



4Q 2023 Earnings Release

February 14, 2024

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4Q 2023: Key YoY Financial Metrics

Unit: KRW in billions

	4Q 2023	4Q 2022	YoY Variance	
Revenue	2,463	2,345	118	5.0%
COGS	2,241	2,081	160	7.7%
% of Sales	91.0%	88.8%	2.2%pt	
SG&A (Incl. R&D)	168	160	8	5.2%
% of Sales	6.8%	6.8 %	0.0%pt	
EBITDA	212	249	(37)	(14.9%)
Margin (%)	8.6%	10.6%	(2.0%pt)	
Operating Income	53	104	(51)	(48.9%)
Margin (%)	2.2%	4.4%	(2.2%pt)	
Net Income	(55)	(29)	(26)	-
Margin (%)	(2.2%)	(1.2%)	(1.0%pt)	

Revenue and OI in-line with Guidance; Net Income Decreased on Interest and Currency

FY 2023: Key YoY Financial Metrics

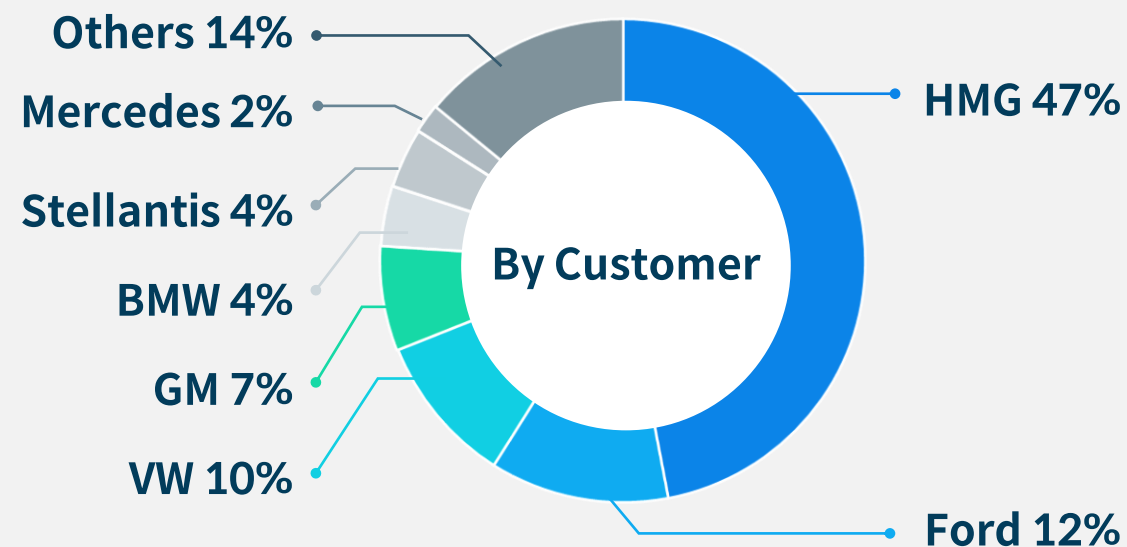
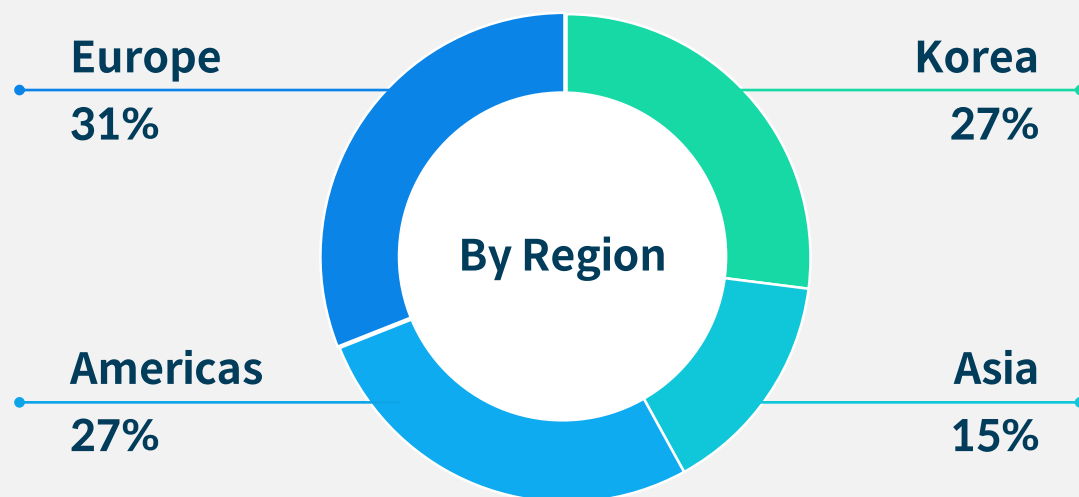
Unit: KRW in billions

	FY 2023	FY 2022	YoY Variance	
Revenue	9,559	8,628	931	10.8%
COGS	8,651	7,781	870	11.2%
% of Sales	90.5%	90.2%	0.3%pt	
SG&A (Incl. R&D)	631	590	41	6.8%
% of Sales	6.6%	6.8%	(0.2%pt)	
EBITDA	876	814	62	7.5%
Margin (%)	9.2%	9.4%	(0.2%pt)	
Operating Income	277	257	20	8.1%
Margin (%)	2.9%	3.0%	(0.1%pt)	
Net Income	59	27	32	120.2%
Margin (%)	0.6%	0.3%	0.3%pt	

Annual Revenue Increased on Volume and Mix; Adjusted-OPM at 3.5% in 2023

FY 2023 Highlights

Sales Breakdown (FY 2023)



2023 Highlights

- Revenue increased 11% YoY on volume and mix while OPM remained at 2.9% due to inflation, weak BEV volumes, one-offs in 2H
- xEV revenue increased 17% YoY and accounted for 26% of total revenue; eCompressor volume reached 3 million units in 2023
- Company executing enhancement initiatives for 2024 focusing on operational efficiency and financial performance

