

EQUIPMENT HYUNDAI ROBOTICS HYUNDAI HEAVY INDUSTRIES HYUNDAI ELECTRIC & ENERGY SYSTEMS HYUNDAI ROBOTICS HYUNDAI ELECTRIC & ENERGY SYSTEMS HYUNDAI ROBOTICS HYUNDAI HEAVY INDUSTRIES HYUNDAI ELECTRIC & ENERGY SYSTEMS HYUNDAI ROBOTICS HYUNDAI HEAVY INDUSTRIES HYUNDAI ELECTRIC & ENERGY SYSTEMS

INVESTOR RELATIONS 2019

HYUNDAI HEAVY INDUSTRIES HOLDINGS

HYUNDAI HEAVY INDUSTRIES HOLDINGS HYUNDAI ELECTRIC & ENERGY SYSTEMS HYUNDAI CONSTRUCTION EQUIPMENT HYUNDAI ROBOTICS HYUNDAI HEAVY INDUSTRIES HYUNDAI ELECTRIC & ENERGY SYSTEMS HYUNDAI ROBOTICS HYUNDAI HEAVY INDUSTRIES HYUNDAI ELECTRIC & ENERGY SYSTEMS HYUNDAI ROBOTICS HYUNDAI HEAVY INDUSTRIES HYUNDAI ELECTRIC & ENERGY SYSTEMS



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Establishment of Holding Company

1. Introduction of Hyundai Heavy Industries Group
2. Spin-off in 2017
3. Transformation into Holding Company
4. Corporate Governance Structure
5. Business summary (unlisted subsidiaries)
6. Holding Company Business Strategy
7. Dividend Policy

1. Introduction of Hyundai Heavy Industries Group

Hyundai Heavy Industries Group is a group of Shipbuilding and heavy industries related companies, and separated from the Hyundai Group in Feb., 2002.

Hyundai Heavy Industries (HHI) Group



Main Businesses



Shipbuilding

- World No. 1 shipbuilder with a 23% global M/S (incl. HHI + Hyundai Mipo Dockyard + Hyundai Samho)



Marine Engine

- World No. 1 marine engine manufacturer
 - 36% M/S in global large-sized engine market
 - 28% M/S in global mid-sized engine market

Other Businesses



- Korea No.1 electrical equipment manufacturer



- Distinguished construction equipment maker



- Global top 10 refinery

Hyundai Families (Pan-Hyundai Group)



- World's top 5 automobile company
 - Hyundai Motors, KIA Motors
 - Produces 8 million automobiles in 9 countries
- 60+ affiliates: Hyundai Engineering & Construction (Korea No. 1 construction company) and others



- Korea's No.1 manufacturer of paint and building materials

Other Groups



2. Spin-off in 2017

Reorganized the business structure to advance corporate governance to enhance management expertise

45 years of operation since 1972

April 1 2017

Rebirth of Hyundai Heavy Industries with a new look



 **HYUNDAI**
HEAVY INDUSTRIES



 **HYUNDAI**
HEAVY INDUSTRIES HOLDINGS

 **HYUNDAI**
ROBOTICS (Formerly)



 **HYUNDAI**
ELECTRIC



 **HYUNDAI**
CONSTRUCTION EQUIPMENT

3. Transformation into Holding Company(1)

Completed its conversion into holding company structure by satisfying restrictions on holding company “the standard of shareholdings in the subsidiaries” pursuant to the monopoly regulation and fair trade act

Progress of transformation into holding company



1. Resolve the restriction on prohibition of cross-shareholding

3. Resolve the restriction on investing in affiliates by sub-subsidiary

2. Satisfy the standards of Shareholdings in Subsidiaries

3. Transformation into Holding Company(2)

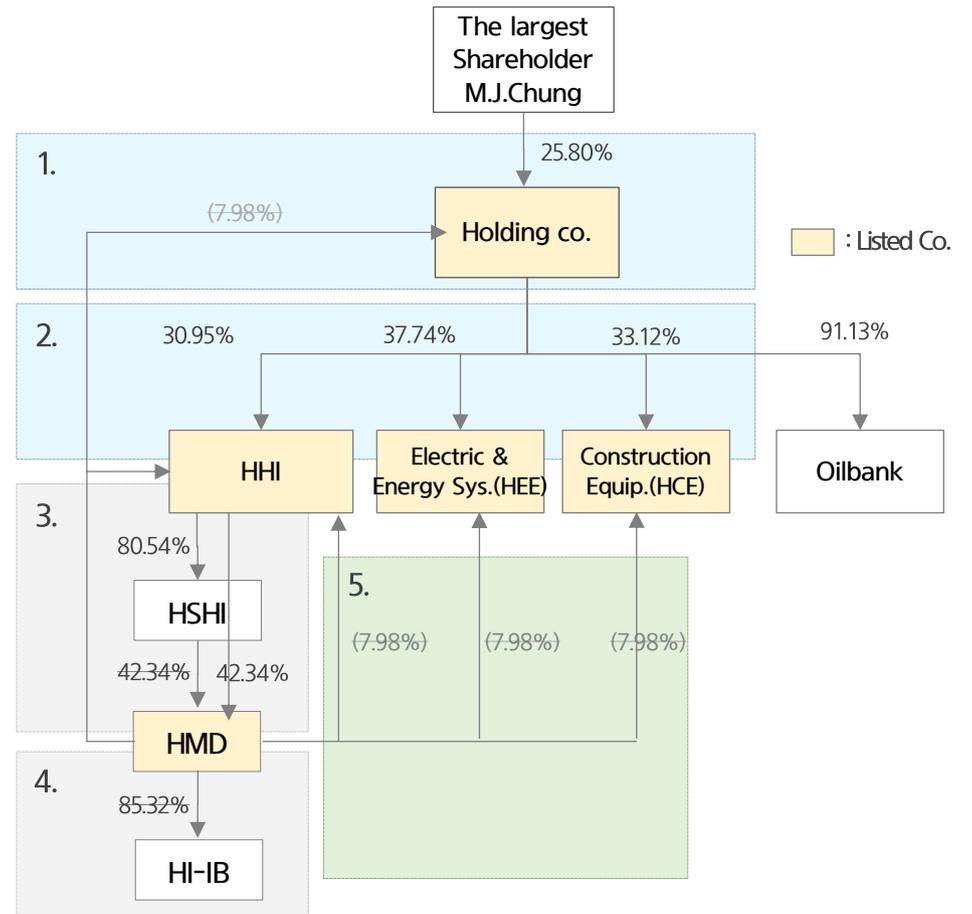
1. Elimination of Cross-shareholding
 : HMD must sell its stake in Robotics within 6 months after the spin-off to resolve a newly created circular ownership. (~Sep.,17)
 : HMD sold-off all shares of Robotics on Jun. 22(960,540 shares, 350 bil. KRW)

2. Meeting the Standards of Shareholding in subsidiaries
 : Holding co. has to own at least 20% shares of its listed affiliates(40% of non-listed).
 : Robotics increased its shares in HHI(27.84%), HEE(35.62%), and HCE(32.11%) by the rights-offering in return for in-kind contributions and additional share acquisition from HMD.

3. Resolve Restriction on investing in affiliates by sub-subsidiary
 : Spin-off HSHI into an Inves Co. and Op. Co. followed by a merger between HHI and HSHI's Investment Company

4. Disposal of Stake in financial affiliates
 : HMD disposed its stake in HI Investment and Securities since a holding company is prohibited to invest in its financial affiliates

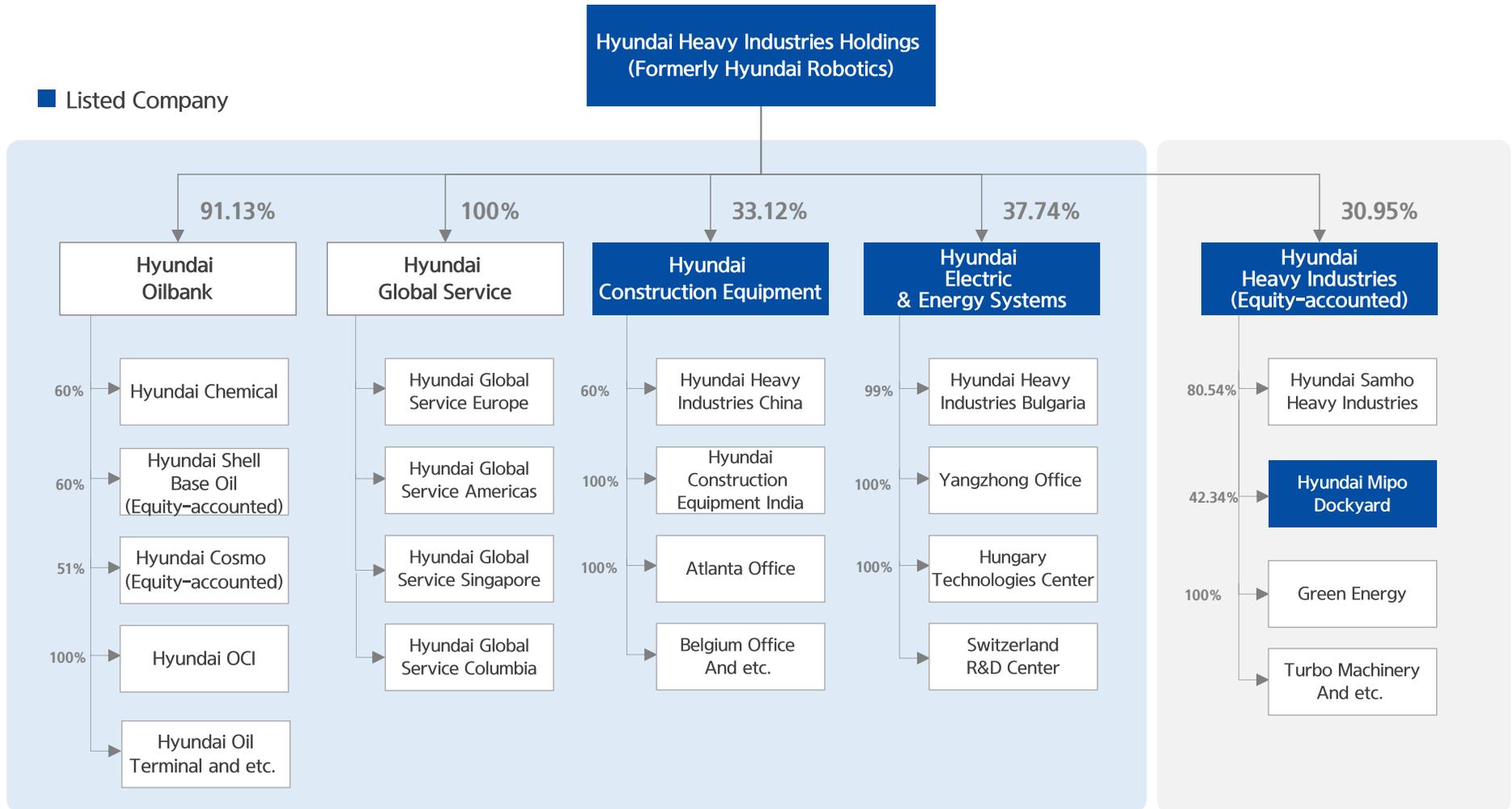
5. Resolve Restriction on investing in affiliates by Sub subsidiary
 : A great-grandchild entity under Hold-co. structure is not allowed to invest in any of its domestic subsidiaries. HMD will sell the stakes of HHI accordingly.
 : HMD sold-off all(7.98%) of HEE/HCE/HHI's shares.



※ As of Mar. 2019

4. Corporate Governance Structure

■ Listed Company



Note 1 : Equity-accounted investees - Hyundai Heavy Industries, Hyundai Shell Base Oil, Hyundai Cosmo

Note 2 : Consolidation of 35 Subsidiaries.

Note 3 : As of Mar. 2019

5. Business summary(unlisted subsidiaries)

	1	2	3
Sales (2018)	21,503.6 Bil KRW	414.5 Bil KRW	266.7 Bil KRW
Operating Profit (2018)	6,610.0 Bil KRW	72.9 Bil KRW	34.1 Bil KRW
Business Outline	<ul style="list-style-type: none"> • Energy Business(Refinery, Petrochemical, Lubricant, etc) <ul style="list-style-type: none"> - Production and sales of Oil products - Production of PX(Base material for synthetic textiles) - Lube base oil, Oil storage business 	<ul style="list-style-type: none"> • Service Business related to vessel and power plant <ul style="list-style-type: none"> - Vessel engine parts and equipment sales - Eco-friendly retrofit business - Engine power plant parts sales and maintenance 	<ul style="list-style-type: none"> • Industrial robot and automation facility business <ul style="list-style-type: none"> - Industrial robot and LCD robot sales - Provide parts and related services - Automation facility and system sales
	“Global Energy company with world-class competitiveness”	“Leap up to Global Top-tier Total Solution Provider”	“Leap up to Global Top-tier comprehensive robot company”

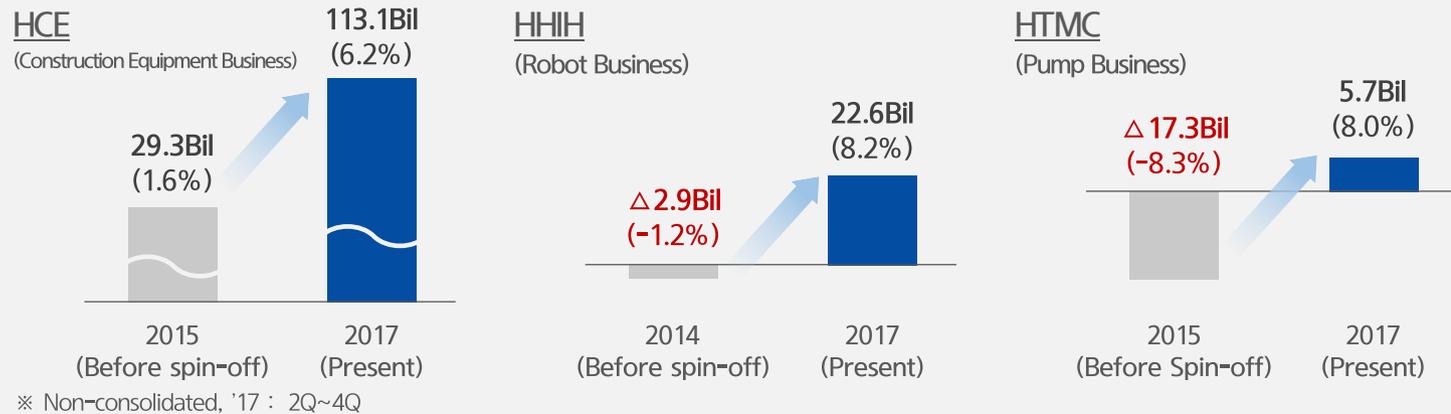
6. Holding Company Business Strategy

Investment Strategy

“ Rather than securing earnings through internal trade within group (Brand loyalty, rent), We pursue enlarging the value through excavating and fostering various business opportunity in adjacent area ”



Investment Performance (Comparing Operating Income)



Future Highlights

- ✓ Considering proper chance to list Hyundai Global Service and Robot Business after fostering
- ✓ Identifying and fostering key business innovation opportunities to link with 4th Industrial Revolution

7. Dividend Policy

Provide an Improved visibility of dividend payout for investors.

Hyundai Heavy Industries Holdings

- Constant Payout Ratio**
 - Payout constant percentage of earnings
 - min. 70%
- Constant Dividend Yield**
 - High Dividend yield
 - over 5%

▪ Average dividend payout ratio of 4 major holding companies (SK, LG, GS, CJ) : 59.8% for the past three years

Note 1. payout ratio is based on parent basis

Subsidiaries

- Constant Payout Ratio**
 - Payout ratio with more than 30% to be maintained for each profit making subsidiaries.

Hyundai Oilbank

1. Company Overview
2. Business Structure
3. Company History
4. Achievements
5. Investment Highlights
 - 1) Industry-leading Upgrading Ratio
 - 2) Advantage on Cost Competitiveness
 - 3) Diversified Portfolio & Local Synergy
6. Key Investments & Benefits
7. Non-refining Affiliates Overview
 - 1) Petrochemicals
 - 2) Lube Base Oil
 - 3) Carbon Black

[Appendix]

- Countermeasures on IMO regulation
- Crack & Spread

1. Company Overview

Overview

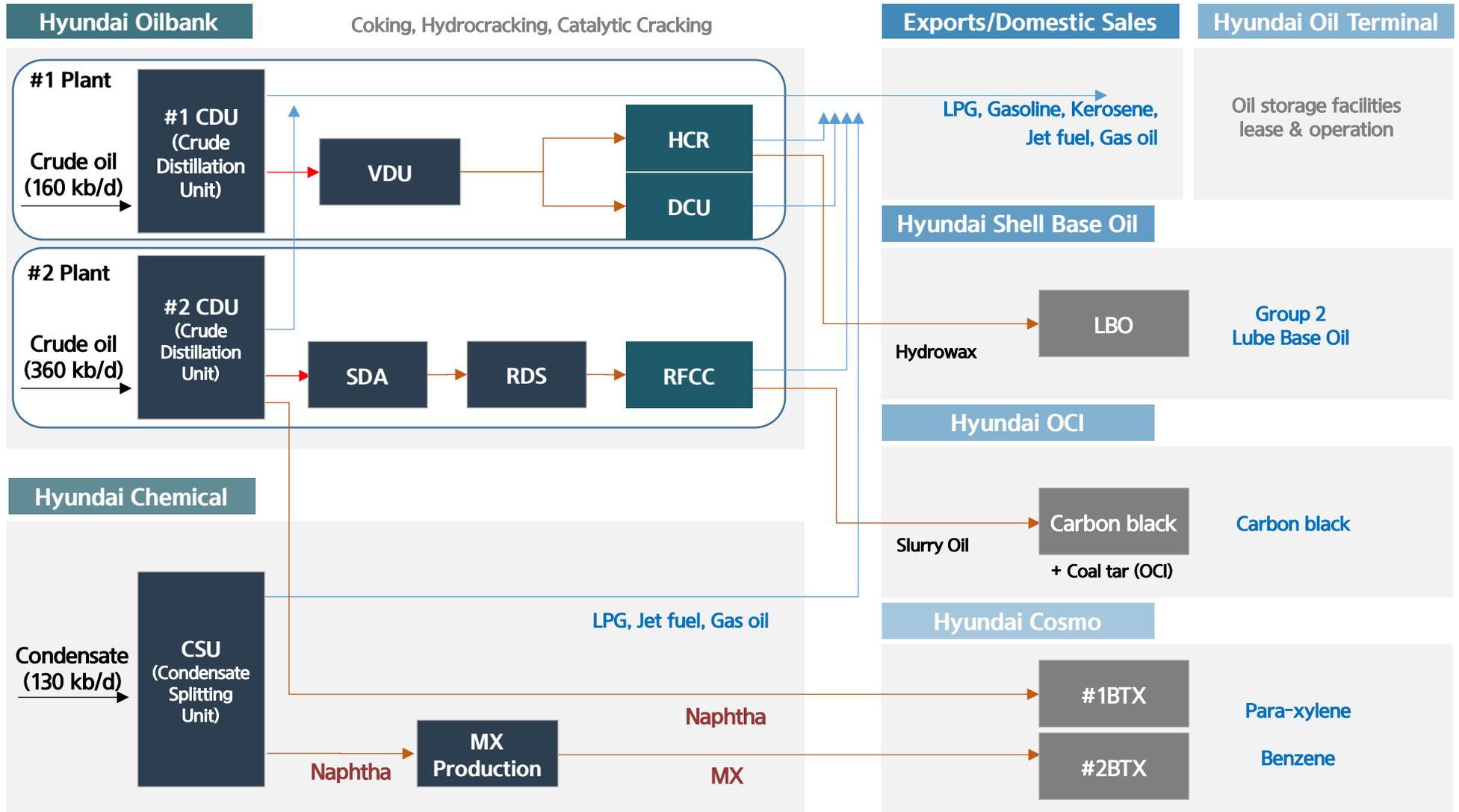
Name	Hyundai Oilbank Co., Ltd.
Established	Nov. 1964 (Incorporated into the HHI Group: Aug. 2010)
Business	Petroleum Refining & Product Sales
Location	Daesan Petrochemical Complex, Chungcheongnam-Do (Western Sea)
Capacity	Refining Capacity: 650 kb/d (2 CDUs of 520 kb/d, 1 CSU of 130 kb/d)
Gas Stations	2,187 Gas Stations (as of Dec. 2018)
Oil Terminals	8 Oil Terminals
Employees	2,355 Employees (as of Dec. 2018)

