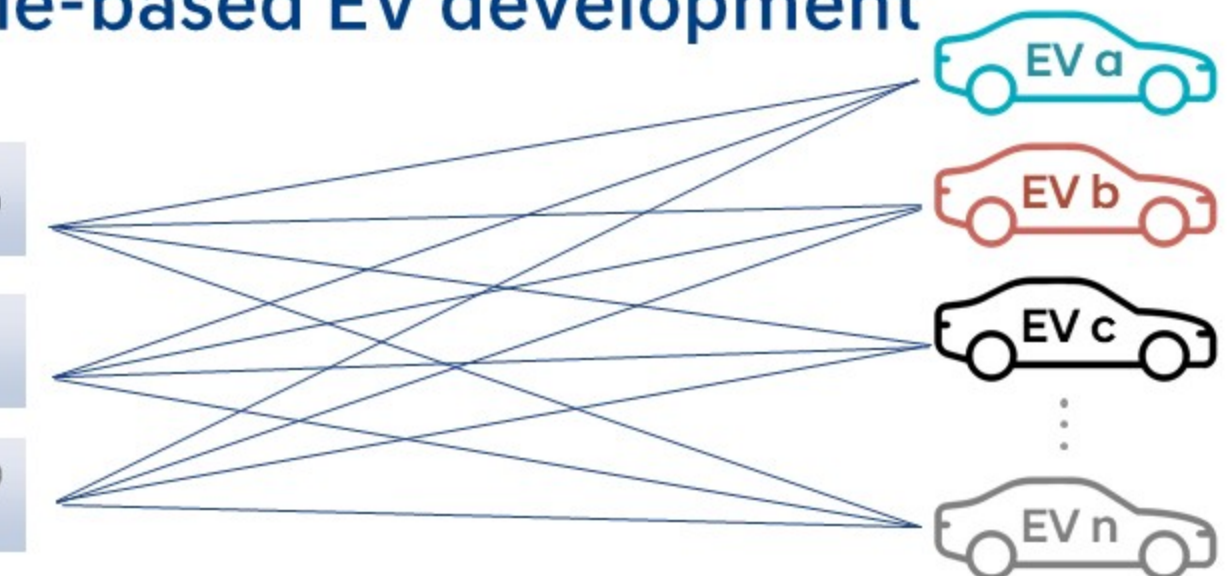
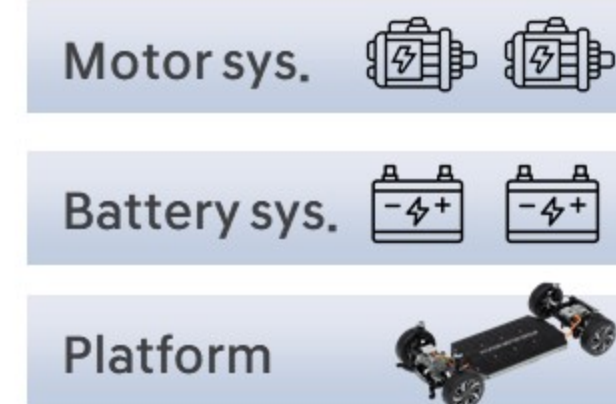
IMA

EV development based on platform



Integrated Module-based EV development

PE sys. module



Platform

eM

• New EV platform with improved commonization range & technology compared to the current E-GMP

Applicable	B2C, B-E segment, Entry-Premium
AER	50%+ improvement compared to the current level (IONIQ 5)
Energy Efficiency	Maintaining the current Tier 1 level
Autonomous Driving	ADAS Lv.3 +
New Technology	Space : B-pillarless & swing door, 1st row swivel seat, 2nd row seat long sliding Customer care : Controller FOTA** update as a basic option, built-in air purifier

eS

- PBV-dedicated platform
- Focusing on B2B demands including delivery and hailing service