Progress on Profitability Improvement Action Plans

Commitments¹



**Operational
Efficiency
Improvement**

~100 B KRW



**Supply Chain
Optimization**

~80 B KRW



**Additional
Recovery
and Repricing**

~75 B KRW

Key Progress

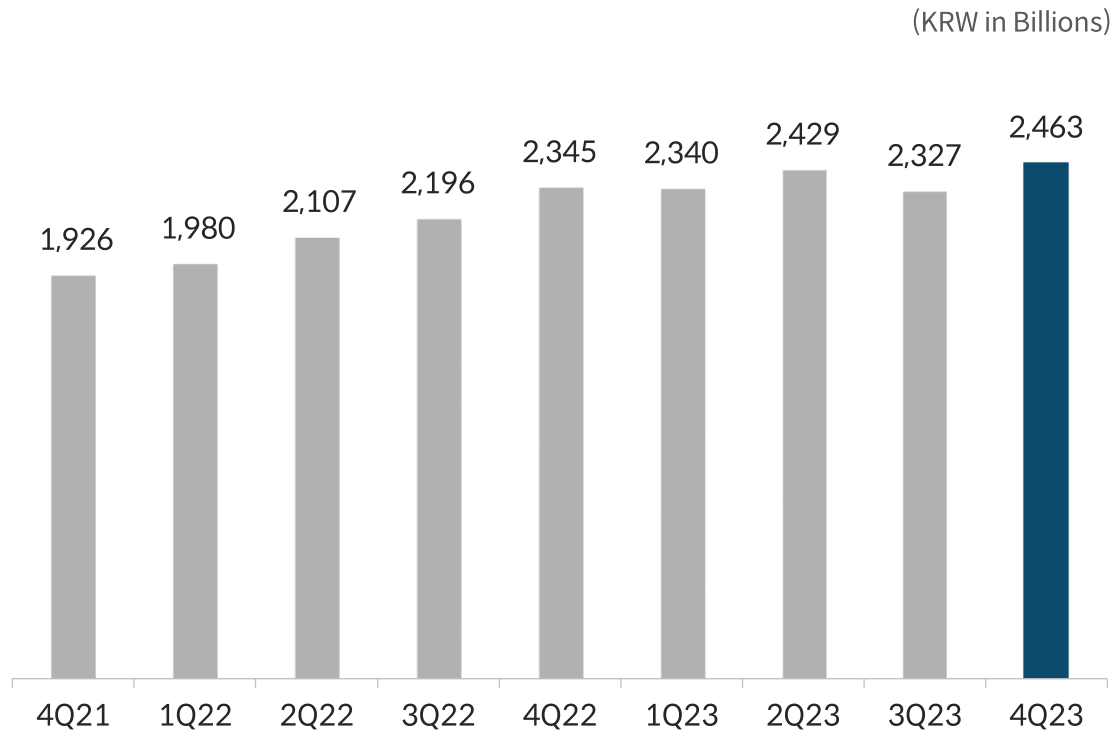
- Developed 2024 business plans with actions to achieve 100B improvement
 - Optimized ~500 direct and indirect heads out of year-end target of 1,000
-
- Secured freight contracts to achieve 2.6% freight costs to sales ratio in 2024
 - The Red Sea issue may pose some risks yet the expected impact is limited by the current freight contracts and negotiation with customers on force majeure
-
- Achieved ~80% cost recovery in 2023
 - Continuously engaging customers on the cost recovery and repricing

Efforts Continue to Achieve 2024 Business Target

1. Annualized impact of EBIT improvement

Quarterly Sales

Consolidated Sales



Comments



- 4Q23: Increase in Americas (7%), Korea (6%), Europe (6%) and China (4%)
- 2023: Increase in Europe (16%), Americas (14%) and Korea (10%); Decrease in China (7%)

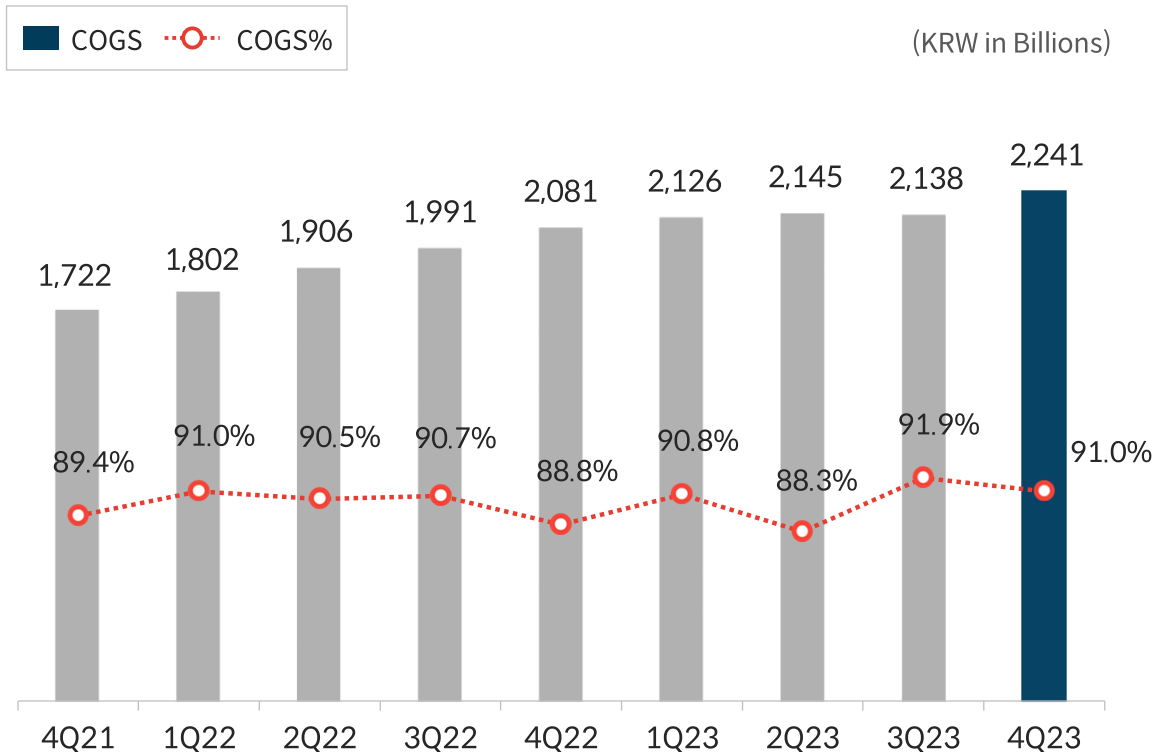


- 4Q23: Increase in BMW (+46%), VW (+9%), HMG (+8%) and Ford (+5%)
- 2023: Increase in BMW (+33%), VW (+29%), HMG (+12%), GM (+12%) and Ford (+11%)

