Hanon Systems

2022 Global Investor Day

February 10, 2022

Today’s Speakers

Min Sung

Chief Executive Officer and
Representative Executive Officer

Nurdal Kücükkaya

President and
Representative Executive Officer

Subu Nagasubramony

Executive Vice President and
Chief Financial Officer

Steven Clarke

Vice President and
Chief Technology Officer

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Subbu Nagasubramony

Executive Vice President and
Chief Financial Officer

1. **Financials: 4Q Results & Future Outlook**
2. Path Forward
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FY 2021: Key Financial Metrics

(KRW in Billions)

	FY 2021	FY 2020	YoY Variance	
Revenue	**7,351**	**6,873**	478	7.0%
COGS	**6,502**	**6,008**	494	8.2%
% of Sales	88.5%	87.4%		
SG&A (Incl. R&D)	**523**	**549**	-26	-4.6%
% of Sales	7.1%	8.0%		
EBITDA	**834**	**784**	50	6.4%
Margin (%)	11.3%	11.4%		
Operating Profit	**326**	**316**	10	3.2%
Margin (%)	4.4%	4.6%		
Net Income	**311**	**113**	198	173.9%
Margin (%)	4.2%	1.7%		

YoY Improvement in Revenue, EBITDA and Net Income Despite Continued Market Slowdown

4Q 2021: Key Financial Metrics

(KRW in Billions)

	4Q21	4Q20	YoY %	3Q21	QoQ %
Revenue	**1,926**	**2,101**	▼ -8.3%	**1,704**	▲ 13.0%
COGS	**1,722**	**1,761**	-2.2%	**1,506**	14.4%
% of Sales	89.4%	83.8%		88.4%	
SG&A (Incl. R&D)	**143**	**146**	-1.7%	**128**	11.9%
% of Sales	7.4%	6.9%		7.5%	
EBITDA	**194**	**318**	▼ -39.1%	**194**	▼ -0.1%
Margin (%)	10.0%	15.1%		11.4%	
Operating Profit	**61**	**194**	▼ -68.7%	**71**	▼ -13.9%
Margin (%)	3.2%	9.2%		4.1%	
Net Income	**98**	**90**	▲ 9.7%	**53**	▲ 87.0%
Margin (%)	5.1%	4.3%		3.1%	

Revenue Recovery from 3Q21; Inflation and Supply Chain Issues Negatively Impacted OP Margin

Note: 4Q20 EBITDA and Operating Profit has reflected reclassification of FTC penalty (11.6bW)

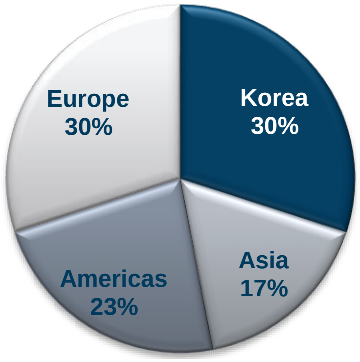
FY 2021 Highlights

2021 Highlights

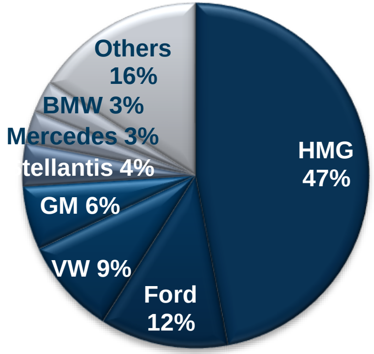
- Annual revenue increased 7% YoY on xEV revenue growth; surpassed industry vehicle volume growth of 2%
- Internal and external initiatives mitigated cost impact of industry headwinds
- 22% of 2021 revenue from electrified vehicles; company shipped 2 million electric compressors

Sales Breakdown (FY2021)

