



Hanwha Corporation

2Q 2023 Earnings

2023. 8. 11.

Disclaimer

This presentation contains the consolidated and separate financial results of the company and its subsidiaries prepared in accordance with K-IFRS.

This material provides preliminary earnings prior to the completion of an external audit for the convenience of investors only. It contains forward-looking statements that are inherently subject to risks and uncertainties, unexpected changes in market conditions, and subsequent adjustments in the business strategies of the company and its subsidiaries.

Thus, the actual results may differ from the projections made in this presentation, and company shall not be held liable for any investment decisions made on the basis of the information contained in this presentation.

Highlights

2Q'23 Key Message

Separate

- Constructing a Nitric Acid Production Plant(0.4MN tons, Yeosu)
- Signing an order of Solar & Rechargeable battery Processing Facilities for 320BN won
- Winning an order to build an IDC(500BN won)
- Sinan-Ui Offshore Wind Power Project(390MW) on EIA

Consolidated

- **[Aerospace]** Mid to long term growth backed by export sales in Land system
- **[Solutions]** Rechargeable Energy as a driving force with its solid demand in North America/Europe, Early operation of Module Fab in America

2Q'23 Results & Outlook, Separate

Acceleration of Ongoing Mega-scale Projects in E&C Pushed Up Q2 sales, despite of lower-than-expected Global Sales in Trading Sector

[E&C inclusion, Defense separation criteria]

(KRW 1BN)	2Q'23	2Q'22	YoY	1Q'23	QoQ	1H'23
Sales	1,805.3	799.4	125.8%	1,580.1	14.3%	3,385.4
Global	298.6	390.6	-23.6%	366.9	-18.6%	665.5
Momentum	137.3	133.5	2.9%	125.7	9.2%	263.1
E&C	1,342.9	-	-	1,030.6	30.3%	2,373.5
Others*	26.4	275.3	-90.4%	56.9	-53.5%	83.3
OP	41.0	17.9	129.3%	48.9	-16.1%	89.9

(KRW 1BN)	2Q'23	2Q'22	YoY	1Q'23	QoQ
Sales	1,805.3	1,600.1	12.8%	1,580.1	14.3%
Global	298.6	390.6	-23.6%	366.9	-18.6%
Momentum	137.3	133.5	2.9%	125.7	9.2%
E&C	1,342.9	1,036.2	29.6%	1,030.6	30.3%
Others*	26.4	39.8	-33.5%	56.9	-53.5%

* Performance from defense division is included in 2Q'22

(Split of Defense division : 2022.11.2)

Results

- [Global] (+) Increased sales of industrial explosives
(-) Decreased sales on Trading sector in accordance with Chemical market conditions
- [Momentum] (+) Increased sales of Solar
(-) Decreased sales of Rechargeable battery
- [E&C] (+) Mega-scale projects close to completion date contributed to sales growth(e.g. Inspire, FORENA Suwon Jang-an)

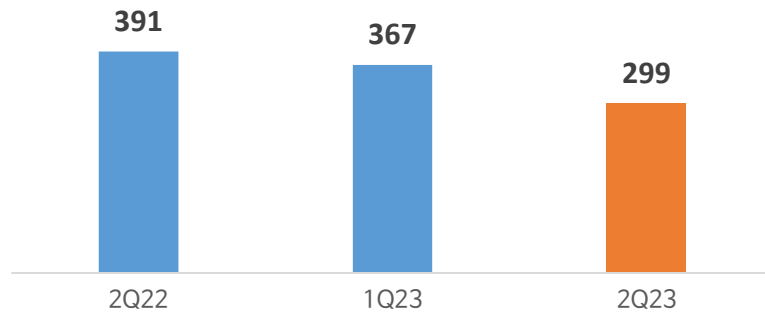
Outlook

- [Global] Sales still affected by market conditions and Ammonia's sale price, but expected higher demand on Explosives
- [Momentum] Sales expected to grow with a global demand growth in North American/Europe
- [E&C] Sales expected to grow for stable order backlog

Sales on Trading sector Declined due to Tightened Market Conditions and Selective Portfolios, but OP has secured by Explosives Sales Rise and Lowered Ammonia Costs

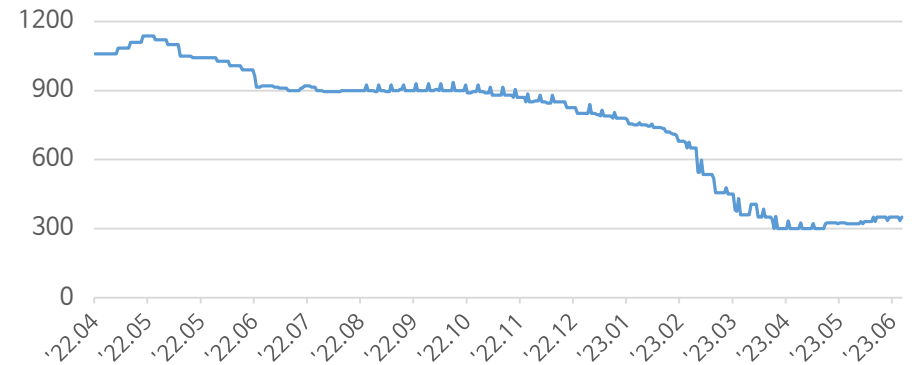
Sales

(KRW 1BN)