Increase in 4Q23 Revenue by 5% YoY; 2024 Revenue Expected to Grow 6% YoY

Quarterly COGS

Quarterly Cost of Goods Sold



Comments

Positive Factors

- Expect COGS% to improve in 2024 based on new programs

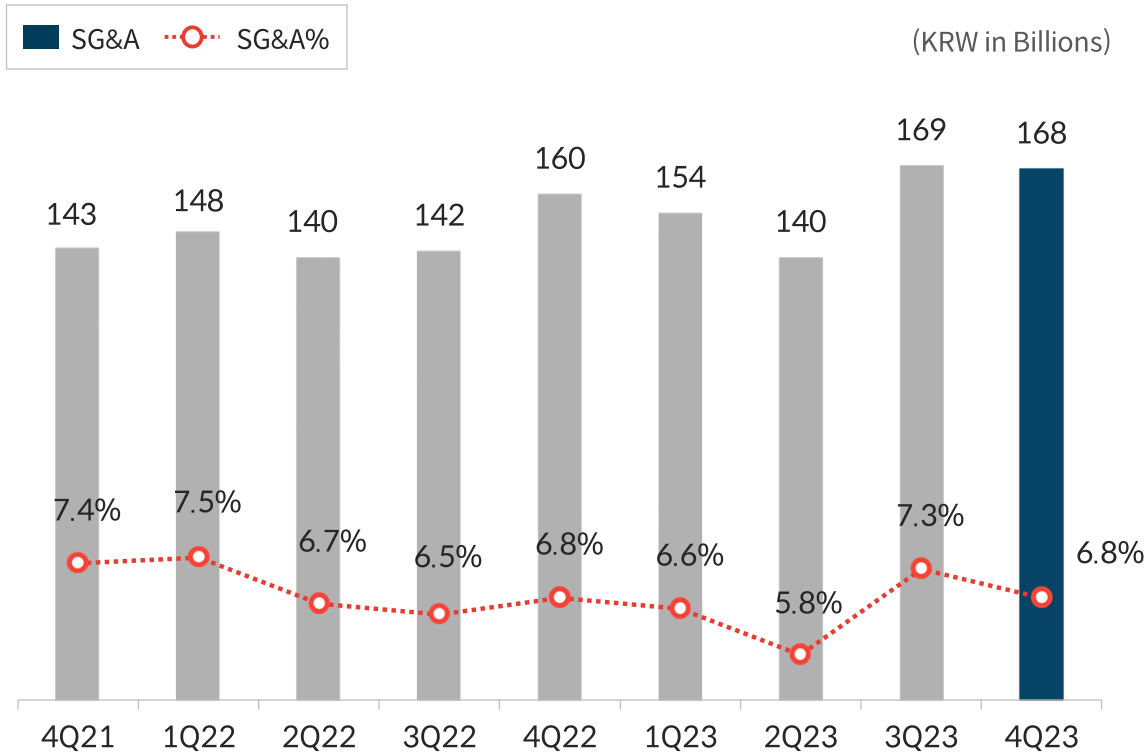
Negative Factors

- Lower-than-expected volume due to slowdown in Europe / China / Korea, and UAW strike in the U.S.
- Reimbursement to upstream suppliers

High 2023 COGS Ratio Due to Inflation and One-off Items

Quarterly SG&A

Quarterly SG&A



Comments



- 2023 SG&A expense: 6.6% of total revenue (YoY improvement of 0.2%pt)

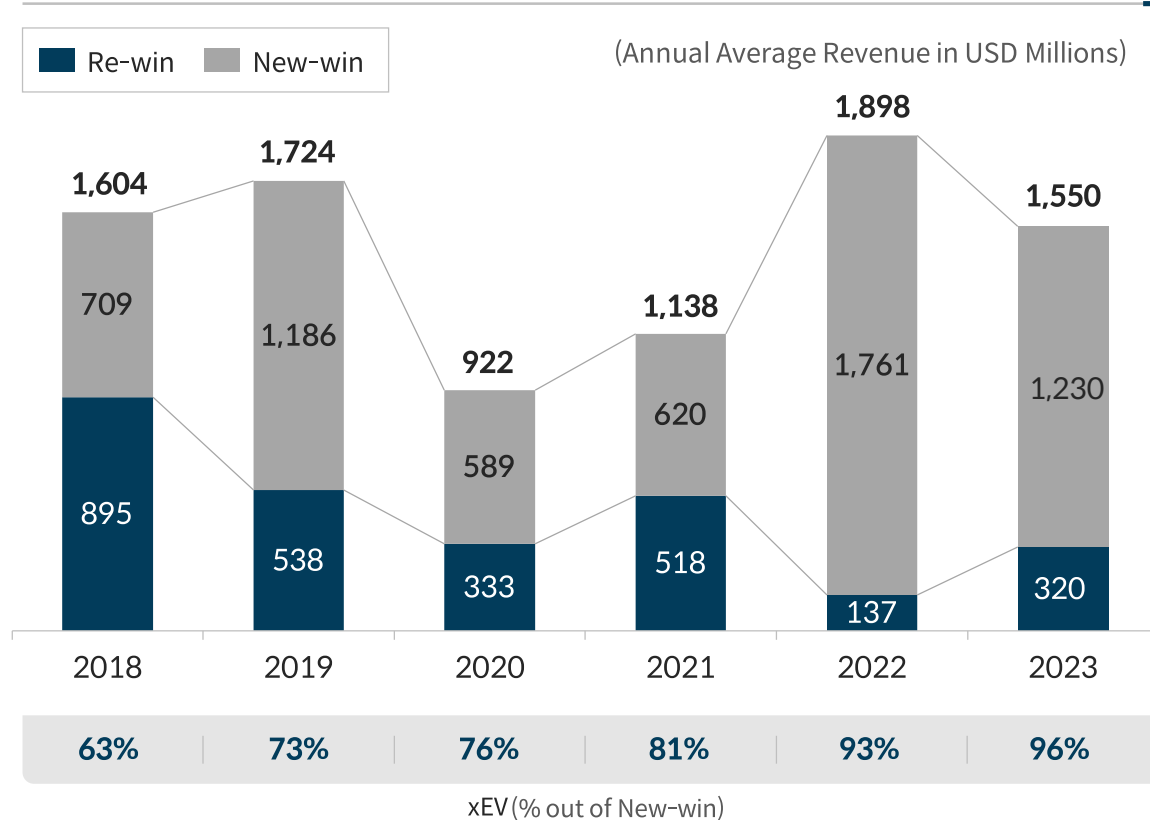


- 2023 R&D spending (incl. R&D capitalization) : 4.6% of total revenue (YoY increase of 0.1%pt)

