



Investor Relations Feb,2020

DOOSAN CORPORATION

Chapter 1. 2019 Results
Chapter 2. Doosan Corp. In-house Business
Chapter 3. Appendix

Annual Business Review 2019



Disclaimer

The information herein is provided for your information purposes only and contains preliminary figures which may be materially different from the final figures.

Forecasts and projections contained in this material are based on current business environments and management strategies, and they may differ from the actual results upon changes and unaccounted variables. We make no guarantees and assume no responsibility for the use of information provided. We trust your decisions will be based on your own independent judgment.

Financial data in this presentation is on a IFRS consolidated and IFRS parent basis.



Chapter 1.

2019 Results

2019 Results (Consolidated)

- Both Sales and OP increased on YoY basis due to growth of subsidiaries
- Net income and net income in controlling interest turn into profit on YoY basis due to increased OP and termination of one time cost incurred from 2018

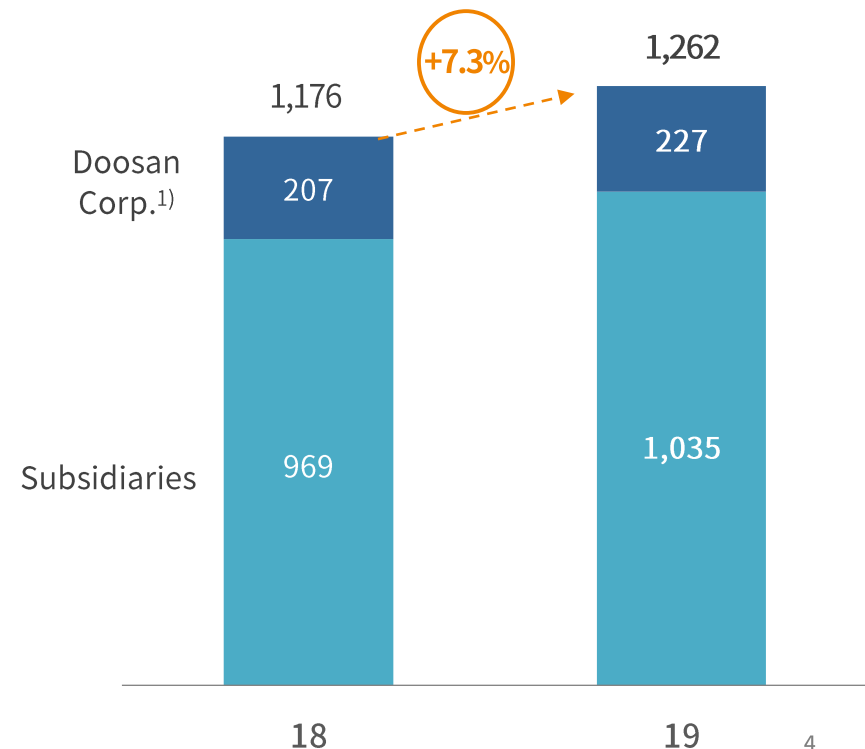
[Annual Sales Trend]

Unites: KRW bn, %

	2018	2019	YoY
Sales	17,449	18,536	+6.2%
OP	1,176	1,262	+7.3%
(%)	6.7%	6.8%	+0.1%p
Net Income	-341	433	Turnaround
Net Income in Controlling Interest	-117	420	Turnaround

[Annual OP Trend]

Unites: KRW bn, %



1) Based on Doosan Corp.'s In-house Business



Chapter 2.

Doosan Corp. In-house Business

2019 Results and 2020 Plan (In-house Business)

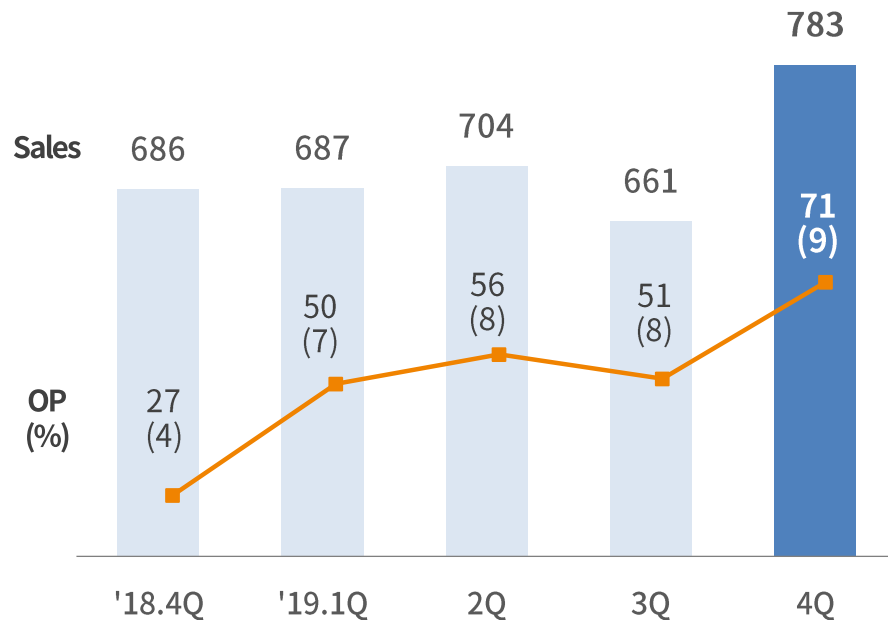
- 1 Electro Materials
- 2 Industrial Vehicles
- 3 Mottrol