Spot prices of Ammonia

(\$/mt)

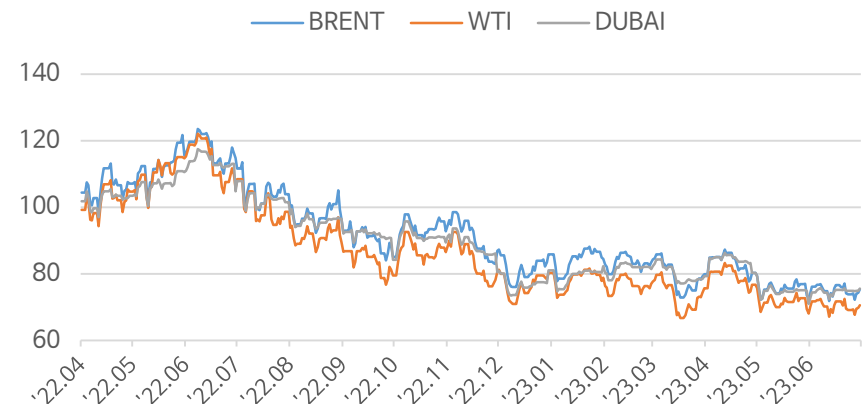


Key Business Updates

- Releasing Digital Smart Mining Brand License: HATS (Hanwha As a Total Solution)
 - Maximizing M/S for serving total process of mining with assurance to both safety and productivity
- Constructing a Nitric Acid Production Plant in Yeosu
 - A step to enter high value-added business, using Nitric Acid derivatives for bio, semiconductors and etc.

Spot prices of Crude oil

(\$/mt)

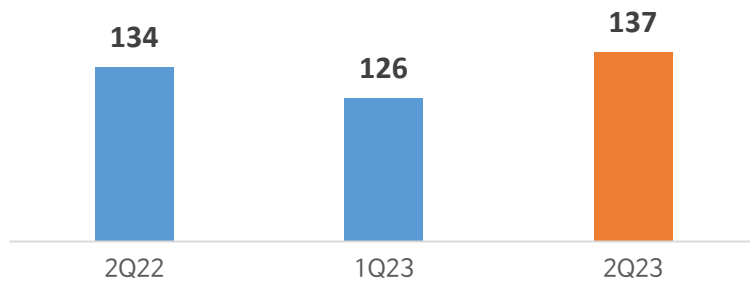


Momentum

Sales for Q2 Recorded Similar to Previous Year, Replacing Reduction of Rechargeable Battery Sales with Solar

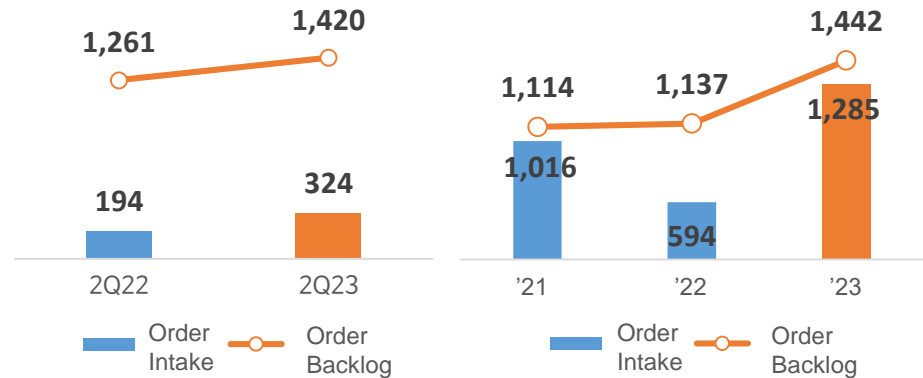
Sales

(KRW 1BN)



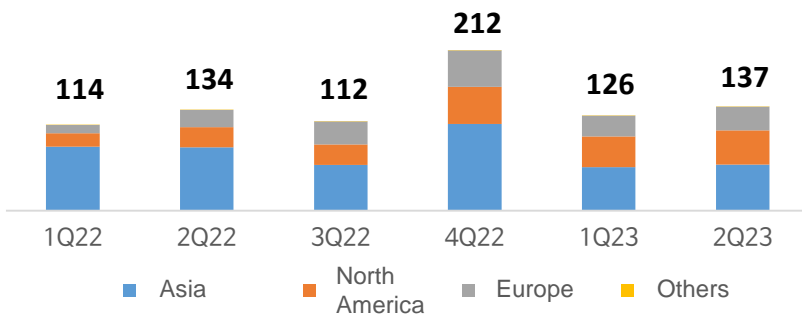
Order intake & Order backlog

(KRW 1BN)



Sales(Regional)

(KRW 1BN)