By Region



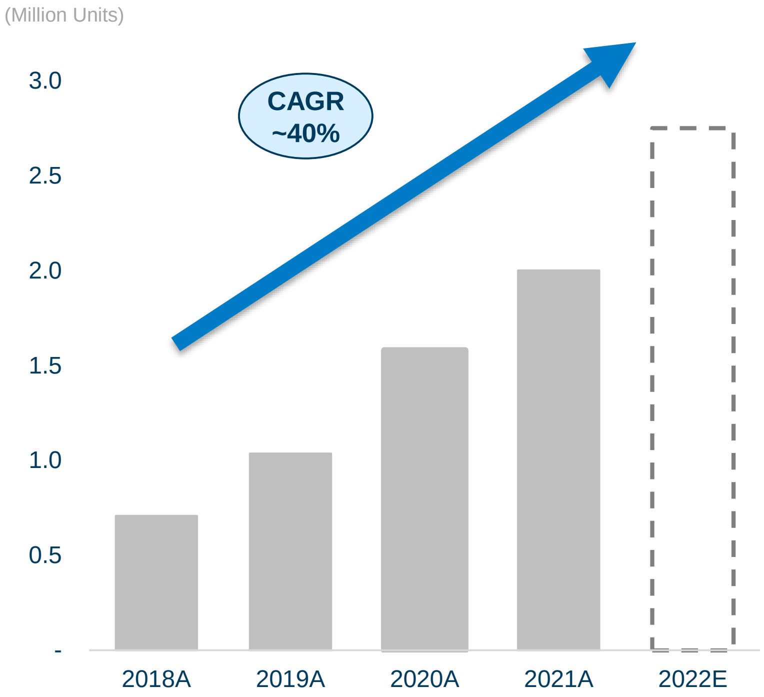
By Customer



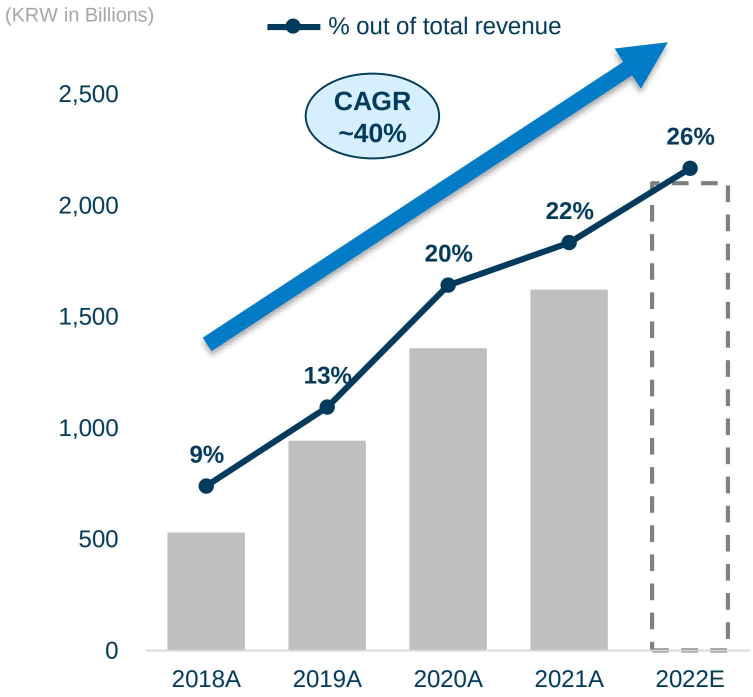
Note: Regional revenue classified based on locations of manufacturing entities

eCompressor Shipments and xEV Revenue

Electric Compressor Shipments



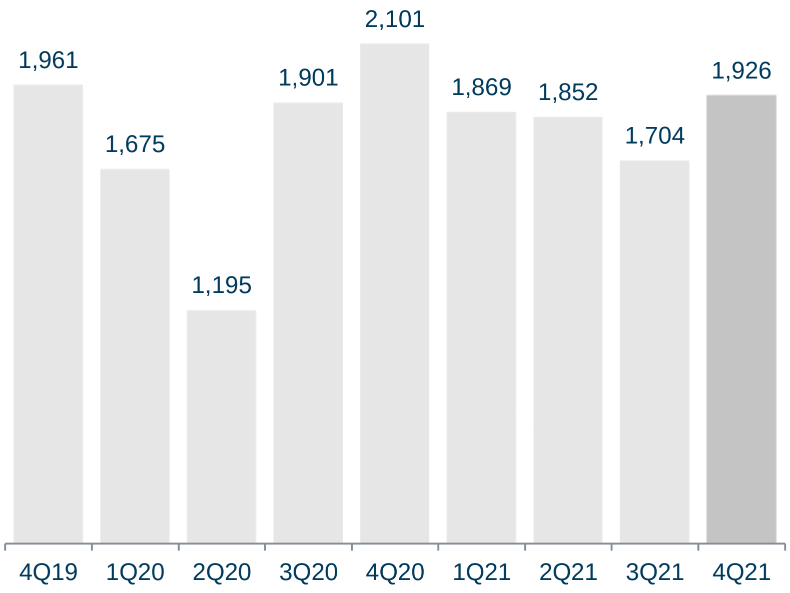
Total xEV Revenue



Quarterly Sales

Consolidated Sales

(KRW in Billions)



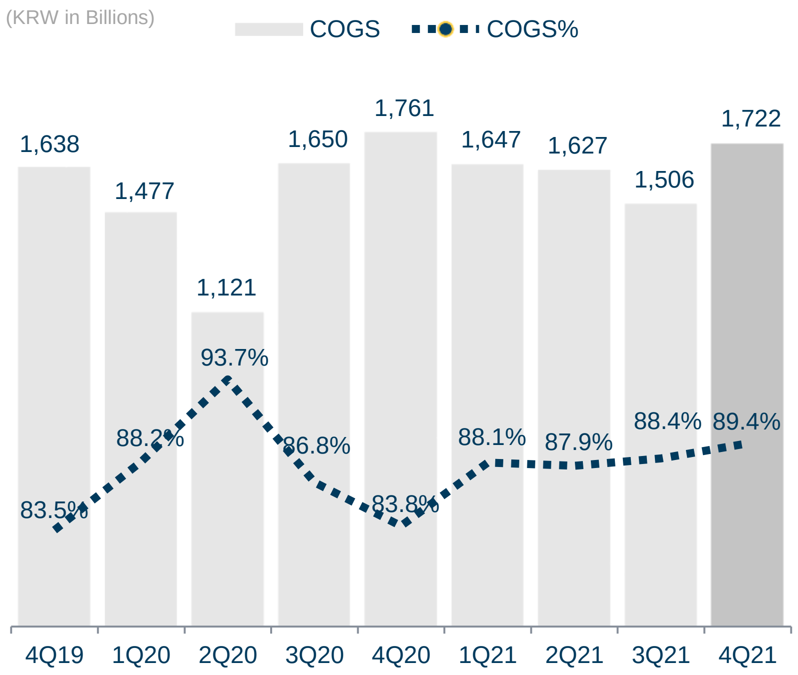
Comments

- **4Q21 Quarterly Comments**
  - Europe, Americas, China and Korea 4Q21 YoY revenue down by 17%, 10%, 9% and 1% respectively
  - Decrease in GM (-31%), Mercedes (-25%), Ford (-13%), Stellantis (-13%) and VW (-9%) YoY revenue due to chip shortage
  - BMW (+8%) revenue increased, while HMG revenue remained flat (-1% YoY)
- **2021 Full Year Comments**
  - Korea, Europe, Americas and China 2021 YoY revenue up by 8%, 8%, 5% and 3% respectively
  - Increase in VW (+27%), Stellantis (+20%), BMW (+19%) and HMG (+13%) in 2021 due to higher ASP of EVs
  - Revenue decrease in Ford (-2% YoY), Mercedes (-7%), GM (-4%) in 2021 due to volume decline and chip shortage