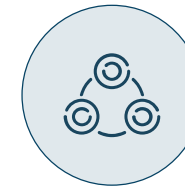
Cost Actions Drove Year-over-Year SG&A% Improvements

New Business Wins Update

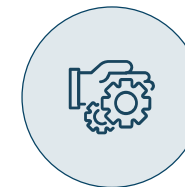
FY 2023 New Business Wins



- Achieved 2023 NBW target of USD 1.5B



- Awarded significant new wins in 4Q 2023 on BEV platforms from major customer

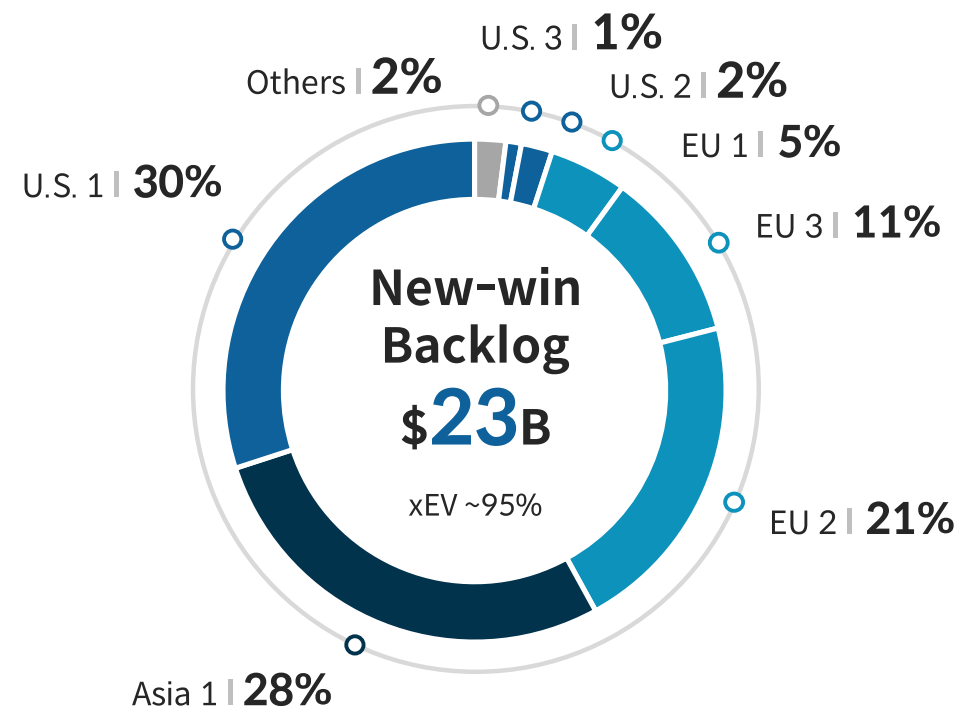
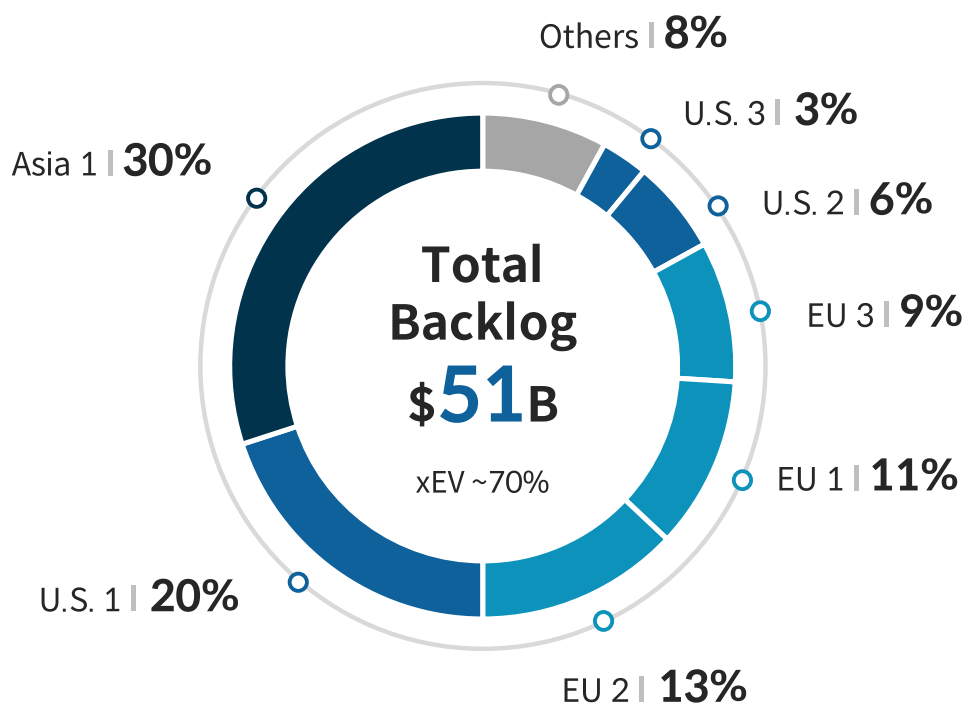


- Demonstrated strong technology leadership securing module and system orders from global automakers