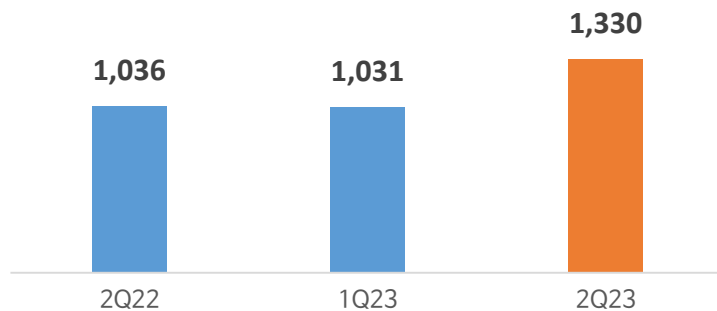
Market conditions & Outlook

- **[Battery]** In response to the importance of rechargeable battery equipment market, expanding its consumer base to America/Europe by signing MOUs with global leading companies
- **[Solar]** Enlarge R&D to provide its differentiated products in accordance with global awareness of Energy Security

Sales Increased for Acceleration of Ongoing Mega-scale Projects, with its Order Intake Including IDC(Internet Data Center) Recorded 1.3TN won

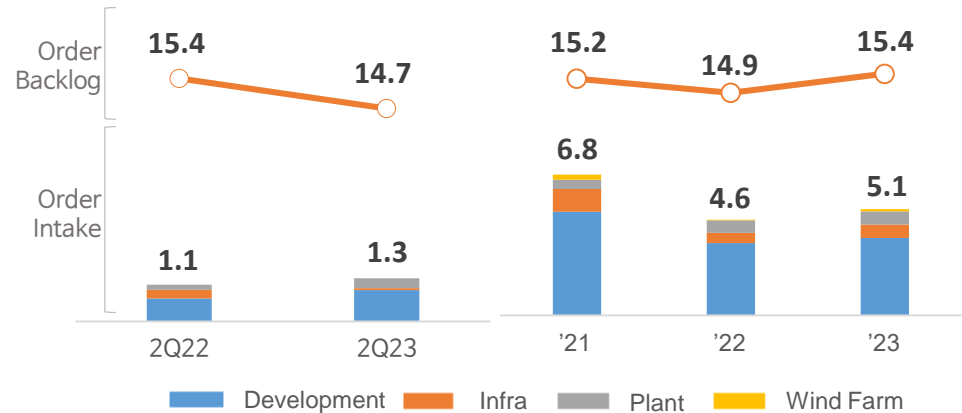
Sales

(KRW 1BN)



Order intake & Order backlog

(KRW 1TN)



Key Business Updates

- Orders targeting 'Data Center'
 - Working as a new driving force with high profitability (e.g. signing a contract of Goyang-Samsung IDC regarded as 'Hyper-scale')
- Sinan Ui Offshore Wind Power Project(390MW)
 - On the process of EIA(Environmental Impact Assessment)

Orders detail

- 1.7TN won on 1H, Driven by Several EPC Projects
 - IDC(500BN), Petrochemical Plant(310BN), Housing(440BN)
- Planning to Reflect Large-scale EPC Projects on 2H
 - Seoul Arena(Development, 300BN), Logistics Complex (Infra, 160BN), Combined Cycle Power Plant(250BN)

2Q'23 Results & Outlook, Separate

Quarterly Profit and Loss Details

(KRW 1BN)	2Q'23	2Q'22	YoY	1Q'22	QoQ	1H'23
Sales	1,805.3	799.4	125.8%	1,580.1	14.3%	3,385.4
COGS + SG&A	1,764.3	781.5	125.8%	1,531.2	15.2%	3,295.5
- Material	628.4	530.2	18.5%	617.0	1.8%	1,245.4
- Labor	145.5	117.3	24.0%	140.9	3.3%	286.4
-Commissions/Outsourcing	815.2	14.0	5722.6%	634.7	28.4%	1,449.8
- D&A	9.8	20.8	-52.7%	10.4	-5.4%	20.2
- Others	165.4	99.2	66.7%	128.3	29.0%	293.7
Operating Profit	41.0	17.9	129.3%	48.9	-16.1%	89.9
Non-operating Profit(Loss)	-70.1	9.5	-79.6	3.5	-73.7	-66.6
Net Income before Tax	-29.2	27.4	-56.6	52.4	-81.5	23.2
(Income taxes)	1.5	0.3	1.2	8.9	-7.3	10.4
Net Income	-30.7	27.1	-57.8	43.5	-74.2	12.8

Results

- **(2Q) OP, +41BN won**
 - . Contribution of sales increase in E&C and Global division with enhancement of productivity
 - ※ A surge on Commissions/Outsourcing expense was inevitably caused by the merger with E&C in Oct. '22
- **(2Q) Net Income before Taxes, -29.2BN won**
 - . One-off costs -35.6BN won

2Q'23 Results & Outlook, Consolidated

Non-financial Sales Improved backed by sales rise of E&C, Aerospace, and Renewable Energy Financial Sales Declined due to Valuation of FVPL¹⁾