* Integrated Modular Architecture

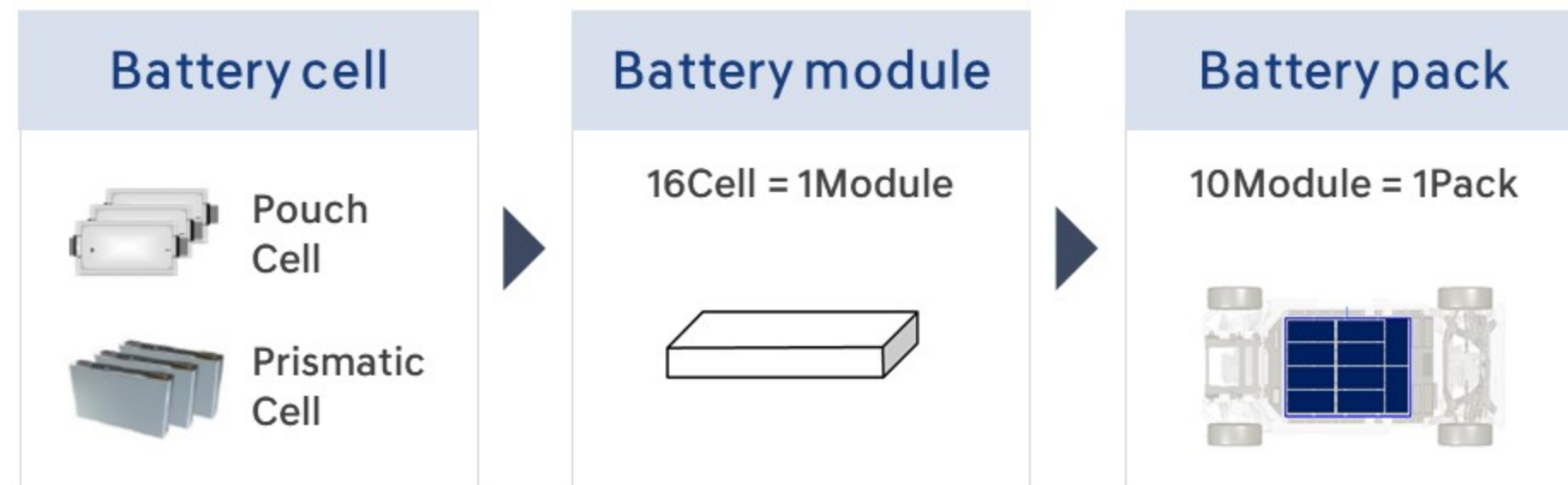
**FOTA : Firmware OTA

Apply standardized batteries based on modular battery system to each segment

→ Increase energy density, reduce cost, improve charging time

Introduce Cell-to-Pack system

Modular battery system : Cell - Module - Pack



Simplify battery packs for new modular platform : 9 types

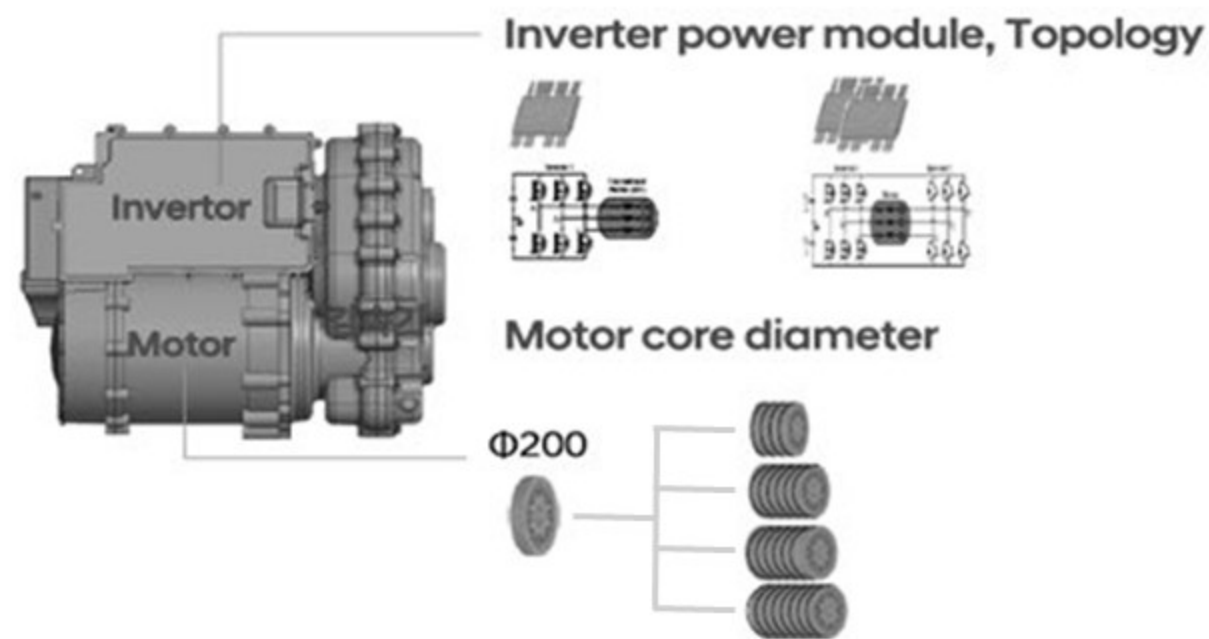
PF	Sys. V	Performance	Entry		
		NCM	NCM	LFP	
eM	800V	6 types		...	
eS	400V	3 types	PBV dedicated battery pack		