Affiliate Companies

Company (Established)	Ownership	Production Capacity
Hyundai Chemical (May 2014)	60% (Lotte Chemical 40%)	Mixed Xylene 1.2 mil. ton/year Benzene 360k ton/year
Hyundai OCI (Feb. 2016)	51% (OCI 49%)	Carbon Black 100k ton/year
Hyundai Oil Terminal (Feb. 2012)	100%	Oil Storage Business (280,000 kl)
Hyundai Cosmo (Jan. 2009)	50% (Cosmo Oil 50%)	Paraxylene 1.4 mil. ton/year Benzene 210k ton/year
Hyundai Shell Base Oil (Apr. 2012)	60% (Shell 40%)	Group II Lube base oil 1 mil. ton/year

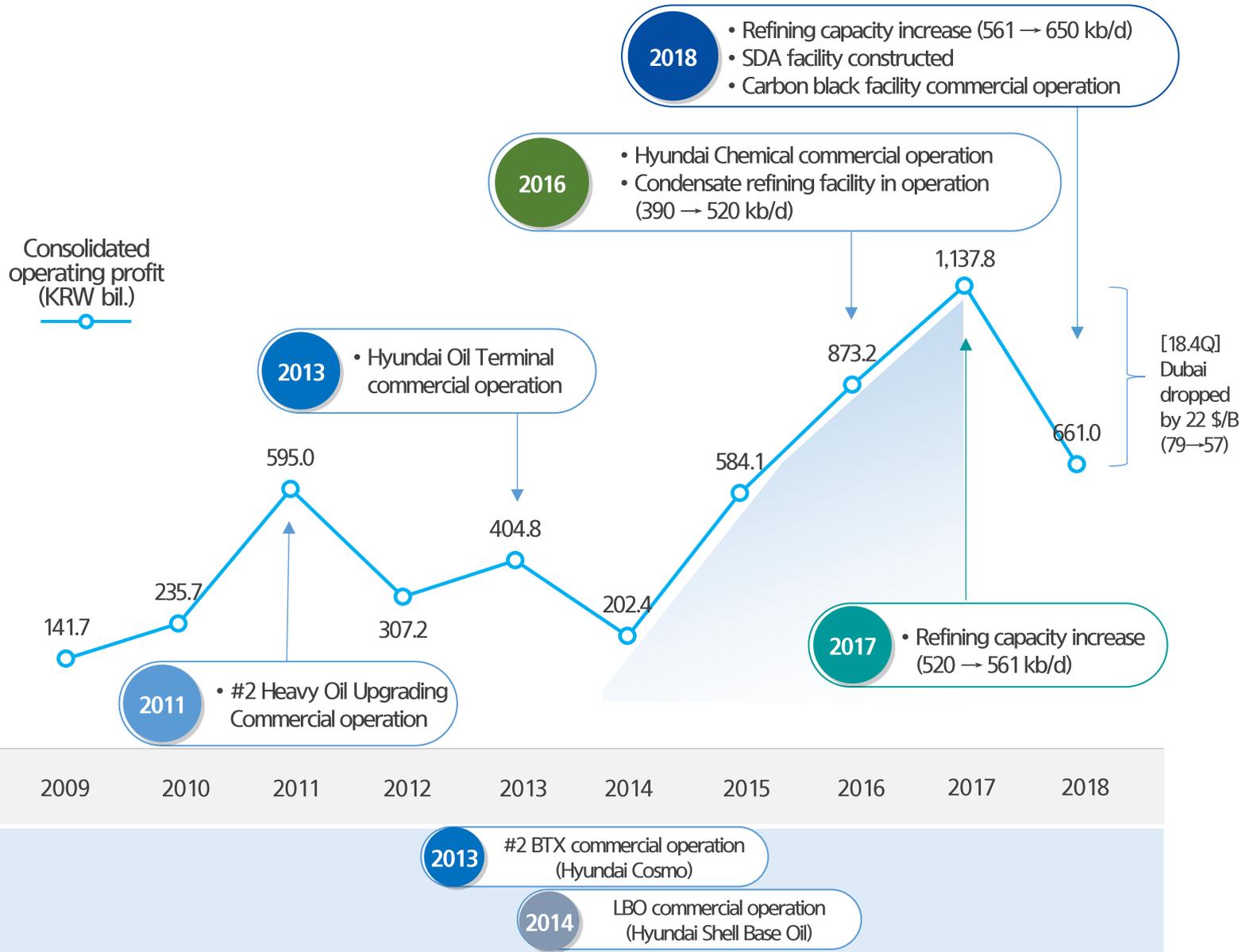
Non-consolidated affiliates (Equity method)

2. Business Structure



3. Company History

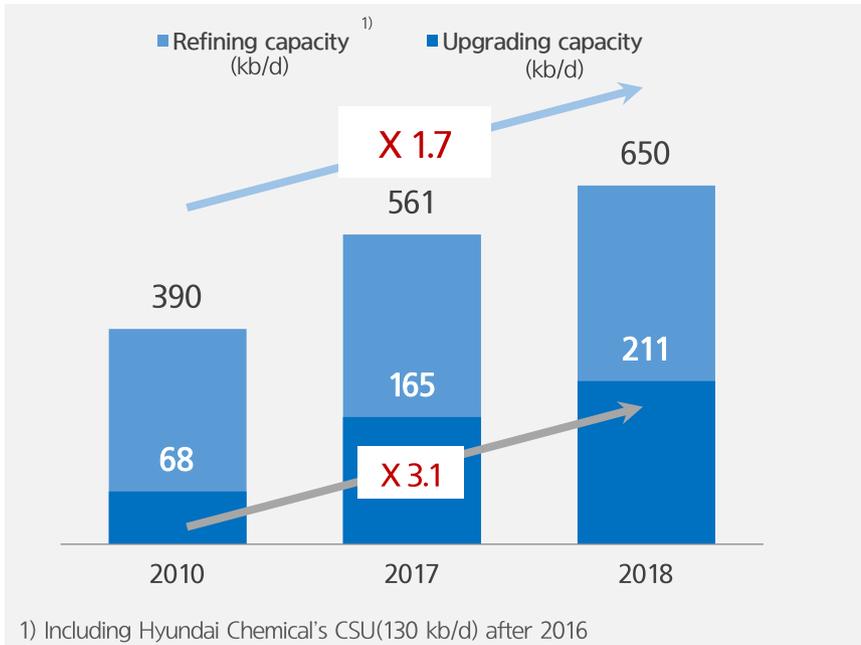
- 1964
- Established as the first private refinery in Korea (Busan)
- 1988
- Daesan refinery constructed
- 1993
- Change in ownership (Keukdong Oil → HHI Group)
- 2000
- Change in ownership (HHI → IPIC (UAE))
- 2010
- Change in ownership (IPIC → HHI)



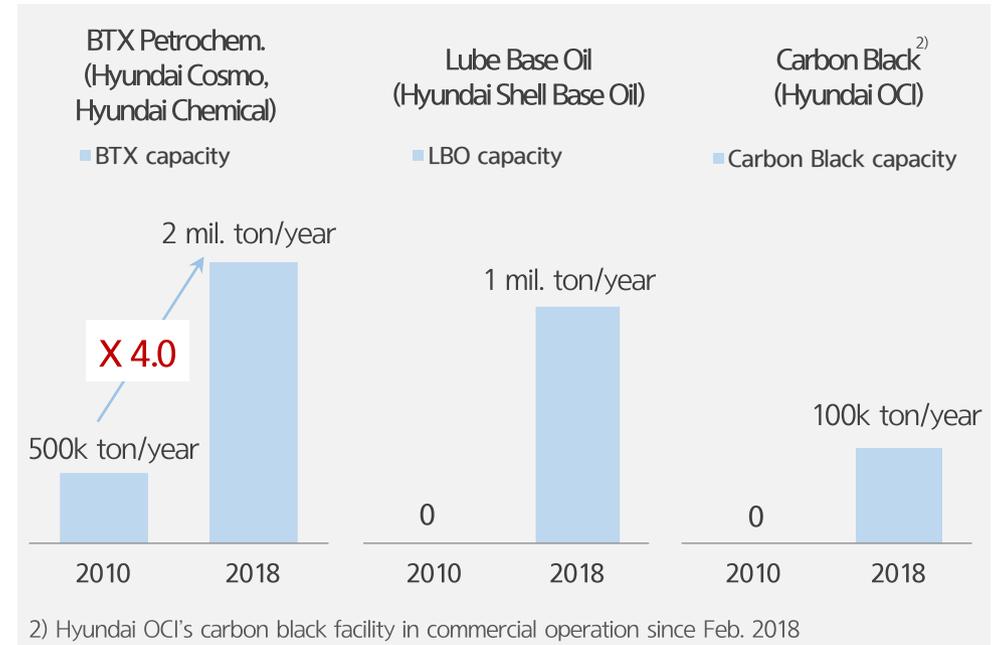
4. Key Achievements

“ Ever since joining the HHI Group in 2010, we have achieved fast-paced growth in both refining & non-refining sectors through well-timed investments and efficient management ”

Refining Sector (2010 comparison)



Non-refining Sector (2010 comparison, JVs included)



Refining Sector Operating Profit (KRW)



Non-refining Sector Operating Profit (KRW) (JVs included)



5. Investment Highlights ① Industry-leading Upgrading Ratio

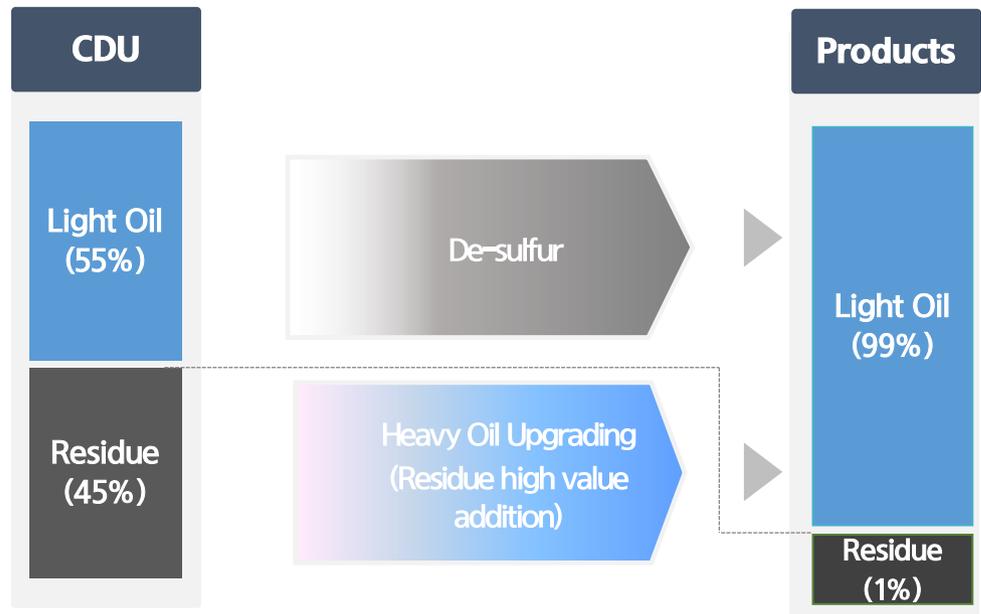
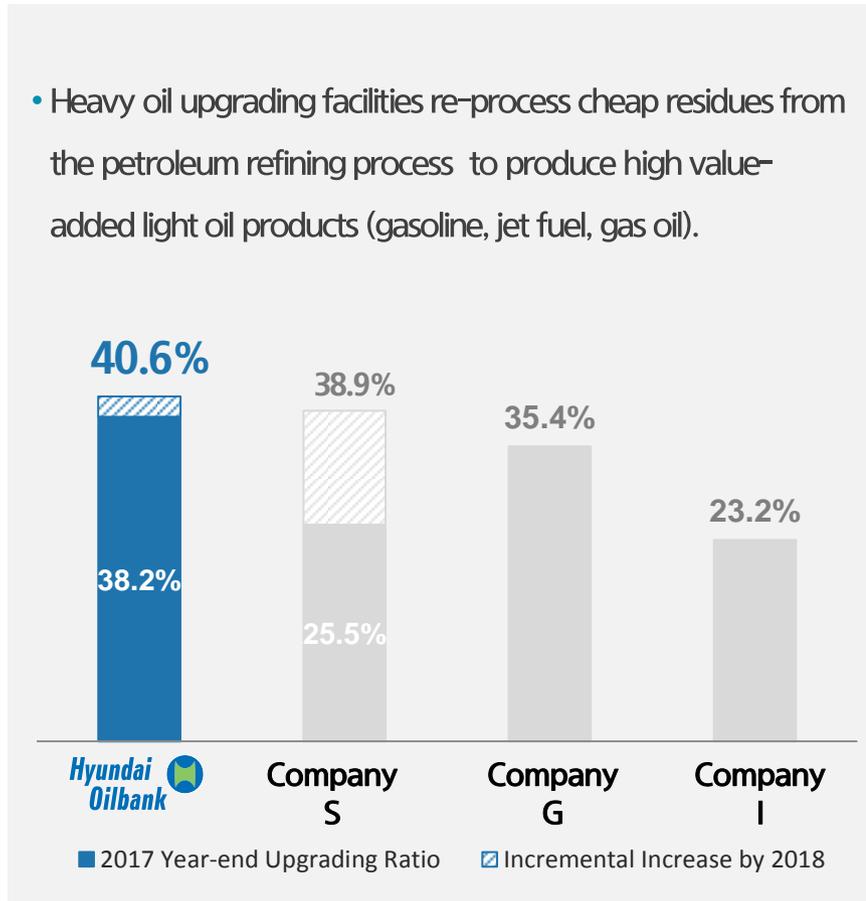
“ Utilizing the best heavy oil upgrading facilities in Korea, we convert cheap crude into high-value petrochemical products. ”

Highest Upgrading Ratio in Korea

- Heavy oil upgrading facilities re-process cheap residues from the petroleum refining process to produce high value-added light oil products (gasoline, jet fuel, gas oil).

Benefits of High Upgrading Ratio

- Lower the yield of cheap products (HSFO, asphalt, etc.) and increase the yield of high value-added light oil products.
- Able to process heavy crude oil, which is cheaper but has a higher residue yield.



Note 1. Source: Ministry of Trade, Industry, and Energy. Energy Statistics.
 Note 2. Including 2018 revamp capacity (Hyundai Oilbank revamp & competitors' IR data)

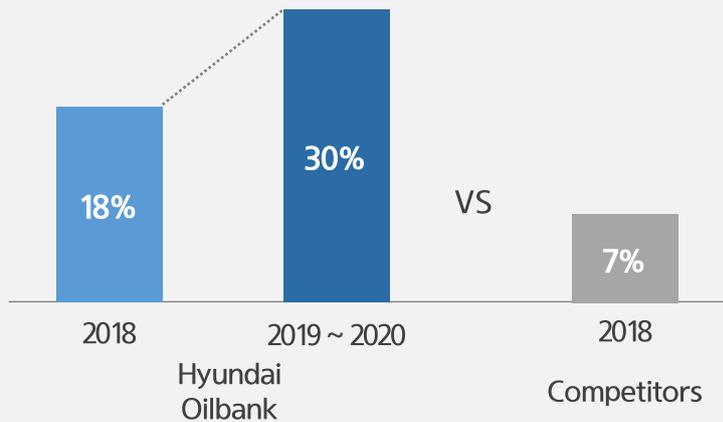
5. Investment Highlights ② Advantage on Cost Competitiveness

“ Taking advantage of the differentiated facilities, we use cheaper ultra heavy oil crude to strengthen our cost competitiveness ”

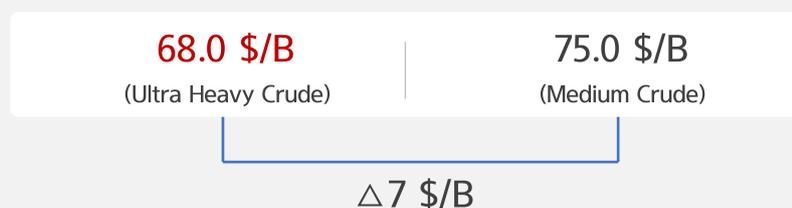
Ultra Heavy Crude?

- Heavier and more difficult to refine, but cheaper than the average crude

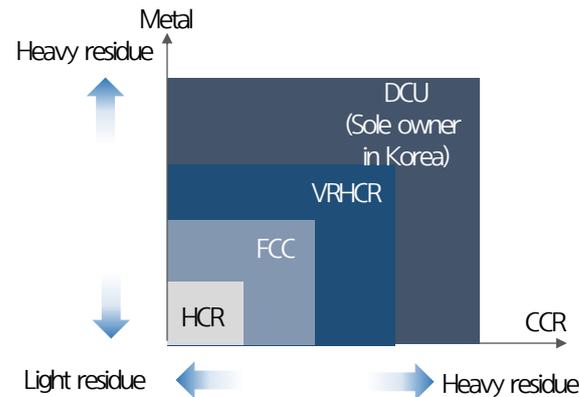
Ultra Heavy Crude Import Ratio



Avg. Crude Price in 2018



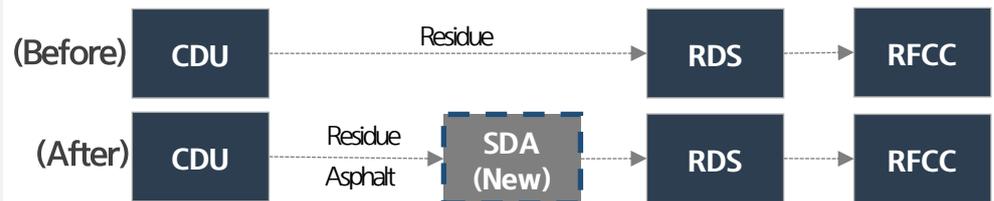
1st Stage Utilize the DCU unit to input ultra heavy crude into the #1 plant (Maximum 18%)



• DCU unit has a higher capability of processing heavy residue than other heavy oil upgrading facilities.