Achieved 2023 NBW Target Based on Strong Relationship with Anchor Customers

Solid Backlog

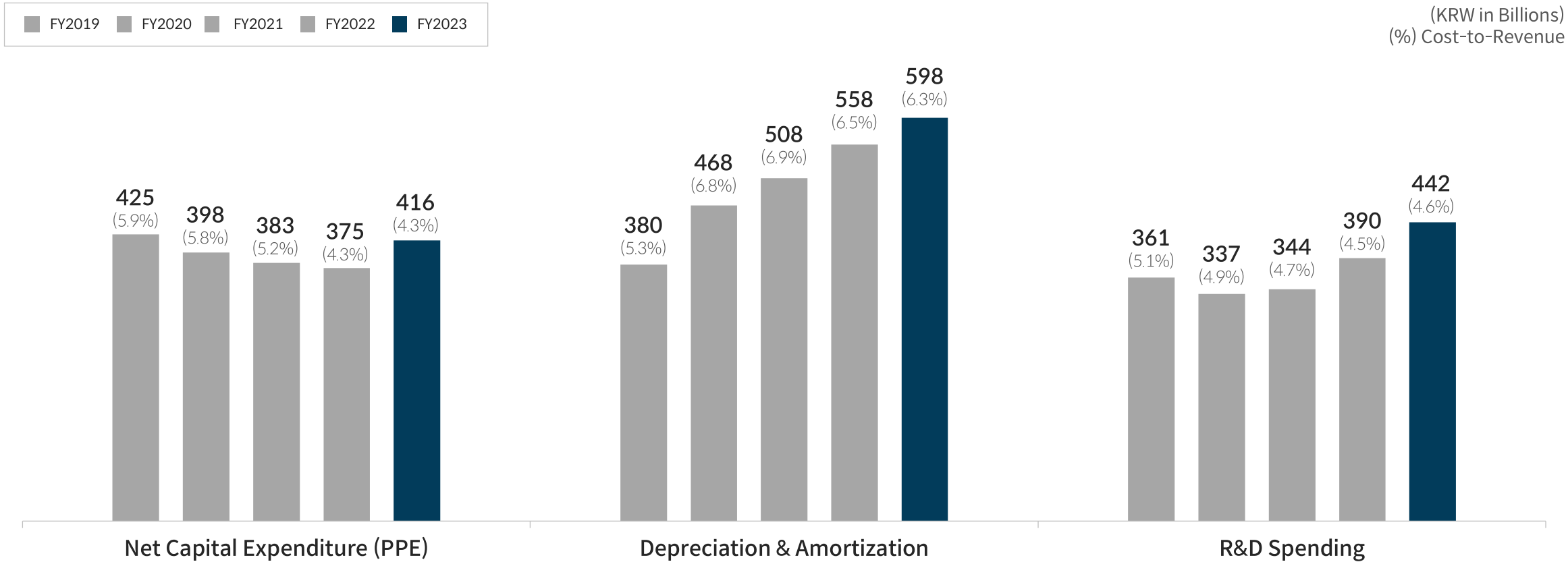
FY 2023 Backlog



Solid Backlog Supports Long-term Growth with Greater Focus on Electrification

Note : Total Backlog includes the followings 1) In-production backlog: Remaining life-cycle revenue from vehicles in production
2) Re-win backlog: Program life-cycle revenue of re-win vehicles to be launched 3) New-win backlog: Program life-cycle revenue of new-win vehicles to be launched

Trend of CAPEX, D&A and R&D Spending

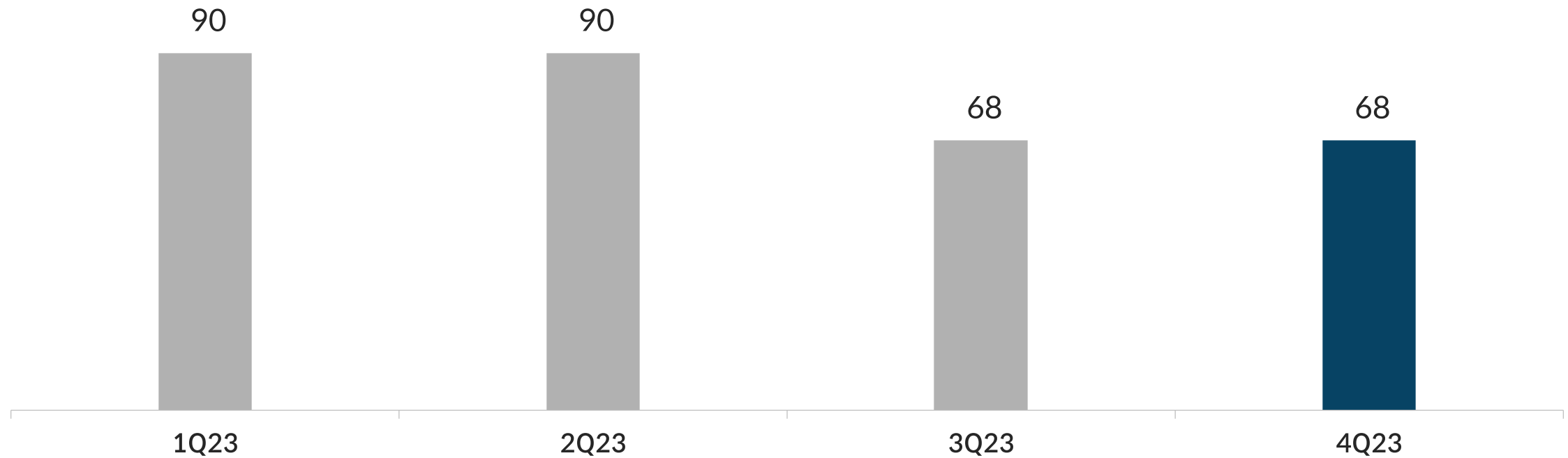


Efforts Ongoing to Optimize R&D and CAPEX for Flawless Launch of BEV Platforms

Note: E&FP consolidated since 2Q 2019

Dividend

4Q 2023 Quarterly Dividend (68 KRW per share)



Shift to Annual Dividend in 2024; Amount to be Determined Based on Free Cash Flow

YE 2023 Balance Sheet

Balance Sheet

(K-IFRS / KRW in Billions, x times)

	Dec 2023	Dec 2022	Dec 2021
Cash and cash equivalent	779	1,436	1,404
Account receivable	1,344	1,285	1,025
Inventories	1,140	972	810
Property and equipment	2,716	2,371	2,336
Intangible assets	2,126	1,923	1,790
Lease assets	295	249	227
Other assets	844	863	642
Total assets	9,244	9,099	8,234
Account payable	1,867	1,824	1,475
Debt	4,146	4,280	3,723
Other liabilities	722	625	560
Shareholder's equity	2,372	2,236	2,343
Non-controlling	137	134	133
Total liabilities & shareholders' equity	9,244	9,099	8,234