(KRW 1BN)	2Q'23	2Q'22	YoY	1Q'23	QoQ	1H'23
Sales	12,146.8	13,576.7	-10.5%	14,402.4	-15.7%	26,549.2
Non-Financial	7,389.0	7,084.3	4.3%	6,801.2	8.6%	14,190.2
Financial	4,757.8	6,492.4	-26.7%	7,601.2	-37.4%	12,359.0
OP	298.7	1,339.9	-77.7%	1,373.8	-78.3%	1,672.5
Non-Financial	144.5	292.7	-50.6%	488.3	-70.4%	632.8
Financial	154.2	1,047.2	-85.3%	885.5	-82.6%	1,039.7
NP	248.6	1,203.6	-79.3%	1,155.3	-78.5%	1,403.9
NP(Controlling)	28.7	779.4	-96.3%	385.0	-92.5%	413.7

Results

- Revenue

[Non-financial]

(Division) ▲ E&C, Explosive, ▼ Trading/Material (Aerospace) ▲ Land System, Aerospace, Hanwha System/Vision(CCTV)
(Solutions) ▲ Renewable Energy, ▼ Chemical [Financial(Life)] ▼ FVPL Gain on Valuation

- OP

[Non-financial]

(Division) ▲ E&C, Explosive, Material (Aerospace) ▲ Land System, Hanwha System /Vision(CCTV), ▼ Aerospace (Solutions) ▲ Renewable Energy, ▼ Chemical [Financial(Life)] ▼ FVPL Gain on Valuation

Outlook

- [Non-financial] Expect solid growth on account of E&C, Renewable Energy, and Land system
- [Financial] Existence of volatility under the implementation of IFRS 17, but anticipating over guidance with growing volume of guaranteed sales

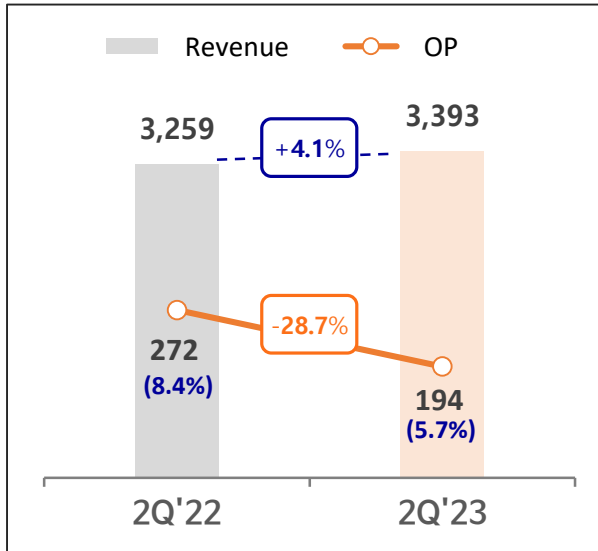
¹⁾ FVPL: Fair Value through Profit or Loss

²⁾ CSM: Contractual Service Margin

Subsidiaries

Hanwha Solutions

(KRW 1BN)



Results

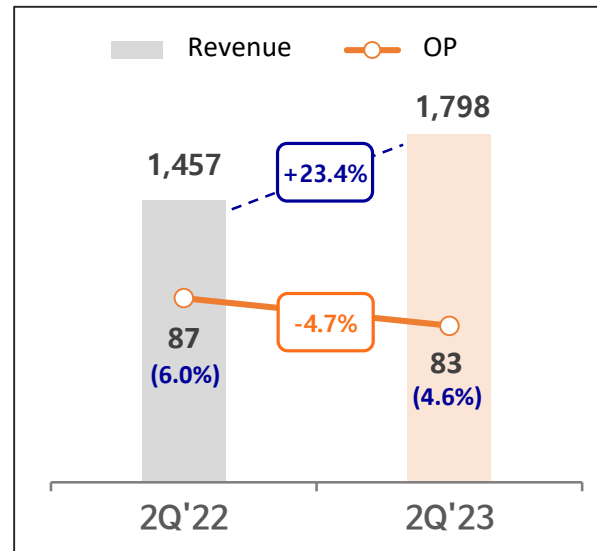
- Sales increased:
 - Increasing sales in Renewable Energy; enlarging sales of power plant projects
- OP decreased:
 - Narrowed spread in Chemical sector

Outlook

- Despite the stagnation in Chemical demand and high wafer costs, earnings from power plant secures OP similar as 2Q

Hanwha Aerospace

(KRW 1BN)



Results

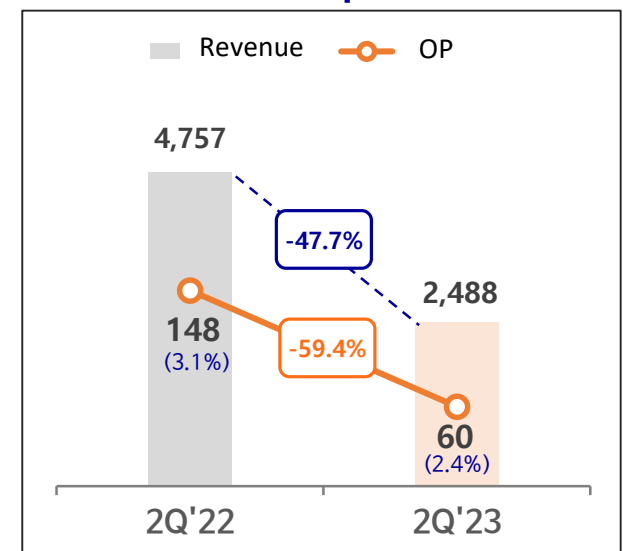
- Sales increased:
 - Merger of Defense division led the overall sales increase, especially in each of Land and Hanwha System
- OP decreased:
 - Base effects from one-off profits

Outlook

- Order backlog expected to increase due to contracts of K9 SPH EC2 and Chunmoo(Poland) with a steady growth in Vision sector

Hanwha Life (Sep.)