Gradual Production Volume Recovery Drives 4Q Revenue Increase of 13% QoQ

Quarterly COGS

Consolidated Sales



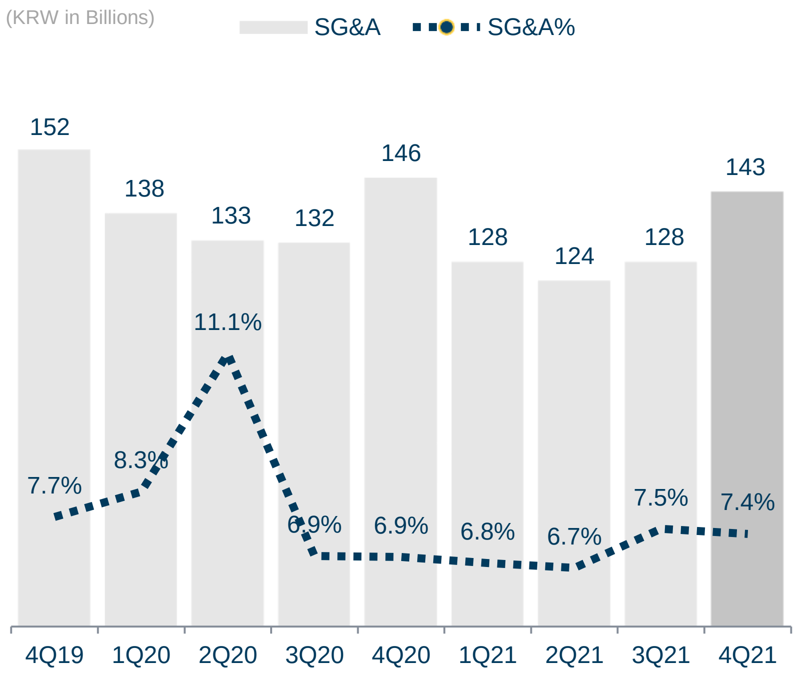
Comments

- **Positive factors**
  - Company mitigates supply chain headwinds through cost improvement actions
  - Electrified component profit margins continue to improve driven by higher eco-friendly vehicle volumes
- **Negative factors**
  - Chip shortage continues to impact volumes into 2022; OEMs continue to flex production schedules
  - Raw material and freight costs remain high, while some are peaking out

Temporary Margin Deterioration due to Prolonged Cost Burden Despite Ongoing Cost Management

Quarterly SG&A

Consolidated Sales

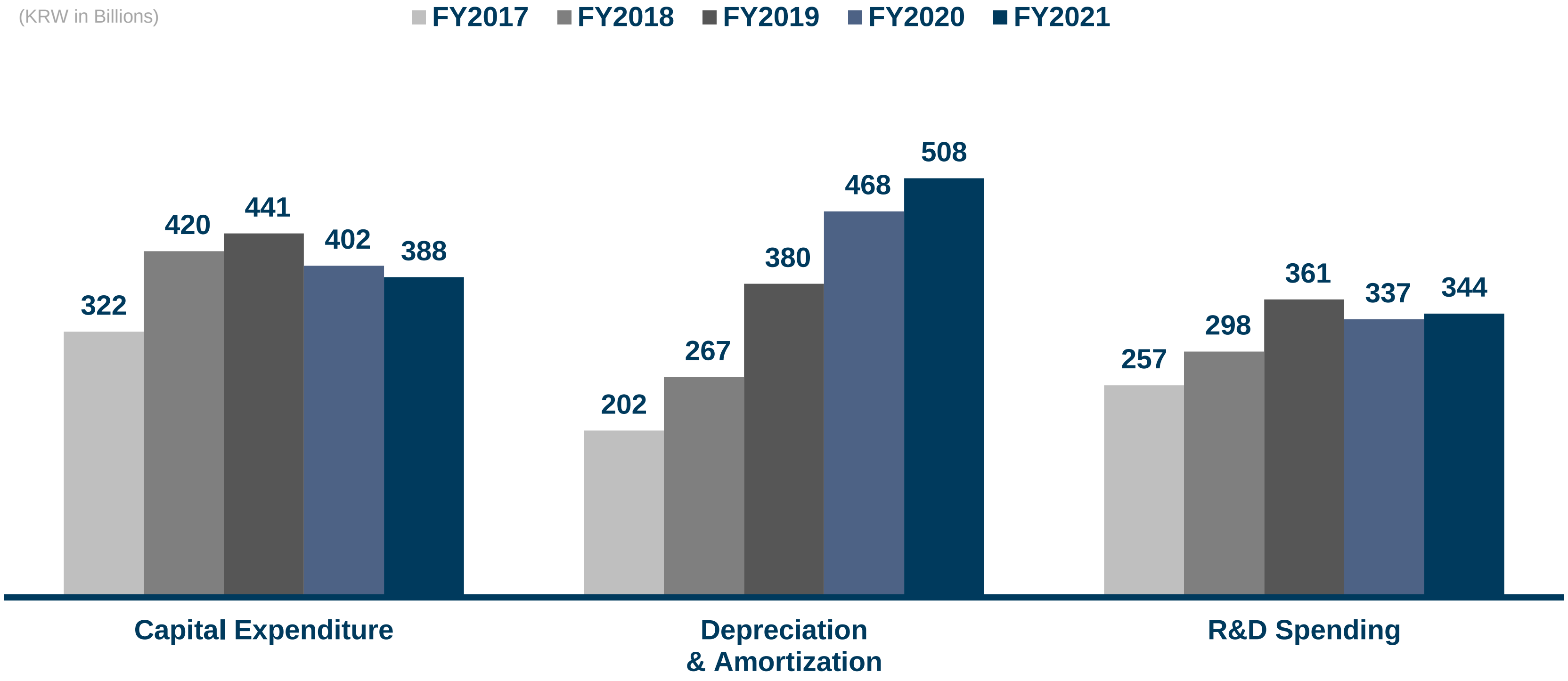


Comments

- **4Q21 Quarterly Comments**
  - SG&A expense: 7.4% of total revenue (+0.5%p YoY)
  - R&D spend (incl. R&D capitalization): 5.1% of total revenue
- **2021 Full Year Comments**
  - SG&A expense: 7.1% of total revenue (-0.9%p YoY)
  - R&D spend (incl. R&D capitalization): 4.6% of total revenue