Cash and Debt

Cash Balance	Dec 2023	Dec 2022	Dec 2021
Net Debt	3,368	2,844	2,319
Net Debt Ratio	1.34	1.20	0.94
Debt to Equity	1.65	1.81	1.50

Leverage	2023	2022	2021
EBITDA	876	814	834
Debt / EBITDA	4.74	5.26	4.46
Net Debt / EBITDA	3.85	3.49	2.78
EBITDA / Net Interest Expenses	5.59	8.78	10.54

Management Weighs Options to Improve Balance Sheet in 2024

Financial Outlook

(KRW in billions)

	2024	2025
Revenue	~10,000	~11,000
EBITDA	~1,050	~1,260
Operating Income	~400	~600

Management Maintains Annual EBITDA Target for 2024 and 2025

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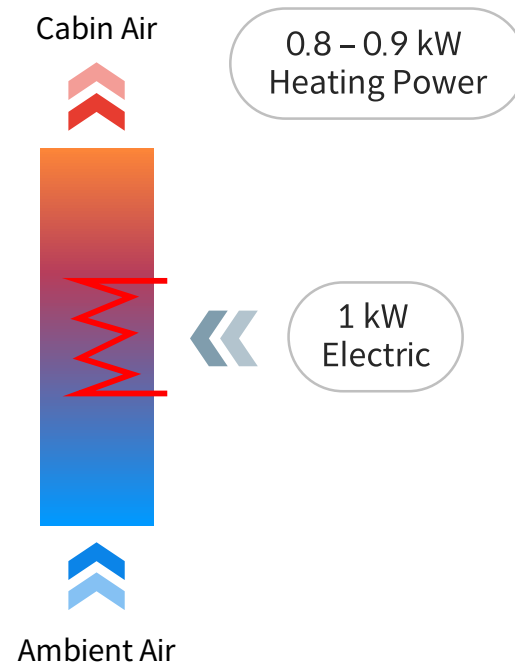
II ▪ Thermal Management Systems for Electric Vehicles

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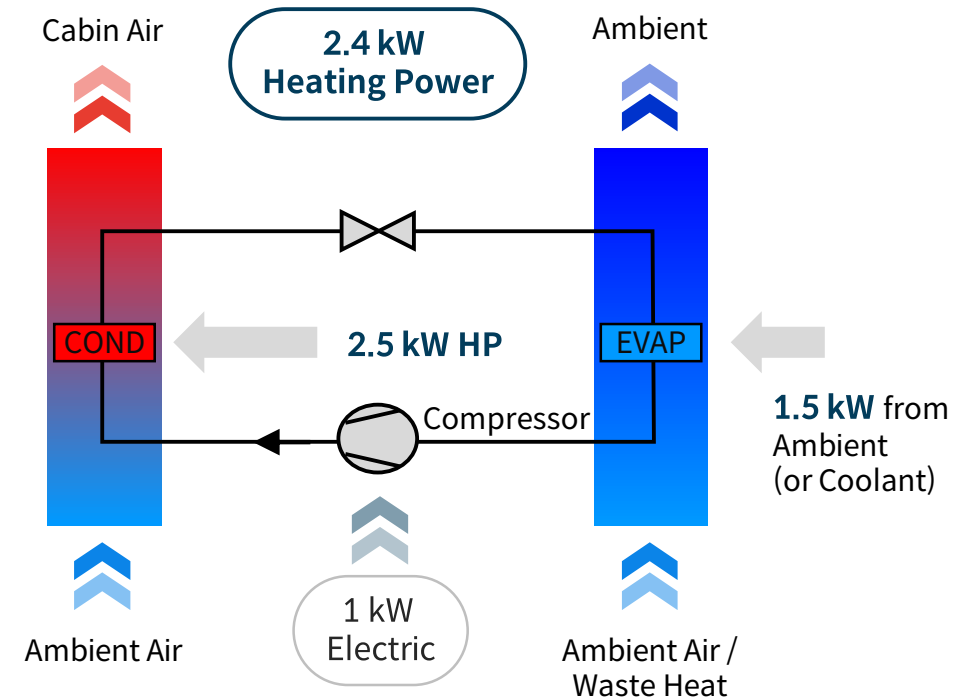
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Heat Pump Energy Efficiency

Electrical Heater (PTC)



