Emerging onto a Still Wider Stage

Consolidated Business Performance for the First Half of the FYE2020

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The Gas Professionals

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Business Performance for the First Half of FYE2020

Overview

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Overview of business performance

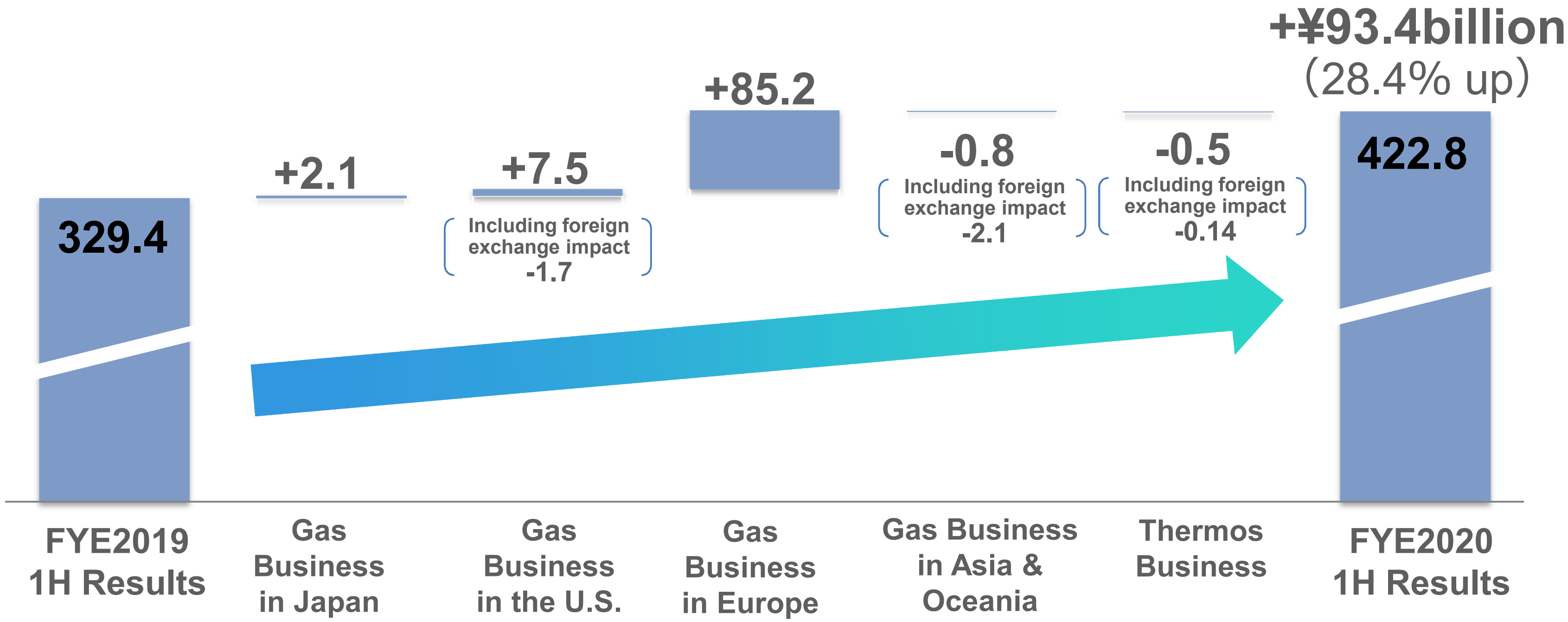
(Billions of yen)

	FYE2019 1H Results Margin	FYE2020 1H Results Margin	YoY Change	FYE2020 1H Announced targets Margin
Revenue	329.4	**422.8**	+93.4 +28.4%	435.0
Core operating income	28.1 8.5%	**45.4** **10.8%**	+17.3 +61.6%	46.0 10.6%
Non-recurring profit and loss	0.8	1.2	+0.4	0.0
Operating income	28.9 8.8%	**46.7** **11.1%**	+17.8 +61.4%	46.0 10.6%
Net income attributable to owners of the parent	17.6 5.4%	**27.7** **6.6%**	+10.1 +56.9%	25.5 5.9%

- Foreign currency translations (US$→¥) FYE2019 Q2 rate: US$1=¥110.71, FYE2020 Q2 rate: US$1=¥108.67
  (€→¥) FYE2020 Q2 rate: €1=¥120.91
  (AU$→¥) FYE2019 Q2 rate: AU$1=¥81.79, FYE2020 Q2 rate: AU$1=¥74.75
- In its FYE2019 Q2 results, the Company had recorded advisory costs of ¥1.3 billion on core operating income in connection with the acquisition of European businesses.