Apply standardized motors based on modular motor system to each segment

→ Increase efficiency, reduce cost and weight

Modular Motor System based on $\Phi 200\text{mm}$ core



Simplify motor packs for new modular platform : 5 types

PF	Sys. V	Type	Power	Torque	Speed
eM	800V	M-1			
		M-3			
		M-4			
		M-5			
eS	400V	M-2			



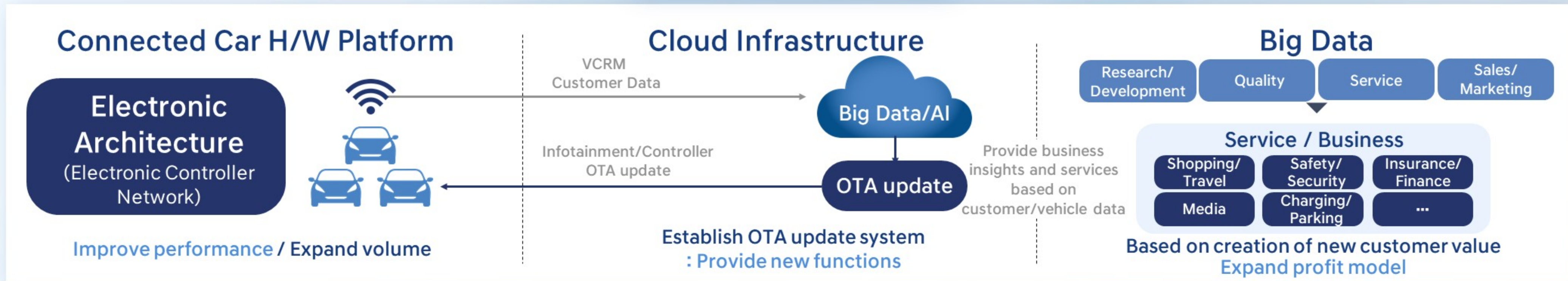