Cost Improvement Actions Continue to Yield Benefits Since 2020

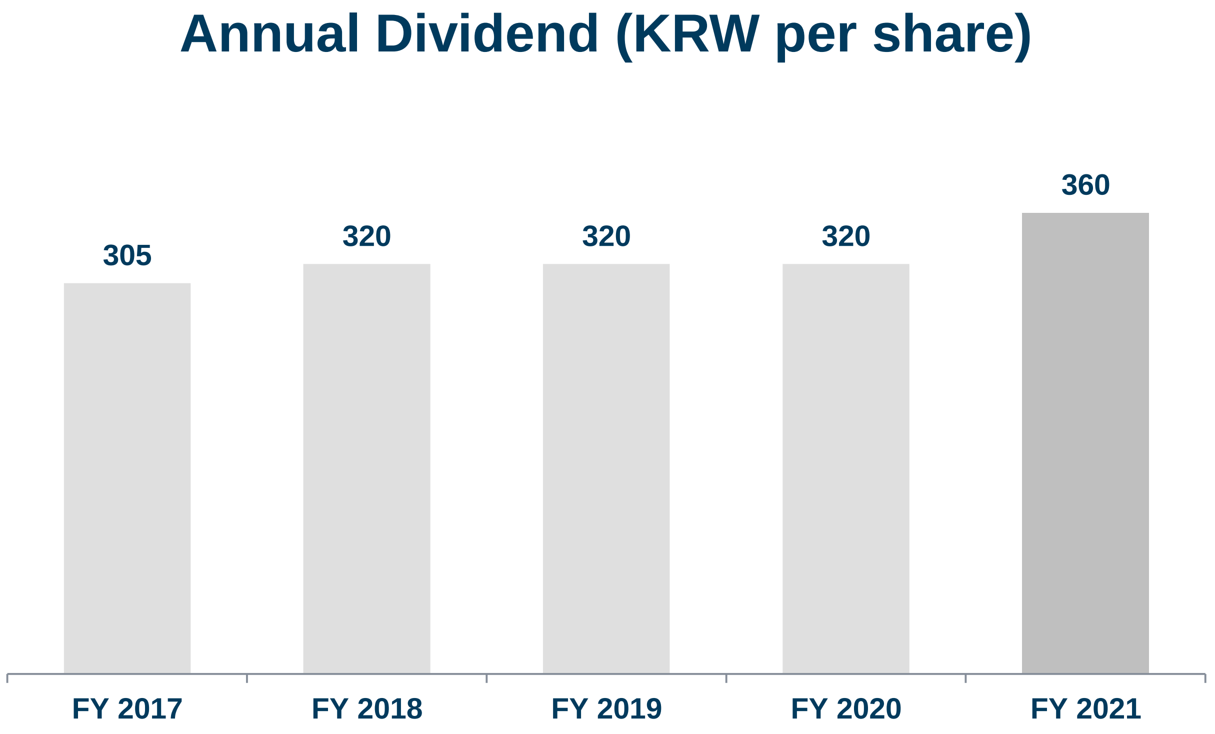
Trend of CapEx, D&A and R&D Spending



R&D Spending and CapEx to Balance in 2021 Supporting Business Continuity and Future Growth

Note: E&FP consolidated since 2Q19

Dividend


Annual Dividend (KRW per share)
305
320
320
320
360
FY 2017
FY 2018
FY 2019
FY 2020
FY 2021

YE 2021 Balance Sheet

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

Balance Sheet

	Dec 2021	Dec 2020	Dec 2019
Cash and cash equivalent	1,404	1,325	687
Account receivable	1,025	1,202	1,254
Inventories	810	630	613
Property and equipment	2,336	2,224	2,130
Intangible assets	1,790	1,622	1,593
Lease assets	227	211	205
Other assets	642	593	601
Total assets	**8,234**	**7,807**	**7,082**
Account payable	1,475	1,581	1,459
Debt	3,723	3,430	2,734
Other liabilities	560	557	552
Shareholder’s equity	2,343	2,117	2,217
Non-controlling	133	122	121
Total liabilities & shareholders’ equity	**8,234**	**7,807**	**7,082**

Cash and Debt

Cash Balance	Dec 2021	Dec 2020	Dec 2019
Net Debt	2,319	2,104	2,047
Net Debt Ratio	0.9	0.9	0.9
Debt to Equity	1.5	1.5	1.2

Leverage	2021	2020	2019
EBITDA	834	784	864
Debt / EBITDA	4.5	4.4	3.2
Net Debt / EBITDA	2.8	2.7	2.4
EBITDA/ Net Interest Expenses	10.5	9.2	13.8

Guidance for 2022

(KRW in Billions)