Overview of Business Performance: Reasons for Changes in Revenue

- Revenue expanded significantly due to contributions made by the purchase of Praxair, Inc.'s European operations in the previous fiscal year and Linde AG's US HyCO business. In Japan, revenue also increased due to the effects of the acquisition of medical equipment sales company IMI Co., Ltd.

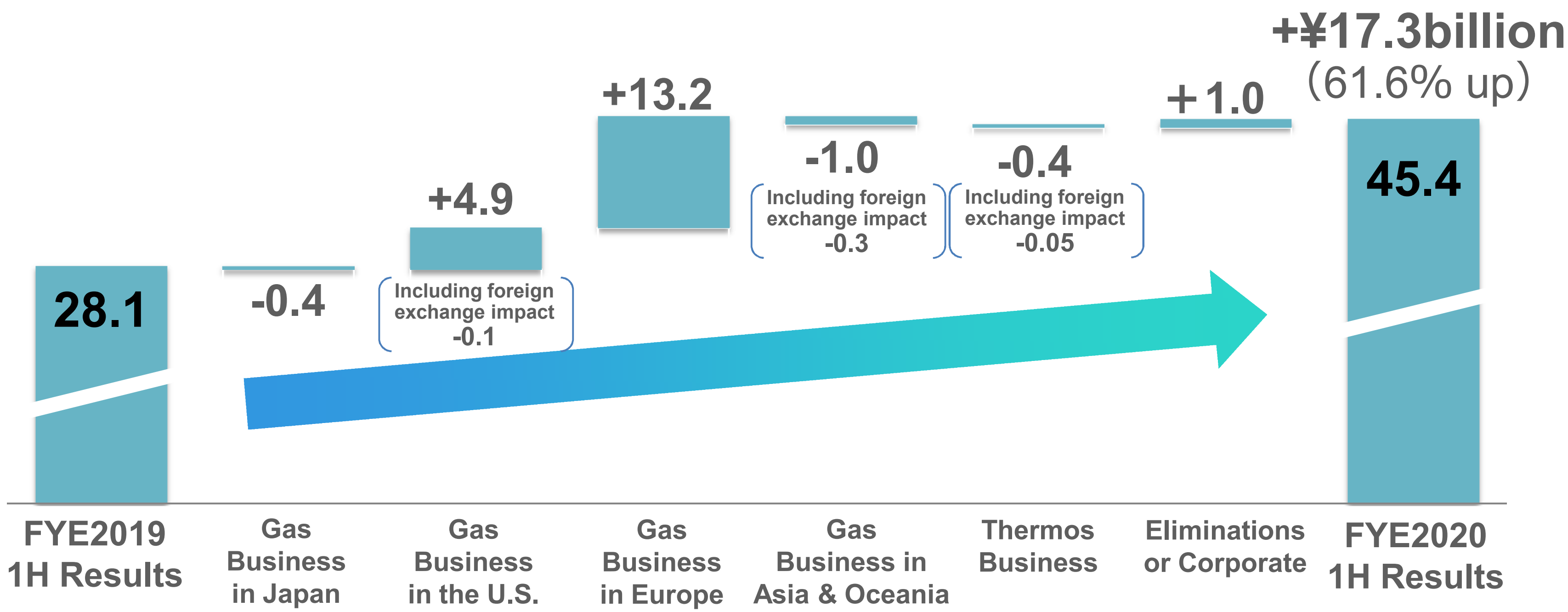


(Billions of yen)

FYE2020 1H Results	174.0	98.9	85.2	51.5	13.0
FYE2019 1H Results	171.9	91.4	–	52.3	13.5

Overview of Business Performance: Reasons for Change in Core Operating Income

- Earnings rose substantially owing to the acquisitions made during the previous fiscal year despite a decrease in revenue in the bulk gas business in Japan due to an overall softening of demand and the impact of lower earnings due to reduced shipments of Specialty gases in East Asia



(Billions of yen)

FYE2020 1H Results	12.3	11.7	13.2	5.3	4.1	-1.3
FYE2019 1H Results	12.7	6.8	—	6.3	4.5	-2.3*

*In its FYE2019 Q2 results, the Company had recorded advisory costs of ¥1.3 billion on core operating income in connection with the acquisition of European businesses.