2019 Results and 2020 Plan(Doosan Corp. In-house Business)

- 2019 : Despite of spin-off, both sales and OP increased on YoY basis due to earnings improvement of Electro-Materials and Industrial Vehicles
- 2020 : Sales are expected to grow by 5% YoY, resulting in 3 KRW tn of sales, driven by growth of overall businesses

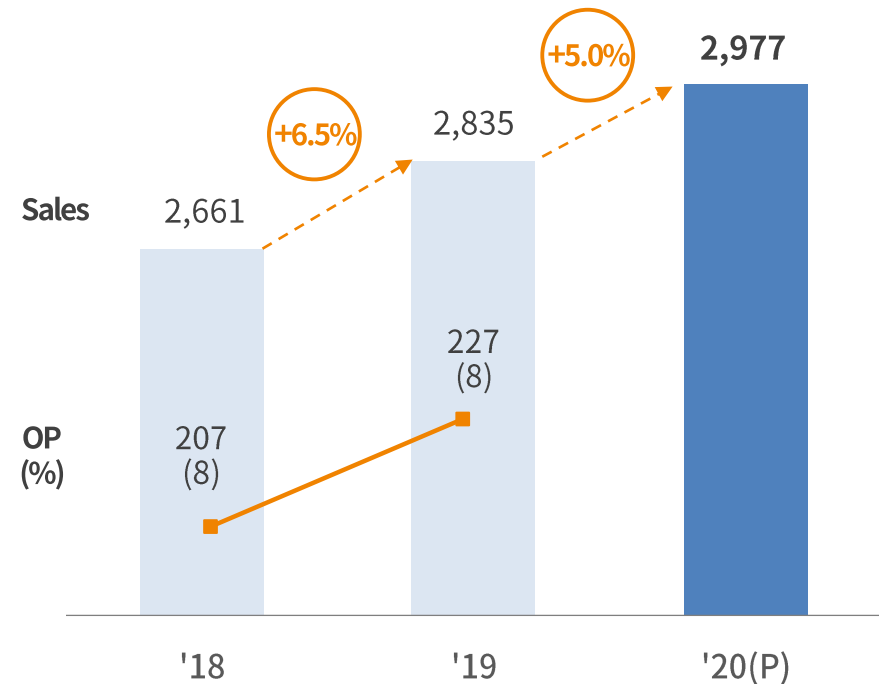
[Quarterly Sales Trend]

Unites: KRW bn, %



[Annual Result & Outlook]

Unites: KRW bn, %



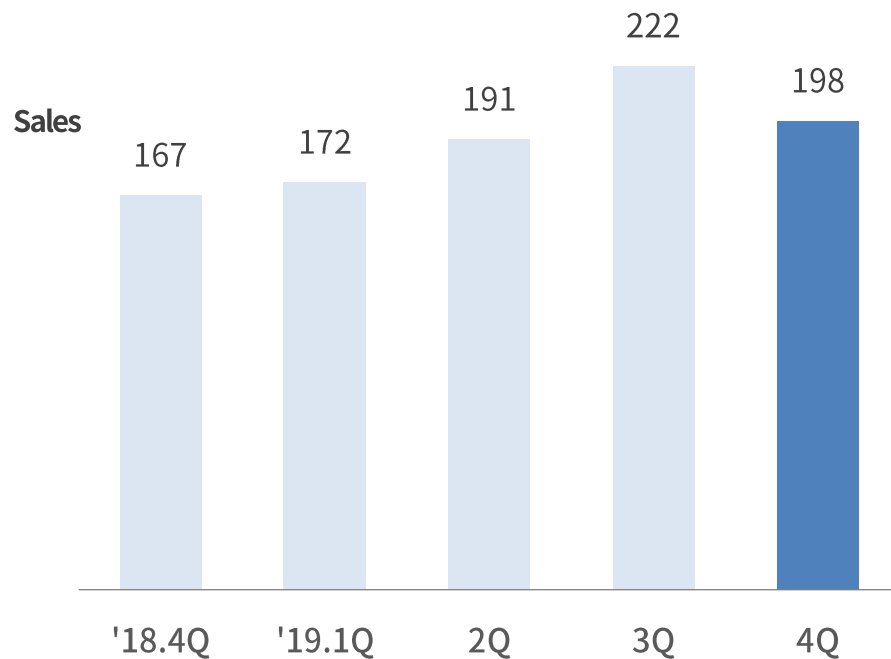
※2019 Profits derived from spin-off and discontinued businesses such as Fuelcell, Solus and duty free are reflected as 'Profit and Loss from discontinued operations'

1 Electro-Materials

- 2019: Sales and OP reached an all-time high¹⁾ due to sales growth mainly based on high-end products, such as semiconductor/5G materials
- 2020: Sales are expected to grow by 7% YoY driven by continuous growth in sales from non-mobile business and establishment of new growth engine, such as EV materials
 - Pushing ahead with new profit model derived from CPI(Colorless Polyimide) and OLED protect film and securing business base for PFC³⁾