(KRW 1BN)



- Earning Release will be held on August 17th

Hanwha Corp. (Separate) Updates

Hanwha/Global Builds a New Nitric Acid Plant in Yeosu



- Hanwha Corp. planned to increase the capacity of a nitric acid production from 0.12MN ton to 0.52MN ton by 2024 for semiconductor and display materials with its own use.
- As a part of its green energy value chain, Global solidifies its foundation at home and abroad to supply ammonia with its blue ammonia facility in North America. (2023.07.18)

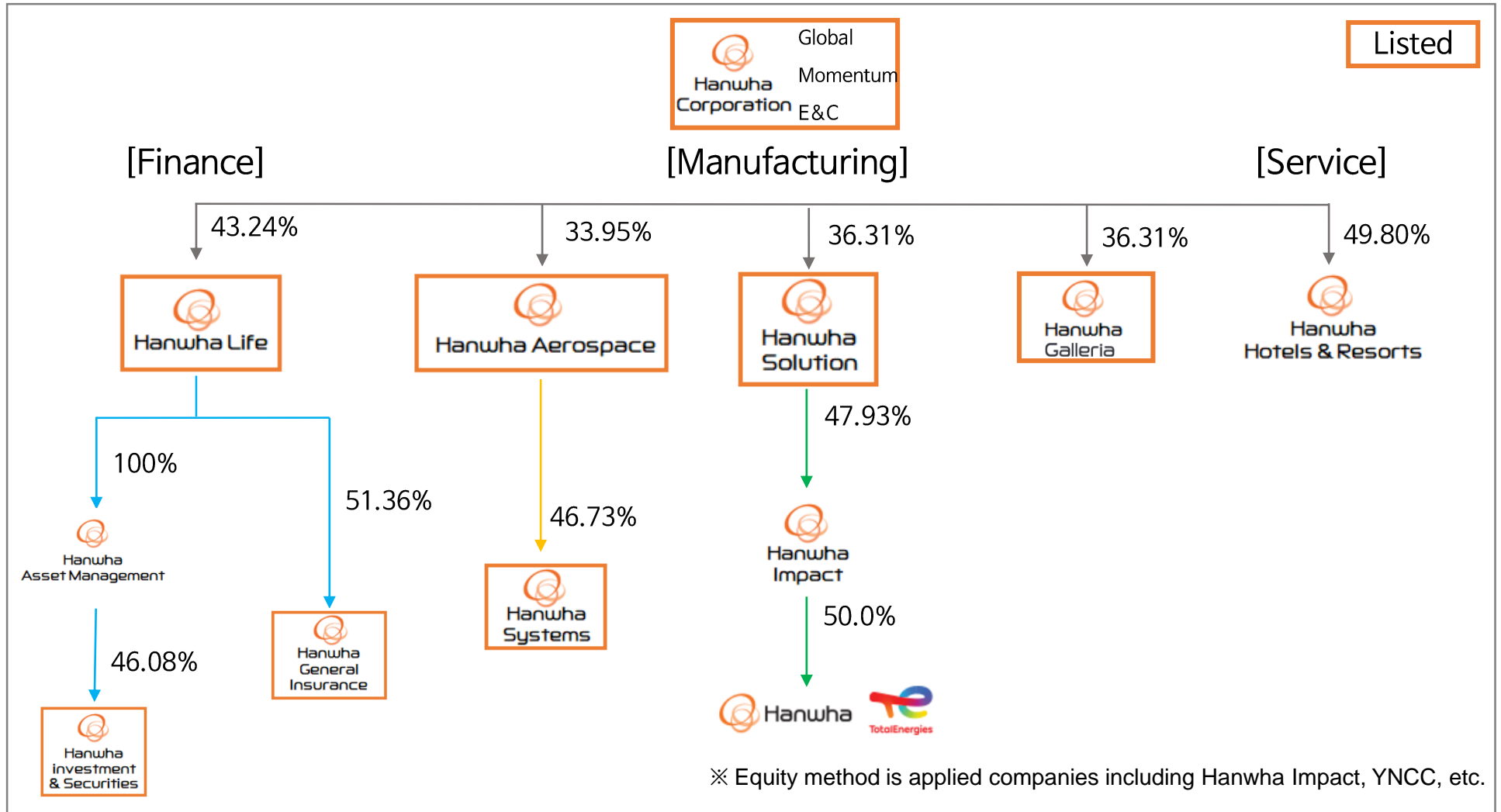
Hanwha/Momentum Shows its Technology in Germany



- ‘The Battery Show Europe’ is one of the biggest international exhibitions, participating 860 companies of rechargeable battery sellers in Stuttgart, Germany.
- Momentum joined the show to actively introduce its machinery lines after its success in America on March. (2023.05.25)

Appendix #2

Hanwha Corp. (HWC) is operating its own businesses [Global/Momentum/E&C Division], and as the controlling company of Hanwha Group, has subsidiaries including Hanwha Solutions, Hanwha Aerospace, Hanwha Life, Hanwha Galleria, Hanwha Hotels & Resorts and others.