06

SOFTWARE

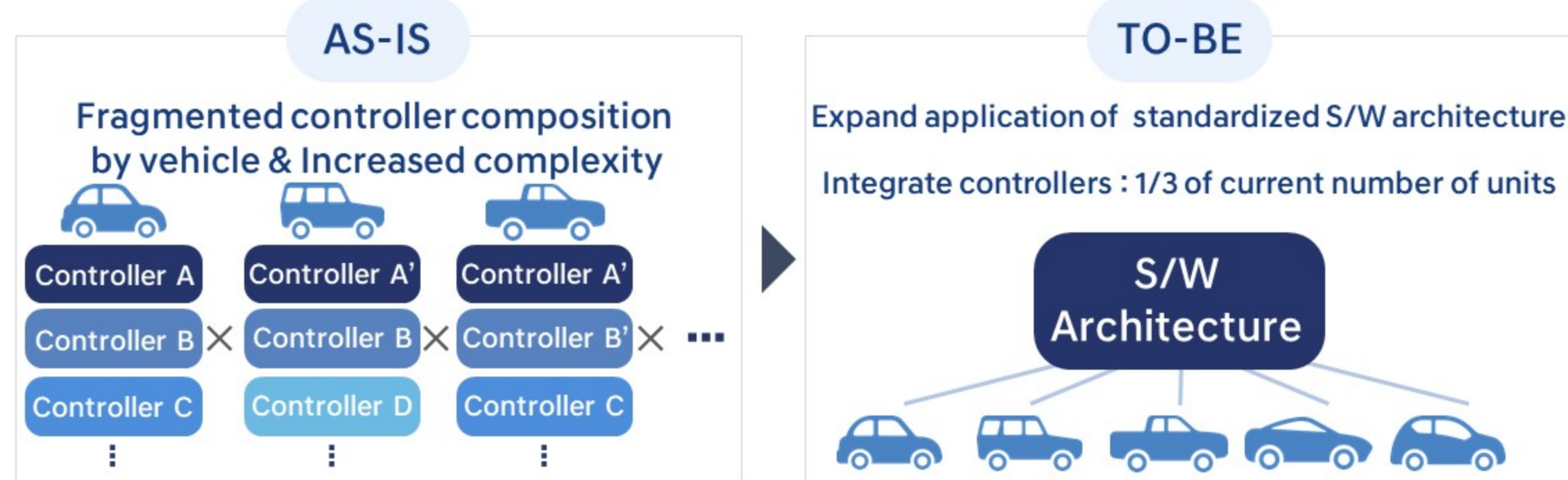


Introduce standardized electronic architecture and apply FOTA update to all models to expand new functions based on vehicle to customer connectivity

Connected Car



Standardization of S/W Architecture



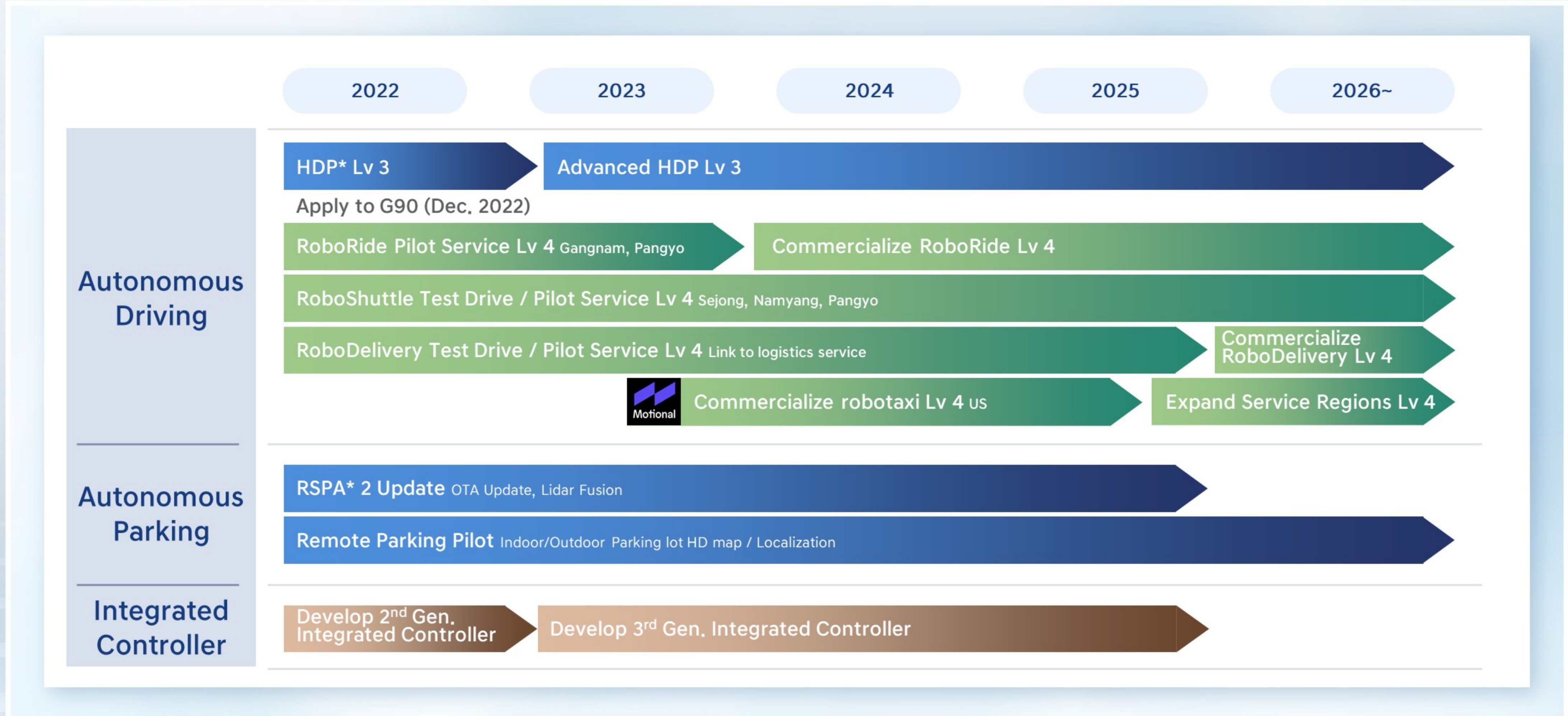
Application of FOTA update to all models