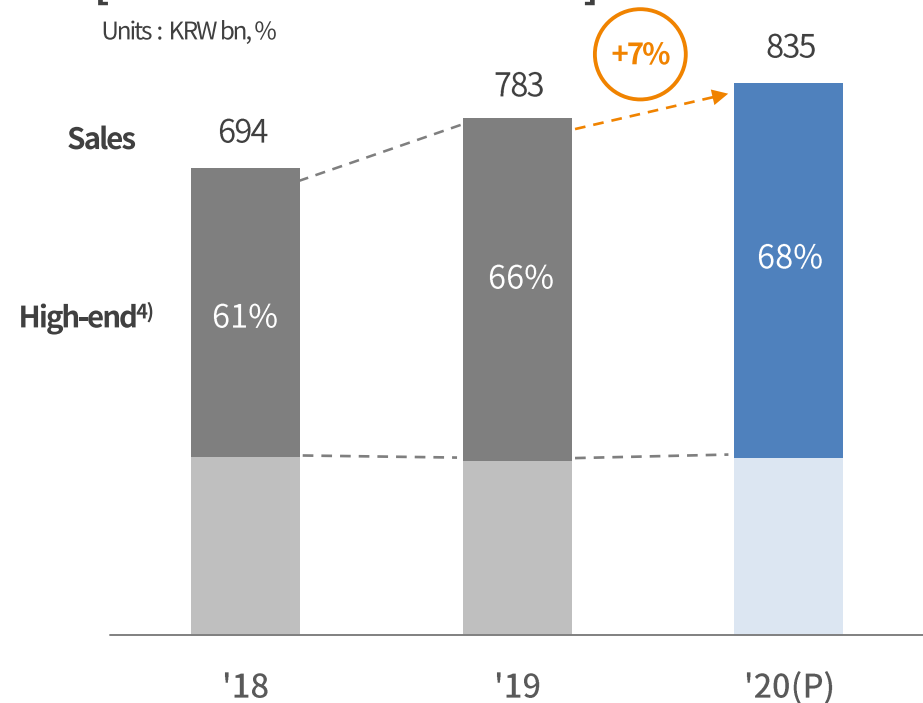
[Quarterly Sales Trend]

Units : KRW bn



[Annual Result & Outlook]

Units : KRW bn, %



1) Based on the surviving entity, 2) Low-Loss High-end M/S: Semiconductor 24%→31%, 5G/Network 14%→20%

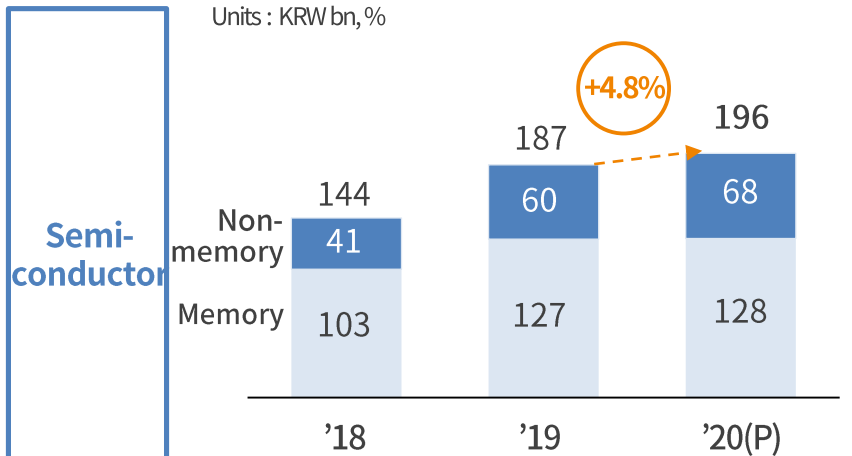
3) PFC (Patterned Flat Cable) : PFC is used for electronic vehicles' battery pack, 4) High-end : Semiconductor (PKG), 5G/Network (NWB), FCCL(Flexible CCL)

Major Achievements in 2019 and 2020 Strategies

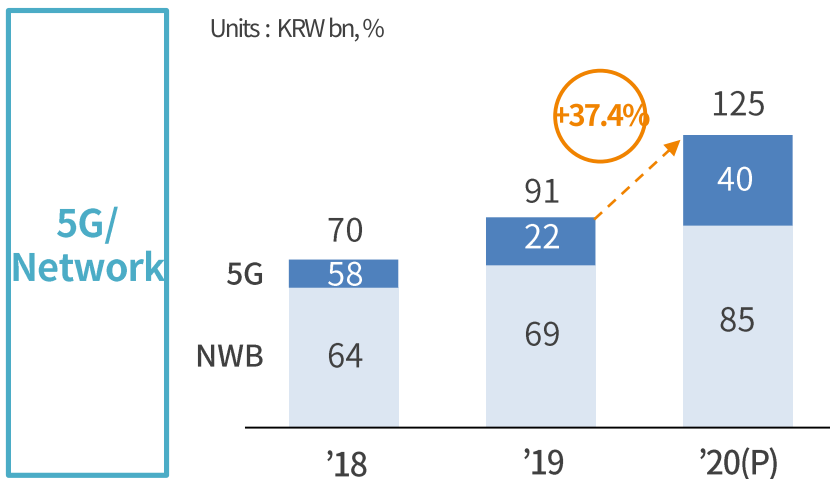
Accelerating entry into new business based on growth engines, such as 5G/network materials, and customer diversification

Sales trend of each application

Units : KRW bn, %



Units : KRW bn, %



Major achievements in 2019 and 2020 strategies

• [Non-memory]

- By preoccupying the market of fingerprint recognition and camera modules, 60 KRW bn of sales was achieved
- [Plan] Increasing the entry of the high-end non-memory market, such as smart phone module / Continued growth by developing global leading 5G products