* CCR : Coke-forming ratio

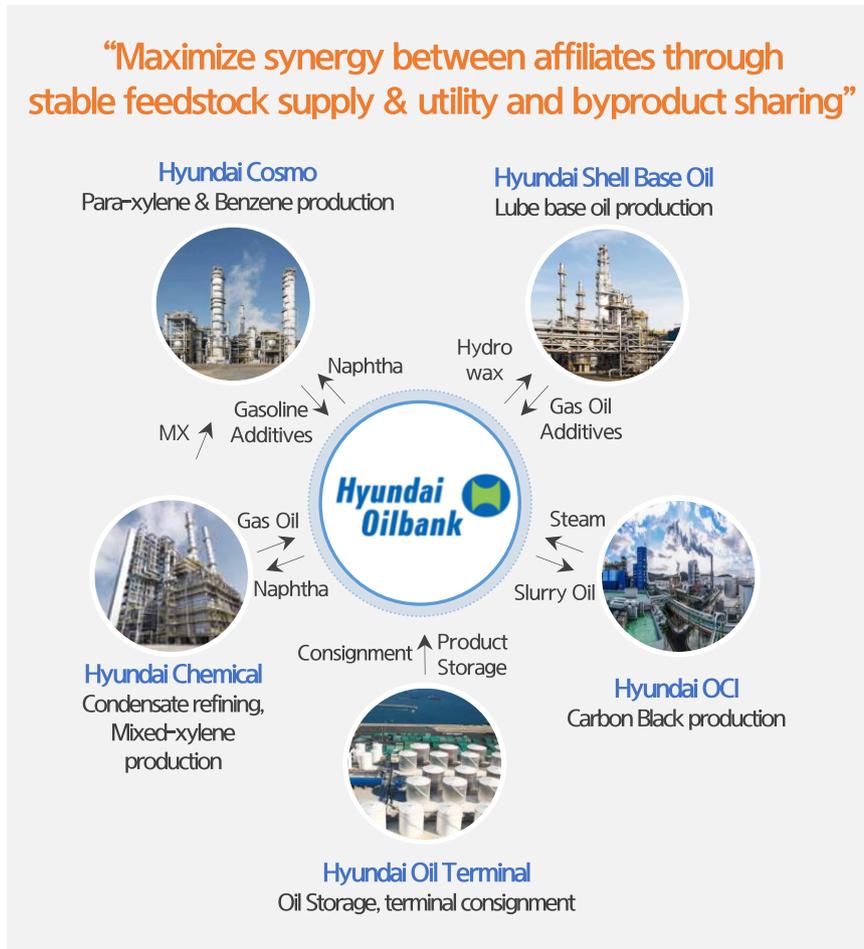
+ 2nd Stage Starting Sep. 2018, Utilize the newly constructed SDA unit to input ultra heavy crude into the #2 plant



- Before inserting into the RDS unit, separate heavy residue in the SDA unit
- Able to input additional ultra heavy crude into the #2 plant

5. Investment Highlights ③ Diversified Portfolio & Local Synergy

Maximize Synergy through Diversification



Generate Synergy in Daesan Petrochem. Complex

“Stable sources of captive sales & synergy”

The Daesan Petrochemical Complex includes the following facilities:

- Hanwha Total**
- Lotte Chemical**
- LG Chemical**
- Hyundai Oilbank**
- KCC**
- Korea National Oil Corporation (KNOC)**

- Stable captive sales to nearby petrochemical companies in the complex
- Generate profit by trading utilities and byproducts with nearby companies in the complex
- Utilize KNOC’s wharf, tanks, and crude oil reserve

6. Key Investments & Benefits in 2018

“ Through effective investments in 2018, we expect sales and profitability to increase in 2019, and we have established the foundation for new business opportunities ”

<p>1</p> <h3>CDU revamp</h3> <p>CDU 431 → 520 kb/d CSU 130 kb/d (Unchanged) (Investment: KRW 58 bil.)</p>	<p>Increase refining capacity (unit: kb/d)</p> <table border="1"> <caption>Increase refining capacity (unit: kb/d)</caption> <thead> <tr> <th>Year</th> <th>Capacity (kb/d)</th> </tr> </thead> <tbody> <tr> <td>2017</td> <td>561</td> </tr> <tr> <td>2018</td> <td>650</td> </tr> <tr> <td>Company S</td> <td>669</td> </tr> </tbody> </table>	Year	Capacity (kb/d)	2017	561	2018	650	Company S	669	<h3>Greater Economies of Scale</h3> <ul style="list-style-type: none"> • Increase the refining capacity to achieve greater economies of scale, through which higher sales and profit are expected.
Year	Capacity (kb/d)									
2017	561									
2018	650									
Company S	669									
<p>2</p> <h3>HCR, DCU revamp</h3> <p>HCR 42 → 50 kb/d DCU 36.5 → 50 kb/d (Investment: KRW 210 bil.)</p>	<p>Increase upgrading ratio</p> <table border="1"> <caption>Increase upgrading ratio</caption> <thead> <tr> <th>Year</th> <th>Ratio (%)</th> </tr> </thead> <tbody> <tr> <td>2017</td> <td>38.2%</td> </tr> <tr> <td>2018</td> <td>40.6%</td> </tr> <tr> <td>Company S</td> <td>38.9%</td> </tr> </tbody> </table>	Year	Ratio (%)	2017	38.2%	2018	40.6%	Company S	38.9%	<h3>Improved Upgrading Ability</h3> <ul style="list-style-type: none"> • Increase the re-processing rate of cheap byproduct asphalt and increase kero/gas oil production. • Additional production of high profit generating LBO's feedstock.
Year	Ratio (%)									
2017	38.2%									
2018	40.6%									
Company S	38.9%									
<p>3</p> <h3>SDA construction</h3> <p>Adopt new facility to increase ultra heavy crude input (Investment: KRW 240 bil.)</p>	<p>Ultra heavy crude input rate</p> <table border="1"> <caption>Ultra heavy crude input rate</caption> <thead> <tr> <th>Year</th> <th>Rate (%)</th> </tr> </thead> <tbody> <tr> <td>2018</td> <td>18%</td> </tr> <tr> <td>2019~2020</td> <td>Up to 30%</td> </tr> <tr> <td>Company S</td> <td>0%</td> </tr> </tbody> </table>	Year	Rate (%)	2018	18%	2019~2020	Up to 30%	Company S	0%	<h3>Higher Cost Efficiency</h3> <ul style="list-style-type: none"> • By separating residue before inserting into the RDS unit, increase the input of cheap ultra heavy crude. • Produce T-DAO, which is the main feedstock for the HPC project.
Year	Rate (%)									
2018	18%									
2019~2020	Up to 30%									
Company S	0%									

(Investment: KRW 240 bil.)

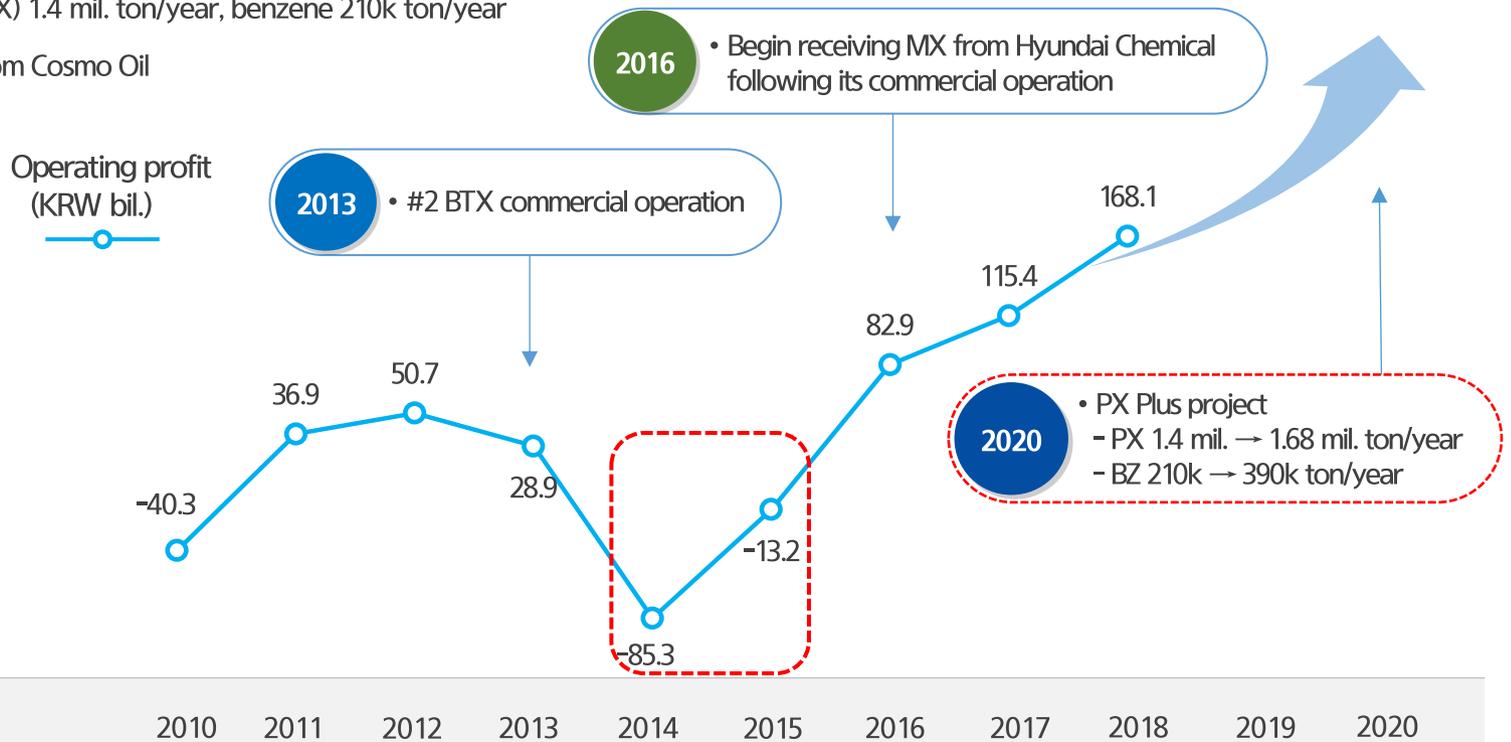
7. Non-refining Affiliates – Petrochemicals (1) Hyundai Cosmo

Hyundai Cosmo (Equity method)

Hyundai Oilbank (50%) COSMO (50%)

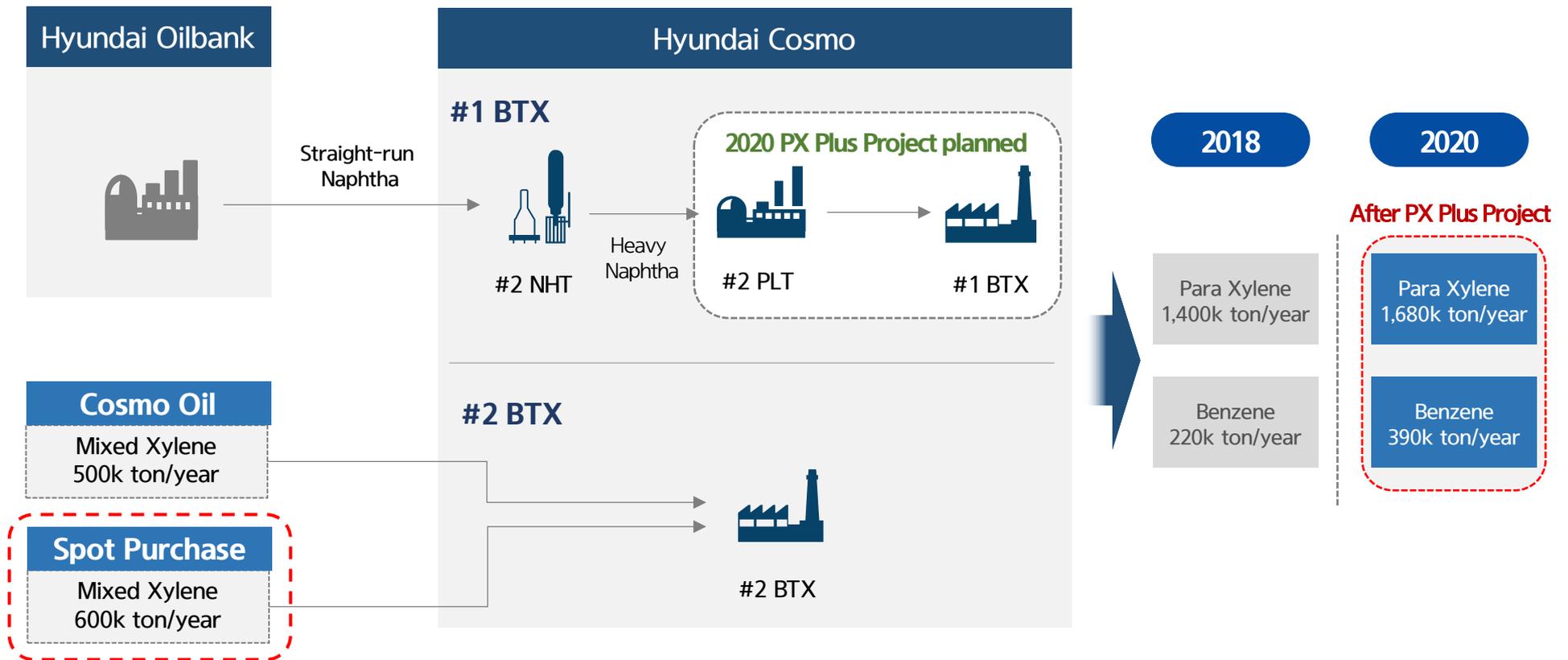
- Production capacity : Para-xylene(PX) 1.4 mil. ton/year, benzene 210k ton/year
- JV benefits : Stable supply of MX from Cosmo Oil

- Jan. 2009
 - Hyundai Cosmo established: Asset transfer of #1 BTX and #2 NHT from Hyundai Oilbank
- April 2013
 - #2 BTX commercial operation
- Nov. 2016
 - Begin receiving MX from Hyundai Chemical
- 2020 (E)
 - PX Plus project completed



7. Non-refining Affiliates – Petrochemicals (1) Hyundai Cosmo

“ Since the commercial operation of Hyundai Chemical in 2016, stable supply and improved quality of mixed-xylene have led to improved profitability. PX Plus Project in 2020 will further increase the capacity. ”



➔ Since Nov. 2016, Hyundai Chemical has been producing and supplying Mixed-xylene

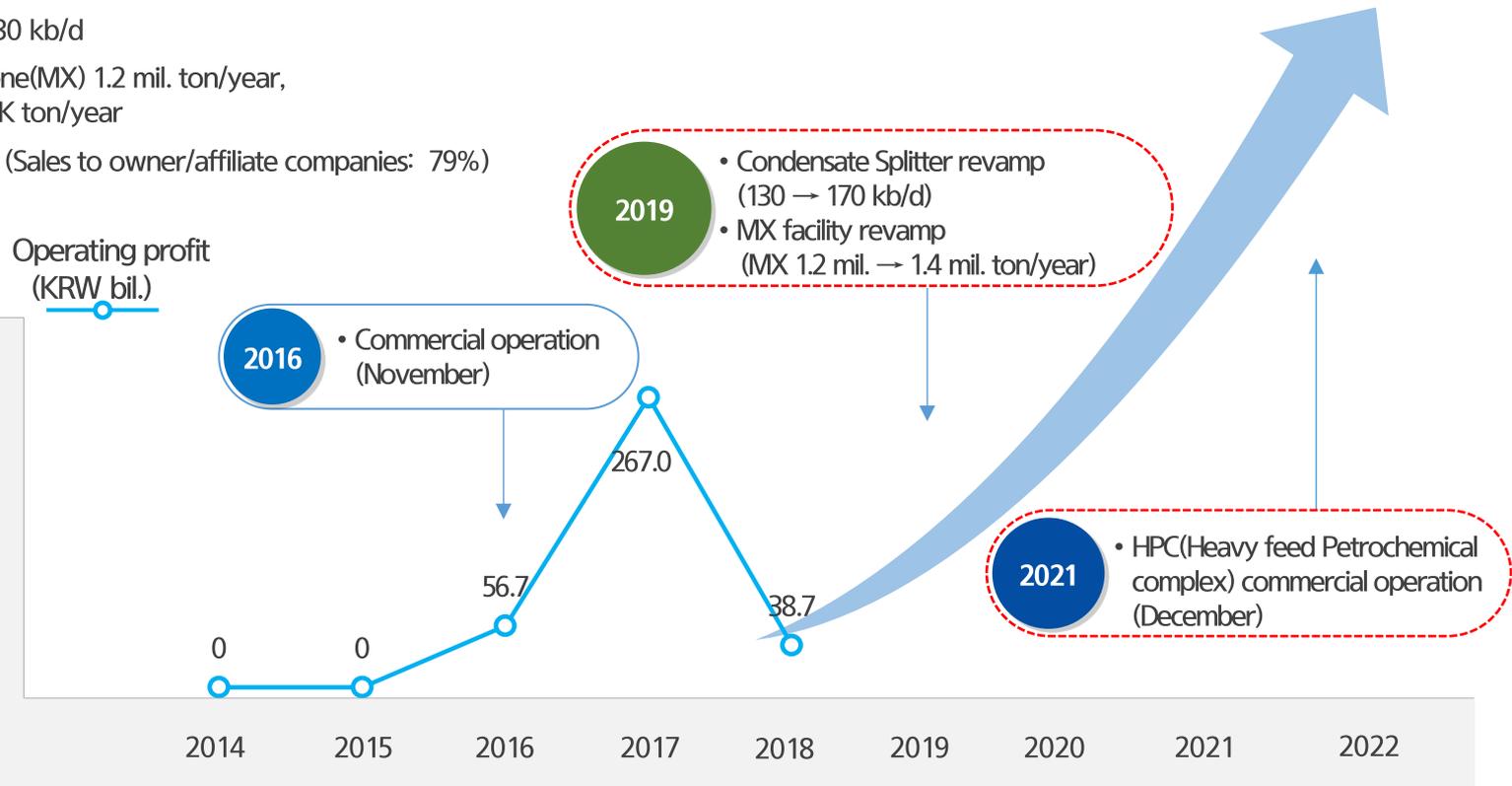
7. Non-refining Affiliates – Petrochemicals (2) Hyundai Chemical

Hyundai Chemical

Hyundai Oilbank (60%) LOTTE CHEMICAL (40%)

- Refining capacity : Condensate 130 kb/d
- Production capacity : Mixed-xylene(MX) 1.2 mil. ton/year, benzene 360K ton/year
- JV benefits : Stable sales network (Sales to owner/affiliate companies: 79%)

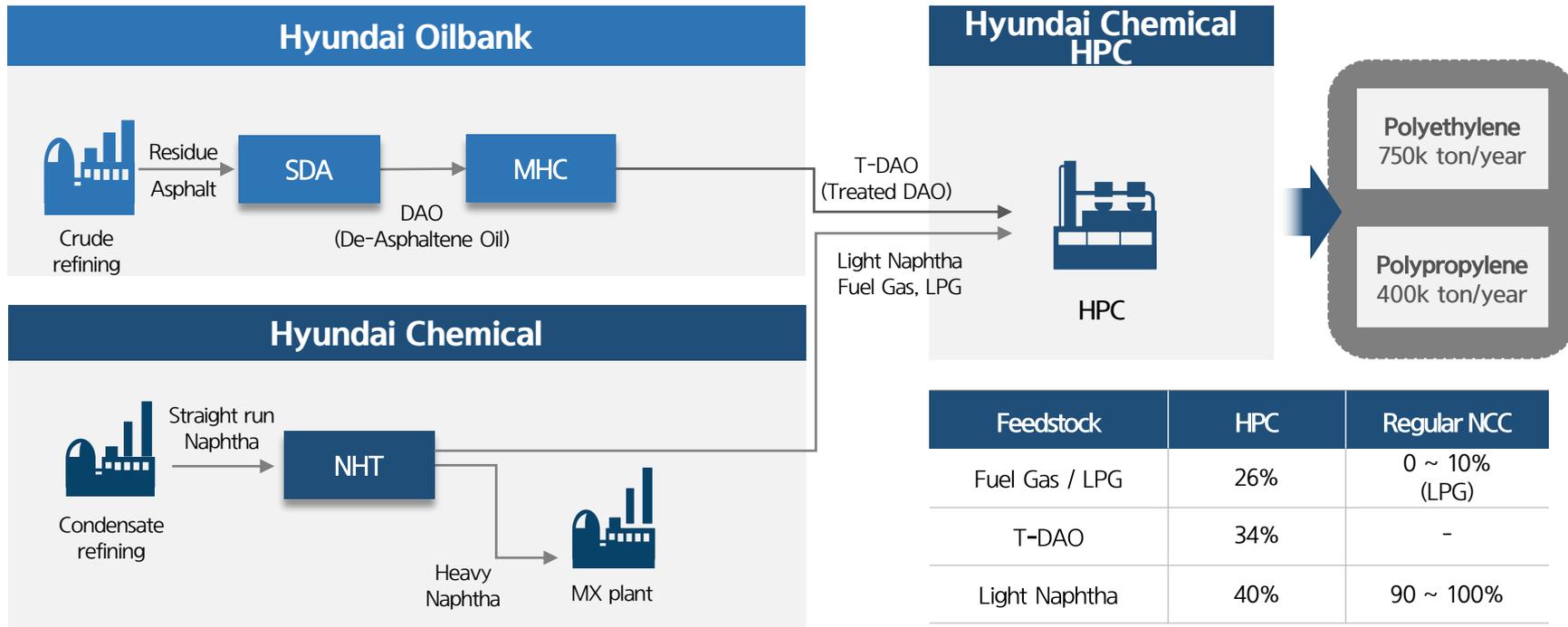
- May 2014
- Hyundai Chemical established
- Nov. 2016
- CSU, MX facilities commercial operation
- 2Q. 2019 (E)
- Regular T/A & CSU, MX revamp
- End of 2021 (E)
- HPC completion