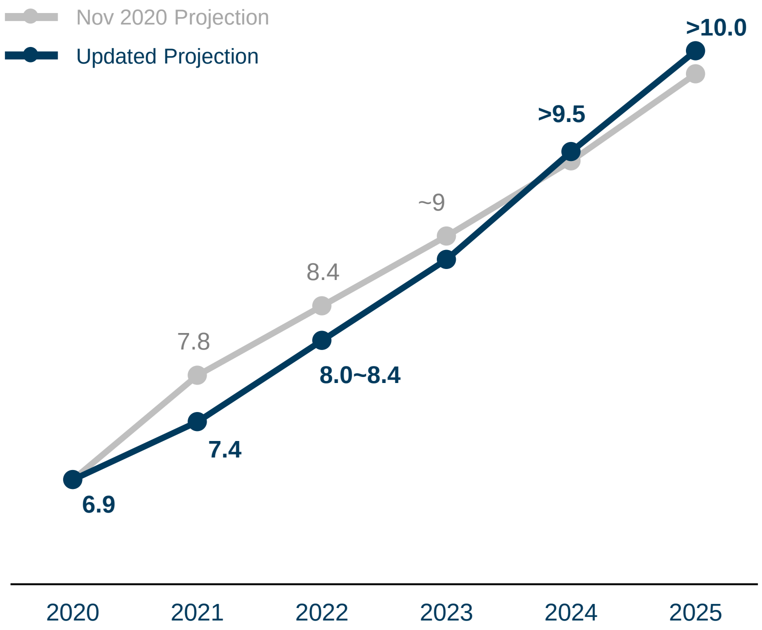
	2022 Guidance
Revenue	8,000 ~ 8,400
EBITDA	960 ~ 1,000
Operating Profit	410 ~ 450
Capital Spending	370 ~ 400

Subject to Market Rebound from Global Supply Chain Issues

Mid-Term Revenue Outlook

Revenue Projection

(KRW in Trillions)



Key Drivers

Market Rebound

- Anticipate improvements in chip shortage and supply chain issues in **second half of 2022**
- **Strong demand** in global markets with historically low vehicle inventory

New Business Wins

- Continued **strong new business win** momentum and **sufficient backlog**
- **Increasing share of wallet** with anchor customers by winning EV platforms and replacing competitors business

EV Acceleration

- Emergence of **global mega EV platforms**
- **Elevated EV volume forecast** with OEMs carbon emission reduction initiatives
- On-track to achieve **>40% of revenue from xEVs in 2025**

On-Track to Reach 10 Trillion KRW in 2025 with Upside Opportunity Due to Accelerated Electrification

Profitability Management Strategy

HANON SYSTEMS

Cost Pressure	Outlook & Mitigation Strategy
Freight Cost Spike • *Duration of Impact: Short* • *Controllability: Low*	• Freight cost index expected to **peak out** and decline gradually throughout 2022 • Leverage global footprint to **optimize current business value stream** and **accelerate local content**
Purchase Cost Increase • *Duration of Impact: Medium* • *Controllability: Medium*	• Expect temporary **commodity surcharge impacts** in 2021 **to recover** in 2022 • Leverage **market leadership and bargaining power** to **neutralize cost impact**
Labor & Overhead Inflation • *Duration of Impact: Long* • *Controllability: High*	• **Utilize volume rebound ramp-up** to absorb increase in labor and overhead costs • **Industry-leading manufacturing excellence** and shift to **cost-efficient renewable energy** for plant operations

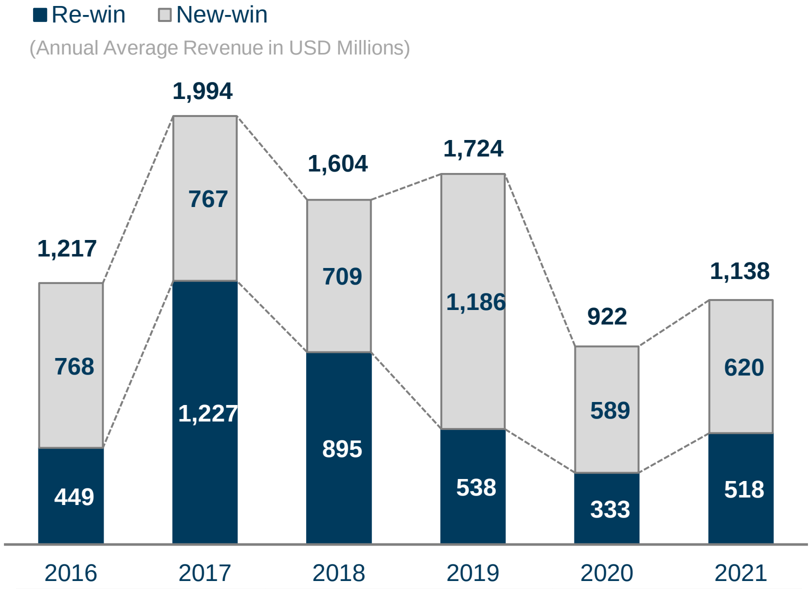
Expect Margin Recovery Near Original Projection (EBITDA Margin ~13% in 2023)

Nurdal Kücükkaya

President and
Representative Executive Officer

New Business Wins Performance

FY2021 New Business Wins



	2016	2017	2018	2019	2020	2021
Eco-friendly (% out of New win)	**35%**	**36%**	**63%**	**73%**	**76%**	**81%**

- Company achieved 2021 NBW target that is increased by 10% in the middle of the year
- Orders from customers other than HMG and Ford account for 83% of FY2021 new wins, accelerating customer diversification
- Ongoing focus to leading position in EV market with strong customer diversification
- Awarded major thermal system order for global EV platform from a premium customer
- Significant increase approaching USD 1.5 billion in 2022

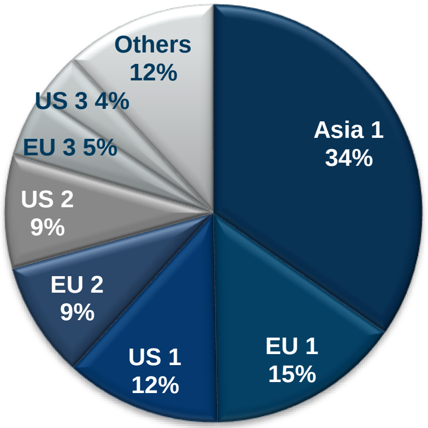
Achieved Elevated NBW Guidance in 2021; Expect to Exceed 2021 Performance in 2022