• [Memory]

- By preoccupying the hi-end product market based on first-tier technology, 127 KRW bn of sales was achieved
- [Plan] No.1 M/S will be sustained and customer diversification will be also continued

• [5G]

- By preoccupying M/S of antenna in 'S' company and expanding new global customers, 22 KRW bn of sales was achieved
- [Plan] Sales will increase by diversifying new applications and accelerating expansion of new global customers, such as 'E' and 'N' company

• [Network]

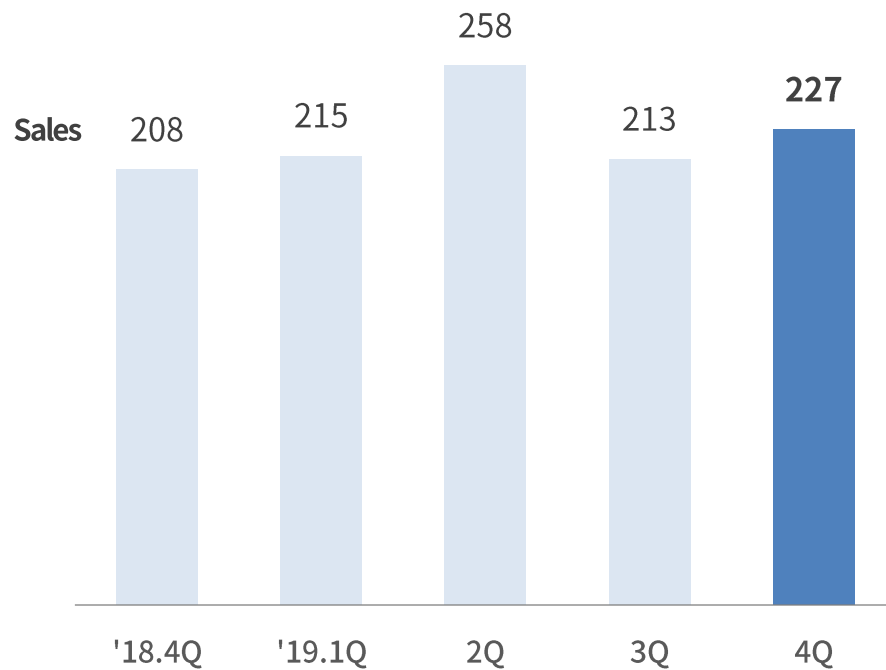
- In spite of low global infrastructure investment, 69 KRW bn of sales was achieved by securing new Chinese customers
- [Plan] Accelerate growth by securing demand of data center investment based on competitiveness of high-end products for high-speed communication

2 Industrial Vehicles

- **2019:** Despite of the sluggish growth trend, IV maintained No.1 in the domestic market, and global sales grew by 5% YoY by expanding sales in developed market, especially in U.S.
- **2020:** 1 KRW tn of sales will be achieved based on growth of new products and new business

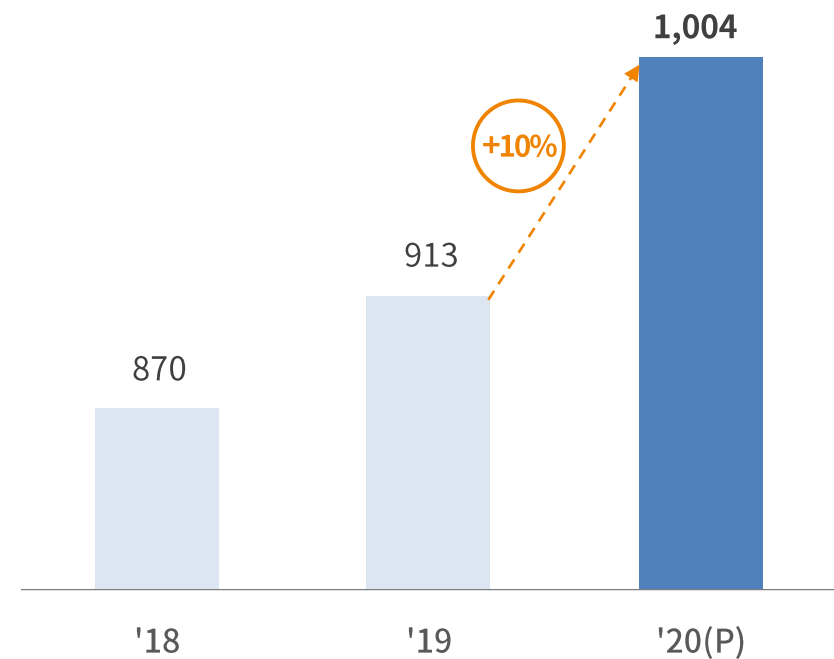
[Quarterly Sales Trend]

Units : KRW bn



[Annual Result & Outlook]