7. Non-refining Affiliates – Petrochemicals (2) Hyundai Chemical

HPC Project (Heavy feed Petrochemical Complex)

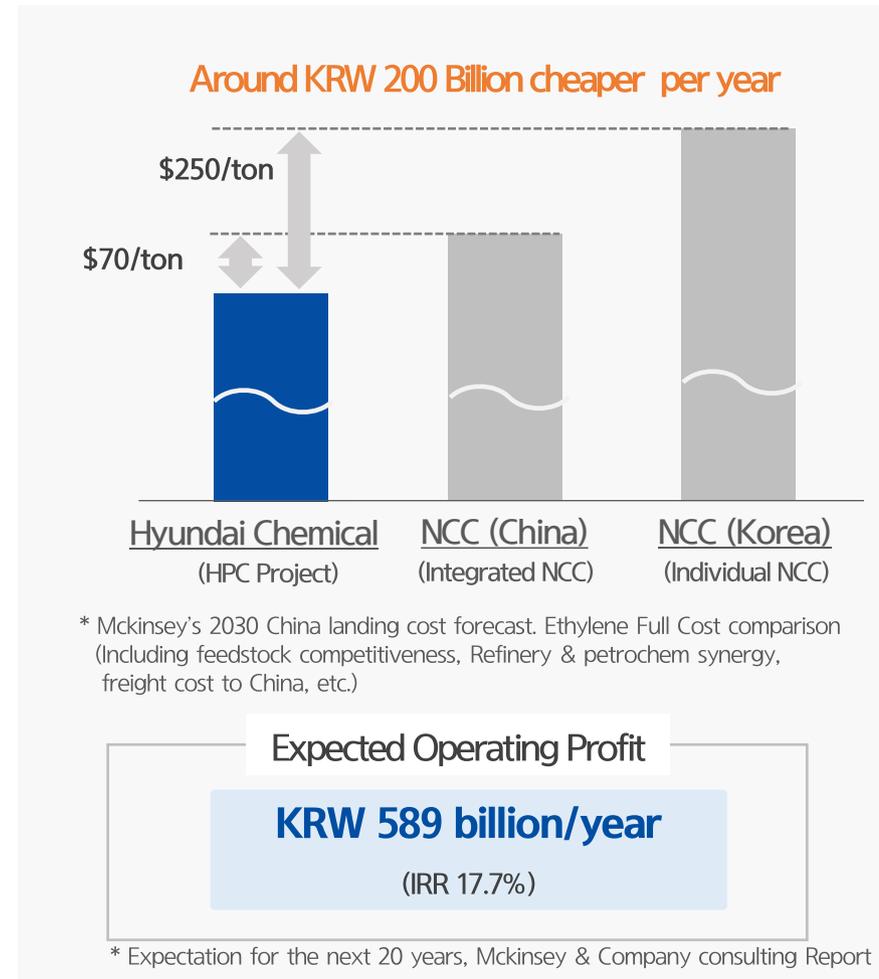
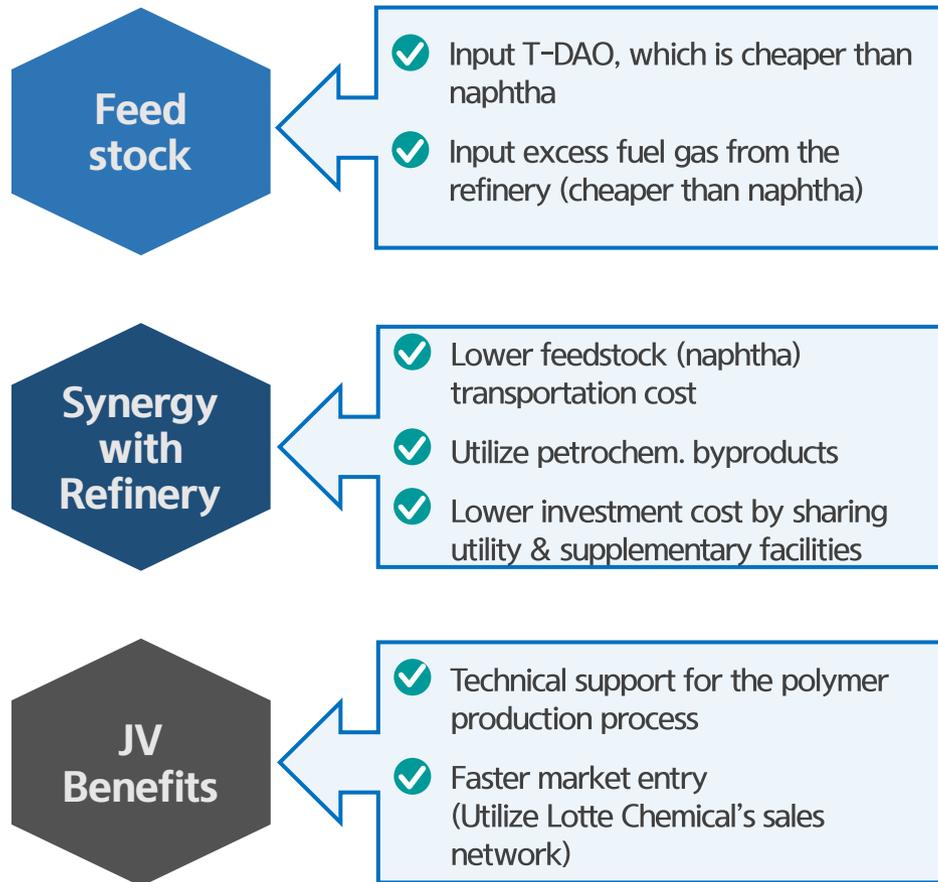
- Total investment : KRW 2.73 trillion
- Overview : Produce polyethylene by using Hyundai Oilbank’s T-DAO and Hyundai Chemical’s naphtha, LPG, fuel gas, etc. as feedstock.
- Production capacity : Polyethylene(PE) 750k ton/year, polypropylene(PP) 400k ton/year
- Completion date : Mechanical completion (3Q. 2021), commercial operation (end of 2021)



7. Non-refining Affiliates – Petrochemicals (2) Hyundai Chemical

HPC's competitiveness

(Heavy feed Petrochemical Complex)

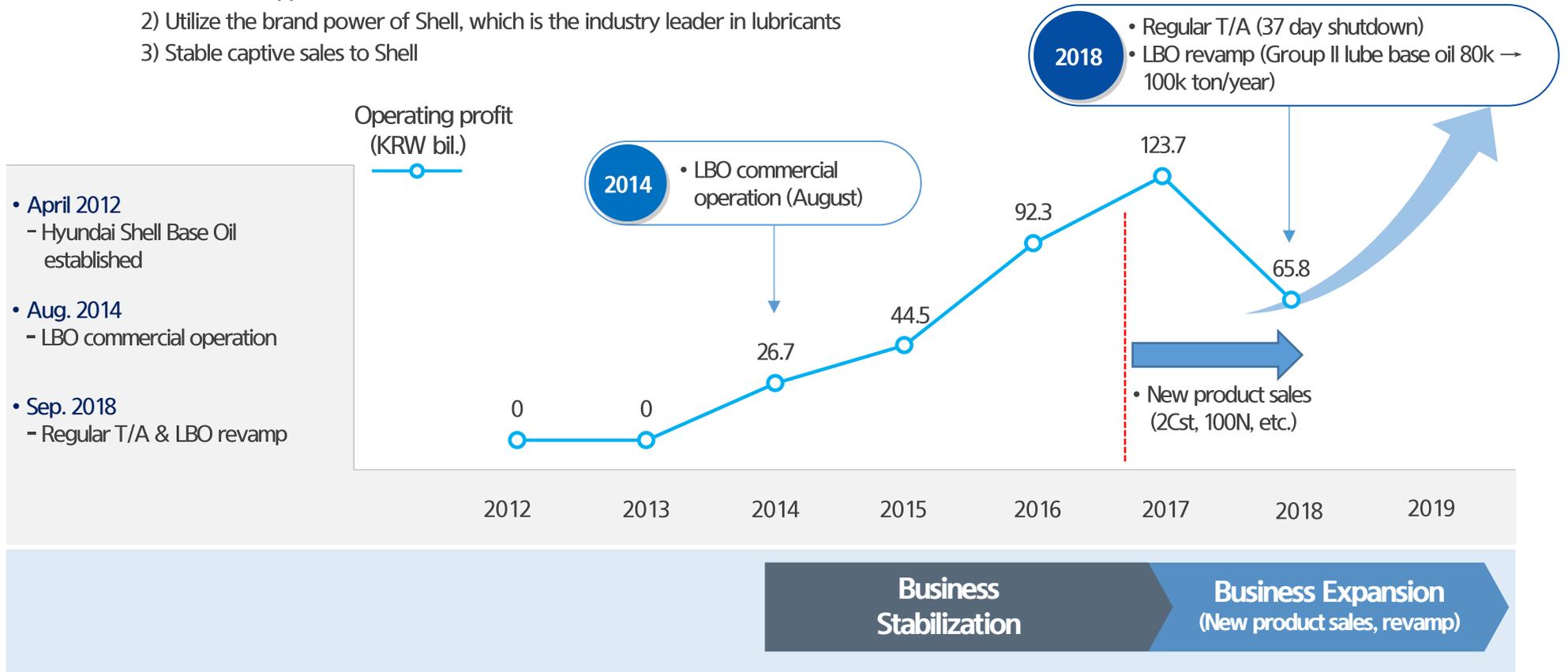


7. Non-refining Affiliates – Lube Base Oil

Hyundai Shell Base Oil(Equity method)

Hyundai Oilbank (60%) Shell (40%)

- Production capacity : LBO capacity 25 kb/d (Group II lube base oil 1 mil. ton/year)
- JV benefits : 1) Technical support from Shell
 2) Utilize the brand power of Shell, which is the industry leader in lubricants
 3) Stable captive sales to Shell



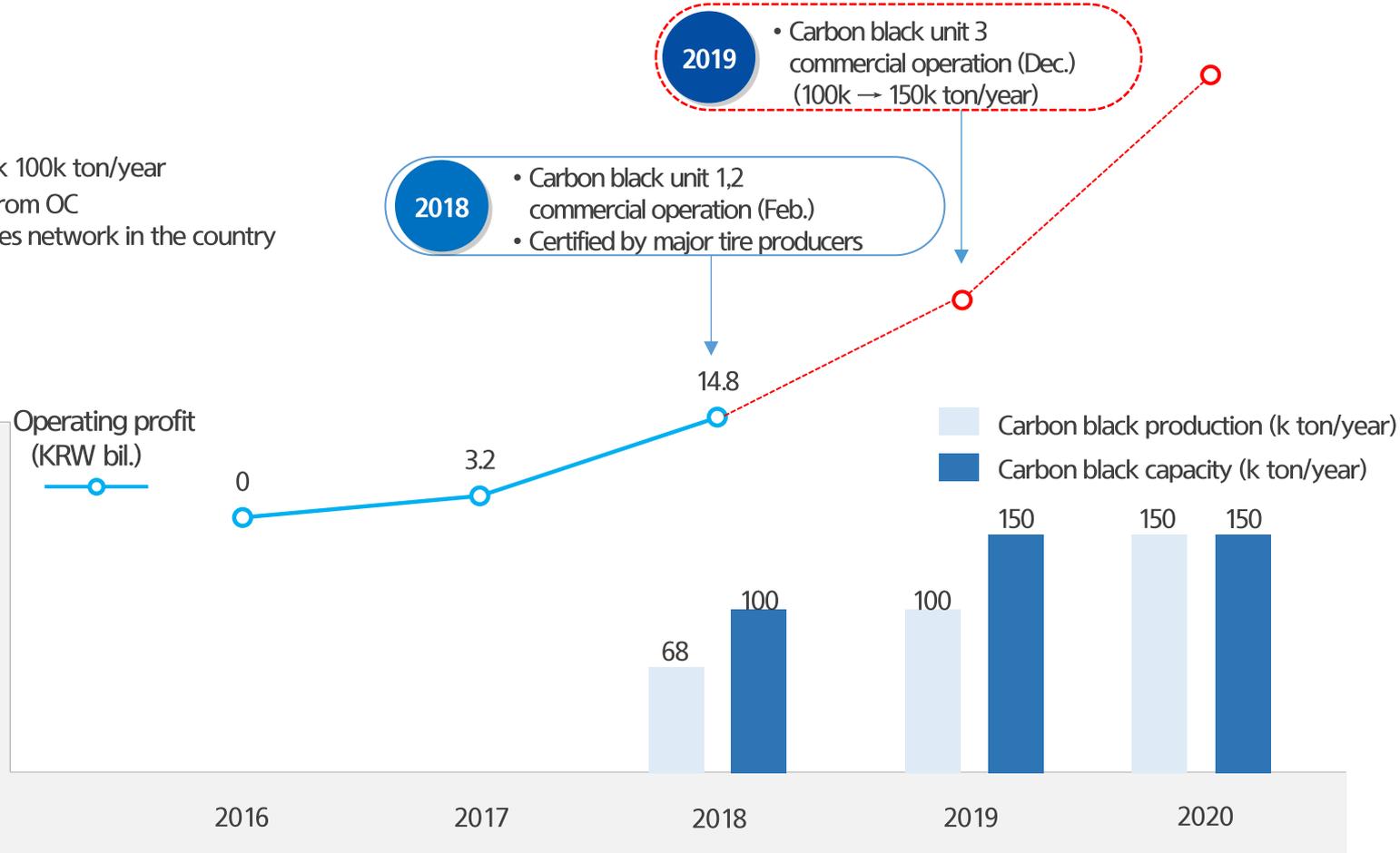
7. Non-refining Affiliates – Carbon Black

Hyundai OCI

Hyundai Oilbank (51%) OCI (49%)

- Production capacity : Carbon black 100k ton/year
- JV benefits : 1) Technical support from OC
2) Utilize the largest sales network in the country

- Feb. 2016
- Hyundai OCI established
- Feb. 2018
- Carbon black facilities (Unit 1, 2) commercial operation (100k ton/year)
- Dec. 2019
- Carbon black Unit 3 commercial operation (50k ton/year)



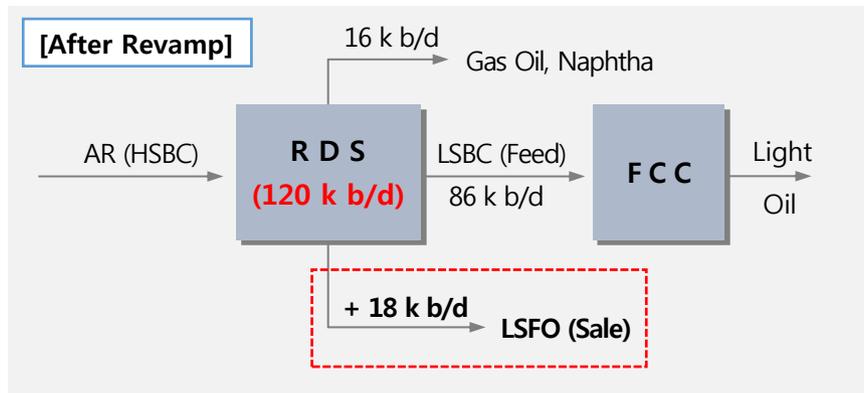
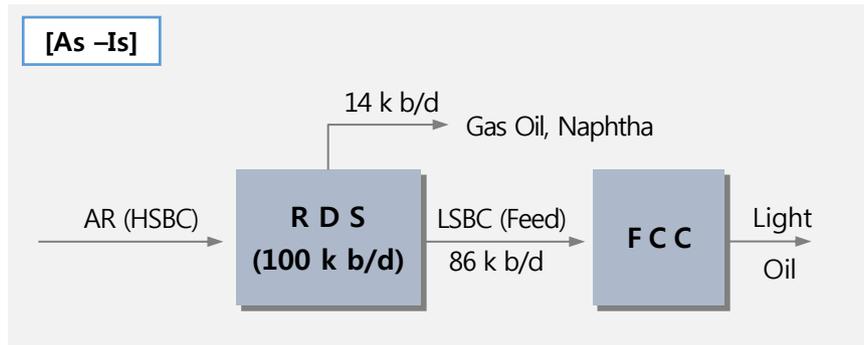
2019 • Carbon black unit 3 commercial operation (Dec.) (100k → 150k ton/year)

2018 • Carbon black unit 1,2 commercial operation (Feb.)
• Certified by major tire producers



[Appendix] Countermeasures on IMO regulation

RDS Revamp (LSFO ↑)



- Investment : KRW 248 bil.
- Mechanical Completion : Jun. 2020
- Commercial Operation : Jul. 2020

Bunkering Sales Expansion

- Leasing storage F/O tank in order to enlarge LSFO trading in Korea and Singapore

Increase HSFO as Feedstock

- Procuring surplus HSFO from overseas market to feed our RDS plant

Freight Fares Reduction

- Planning to install scrubbers on our continuously chartered crude oil tankers(VLCC) to reduce the fares

[Appendix] Crack & Spread

Crack/Spread		Unit	2017	2018				2019 <u>(vs 2018.4Q)</u>		
				1Q	2Q	3Q	4Q	Year Avg.	1Q (E)	Year Avg.
Dubai			53.2	63.9	72.1	74.3	67.4	69.4	↓	↓
Product Crack	Gasoline	\$/B	12.3	11.1	9.7	9.4	2.8	8.2	↓	↑
	Naph		1.9	0.6	-0.9	-0.2	-4.4	-1.2	↓	↑
	Kero		12.1	16.1	15.3	14.5	15.6	15.4	-	↑
	Gas Oil		13.3	15.5	15.3	15.4	15.8	15.5	-	↑
	HSFO 180		-3.5	-6.3	-6.0	-4.2	-0.2	-4.2	↑	↓
BTX Spread	PX-Naph	\$/ton	339.0	362.0	324.2	492.8	554.0	434.0	-	↓
	MX-Naph		164.0	181.2	161.3	275.2	335.1	238.7	↓	↓
	BZ-Naph		327.0	308.6	201.2	189.4	126.4	202.3	↓	↑

Hyundai Global Service

1. Company Introduction
2. Corporate History
3. Business Profile
4. Market Trends
5. Business Strategy
6. Mid-term Business Plan