Heat Pump System

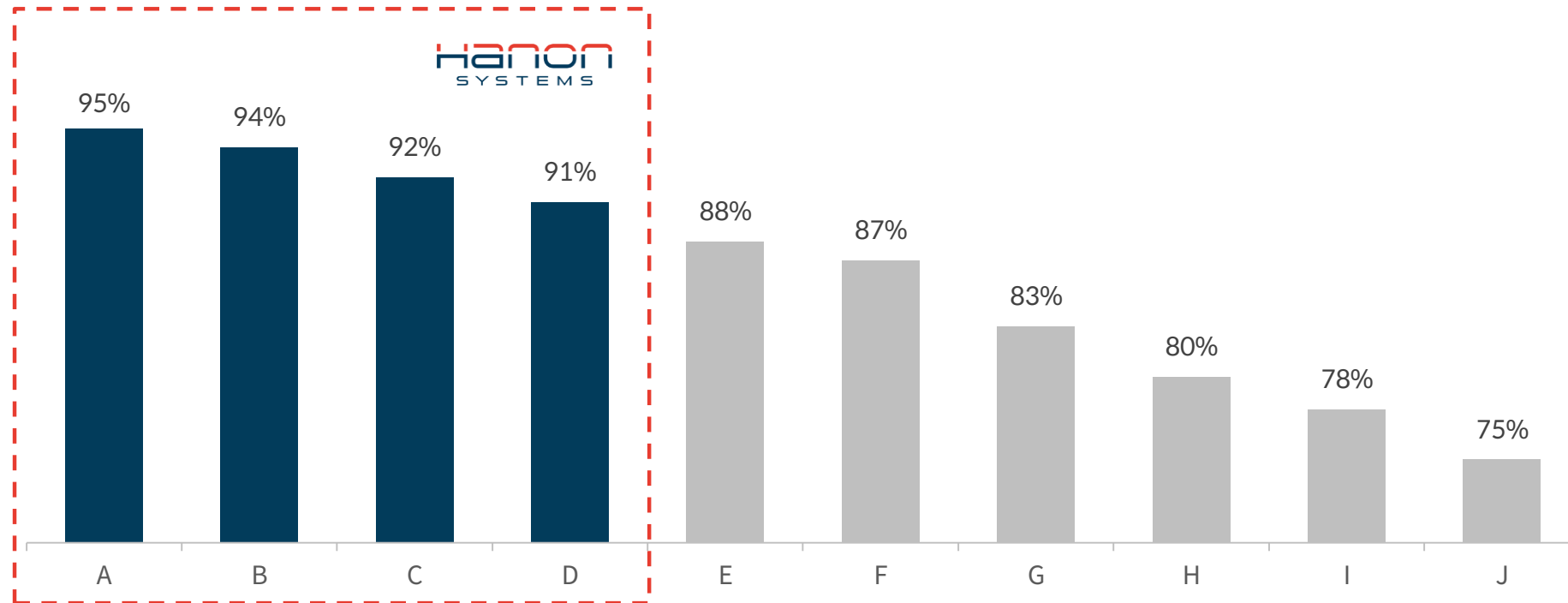


Heat Pump System ~3 Times More Efficient than Electric Heating

Market Leading Performance of Heat Pump System

Driving Range with Heater On as % of Driving Range in Room Temperature

[%: Driving range at -7°C / driving range at 25°C]