Maintained Solid Backlog

4Q 2021 Backlog

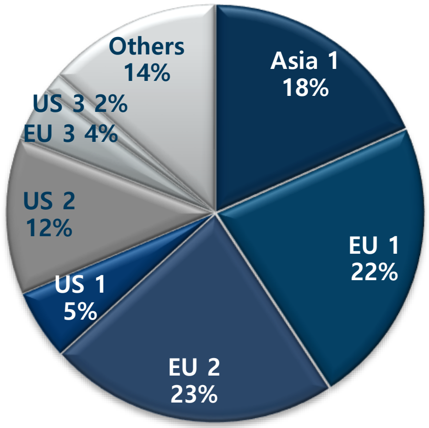
Total Backlog $41B

xEV ~45%



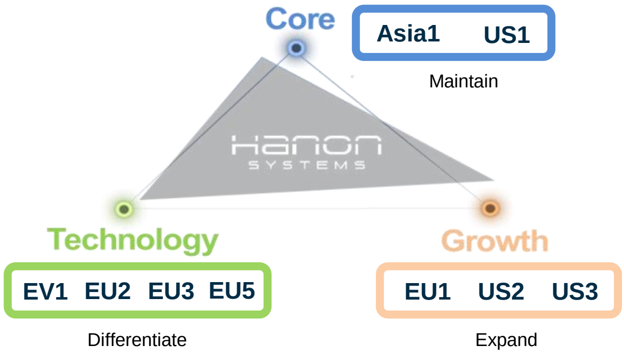
New-win Backlog $11B

xEV ~80%



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

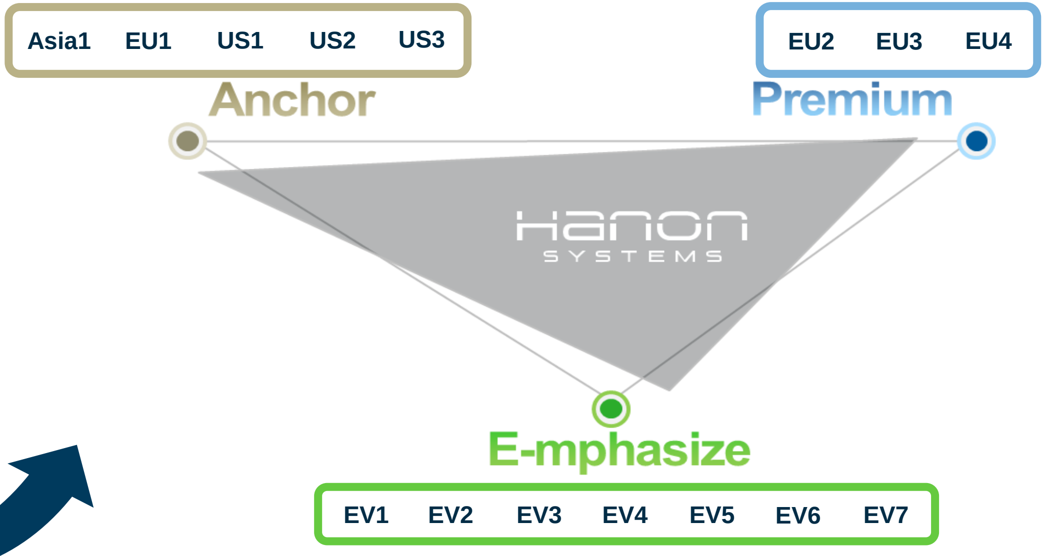
Customer Strategy Transition



2015-2025 Strategy

2021-2030 Strategy

Offer systems and modularity on large scale platforms



Provide rigorous speed in product development and manufacturing

Successful 2015 Strategy Enabled Transition Into New Automotive Era

EV Models with Hanon Systems Products: Anchor (1/2)

Select Examples Only

Hyundai IONIQ 5 / 6 / 7

Genesis GV60

Genesis GV70 EV

Genesis G80 EV

Thermal Management System (Heat Pump)

Hyundai NEXO

Thermal Management System, Air Compressor

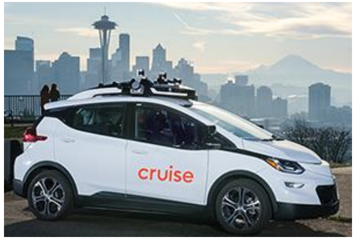
Chevrolet Bolt EV and Bolt EUV

HVAC; Condenser/Radiator/Fan Module (CRFM)

GMC HUMMER EV

HVAC, A/C Lines, Condenser, Radiator

Cruise First-Gen AV



HVAC

GM BrightDrop EV600

HVAC, Radiator, Condenser, A/C Lines

EV Models with Hanon Systems Products: Anchor (2/2)