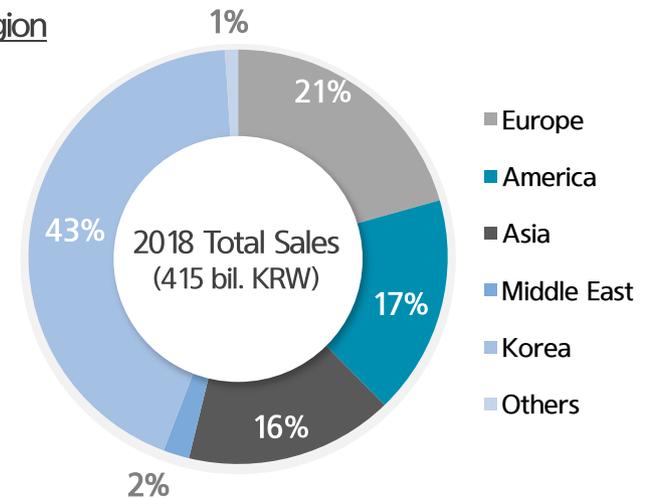
1. Company Introduction

General Information

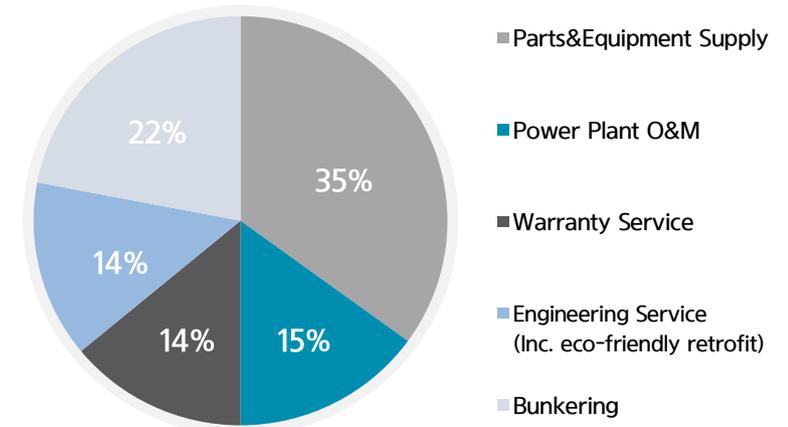
Company's Name	Hyundai Global Service Co., Ltd.
CEO	Ki Sun Chung Kwang Hean An
Establishment Date	December 2016 (Ship A/S center : Jan. 2015)
Capital	20billion KRW
Number of Employee	328
Main Business	Service Business Related to Vessel & Power Plant
Location	Centum Science Park, 79, Centum Jungang-ro Haeundae-gu, Busan 48058, Korea
Home Page	http://www.hyundai-gs.com

Sales Revenue (2018)

• Sales by Region



• Sales by Division



Note 1 : Consolidated basis

2. Corporate History



- Jan. 1995
- Launched LTS (Life Time Service) Business (HHI Maritime A/S Dept.)
- Jan. 2015
- Launched Integrated Maritime A/S Center in HHI Group



- 2016
 - Incorporation of Hyundai Global Service
 - Signed MOU Agreement of Investment with Pusan City
 - Incorporated HGS (Nov. 2016)

- 2017
 - Global Network Expansion
 - Acquired HGS Europe
 - Incorporated HGS Americas / Singapore
 - Acquisition of DNV-GL ISO 9001:2015 Certification

- 2018
 - Early Achievement of 100 mil. USD Order Contracts of Eco-Friendly Business (125 mil. USD in 1st half)
 - Incorporation of HGS Colombia
 - Acquisition of DNV-GL ISO 14001:2015 Certification

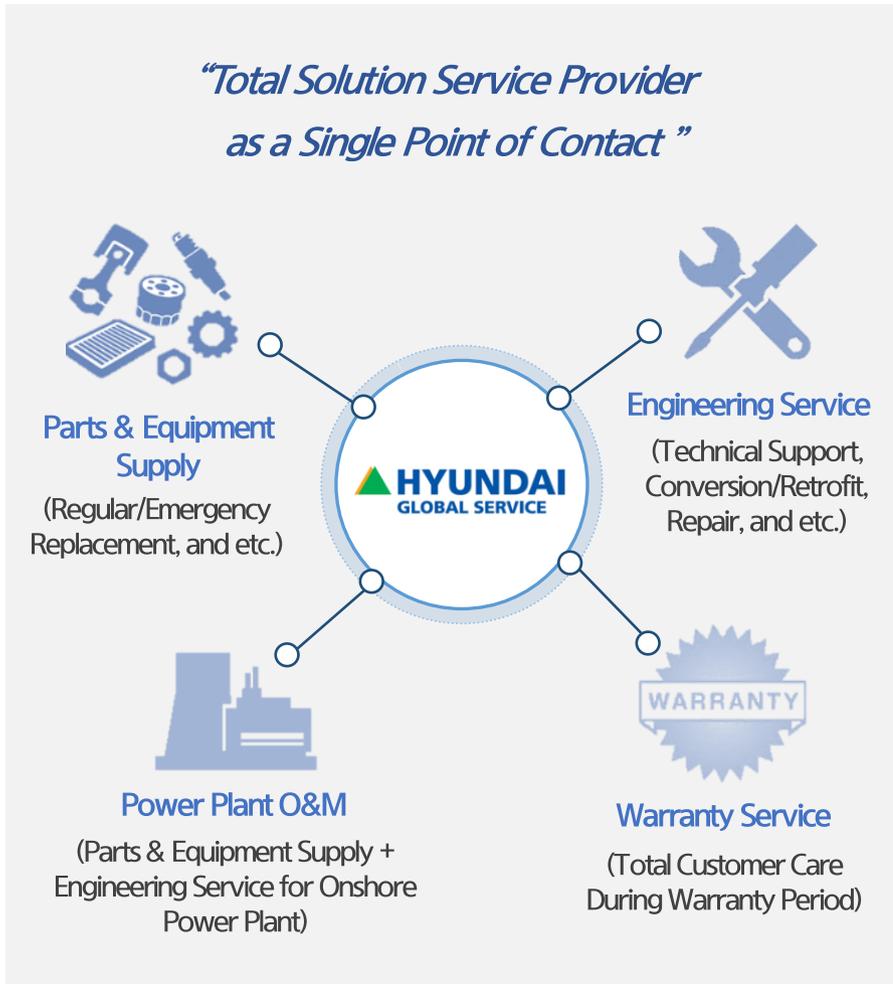


Sales (Unit : bil. KRW)	2016	2017	2018
	2.9	240.3	414.5

Note : 2016 sales includes one month (Dec.)

3. Business Profile

Main Business



Group Synergy

HHI Group Built Ships	14% Market Share of Global Operating Ships Customer’s Value Oriented in Hyundai Brand Power
2-Stroke Engines (HHI Produced)	24% Market Share of Global 2-Stroke Engines Aftermarket Business Privilege Given from Licensors (by Contract)
4-Stroke Engines (HiMSEN, HHI Licensed)	Cumulative Production Records → Total 10,986 Units Sole Provider of Aftermarket Service (Spare Parts, Engineering, and etc.)



“HGS was Spun off in 2017 from HHI to Exclusively Focus on Service Business Areas (High Growth Expected)”

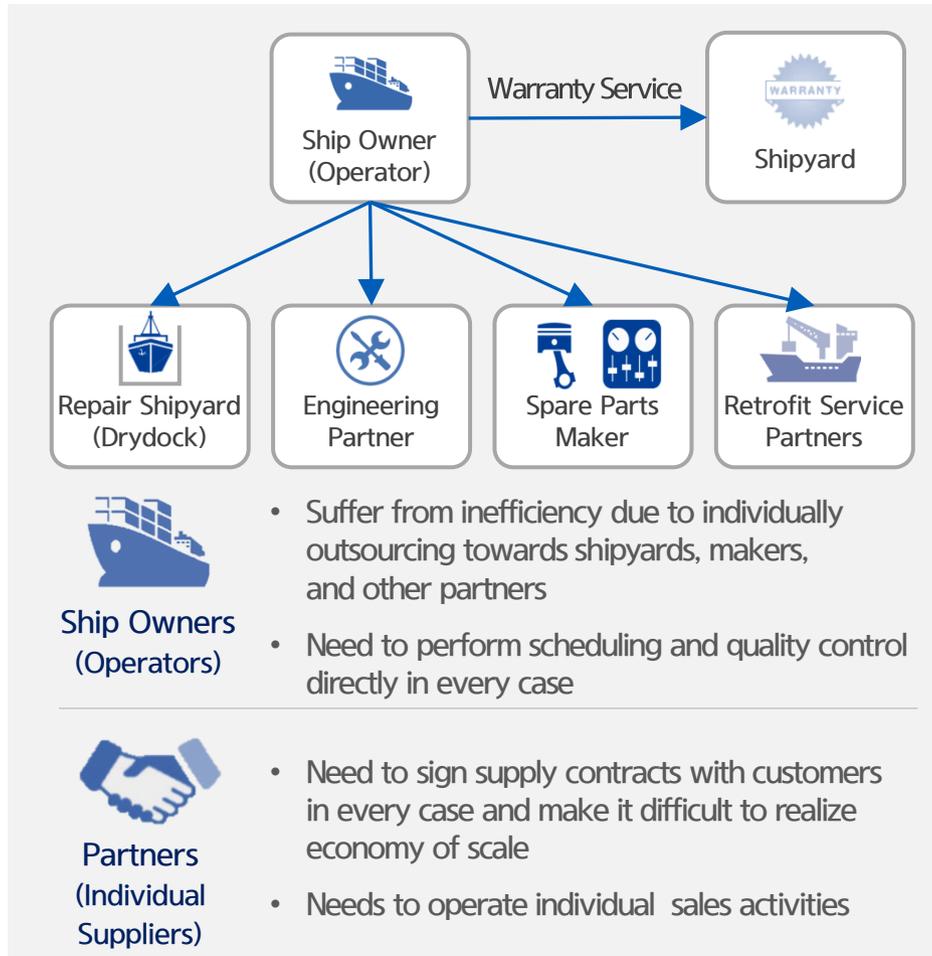
- ※ Cumulative Shipbuilding and Engine Production Records in 2017 (HHI Group)
 - Cumulative Shipbuilding : 3,117 Units
 - Cumulative 2-Stroke Engine Production : 4,030 Units

3. Business Profile

<AS-IS> Individual Outsourcing Model



<TO-BE> Total Solution Service Model



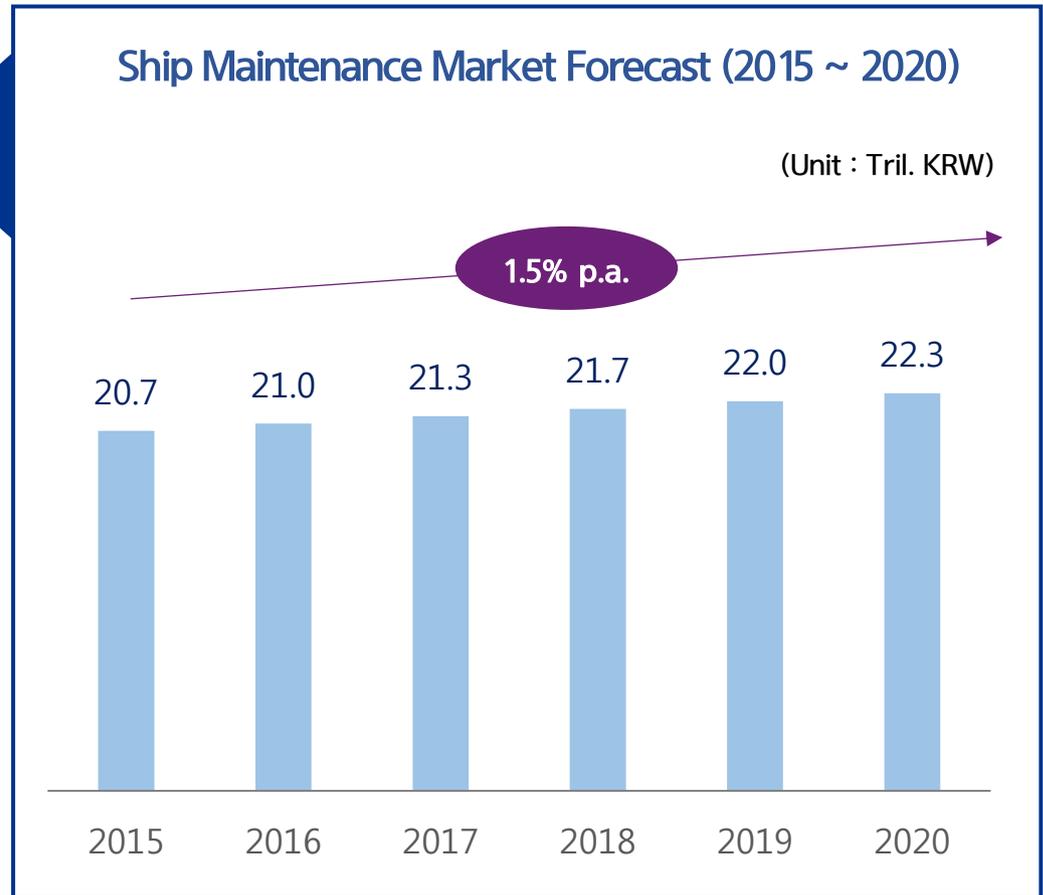
4. Market Trends

Solid Growth of Ship Maintenance Market



Richard Sadler
前 CEO, Lloyds Register

“ Korean shipyards have *neglected ship maintenance market* despite of their competence in technology...
 ...*only concentrate on warranty service* which is a very small part compared to 20~25 years of vessel's life in average
 Despite of *market's slump of shipbuilding industry*, they need to invest for service business ...
 ...*Ship maintenance market could be a business that has a future for the next 30 years at least* ”



Source : Euro Monitor

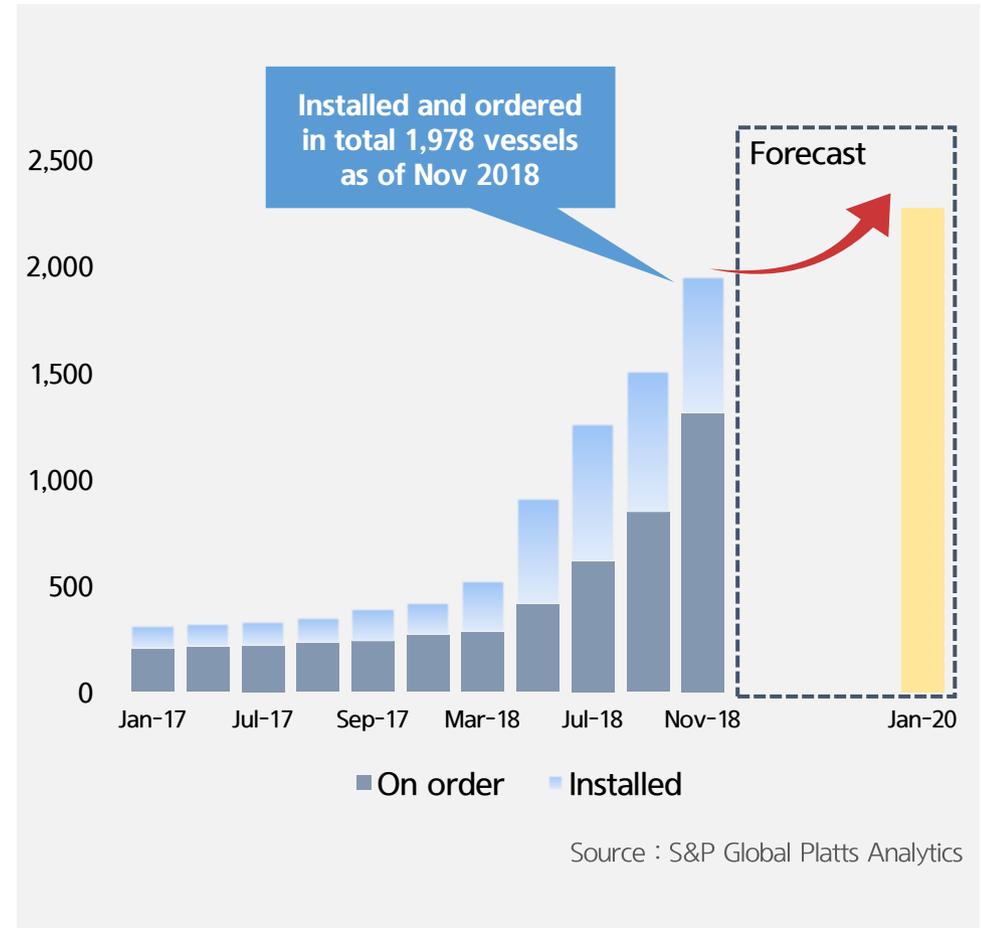
4. Market Trends

Scrubber demand to increase further due to limited supply of low-sulfur oil, which is an alternative to scrubber and a surge in price

Rapid Growth of Eco-friendly Retrofit Market



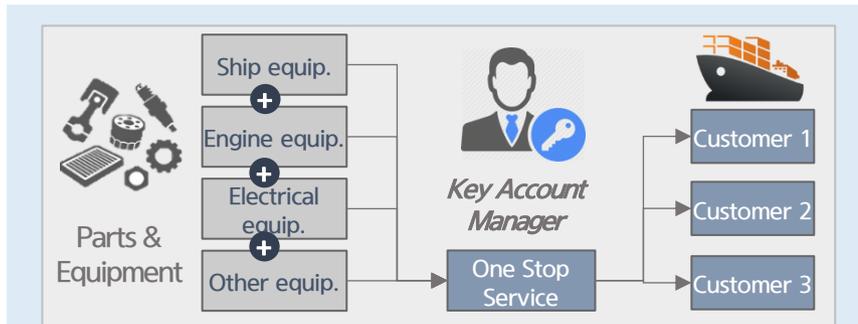
Scrubber Installation Trend(E)



1) Source : IMO QYR Machinery & Equipment Research Center, 2016 Vision gain, The Ballast Water Treatment System Market 2012~2022
 2) Source : IMO 2020' – The Global Bunker Fuel Sulfur Cap 3rd Quarter 2018 Update by IHS Market
 3) Source : Oil price forecast(Platt's, IHS, Goldman Sachs) : spread between HFO and LFO : \$49/MT('17),\$79/MT('18E), \$129/MT, '20년 \$247/MT('19E)

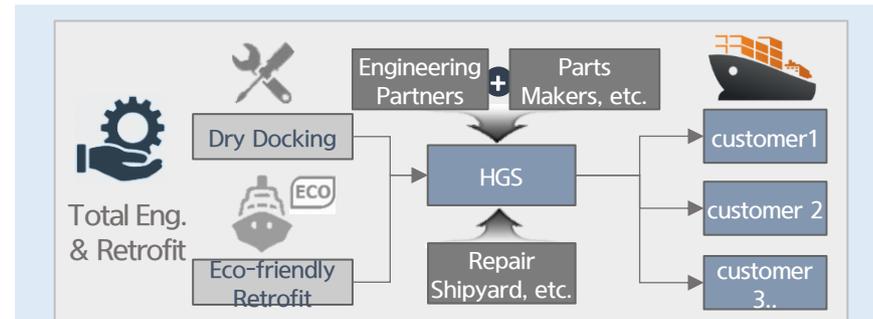
5. Business Strategy ① - One Stop Service (OSS)

Unification of Parts & Equipment Supply Channel



- Key Account Manager(KAM) : Provide various parts and equipment in package units by unification the sales channels of customer
 - Building a virtuous cycle that leads to increased sales by reflecting VOC that KAM heard in equipment development
- Conducting local sales channels by expanding overseas sales and logistics bases and Building differentiated Supply Chain Management system
- Efficient Stock management through demand predictive analytics by instituting and applying Big-Data Solution → focus on business capabilities and strengthen delivery competitiveness

Turn-key Service Business (Engineering Service)