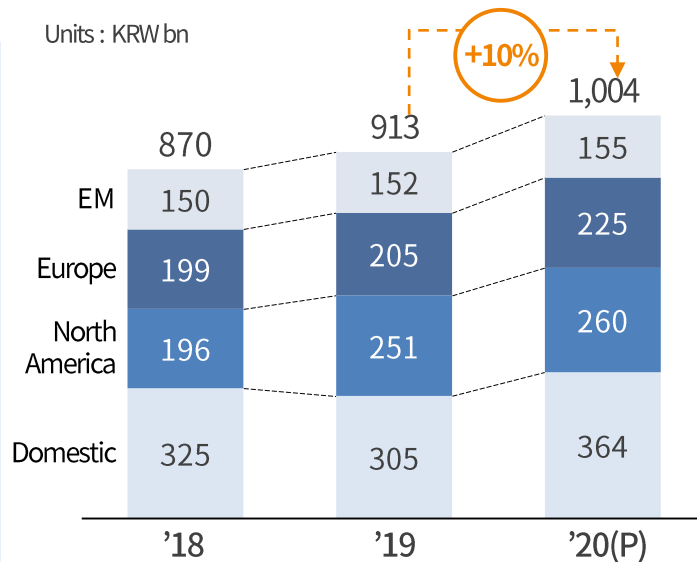
Units : KRW bn, %



Sales Breakdown of Industrial Vehicles

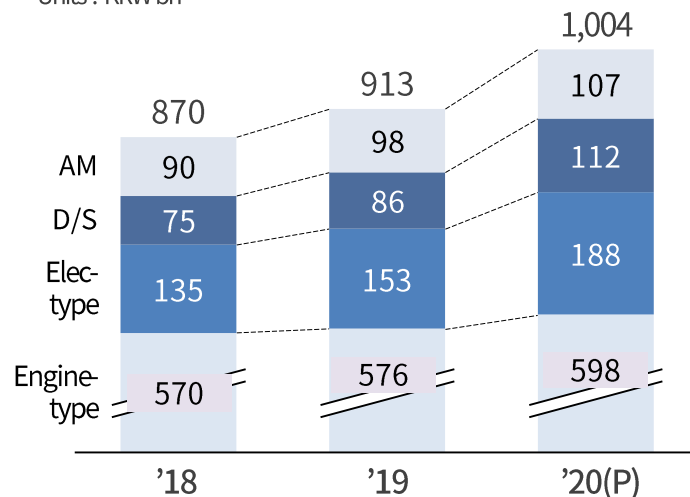
Salestrend

Units : KRW bn



Sales
by
region

Units : KRW bn



Sales
by
products

Main achievements in 2020

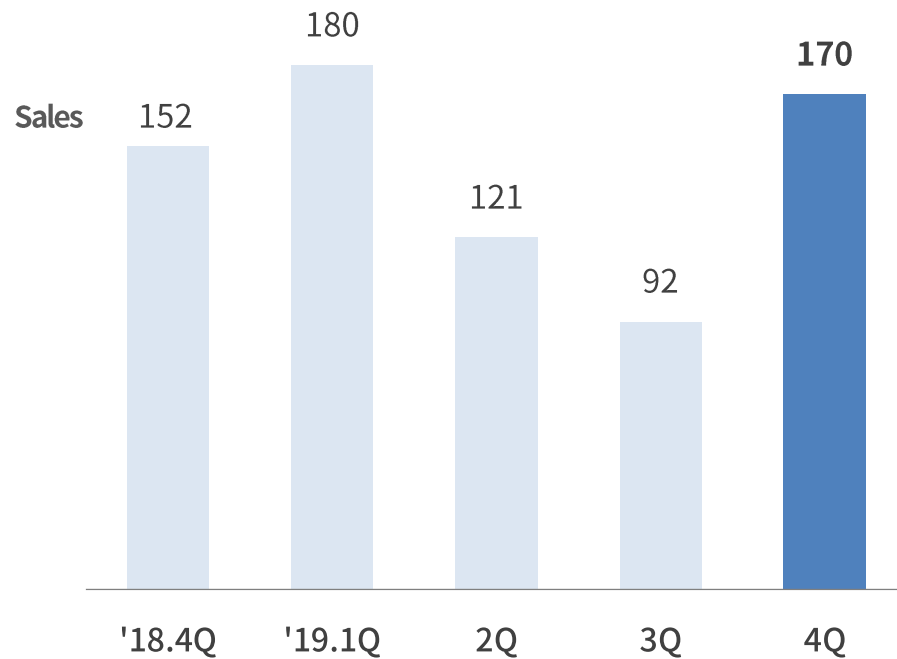
- Sales from the domestic market will increase by 20% YoY due to a launch of new economical elec-type in July and sales expansion of unmanned forklifts and rental/parts
- Sustainable growth in overseas markets
 - Plans to expand overseas sales by expanding the line-up of elec-type products in Europe and EM, including sales, which grew by 28% in 2019
- Sales from elec-type products will increase by 23% YoY through launch of a new product and expansion of its sales
- Sales from downstream business will increase by 30% YoY
 - In spite of uncertain market condition, IV will establish stable growth base by diversifying sales portfolio

3 Mottrol

- Both sales and OP in 4Q19 significantly improved on YoY basis
- 2020 : Sales and OP will increase by 2.4% and more than 10% on YoY basis
 - M/S expansion by strengthening customer responsiveness and promotion of regional diversification through exploration of the Indian/advanced markets
 - Improvement in profitability through cost reduction, including local sourcing