※ Equity method is applied companies including Hanwha Impact, YNCC, etc.

Appendix #3

Results: Hanwha Corp. and Key Subsidiaries

Company	(KRW 1BN)	2Q22	3Q22	4Q22	1Q23	2Q23	2021	2022
Hanwha (Con) ¹	Sales	15,189.8	16,841.4	17,099.1	14,402.4	12,146.8	52,836.1	62,278.4
	OP	914.6	921.4	213.7	1,373.8	298.7	2,927.9	2,516.1
	OPM	6.0%	5.5%	1.3%	9.5%	2.5%	5.5%	4.0%
Hanwha (Separate)	Sales	799.4	767.8	1,553.9	1,580.1	1,805.3	3,935.5	3,879.9
	OP	17.9	56.7	91.5	48.9	41.0	228.9	194.5
	OPM	2.2%	7.4%	5.9%	3.1%	2.3%	5.8%	5.0%
Hanwha Solutions (Con)	Sales	3,259.0	3,241.8	3,781.1	3,100.2	3,393.0	10,725.0	13,653.9
	OP	272.2	336.9	167.9	271.4	194.1	738.3	966.2
	OPM	8.4%	10.4%	4.4%	8.8%	5.7%	6.9%	7.0%
Hanwha Aerospace (Con)	Sales	1,457.4	1,397.7	2,517.9	1,927.0	1,798.1	5,541.4	6,539.6
	OP	87.2	64.4	178.4	228.5	83.1	277.1	375.3
	OPM	6.0%	4.6%	7.1%	11.9%	4.6%	5.0%	6.0%
Hanwha Life (Separate) ²	Sales	4,757.4	6,236.4	6,126.0	4,431.7	2,487.5	16,684.8	21,180.0
	NI	55.9	88.5	159.2	356.9	156.4	410.6	354.3
	NPM	1.2%	1.4%	2.6%	8.1%	6.3%	2.5%	1.7%

1) Performance from Defense division is included in 2Q'22 (Spinoff of Defense Division : '22.11.2)

2) Hanwha Life's figures are on a separate basis as disclosed ton is quarterly & semi-yearly financial reports to the Financial Supervisory Service

* Hanwha Life(Separate): Figures of 2Q23, 1Q23 are based on IFRS 17

Strategy of Collaborative Robots and AGV

1. Background

“While MOMENTUM Focuses on Supplying Rechargeable Battery/Solar Equipment, HANWHA ROBOTICS Seeks its Way to Become a Global Leader in Collaborative Robot Industry.”

**HANWHA/
Momentum**

Momentum (Machinery/Equipment) Division

- **Rechargeable Battery Equipment**
 - Own Differentiated Technologies in Battery Materials/Cell
 - Pioneer of the Next-Gen. Technologies
 - Know-how of Localization
- **Solar Equipment**
 - As a Process Provider, Not only a Equipment Provider

**Competence in
Providing
Green Business
Equipment**

**HANWHA
ROBOTICS
CO.,LTD.**

Collaborative Robots(Co-bots) + AGV

- **Prompt Decision-Making Available**
 - Streamlined work structure
- **Proactive Investment Available**
 - Enhancement on Product line and Human Resources
- **New Product/Technology Development**
 - Broaden its Applications to Commercial/Residential Robots