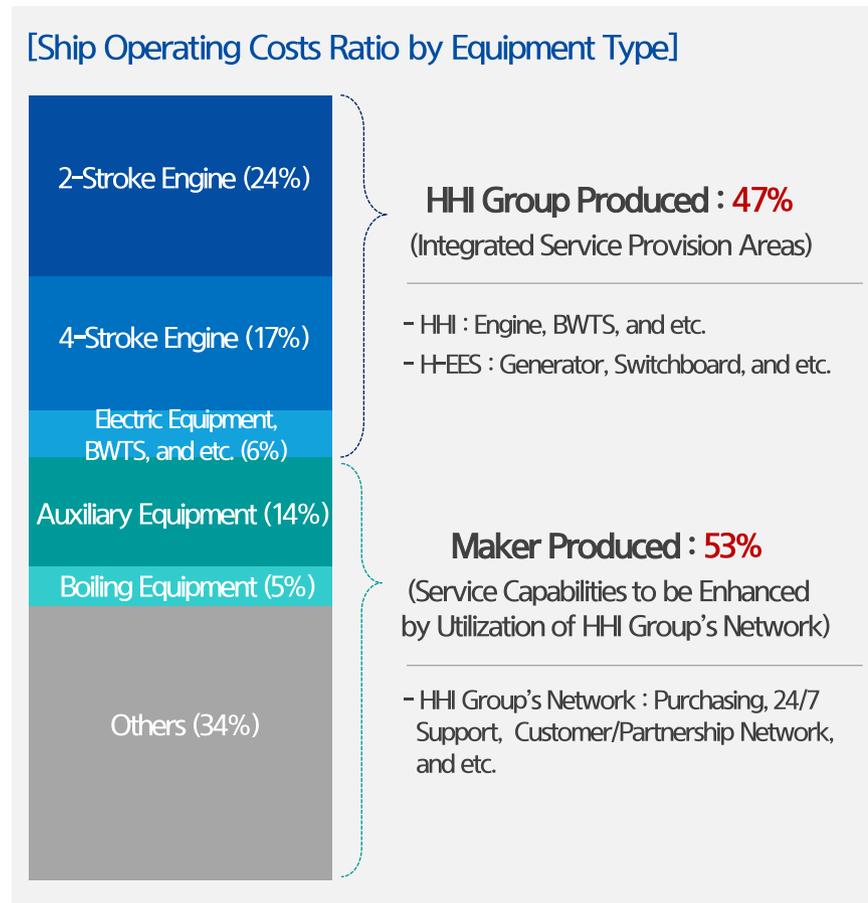


- Targeting Dry Docking service market where massive maintenance occurs because of Turn-key based business founded on Engineering business capabilities and technology service market that is constantly occurring during ship operations and anchorage.
 - Increase service capabilities by using HHI group built ship's floor plan and engineer
 - Establish business cooperation relations with Domestic and international Repair shipyard and repair partners.
- HGS has sales authority of eco-friendly equipment Retrofit such as Hi-Ballast, Hyundai Scrubber and etc.
 - Enable active response to Demand of BWTS and Scrubber Retrofit because of International environment regulation on emission of Ballast water and SOx

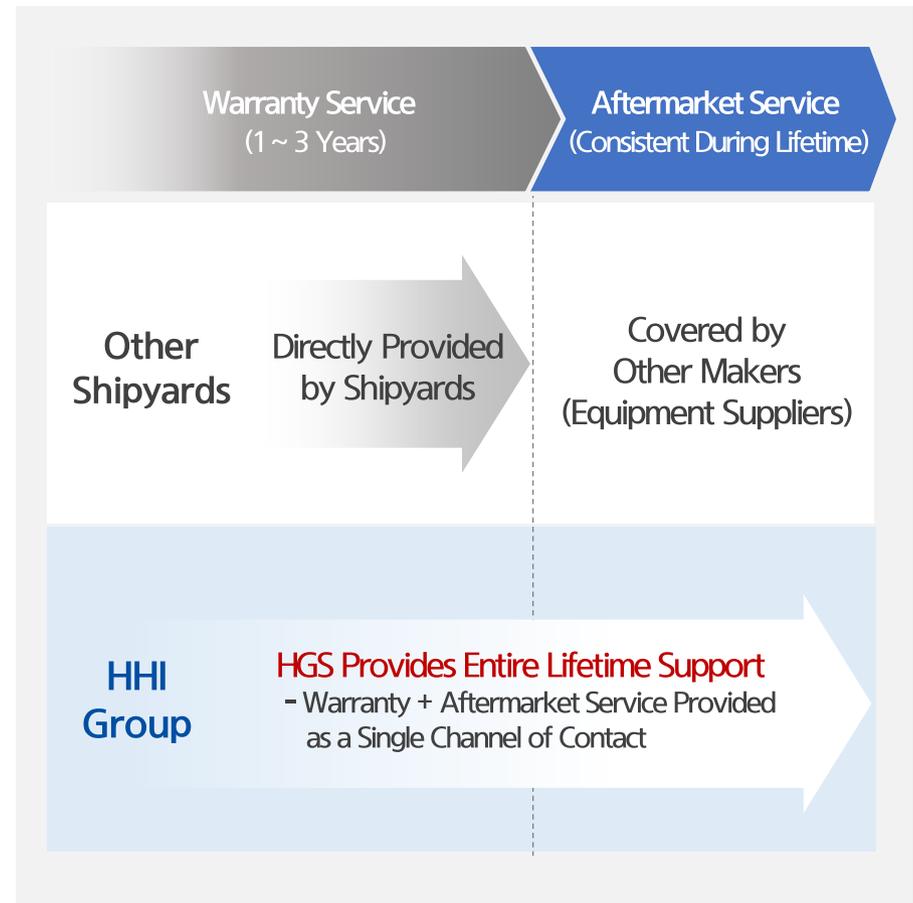
*“Expand new business horizon
with differentiated service & engineering capabilities”*

5. Business Strategy ② - Lite Time Service (LTS)

Integrated Service Business (Parts & Equipment Supply + Maintenance)



Differentiated Lifetime Support : Flow Map (Below)

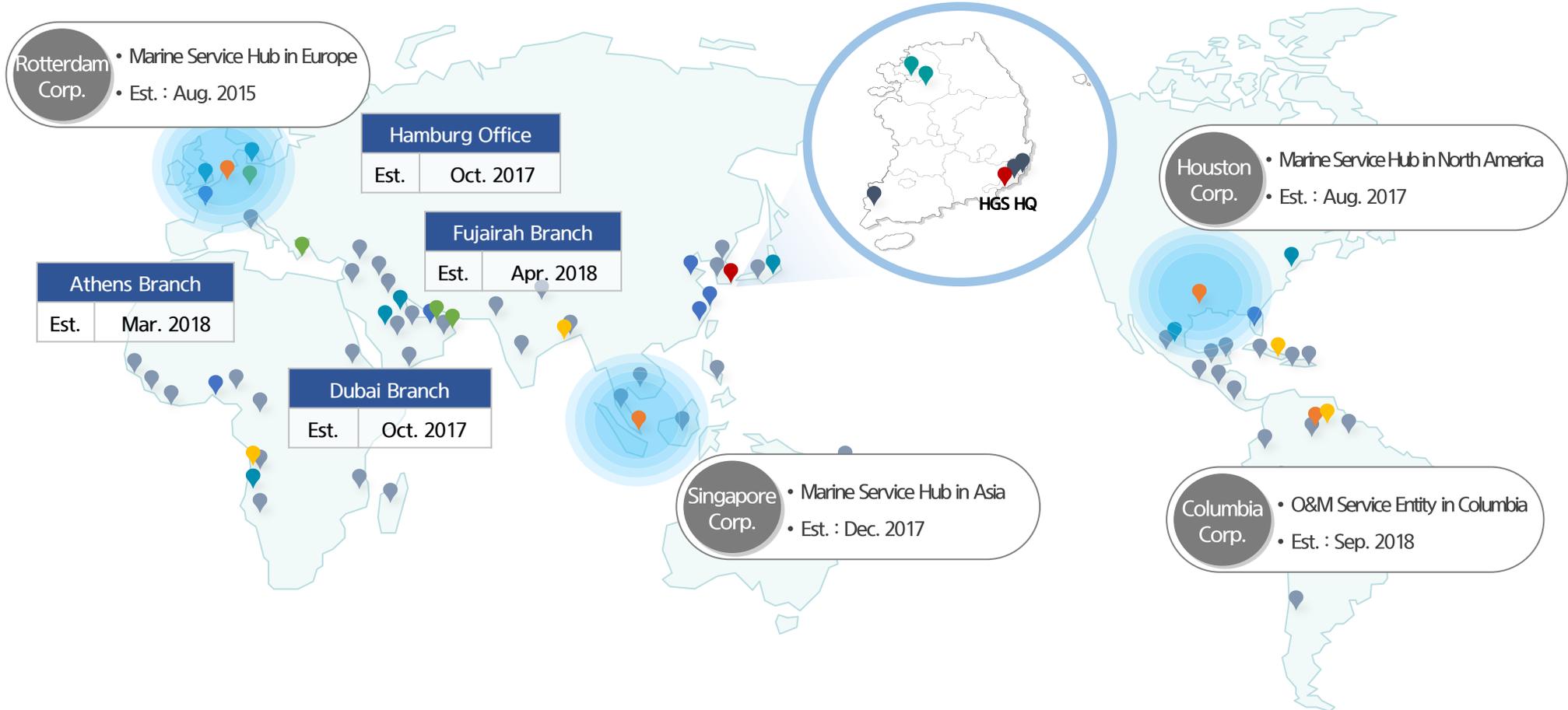


Source : Ship Operating Costs 2017/18, Drewry Reports

※ Parts & Equipment Supply and Maintenance Costs, VLCC Over 300 DWT)

5. Business Strategy ③ - Global Network Expansion

Overseas Network Plan in 2018 (4 Corporations, 3 Branches, 1 Office)

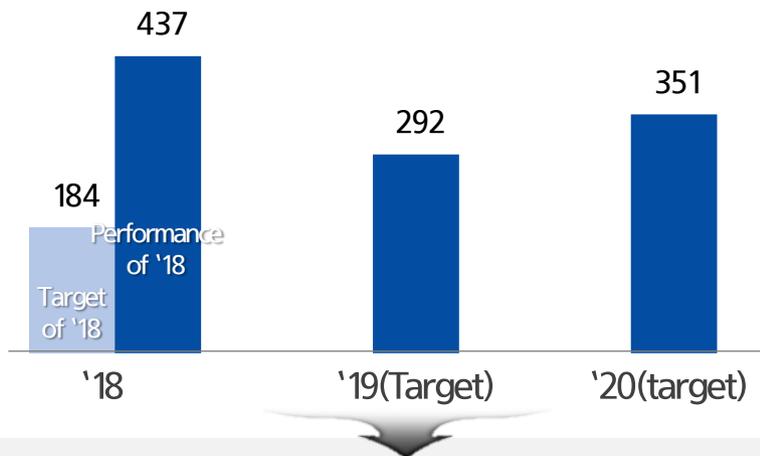


“HGS continues expanding its global network in order to maximize customer response capability”

5. Business Strategy ④ - Future Business : Green Solution

BWTS/Scrubber Retrofit (New Orders)

(BWTS, Scrubber / 2018 Order Contract Basis / mil USD)



- BWTS/Scrubber retrofit orders in 2018 are 437 mil. USD (237% of annual target, 184 mil USD)
- New orders in 2019 are expected to be slightly declined since lots of ship owners have already placed Scrubber orders prior to the SOx regulation being active from Jan. 2020
- But, retrofit market size would not decline for the next 2~3 years since customer would take a wait-and-see stance for fuel price trends

HGS's Competitive Edge on Retrofit Biz.

Outstanding Technology and Knowhow (Engines/Ships)

- The world's only "total service provider" in the field of ships, engines, and marine equipment
- HGS inherits HHI group's 40 years of technology and knowhow

HHI group's Own Products (BWTS/Scrubber)

- Sole provider of HHI scrubber and Hi-ballast in retrofit market
- Advantage in delivery time and price (ASP compared to competitors : BWTS 90% / Scrubber 75%)

"Hyundai Heavy Industries" Brand Value

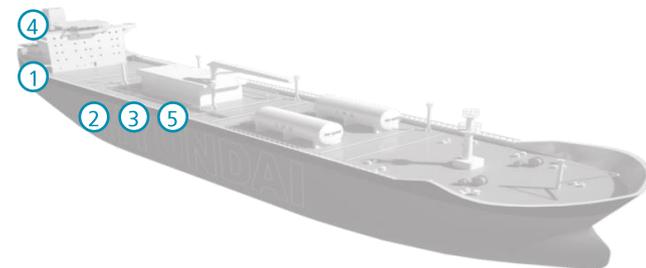
- Guaranteed service from HGS, as a "Total Solution Service Provider"
- Customer's credibility with the name of the world's best shipyard, HHI Group

5. Business Strategy ④ - Future Business : Green Solution

Eco-friendly Regulations		HGS's Suggestion			
Emission Regulation	Sulfur Oxides (SOx)	Scrubber Retrofit	LNG / LPG / DF Retrofit	MDO / MGO / LSFO Bunkering	
	Nitrogen Oxides (NOx)	SCR Retrofit			
	Particular Matter/ Carbon	AMP Retrofit			
Energy Efficiency Improvement	Integrated Smartship Solution				
Ballast Water Regulation	BWTS Retrofit				

HGS's Eco-friendly Retrofit Business Platform

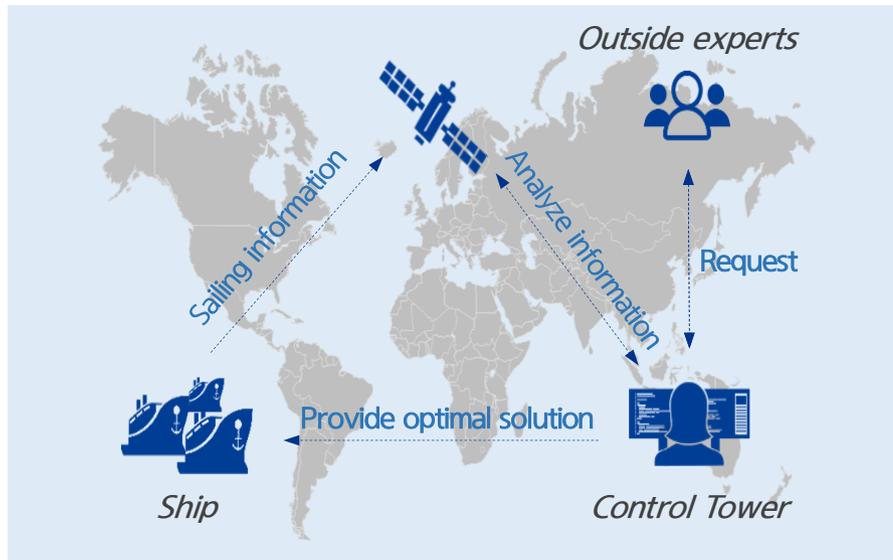
- ① AMP Alternative Maritime Power – anti-pollution measure which helps in reducing air pollution by using shore electric power as a substitute
- ② LPG Retrofit Retrofit construction into eco-friendly engine that uses LPG as a marine fuel
- ③ DF Retrofit Duel Fuel Engine Retrofit Construction could reduce SOx emission
- ④ SCR Installation Selective Catalytic Reduction - Technology which reduces Nox emission
- ⑤ EGR Installaion Exhaust Gas Recirculation Equipment which reduces NOx emission



“Target to Establish Total Green Solution Platform by Applying Business Basis from BWTS/Scrubber Retrofit Reference”

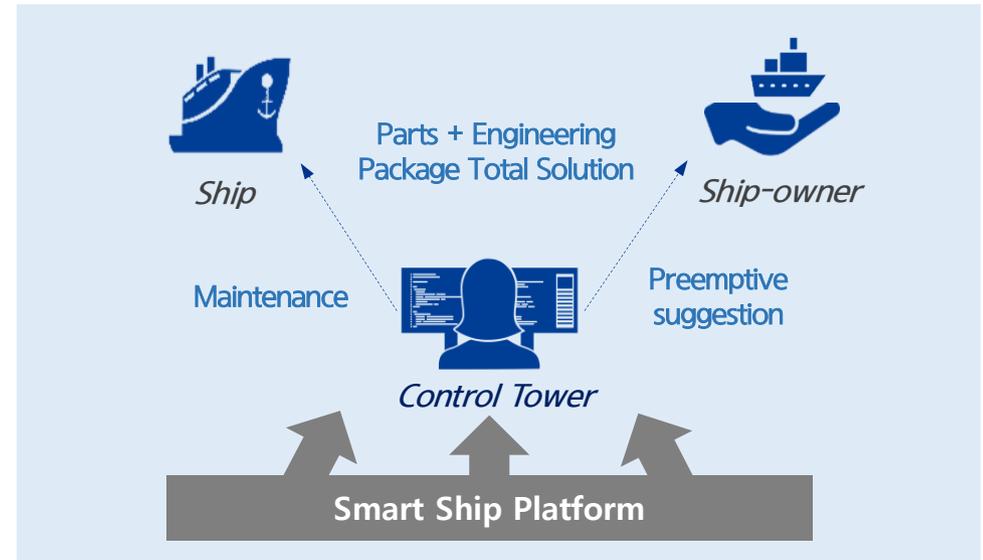
5. Business Strategy ⑤ - New Business (Digital Transformation)

Improving Efficiency of Ship Operation



- Real-time Monitoring of Ship's Route Information
- Providing Best Solution by Analyzing Collected Information

Improving Efficiency of Ship Maintenance



- Reduce the cost of A/S and speed up by using collected information
- Provide remote diagnose service by establishing on-land monitoring center (2nd half)

ISS

- Monitoring sailing condition
- Optimization alarm system
- Real-time analysis

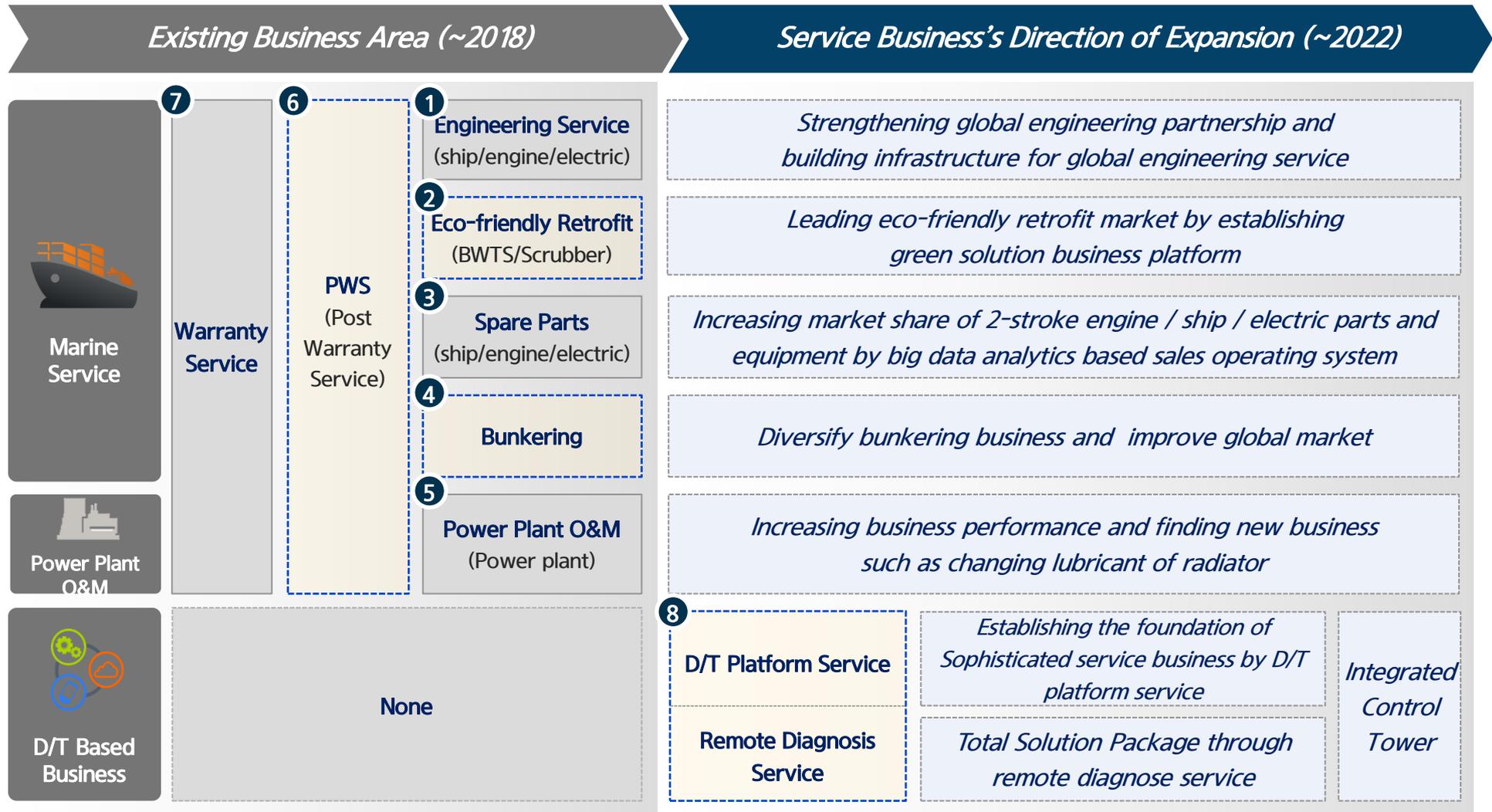
- ISS(Integrated Smartship Solution) : Efficient operation and fleet management solution
- Planning for aggressive marketing with ISS which connects whole equipment
- Especially, 4-stroke engine is linked to Hi-EMS(Hyundai Intelligent Engine Monitoring System)