EV Product Competitiveness_S/W



Expand autonomous driving business with internalized technologies & development of integrated controller



* HDP : Highway Driving Pilot
RSPA : Remote Smart Parking Assist

Achieve S/W Transformation target by securing manpower and expanding mid- to long-term investment

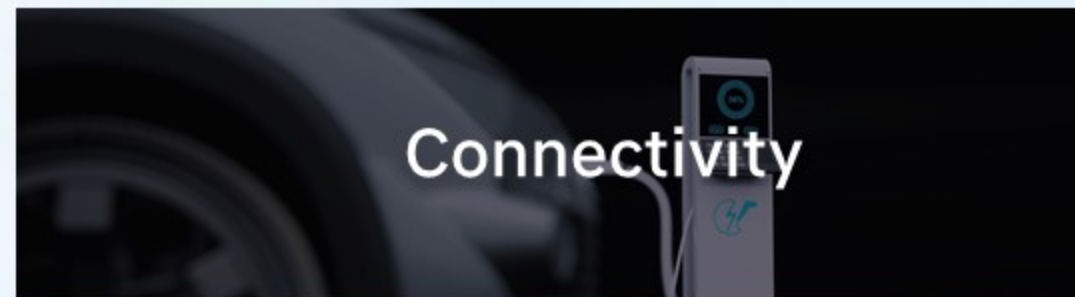
S/W Transformation Target

Achieve 30% Revenue with S/W business by 2030



Mobility

Transport(RoboRide, RoboShuttle),
Logistics (RoboDelivery/FMS),
Car subscription service



Connectivity

Infotainment : Customized content, Subscription
(New technologies/functions)
Convenience : EV charge, Vehicle remote
management, In-car payment



Data Business

Finance(Insurance, Lease), Maintenance,
Advertising, Shopping

Secure S/W experts

Establish company-wide S/W centered
development system

Secure capabilities of organizations

- Establish S/W specialized organizations globally
- Increase S/W experts by 20% annually
- Accelerate standardizing and applying S/W architecture with S/W specialized organizations

Develop S/W to optimize Device & Service

Expand mid-to long-term investment

Invest KRW 12tr by 2030

Technology Development : KRW 4.3 tr

- Connectivity, AI, Robotics,
Mobility and Autonomous Driving

Strategic Investment : KRW 4.8 tr

- Investment for start-ups and research institutes

Company-wide ICT Investment : KRW 2.9 tr

- Big Data Center : Establishment of Server and Cloud,
Operation fees
- Service Development : Platform, Applications



07

FINANCIAL TARGET



Wholesale

4.32 million Units

OPM(Consolidated)