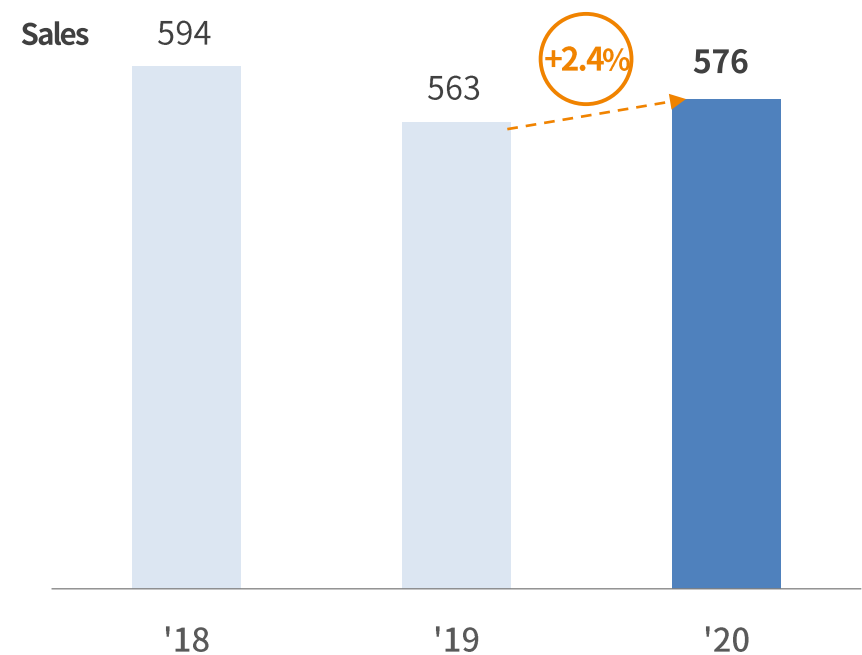
[Quarterly Sales Trend]

Unites: KRW bn, %



[Annual Result & Outlook]

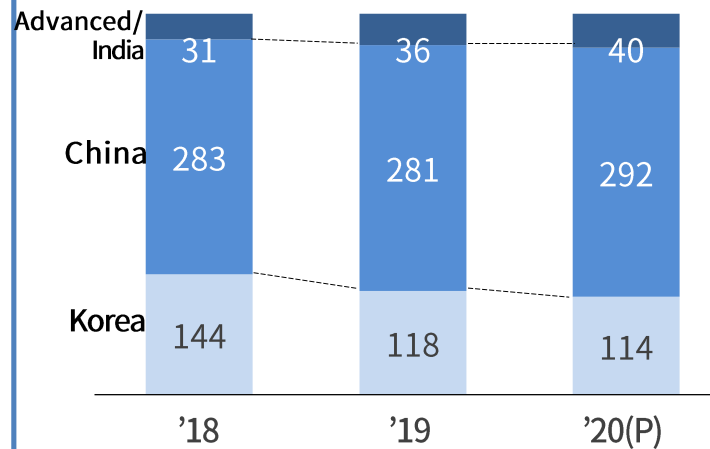
Unites: KRW bn, %



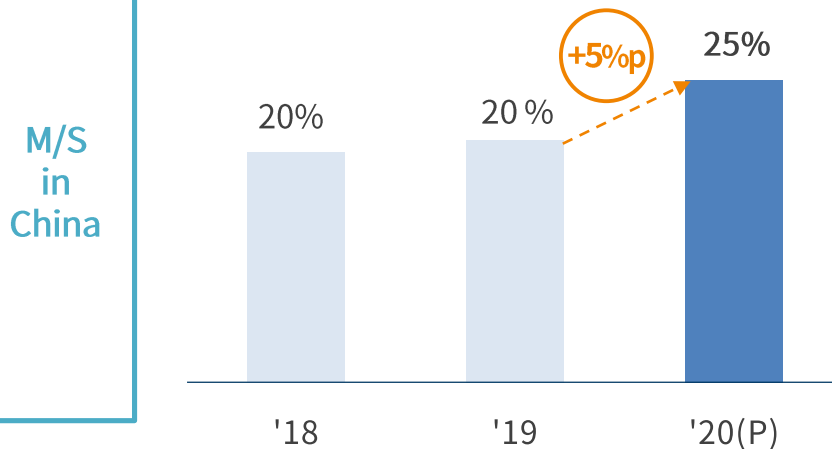
Sales by region and M/S (Hydraulic components)

Sales trend and M/S

Units : KRW bn



Units : %



2020 strategies

- [China] Continues to strengthen position in China, which is the largest market
 - Sales will be improved by 4% YoY through expansion of sales in 5~11T compact products
- [Advanced/India] Expands regional portfolio by strengthening entry into the advanced/Indian market outside China
 - Accelerates entry into the Indian market through the Chinese customers
 - Captures the opportunity to supply products toward North America and Europe based on a proven track-record in China
- M/S expansion in China by responding to major two companies
 - Maintains M/S in 'S' company and expand mid/large-sized traveling devices by strategic alliance with subsidiary of 'S' company
 - Strengthens strategic supplier position in 'X' company through technology/quality cooperation



Chapter 3.