6. Mid-term Business Plan

Business Goal in 2022 (Sales : 2 trillion KRW, OP : 400 billion KRW)

Existing business New business



Hyundai Robotics (Robot Business)

1. Business History
2. Business profile & Major products
3. Core competitiveness
4. Market view
5. Growth strategy

1. Business History

Independent and profitable business based on 35 years of history



- Oct, 1984
HHI Robot business team established

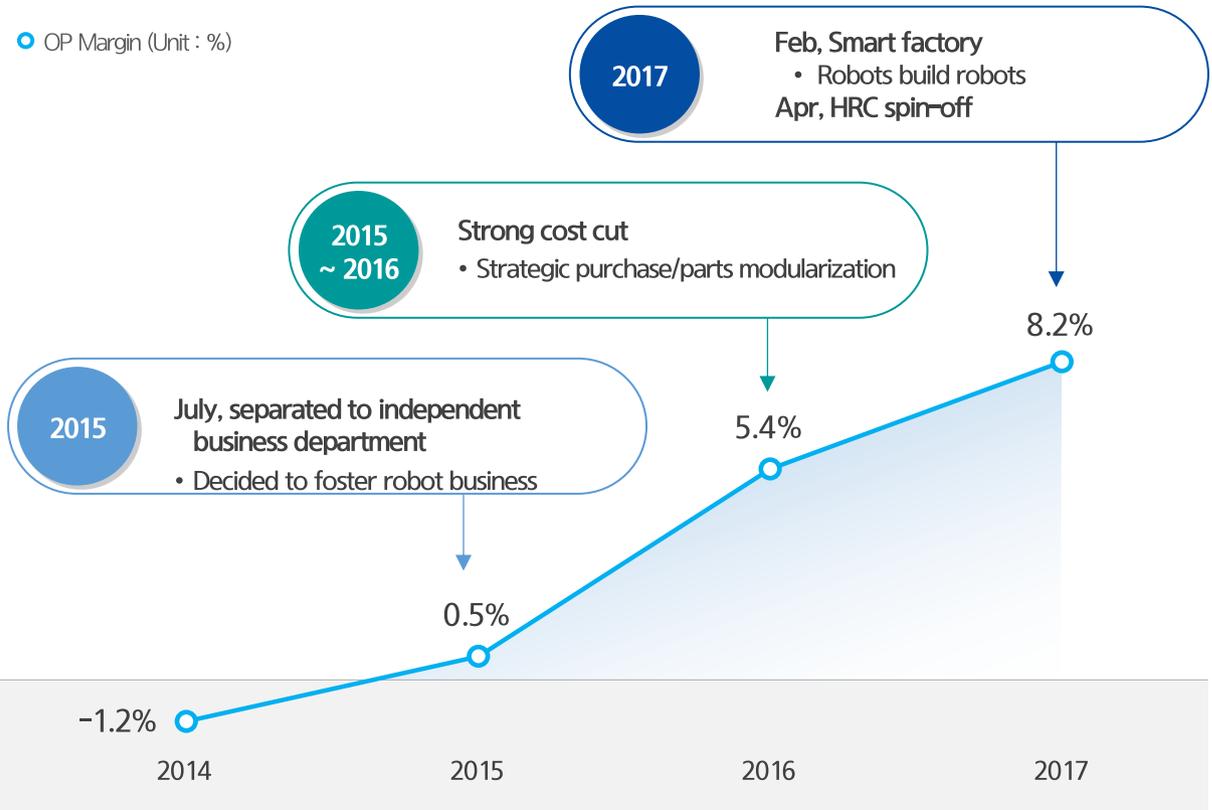


- Nov, 1995
 - 2 kinds of independent robot model
 - Internalization of development controller



- May, 2007
 - Developed LCD robots

OP Margin (Unit : %)



Sales(bil KRW)

246.1

253.7

254.8

274.5

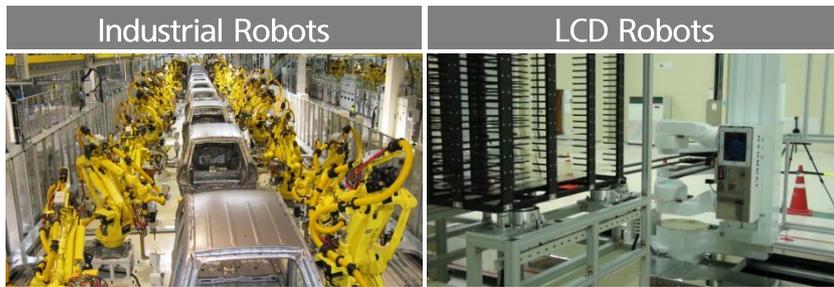
Note 1) Robot business sales figures only – excluding investment part

Note 2) As HRC had ben spun off on Apr 1, 2017, yearly figures of 2017 is only for investor's reference(1Q result is estimated).

2. Business profile & Major products

Business Information

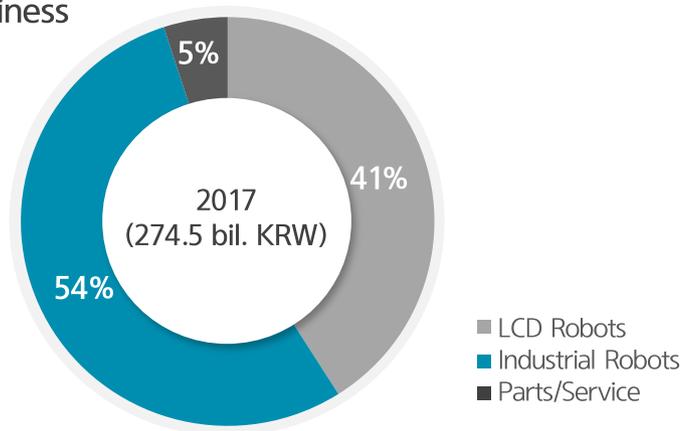
‘Develop and produce general industrial robots and LCD robots’



Mainly used in the automotive industry where productivity increase and labor cost decrease is crucial

Mainly used in a clean environment like the LCD industry

• Sales by Business



Note) Robot business sales

Note) 2017 sales above includes the numbers of '17. 1Q prepared by the Company as a reference only for investors since the Company is split as of Apr. 1, 2017.

Core Product and Clients

• Industrial Robots



	Local Clients	Global Clients
Automotive	Hyundai & Kia Motor Company	BHMC(China), Saipa(Iran) etc.
Automotive Suppliers	Sungwoo Hightech, Sewon, Saehan etc.	Beycelik(Turkey), Gestamp(India) etc.
Others (non-automotive)	World ENG etc.	Haier (China) etc.

• LCD Robots

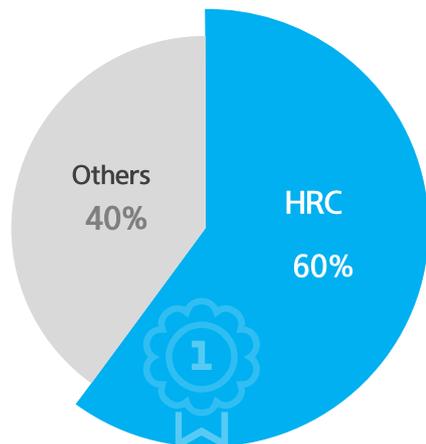


	Local Clients	Global Clients
Clients	LG Display	BOE, CSOT, AUO, Tianma, CPT, LGD CA etc.

3. Core competitiveness

Unrivaled market position

- 1st company in local market
 - Customer pre-occupation by early entrance to market



HYUNDAI MOTOR GROUP

Maintained exclusive relationship through joint process development since 1984

LG Display

After LCD robots joint development in 2007, we're constantly delivering industrial robots(occupied over 50% in cumulative basis)

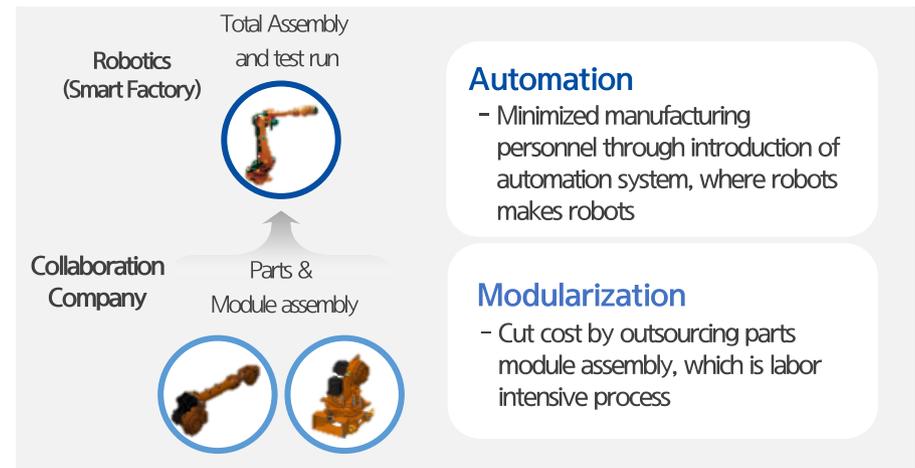
Note : 2018 Fuji economic report, based on articulated robot sales figures

- Securing various foreign clients in Korea-leading industries

Automotive	Home appliance	LCD

Strong cost competitiveness

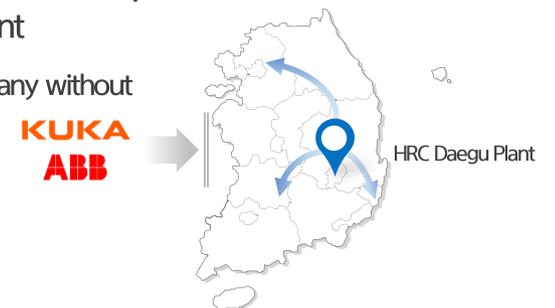
- Maximized efficiency through manufacture automation, modularization



※ In case of globally leading companies, there are many companies manufacture with their own personnel in cellular method

- Additional 10% of structural competitiveness in local market with manufacturing plant

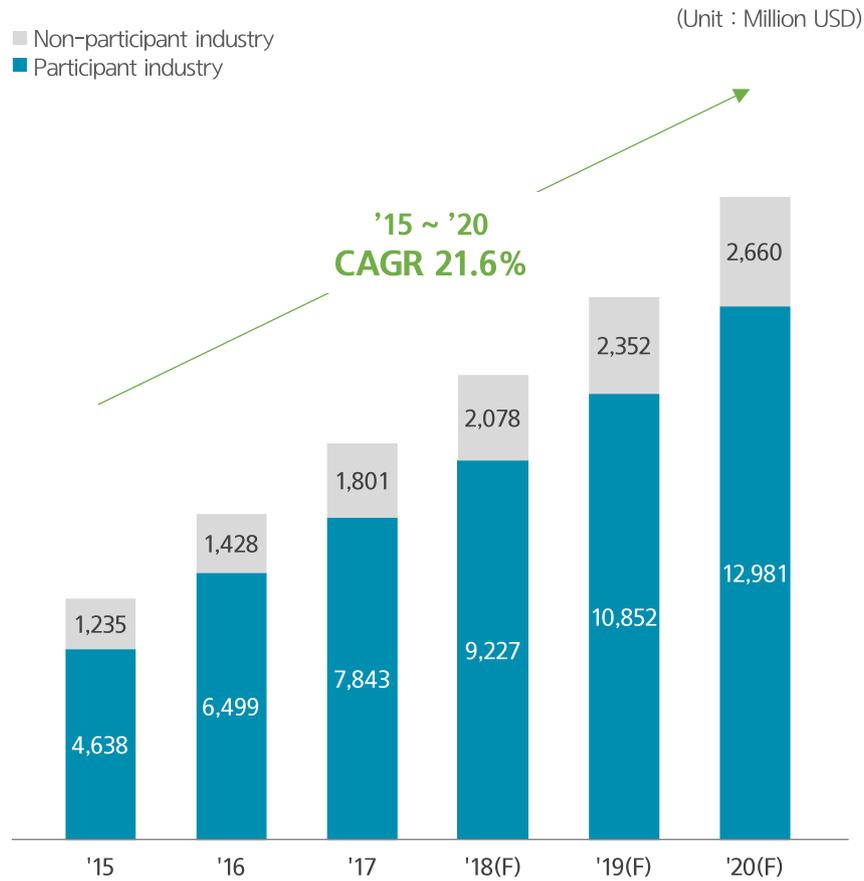
- Compared to global company without local plant, over 8% of cost competitiveness (Tax + shipping expenses)



4. Market View

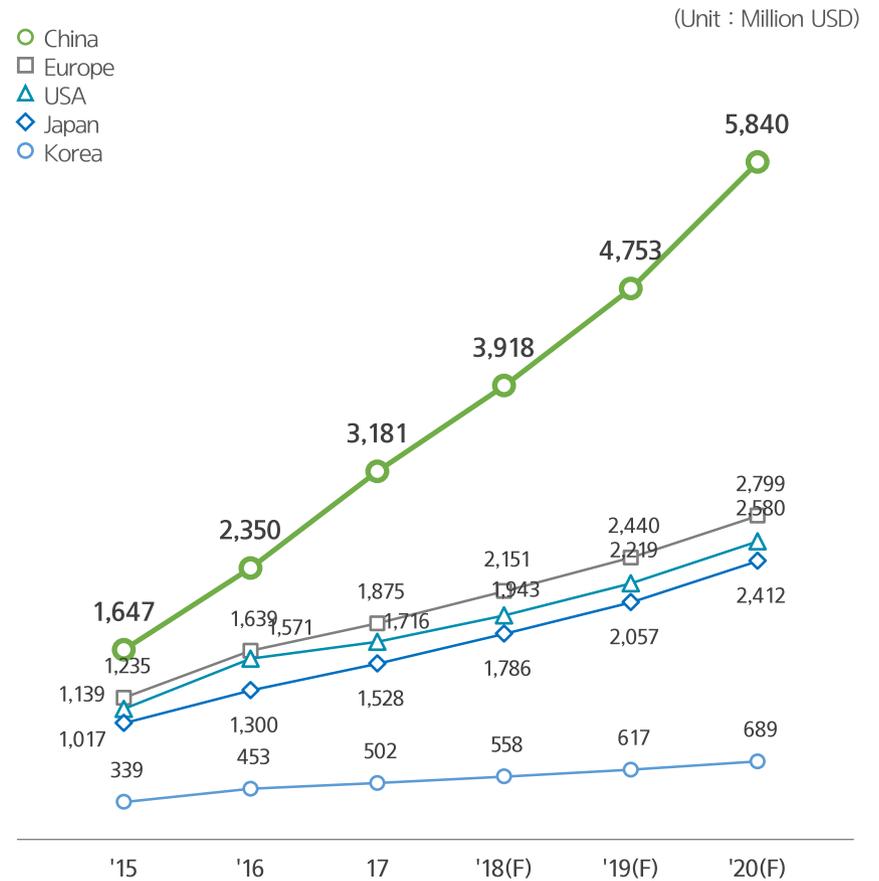
Global industrial robotic industry is expected to show annual growth of 21.6% until 2020

Industrial Robotic Industry Growth and Forecast



Note : Non-participant industry – food, service area robots
Source : Fuji Economic Report, 2018.03

Growth and Forecast by Country

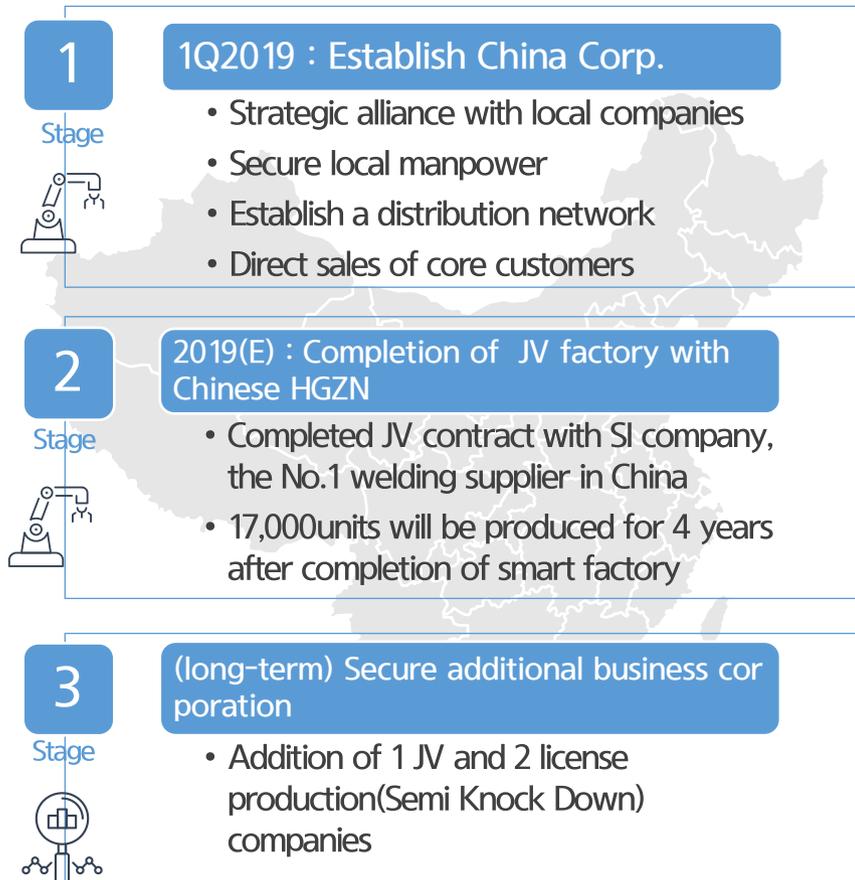


Source: Fuji Economic Report, 2018.03

5. Growth Strategy

Focusing on China Market

Business Promotion Stage



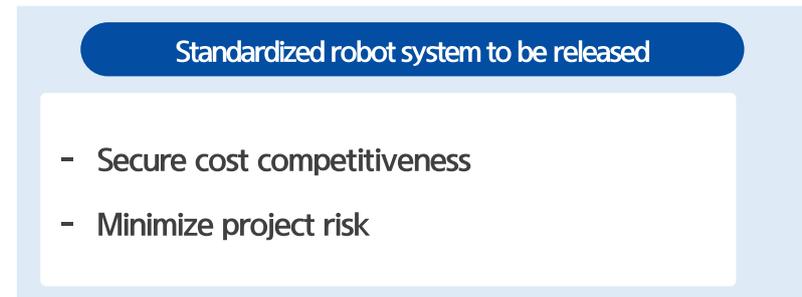
Note 1. Robot system: This system package configures the application (e.g. welding machines), surrounding facility, and control SW for each work together to allow a customer to use them immediately from the beginning of the robot-based automation process.