Revenue Growth

13~14%

OPM

5.5~6.5%

2022

Investment · FCF

Investment Plan

KRW9.2 tr

Auto FCF

-0.5~+1.0tr

Shareholder Return

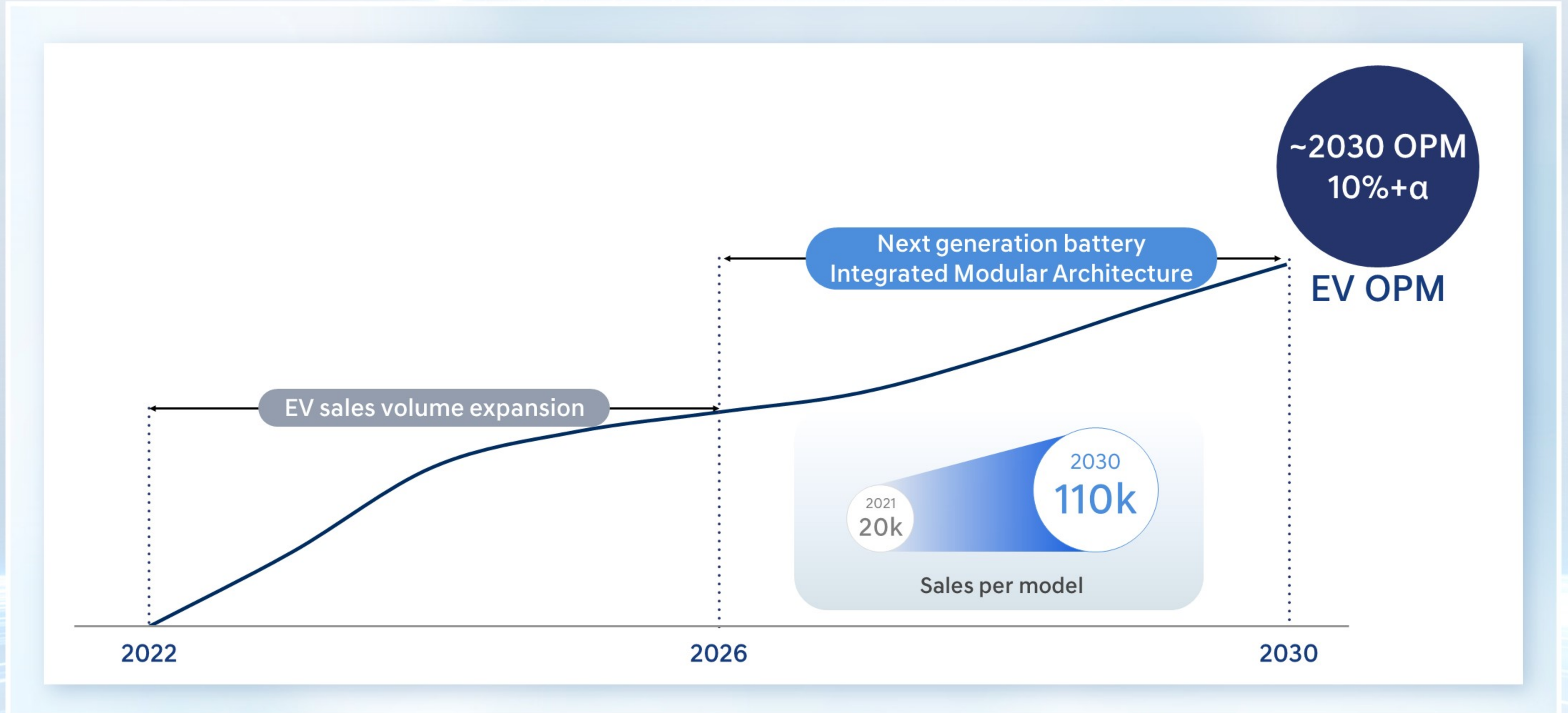
Dividend per Share

**Similar level or higher
Compared to 2021**

* Manage flexible shareholder return policy
considering investment resources and earnings improvement trend etc.