Business Performance for the First Half of FYE2020

Business Performance by Segment

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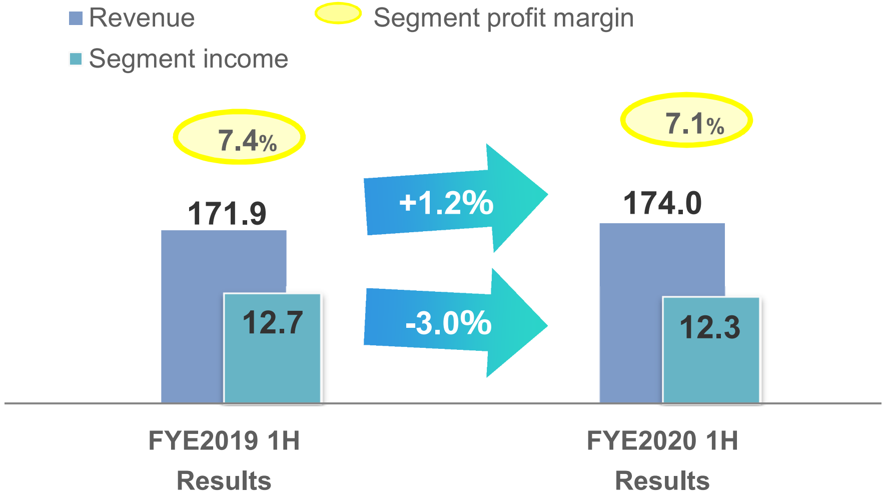
Business Performance by Segment：Gas Business in Japan

Gas Business in Japan

(Billions of yen)

	FYE2019 1H Results	FYE2020 1H Results	YoY Change
Revenue	171.9	174.0	+2.1
Segment income (core operating income)	12.7	12.3	-0.4



Reasons for changes in revenue

- Bulk & On-site (Air separation gases): Revenue decreased primarily in the key industries of steel, non-ferrous metals and metal processing.
- Gas-related and plant, other: Electronics-related equipment and installation: Revenue decreased due to a fall in the number of projects. Contribution from acquisition of IMI Co., Ltd, a medical equipment sales company.

Reasons for changes in segment income

- Bulk & On-site (Air separation gases): Earnings decreased due to higher costs from rising fuel prices and logistics expenses.
- Electronics-related equipment and installation: Lower earnings from decreased revenue.
- Contribution from acquisition of IMI Co., Ltd, a medical equipment sales company.

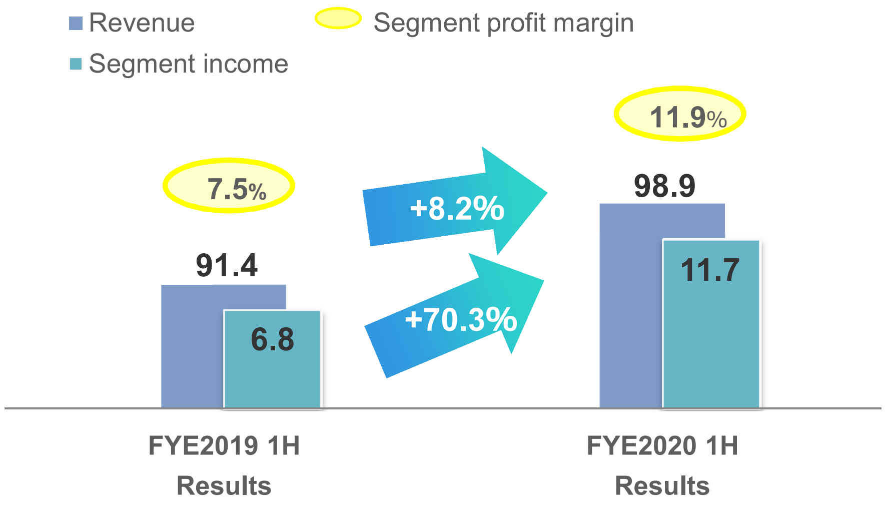
Business Performance by Segment : Gas Business in the U.S.

Gas Business in the U.S.

(Billions of yen)

	FYE2019 1H Results	FYE2020 1H Results	YoY Change
Revenue	91.4	98.9	+7.5
Segment income (core operating income)	6.8	11.7	+4.9

*Impact of foreign currency translation: negative impacts of ¥1.67 billion on revenue and ¥0.12 billion on segment income.