Appendix

Doosan Logistics Solution(DLS)

2019 Result (Parent)

Financial Summary

Doosan Logistics Solution (DLS) – Market and Sales Outlook

- The domestic logistics automation market will **grow by 21%**, from 2.7 KRW tn in 2020 to 3.4 KRW tn in 2024
- In 2020, DLS will achieve 50 KRW bn in sales through orders of 100 KRW bn and sales are expected to grow through continuous orders

[Background of market growth]



Early morning delivery



Online payment



Food delivery



Unmanned courier box

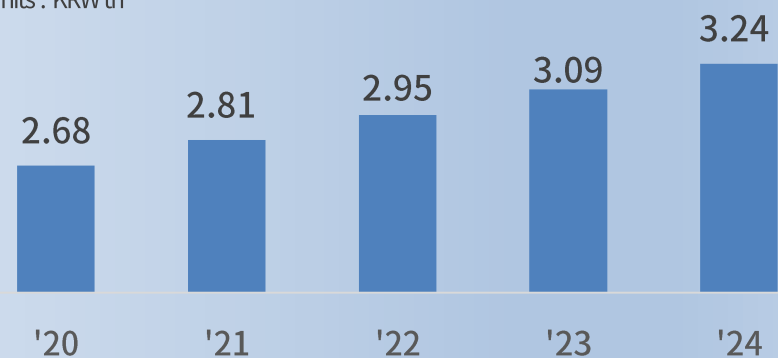


Online shopping

- Freight volume increase due to e-commerce expansion
- Increasing demand for logistics speed and efficiency
- Increasing demand for the largest logistics center
- Increasing IT system needs, including real-time inventory identification and management
- Expectation to reduce logistics cost

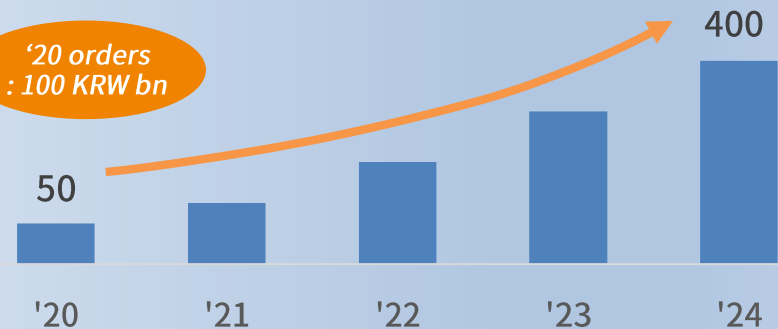
[Domestic logistics automation market Outlook]

Units : KRW tn



[Sales Outlook]

Units : KRW bn



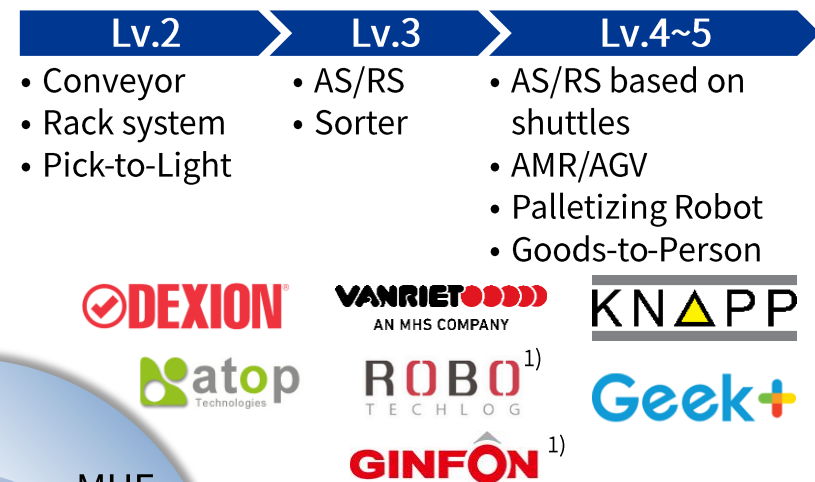
Doosan Logistics Solutions(DLS) – Competitiveness

DLS have the best competitiveness through SW-based specialties and partnerships with global HW logistics companies

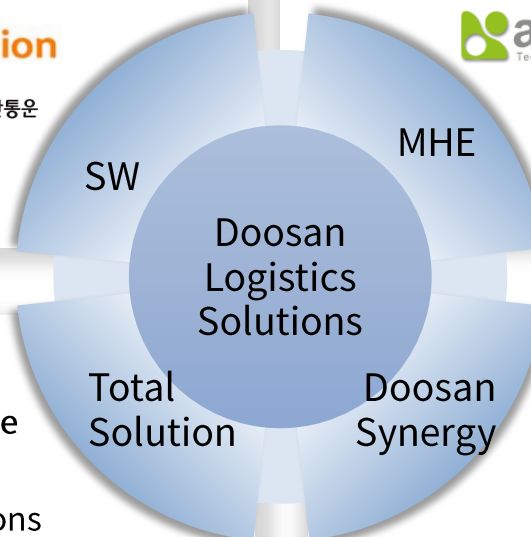
- Have best specialties in SW and the largest number of track records
 - Completed more than 2,000 projects with 350 customers since 1998



- Established Top-Tier logistics HW equipment line-ups based on global partnerships



- End-to-End service portfolio from design, construction, and maintenance
 - Engineering & Consulting
 - Maintenance service for global affiliations