EV Profitability Target

Target to achieve 10%+α EV OP margin in 2030



Mid-to Long-term financial target



*OP Margin : Consolidated basis

Investment plan by 2030

(Unit : KRW Trillion)

95.5

R&D

39.1

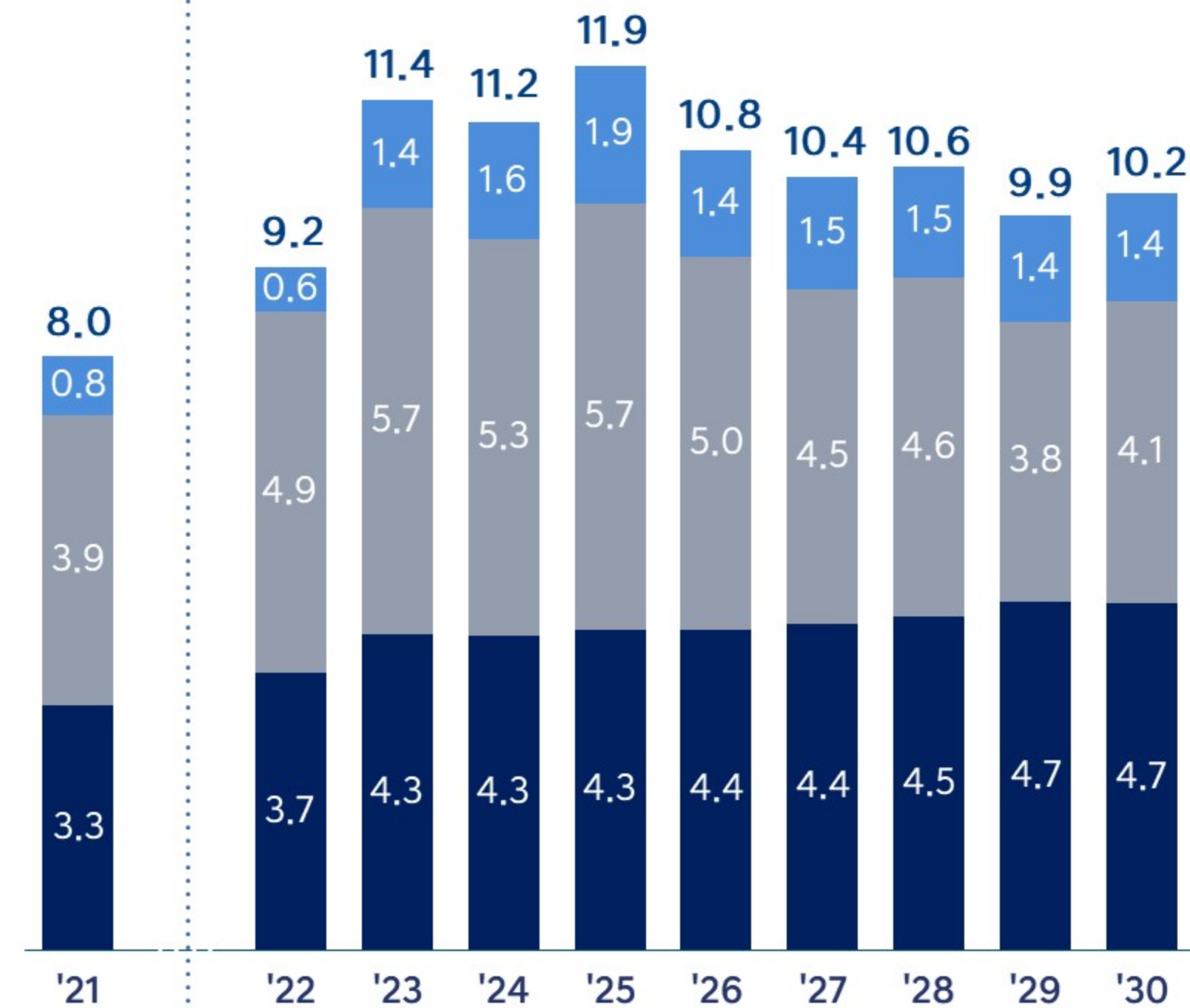
CAPEX

43.6

STRATEGIC INVESTMENT

12.8

■ R&D ■ CAPEX ■ Strategic Investment



Investment for Electrification by 2030

19.4

- Product development
- Development of advanced technology for electrified parts
- Construction of new plants and production line
- Establishment of EV charging station
- Strategic alliance, stake acquisition, etc