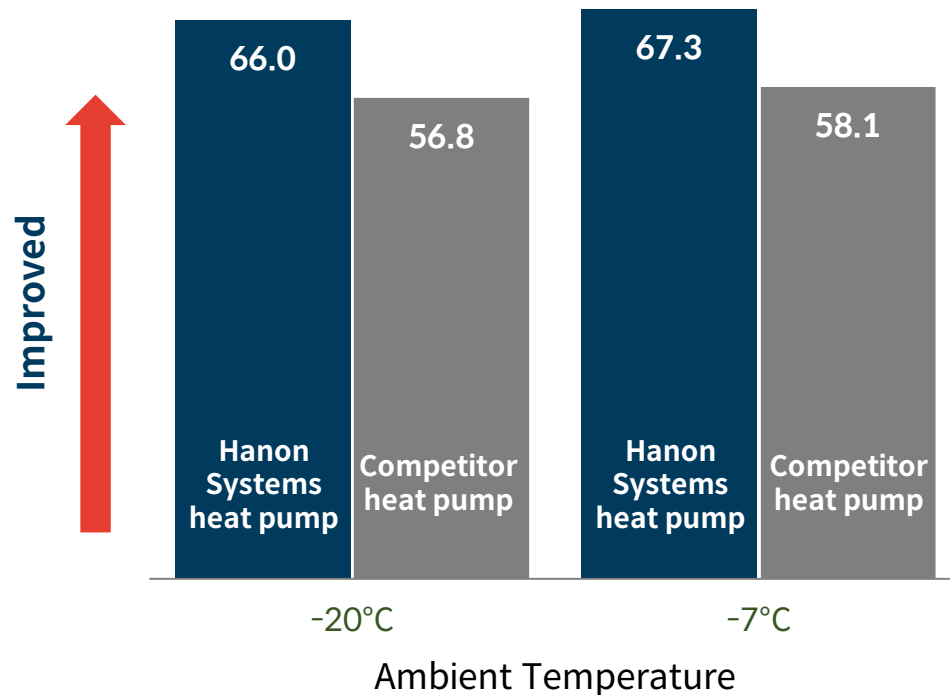


Hanon Systems Heat Pump Technology Provides Improved Driving Range

Warm-up Performance Comparison

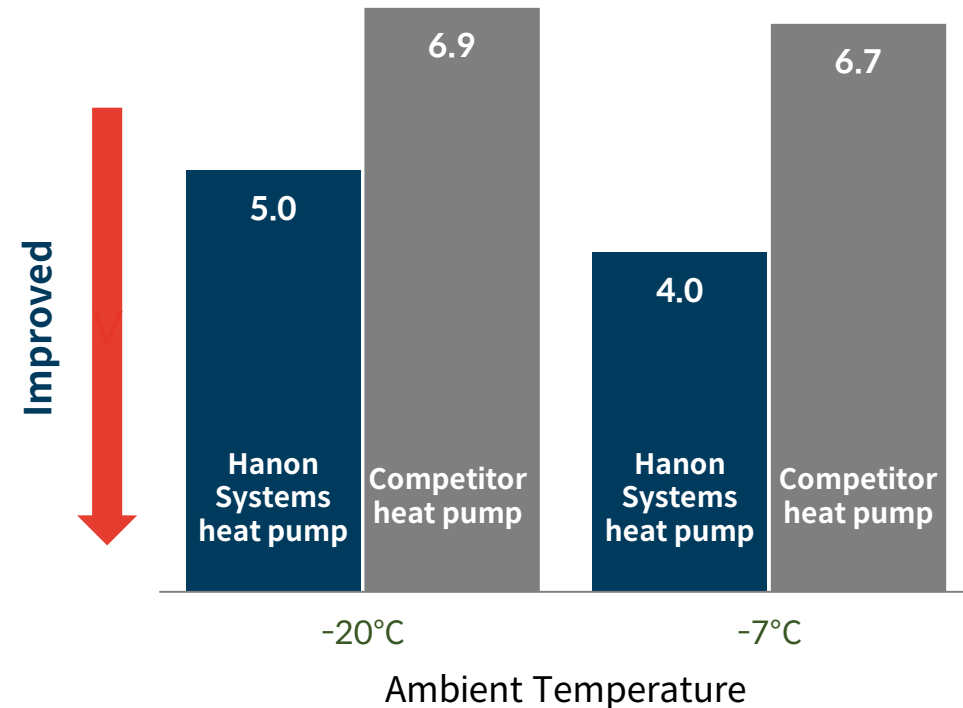
Hanon Systems Heat Pump vs Competition

Air Outlet Temperature (°C)
after 20 minutes



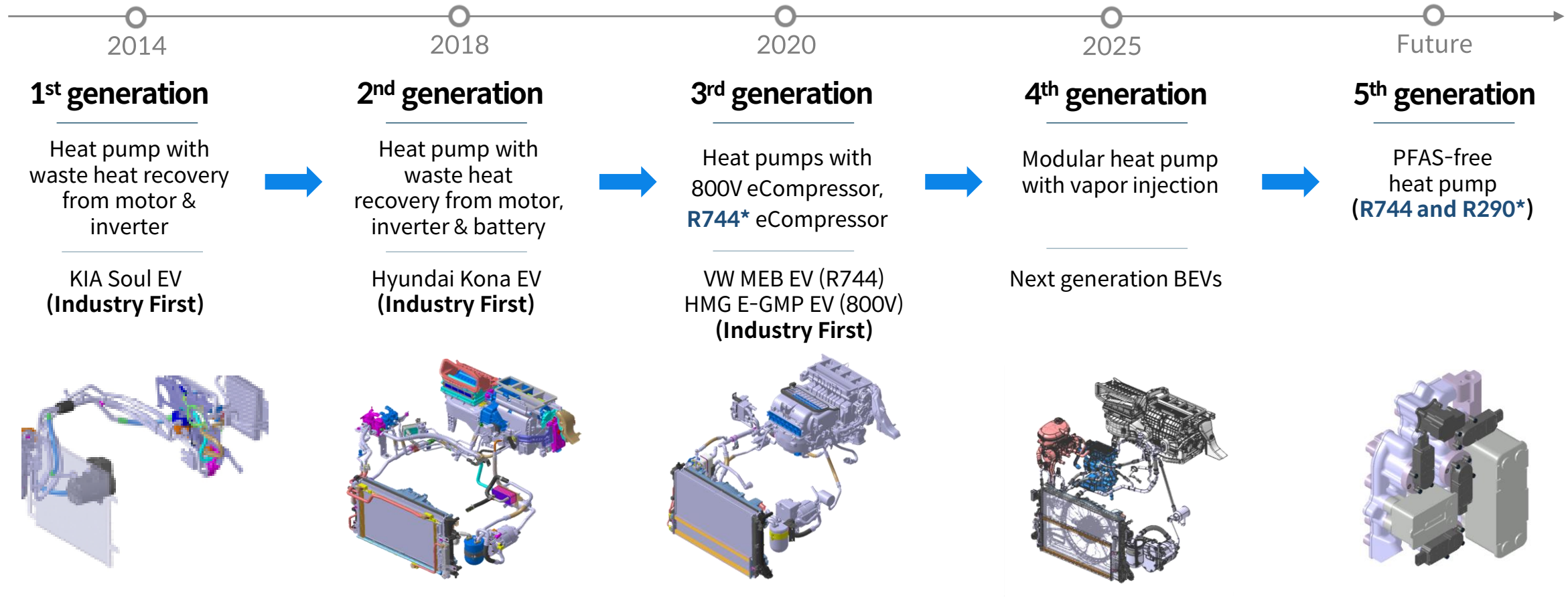
Higher heater discharge air temperature has a direct correlation to passenger time to comfort

Total Power Consumption (kW)
after 20 minutes



Lower heating power consumption has a direct correlation to EV winter driving range

Heat Pump Technology Roadmap



Hanon Systems is the Global Leader in Electric Vehicle Thermal Management

* PFAS Response

Legislation is Driving Future Requirements

EU PFAS Regulation

* PFAS: Per- and Polyfluoroalkyl Substances

Purpose

Phase out the use of PFAS which is including HFC and HFO refrigerants (R1234yf) in EU

Current Status

- ECHA¹ published draft for PFAS ban Feb, 2023
- MAC² w/ eComp: ban with transition period 1.5 years after EiF (Entry into Force)
 - MAC w/ mComp: ban with derogation 6.5 years

Target

Final decision expected in 2025

SAE TMR CRP

* Society of Automotive Engineers Thermal Management Refrigerant Cooperative Research Program

- Develop refrigerants for more efficient H/P system with OEMs, suppliers and others
- Heat pump operation at low ambient (-40°C)
 - Keep typical A/C efficiency at high ambient (45°C)

Ongoing investigation for alternative refrigerants by six sub-CRP groups:


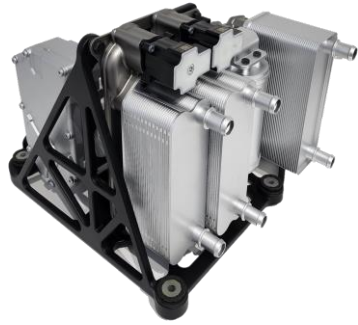
AMOLEA10X, HFOG7, D1V, 1234yf+, R744+, R290

Hanon Systems active participation in R290 and D1V groups

Planned implementation ready by 2026

Developing Innovative Solutions in Support of Future Legislation

Hanon Systems PFAS-Free Thermal Solutions

Refrigerant	R744 (CO ₂)	R290
Hanon Systems Technology	 <p>eCompressor Accumulator With IHX¹ Electronic Expansion Valve Leak-Free Refrigerant Fittings (Metal Seal)</p>	 <p>e.g. Secondary loop all-in-one refrigerant module</p>
Key benefits	<ul style="list-style-type: none"> • R744 is a climate-neutral refrigerant with GWP: 1 • Proposed EU PFAS regulation compliant • Offers efficient and full operation to -30°C • Enhances EV driving range especially in winter 	<ul style="list-style-type: none"> • R290 is an eco-friendly (PFAS-free) refrigerant • Offers high efficiency and extended driving range • Module integrates all refrigerant components with package and in-line manufacturing improvements
Hanon Systems Status	<ul style="list-style-type: none"> • All key R744 components in mass production • The first to introduce a portfolio of R744 thermal solutions for BEVs 	<ul style="list-style-type: none"> • Components and modules under development

¹ IHX: Internal Heat Exchanger

Conclusion

- Heat pumps are becoming mainstream electric vehicle technology by helping to maintain driving range and the charging time in winter conditions where passenger and battery heating is required
- With its extensive patent portfolio, Hanon Systems offers proven experience delivering heat pump technologies with outstanding performance
- Hanon Systems is the global leader in eco-friendly thermal solutions using natural refrigerants to meet thermal management market needs and EU PFAS environmental regulations

Thank You

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