Select Examples Only

Ford F-150 Lightning

Battery Chiller, A/C Lines,
Condenser, Low Temperature Radiator

Ford Maverick HEV

eCompressor, A/C Lines

Ford E-Transit

HVAC, Radiator, Condenser, Battery Chiller, A/C Lines

Ford Explorer HEV

Battery Chiller, A/C Lines

Ford Escape/Kuga HEV

A/C Lines, Battery Chiller

Mustang Mach-E

Battery Chiller, Radiator, 4-Way Valve

Lincoln Aviator Grand Touring HEV

Battery Chiller, A/C Lines, Console Blower

EV Models with Hanon Systems Products: Premium

Select Examples Only

BMW iX / iX3 / i4

eCompressor, Electronic Water Pump

BMW 330e

MINI Cooper SE

eCompressor

Mercedes EQA

HVAC, A/C Lines

Mercedes EQS / EQE

A/C Lines

Volvo XC40 Recharge

HVAC, A/C Lines

EV Models with Hanon Systems Products: E-mphasize

Select Examples Only

NIO EC6 / ES6 / ES8 / ET5 / ET7

eCompressor

XPeng G3 / P5 / P7

eCompressor

Zoox

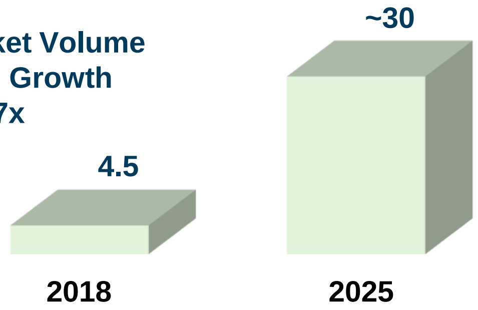
Heat Pump System

EV Thermal Market Growth Momentum Expands from eCompressor to Heat Pump System

Growth of Electric Compressor

(Million Vehicles)

Global Market Volume Expected Growth 6~7x

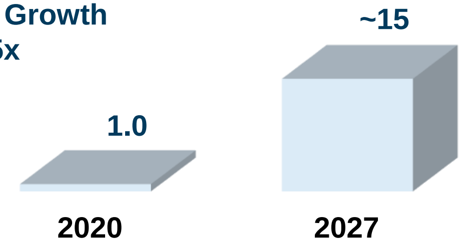


- Vehicle electrification expanded **from niche players to global major automakers**
- **Emergence of global xEV platforms** requiring proven global eCompressor suppliers
- Suppliers with **a variety of product offerings** in size / voltage / refrigerant favored by OEMs

Growth of Heat Pump Solution

(Million Vehicles)

Global Market Volume Expected Growth ~15x



- Further electrification from hybrid vehicle to **battery electric vehicle**
- **Driving range** and **energy efficiency** matter most for EV popularization
- Serial adoptions of heat pump system **by major EV platforms** (e.g. HMG E-GMP, VW MEB, Mercedes-Benz VISION EQXX)

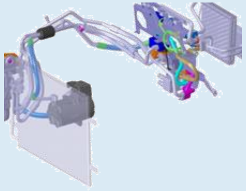
Hanon Systems is Leading Both Markets at a Faster Growth Pace with Innovative Thermal Solutions

Source: IHS Markit

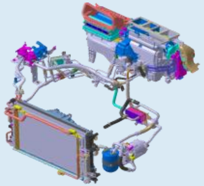
Hanon Systems BEV Heat Pump System Roadmap

2010 | 2015 | 2020 | 2024-2025

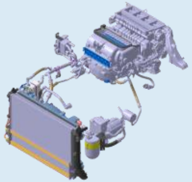
Heat Pump System



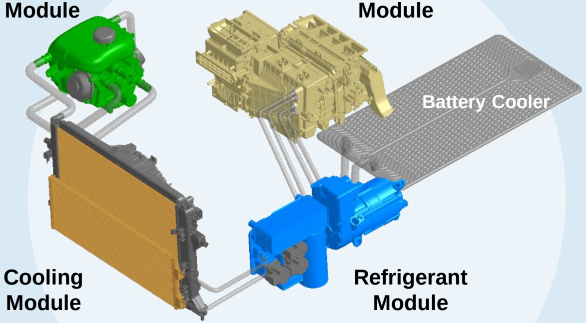
Pre-Development
Project with
multiple global OEMs



Gen1
Waste heat recovery
(Motor/Inverter, Battery)

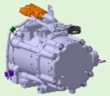


Gen2
800V ultra-fast charging



Modular Heat Pump System

eCompressor

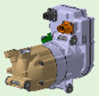


Gen1

Gen2

Gen3

Gen4 33/45cc
48/400/800V, 134a/1234yf/R744

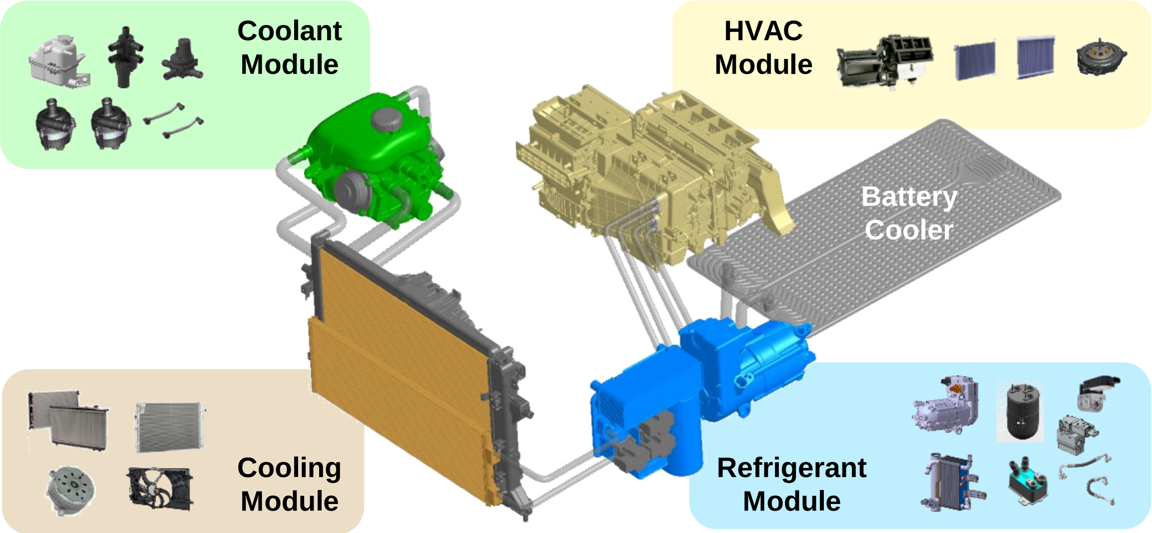


Gen5 33/45cc
Vapor Injection – High efficient

Hanon Systems is a Pioneer of Heat Pump System Solution Since 2014 and Has Been Market Leader Providing Various Applications for Multiple Customers