**A Global
Robot Solution
Based on
Smart Technologies**

2. HANWHA ROBOTICS CO.,LTD. (Overview)

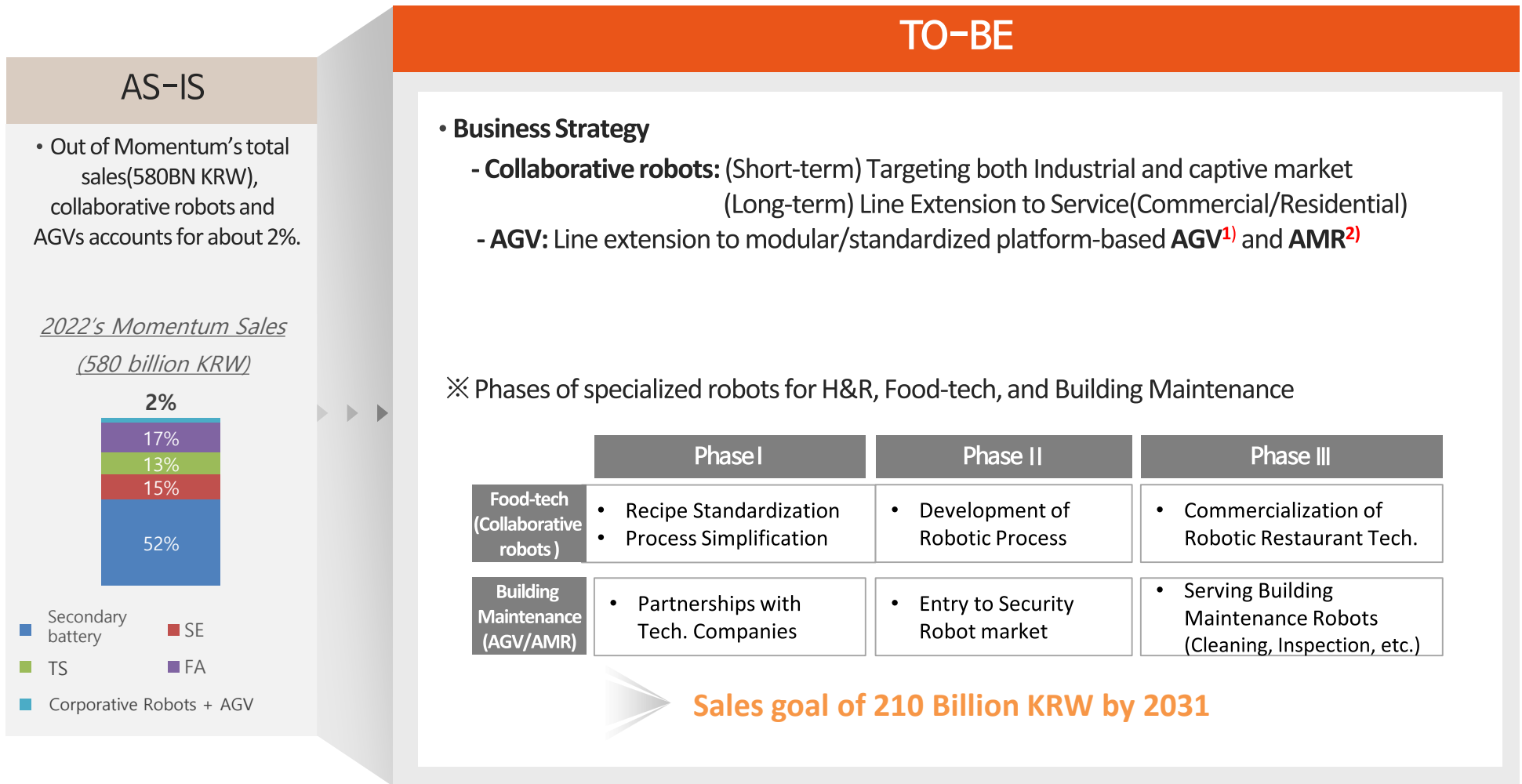
“Create Synergy through Joint Investment with Hanwha Corp. and Hanwha Hotel & Resort Co., Ltd.”

Category	내용
Company Name	HANWHA ROBOTICS CO.,LTD.
Vision	Global Leader In Smart Technology-based Robotic Solutions (Entering the Global Top 3 Market Share in Collaborative Robots by 2030)
Business Strategy	Robot: Not only for Industrial Usage, Extending its line for Service(Commercial/Residential) AGV: Expanding from Customized Products for Growing Industries to Platform-type Standard AGVs and AMRs.
Business Location	Pangyo (HQ) Changwon(Collaborative Robots), Asan(AGVs) (Manufacturing/Operations)
Personnel	105 (Gradually expansion by 2027)
Inception Schedule	Board of Directors: 2023.8.11 / Date of Establishment: 2023.09~10 (Expected)
Balance Sheet	Assets: KRW 61.9 billion, Equity: KRW 51.6 billion, Liabilities: KRW 10.3 billion (Expected)
Total Issued Shares	41,626,528 shares (Hanwha Corporation 68%, Hanwha Hotel & Resort Co., Ltd. 32%)
Product/ Technology	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>2023~ 2024</p> <div style="border: 1px solid black; padding: 10px; width: 250px;"> <ul style="list-style-type: none"> • Extending its Product line in Industrial Usage¹⁾ (High Payload, Long Reach) • Order-based Customized AGV </div> </div> <div style="text-align: center;"> <p>2025</p> <div style="border: 1px solid black; padding: 10px; width: 250px;"> <ul style="list-style-type: none"> • Expanding its Applications (Lightweight Welding, Commercial/Service, FoodTech) • Mobile Manipulator </div> </div> <div style="text-align: center;"> <p>2026</p> <div style="border: 1px solid black; padding: 10px; width: 250px;"> <ul style="list-style-type: none"> • Extending its Product line in Commercial/Residential Usage (EV Charging Kits, Service) • Robots for Building Maintenance and Autonomous Driving </div> </div> </div>

1) As of June '23, we possess a product lineup of 4 types of collaborative robots and 9 types of AGVs.

2. HANWHA ROBOTICS CO.,LTD. (Business Strategy)

“Entering to Industrial automation & Service(Commercial/Residential) Markets with its Co-bots and AGV+AMR technology.”