Note 2. HGZN (Jiangsu Hagong Intelligent Robot Co., Ltd) : China No.1 SI Company in automobile welding

Robot System & Smart Factory Solution Business

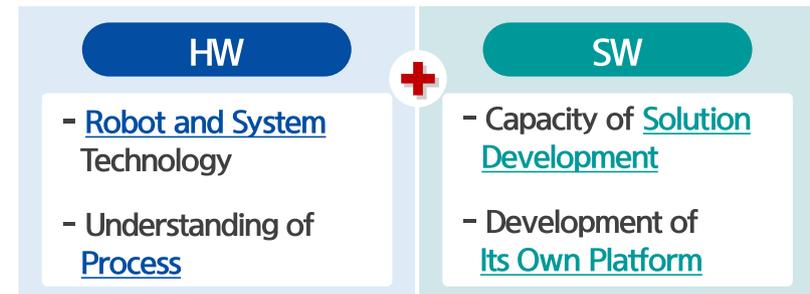
• Robot System business

Demand for automation rises due to the increase in minimum wages and the productivity maximization



• Smart factory solutions

provides the differentiated total solution combined with production technology and SW



Appendix

Summary of Financial Statements

1. Summary of Financial Statements (HHIH)
2. Summary of Financial Statements (HDO)
3. Summary of Financial Statements (HGS)

1. Consolidated Financial Statement of HHIH

Consolidated Income Statement

(Unit : billion KRW)

Category	'18.4Q			'18.3Q	'17.4Q
		QoQ	YoY		
Sales	7,435.1	12.6%	30.4%	6,602.4	5,702.5
Cost of Goods Sold	7,337.8	22.8%	37.5%	5,977.1	5,337.5
Gross Profit	97.3	-84.5%	-73.4%	625.3	365.0
Operating Profit	(156.7)	Deficit	Deficit	356.0	111.5
OP margin	-2.1%	-7.5%	-4.1%	5.4%	2.0%
Non Operating Income & Loss	(268.8)	-	-	(53.1)	(29.3)
Profit before Tax	(425.5)	-	-	302.9	82.2
Income Tax	(69.8)	-	-	63.4	304.8
Net Income	(355.7)	Deficit	59.8%	239.5	(222.6)

Consolidated Balance Sheet

(Unit : billion KRW)

Category	Apr.1, '17	Dec.31, '17	Dec.31, '18
Current Assets	4,111.3	7,827.2	8,884.5
(Cash & Cash Equivalents)	572.1	1,126.3	1,099.8
Non-current Assets	8,943.7	13,061.4	14,470.2
Total Assets	13,055.0	20,888.6	23,354.7
Current Liabilities	4,922.2	6,528.7	8,652.1
(Short-term borrowings)	2,769.2	2,939.3	4,549.7
Non-current Liabilities	2,664.8	4,258.0	4,149.6
(Long-term borrowings)	2,156.9	3,391.9	3,325.0
Total Liabilities	7,587.0	10,786.7	12,801.7
Paid-in Capital	60.2	81.4	81.4
Others	4,510.8	6,460.2	4,344.6
Retained Earnings	0.0	946.8	3,298.5
Non-controlling interests	897.0	2,613.5	2,828.5
Total Shareholder's Equity	5,468.0	10,101.9	10,553.0
Total Liabilities & Shareholder's Equity	13,055.0	20,888.6	23,354.7

Note 1 : K-IFRS consolidated basis

2. Consolidated Financial Statements (Hyundai Oilbank)

Consolidated Income Statement

Unit: KRW bil.

	'18.4Q	QoQ	YoY	'18.3Q	'17.4Q
Sales	6,117.4	18.3%	29.6%	5,173.0	4,720.7
Cost of sales	6,179.7	27.9%	46.2%	4,831.6	4,227.5
Gross profit	-62.3	-118.2%	-112.6%	341.4	493.2
Operating profit	-175.3	-173.0%	-146.0%	240.0	381.5
OP margin	-2.9%	-7.5%p	-11.0%p	4.6%	8.1%
Non operating income & expenses	-72.4	-	-	9.8	50.0
Profit before tax	-247.7	-199.2%	-157.4%	249.8	431.5
Income tax	-57.4	-	-	59.9	114.2
Net income	-190.3	-200.2%	-160.0%	189.9	317.3

Note: Consolidated in accordance with K-IFRS

Consolidated Balance Sheet

Unit: KRW bil.

	Dec.31, '16	Dec.31, '17	Dec.31, '18
Current assets	3,033.2	4,103.5	4,304.6
(Cash & cash equivalents)	300.6	148.2	162.6
Non-current assets	6,375.5	6,837.7	7,386.6
Total assets	9,408.7	10,941.3	11,691.2
Current liabilities	3,088.0	3,797.7	4,524.4
(Short-term borrowings)	1,102.0	1,015.4	1,573.7
Non-current liabilities	1,885.3	2,081.7	2,042.7
(Long-term borrowings)	1,691.3	1,860.0	1,856.1
Total liabilities	4,973.3	5,879.4	6,567.1
Paid-in capital	1,225.4	1,225.4	1,225.4
Others	458.1	440.8	454.6
Retained earnings	2,496.0	3,064.2	3,109.9
Non-controlling interest	255.9	331.5	334.2
Total equity	4,435.4	5,061.9	5,124.1
Total liabilities & equity	9,408.7	10,941.3	11,691.2

3. Consolidated Financial Statement of Hyundai Global Service

Consolidated Income Statement

(Unit : billion KRW)

	'18.4Q	QoQ	YoY	'18.3Q	'17.4Q
Sales	136.6	16.5%	120.3%	117.3	61.9
Cost of Goods Sold	112.3	18.5%	123.3%	94.8	50.3
Gross Profit	24.3	8.0%	109.5%	22.5	11.6
Operating Profit	17.2	-6.0%	132.4%	18.3	7.4
OP margin	12.6%	-3.0%p	-0.7%p	15.6%	11.9%
Non Operating Income & Loss	0.1	-	-	-0.8	-3.5
Profit before Tax	17.3	-1.1%	343.6%	17.5	3.9
Income Tax	4.7	-9.6%	147.4%	5.2	1.9
Net Income	12.6	3.3%	530.0%	12.2	2.0

Note1 : '17. 4Q, non consolidated basis , '18.3Q, 4Q, consolidated basis

Consolidated Balance Sheet

(Unit : billion KRW)

	Dec.31, '16	Dec.31, '17	Dec.31, '18
Current Assets	142.9	203.6	359.5
(Cash & Cash Equivalents)	57.7	39.1	124.8
Non-current Assets	1.9	5.5	11.2
Total Assets	144.8	209.1	370.7
Current Liabilities	18.9	43.0	151.8
(Short-term borrowings)	-	-	-
Non-current Liabilities	0.6	0.2	0.3
(Long-term borrowings)	-	-	-
Total Liabilities	19.5	43.2	152.0
Paid-in Capital	20.0	20.0	20.0
Others	105.2	105.7	105.5
Retained Earnings	0.1	40.2	93.2
Total Shareholder's Equity	125.3	165.9	218.7
Total Liabilities & Shareholder's Equity	144.8	209.1	370.7

Note1 : '17. 4Q, non consolidated basis , '18.3Q, 4Q, consolidated basis

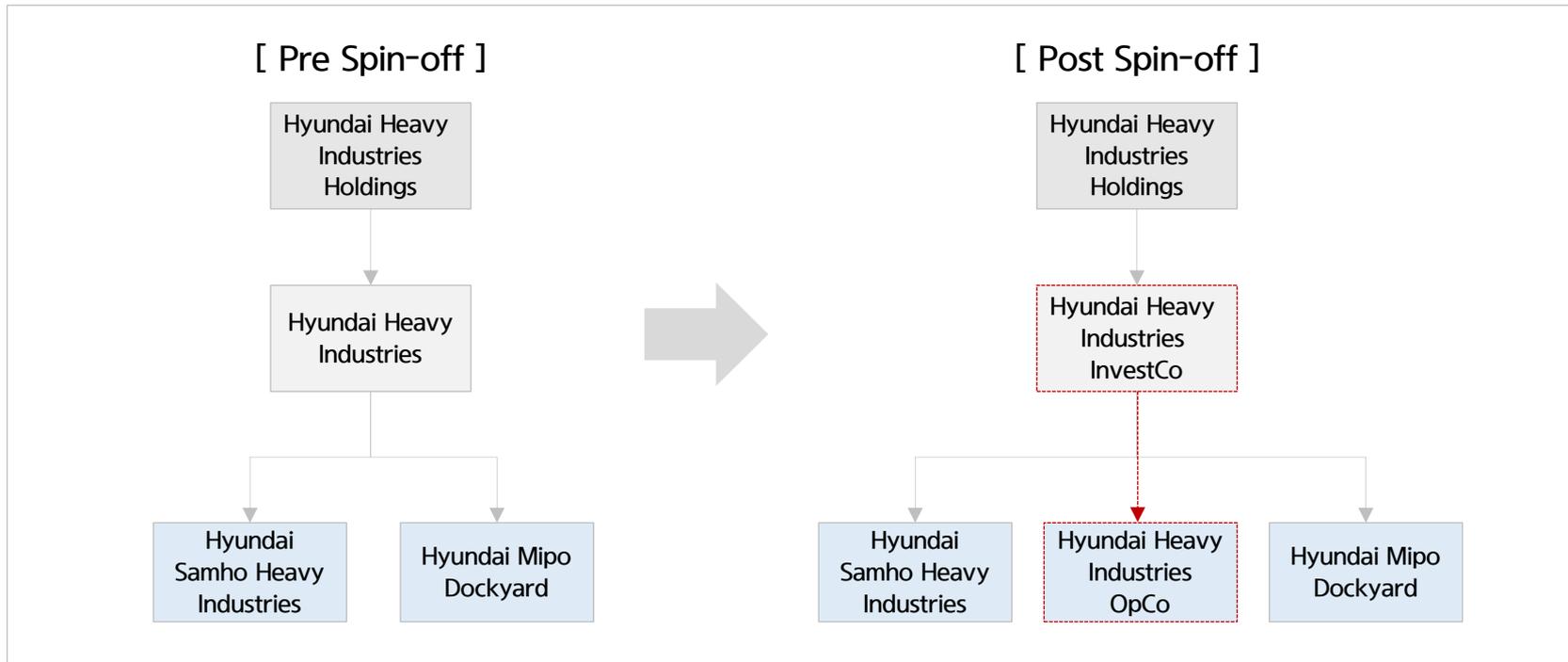
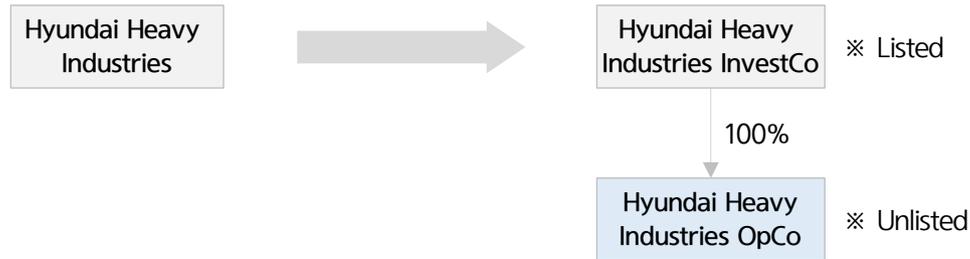
Appendix

DSME Acquisition

1. Spin-off of Hyundai Heavy Industries
2. In-kind Contribution
3. Rights Offering
4. Post-transaction Corporate Governance Structure

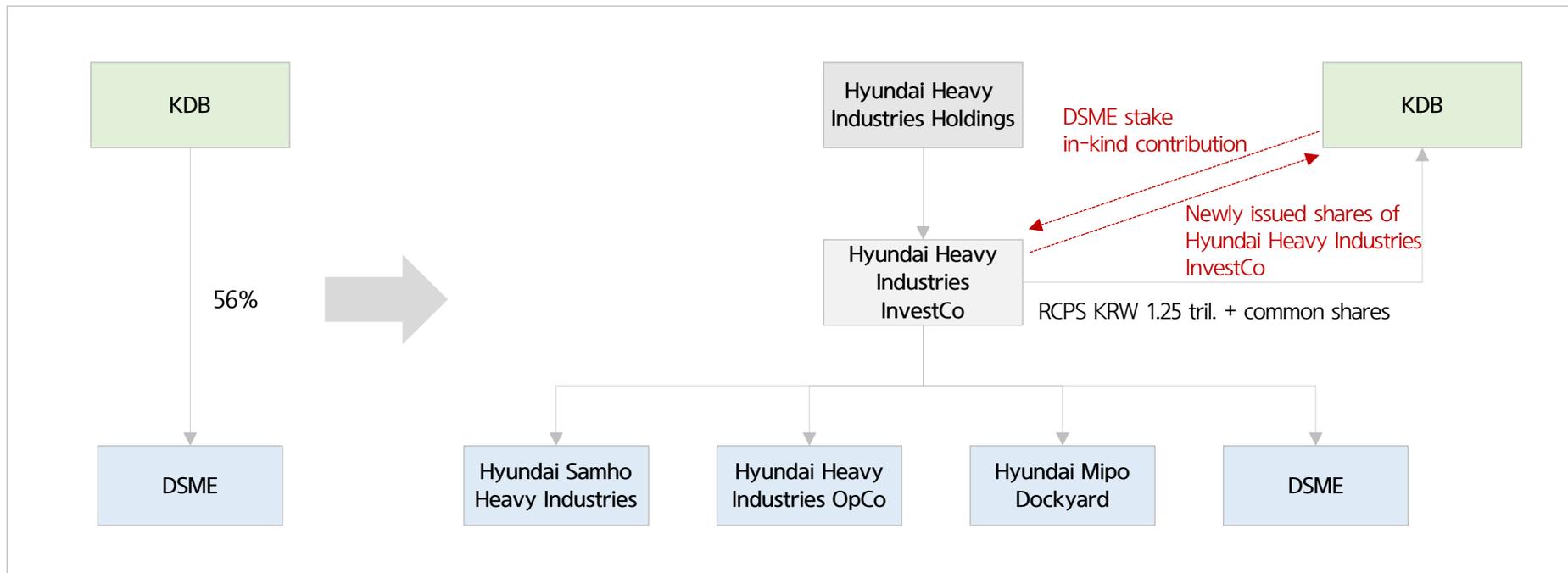
1. Spin-off of Hyundai Heavy Industries

- Hyundai Heavy Industries will split into Hyundai Heavy Industries InvestCo(continuous HHI) and Hyundai Heavy Industries OpCo.



2. In-kind Contribution

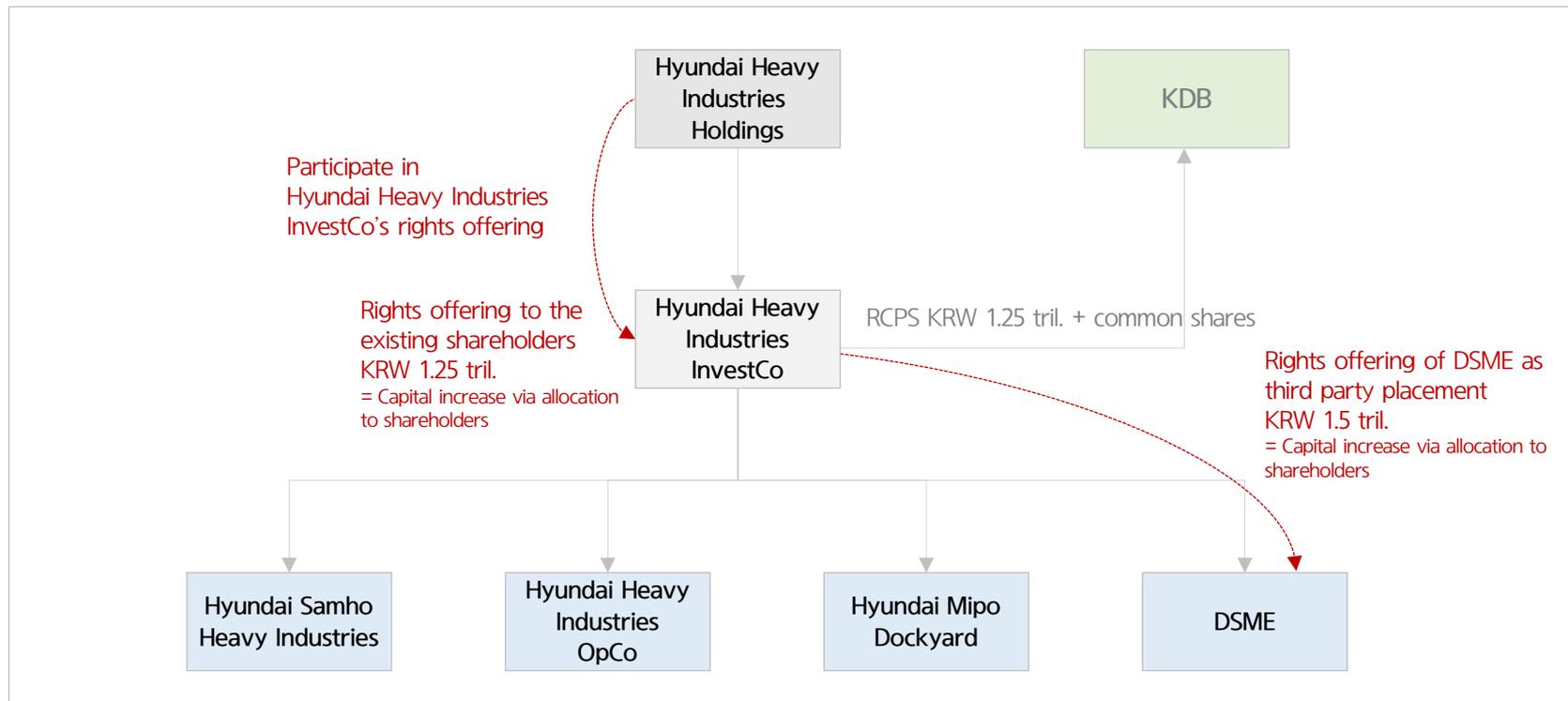
- KDB will provide its DSME stake to Hyundai Heavy Industries InvestCo as a contribution in kind. In return, KDB will acquire newly issued shares of Hyundai Heavy Industries InvestCo.
- ① In exchange for KDB's stake in DSME, Hyundai Heavy Industries InvestCo will issue KRW 1.25 tril. redeemable convertible preference shares(RCPS) and 6,009,570 common shares.
 - ② The transaction will take place with an exchange ratio determined by the base price calculated with (*) the closing price prior to the day of board of committee.
 - Final price of Hyundai Heavy InvestCo : KRW 137,088 per share, DSME in-kind contribution final price : KRW 34,922 per share



(*) The least price of the two : ① the average price of 1) weighted average of 30 days ending prior to the day of board of committee 2) weighted average of 7 days ending prior to the day of board of committee 3) the closing price prior to the day of board of committee; and ② the closing price prior to the day of board of committee

3. Rights Offering

- Rights offering of both Hyundai Heavy Industries InvestCo and DSME will be executed in order to improve DSME's balance sheet.
- ① KRW 1.25 tril. capital raised from the rights offering of Hyundai Heavy Industries InvestCo will be used to participate in the rights offering of DSME as a third party placement.
 - ② KRW 1.5 tril. capital raised from the rights offering of DSME will be used to redeem borrowings.



4. Post-transaction Corporate Governance Structure