Modularization of BEV Heat Pump System

Architecture of BEV Modular Heat Pump System



Customer Benefits

- Offers modularized solutions that **improves manufacturing cost** by reducing assembly complexity
- **Re-focuses engineering resources** to vehicle-level engineering development (e.g. battery, autonomous driving)
- **Enhances quality management** through a reliable module/system partner

Strategic Advantages to Hanon Systems

- Decades of **thermal system integration experience** proven by its anchor customers
- **In-house engineering and manufacturing capability** of all critical components, which is critical to **drive cost efficiency**

Hanon Systems Uniquely Positioned to Offer System/Module-Based Heat Pump Solutions to Automakers

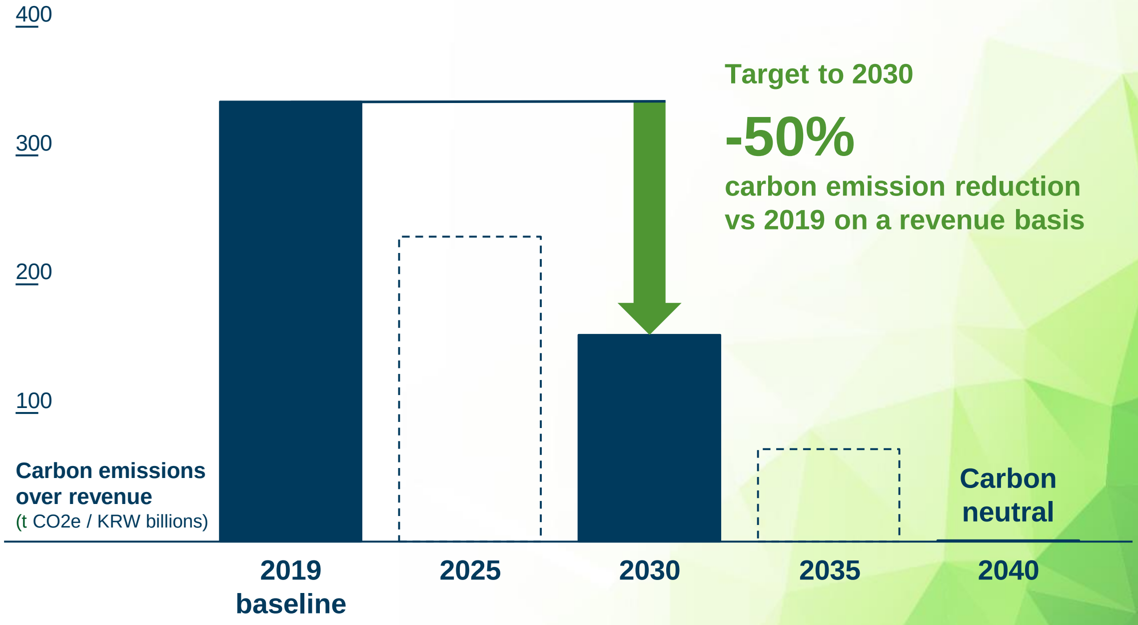
Min Sung

Chief Executive Officer and
Representative Executive Officer

Hanon Systems Commits to be Carbon Neutral by 2040

Significant Reduction by 2030

Target path:
Carbon Neutral in 2040 and a significant reduction by 2030



Note: Carbon emission footprint displayed excludes downstream emissions from processing, use phase, and end-of-life

Hanon Systems Has Specific Targets and a Roadmap

2030 Targets and Progress Examples by Emission Scope

-50%

Scope 1 direct
emission reduction
vs. 2019 baseline

-80%

Scope 2 purchased energy
emission reduction
vs. 2019 baseline

-45%

Scope 3 purchased goods
emission reduction per unit
vs. 2019 for each product

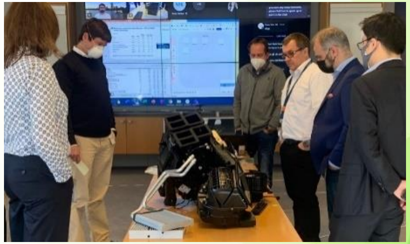
Asan 🇰🇷

Deployed fully electric equipment for manufacturing

Palmela 🇵🇹

Installing solar panels to generate ~11% of demand

ISO 50001 energy management system certified



Global 🌎

Launched **zero carbon design** initiative to reduce carbon and improve costs

Assessing **supplier carbon footprint**; implementing carbon and cost improvements

CO_2 neutral

Hanon Systems

Global Workforce is Engaged and Delivering

- **Organization fully committed** led by a newly established Carbon Neutral Office
- **Each site developing its specific roadmap** focused on increased efficiency and clean power
- **Regional and global energy coordination** to leverage power purchase agreements (PPAs)
- **Supply base involvement** to promote transparency and pursue low-carbon sourcing alternatives
- **Zero carbon design reviews** to identify carbon reduction opportunities in product design

350^{+} initiatives identified to date

CO_2 neutral

Hanon Systems

Eco-Friendly Enterprise

Heat Pump Modules

HVAC Modules

Pumps and Valves

eCompressors

Battery Thermal Solutions

A/C Lines

Leading portfolio of e-Mobility solutions …

Manufacturing

Design

Procurement

Logistics

Mindset

… moving toward a low carbon footprint

Embracing a low-carbon footprint benefits future generations and creates strategic advantages

CO_2 neutral

Hanon Systems


THANK YOU