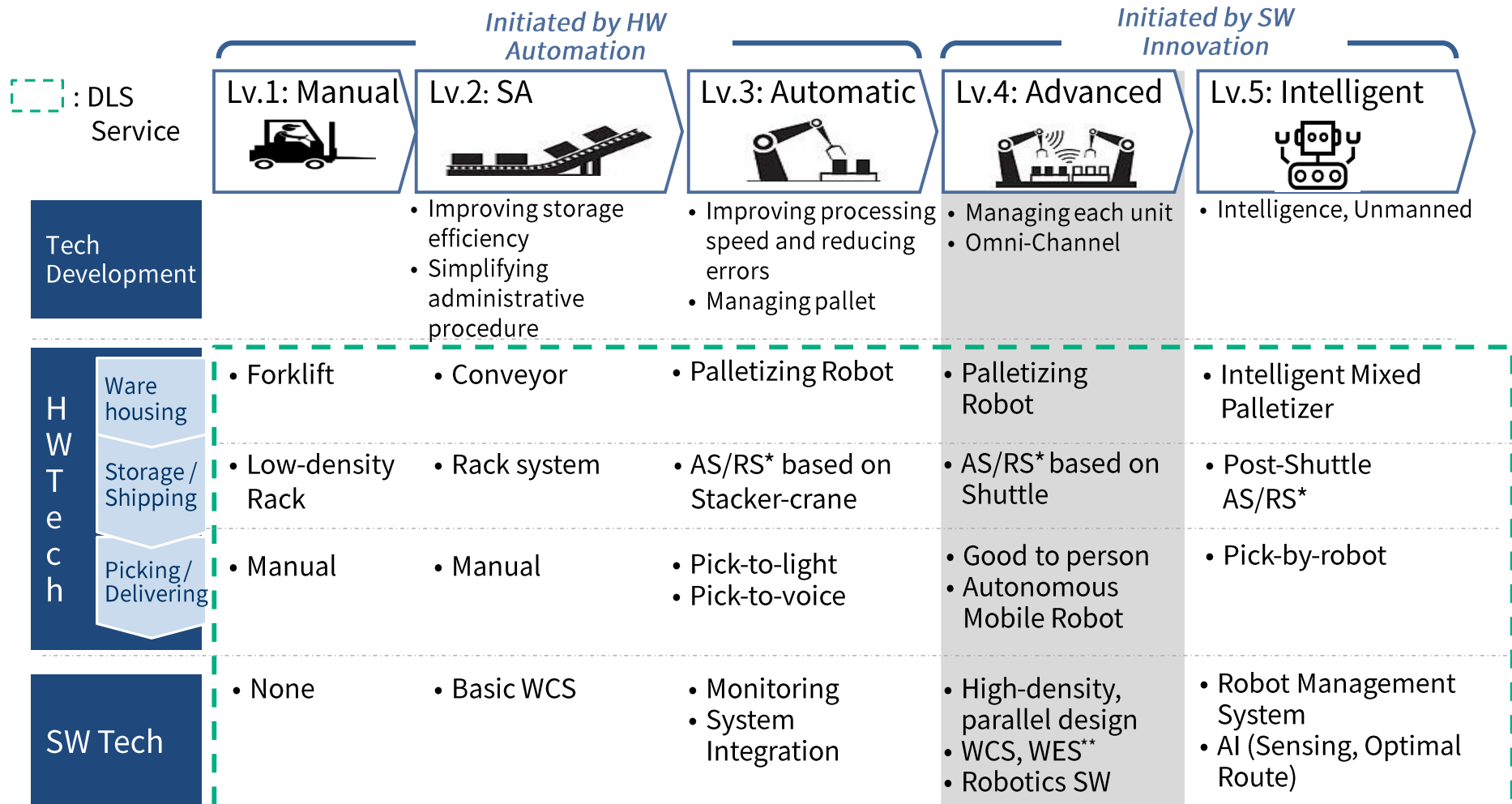


- Doosan's total logistics platform
 - Providing total logistics solutions to customers based on Doosan Group's capacities

1) Chinese manufacturing companies based on European technologies

Doosan Logistics Solutions(DLS) - Technologies

- Paradigm of logistics automation is shifted from HW-centered to SW-centered
- DLS can satisfy customers' various demands by providing logistics automation service through Lv. 1 to Lv. 5



* Automated Storage & Retrieval System

** Warehouse Execution System

Commercialization Stage / Growing demand tech

Appendix : 2019 Result (Parent)

Units : KRW bn, %

	'18	'19	YoY
Sales	2,097	2,061	-1.7%
OP(%)	215 10.2%	162 7.9%	-24.7% -2.3%p
- In-house Biz	183	173	-5.4%
- Others	32	-11	-
Interest Expense	47	66	+39.3%
Net Income	159	634	+299.6%

Appendix : Financial Summary

Units : KRW bn, %

[Financial Summary]

	Parent	
	'19.3Q	'19.4Q
Current Asset	1,489	921
Non Current Asset	3,606	3,831
Total Assets	5,095	4,752
Current Liabilities	2,592	1,706
Non Current Liabilities	1,075	902
Total Liabilities	3,667	2,608
Paid-in Capital	135	124
Total Equity	1,428	2,145

L/E Ratio ¹⁾	256.7%	121.6%
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	Consolidated	
	'19.3Q	'19.4Q
Current Asset	12,787	11,048
Non Current Asset	17,690	18,122
Total Assets	30,477	29,170
Current Liabilities	17,352	16,207
Non Current Liabilities	6,229	6,143
Total Liabilities	23,581	22,350
Owner's Equity	1,076	1,563
Total Equity	6,897	6,820

L/E Ratio	341.9%	327.7%
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[Debt]

	Parent	
	'19.3Q	'19.4Q
Bank	904	1,115
Corp.Bonds	767	458
Debt	1,765	1,573
Cash	61	127
Net Debt	1,705	1,446

Net D/e Ratio	119.3%	67.5%
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1) 3Q19 L/E ratio temporary increased due to spin-off and this number decreased in 4Q19