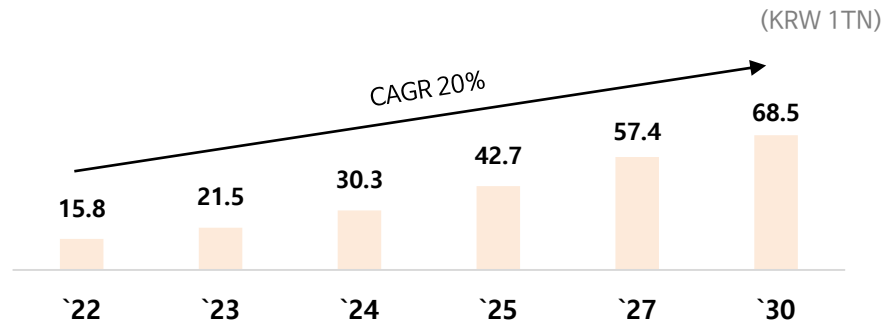


1) AGV: Automated Guided Vehicle
 2) AMR: Autonomous Mobile Robot

3. Secondary batteries/Solar equipment

“The market condition has changed with Global Awareness of ESG, leading a significant surge on demand for Secondary battery and Solar Power”

Secondary battery Production Plant Forecast

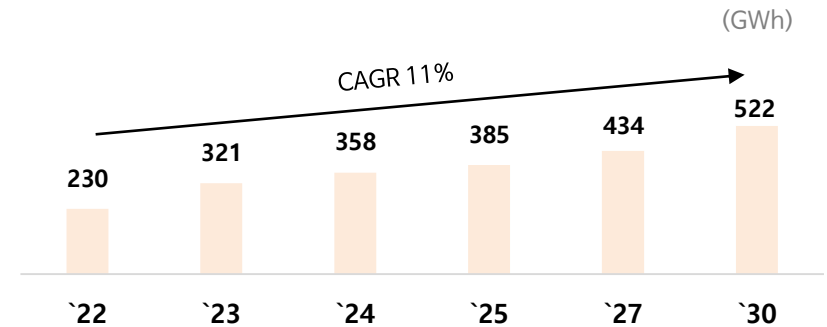


- **(Front Market Updates)** The EV battery market is expected to maintain its high potential, growing at a 25% CAGR.

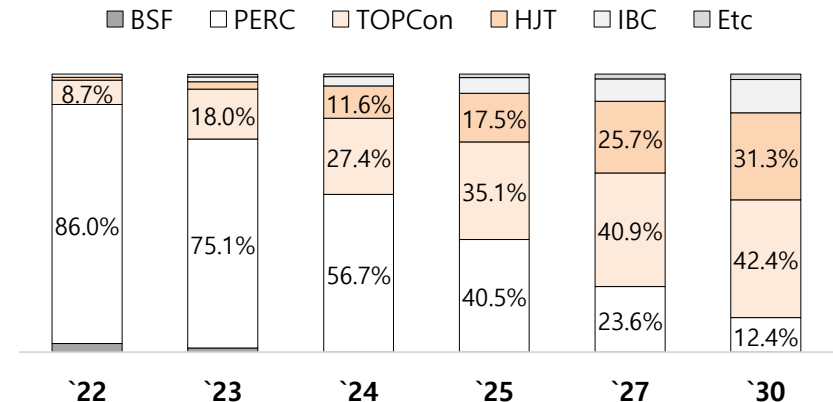
Category	'22	'23	'24	'25	'27	'30	CAGR
China	697	924	1,243	1,726	2,198	2,464	17%
Europe	129	219	376	668	1,243	2,122	42%
USA	104	162	256	417	713	1,235	36%
ETC.	40	49	61	78	87	86	10%
Total	970	1,354	1,936	2,889	4,241	5,907	25%

*Source: SNE Research, Company's Own Analysis

Solar Power Plant Installation Forecast



- **(Front Market Updates)** The Solar cell market will take up more than 50% due to TOPCon and HJT¹⁾ share.



* Source : CPIA (China Photovoltaic Industry Association)

1) HJT: Hetero-junction

4. HANWHA/Momentum

Possessing Competence in Green Business(Secondary battery, Solar power), MOMENTUM will evolve into a Global Solution Provider

Secondary battery Equipment

- Global No.1 Secondary battery Solution Provider

[STRATEGY]

- Strengthen Turnkey Solution of Material/Pole Plate Process
- Securing Driving Force by Utilizing Next-Gen. Technologies
(Adaptation of Next-Gen. Technology including solid-state batteries, material fabrication methods, and etc.)

Solar Equipment

- Total Solar Equipment/Process Solution Provider

[STRATEGY]

- Enhancing Automation Technologies of Cell/Module/Factory
- Internalization of Equipment/Management Software
- Providing Solutions in the aspect of Customer's TCO
- Internalization of Production Process for future Solar Equipment
(PERC for Large-Area, TOPCon, Perovskite Tandem, etc.)

- Sales of Secondary Battery/Solar Equipments Grows