Reasons for changes in revenue

- Bulk: Favorable shipments centered around air separation gases.
- On-site: Start of operation of new projects, contribution from acquisition of HyCO business.

Reasons for changes in segment income

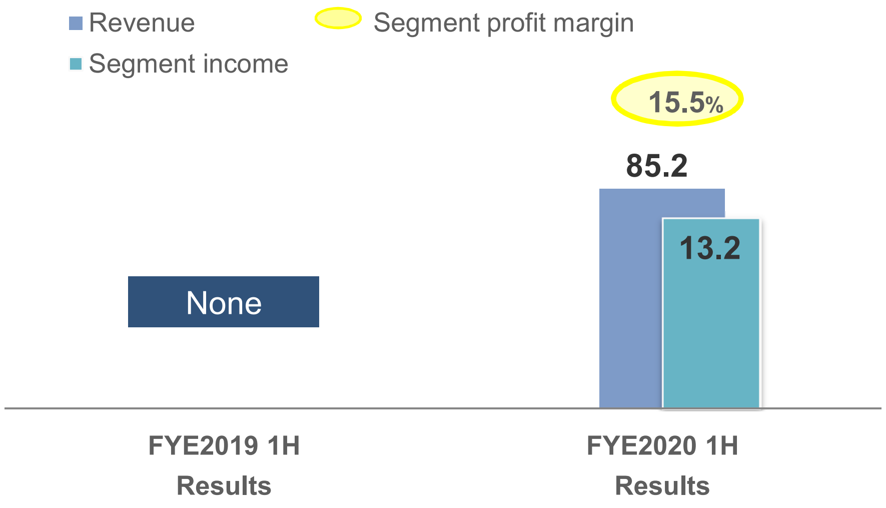
- Industrial gas-related business was generally favorable, centered on air separation gases.
- Contribution from acquisition of HyCO business.

Business Performance by Segment : Gas Business in Europe

Gas Business in Europe

(Billions of yen)

	FYE2019 1H Results	FYE2020 1H Results	YoY Change
Revenue	-	85.2	+85.2
Segment income (core operating income)	-	13.2	+13.2



- Revenue increased 2.9% year on year to ¥82.8 billion compared to the business performance for the Gas Business in Europe from April 1, 2018 to September 30, 2018, assuming the acquisition date of the European business acquired from U.S. company Praxair, Inc. was April 1, 2018. The actual acquisition was completed in December 2018.
(The rate of €1=¥120.91 applicable for the FYE2020 Q2 has been used for conversions to yen)

- Looking at revenue by key regions (on a local currency basis), Iberia (Spain/Portugal) was on a par year on year, Italy was up 1%, Germany rose 4%, Benelux (Belgium/Netherlands) increased 3% and Scandinavia (Norway/Sweden) grew by 2%.

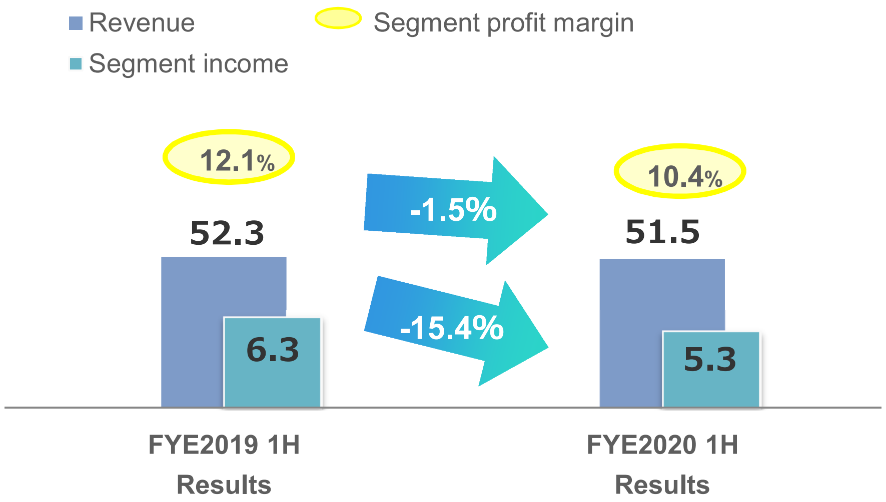
Business Performance by Segment：Gas Business in Asia and Oceania

Gas Business in Asia and Oceania

(Billions of yen)

	FYE2019 1H Results	FYE2020 1H Results	YoY Change
Revenue	52.3	51.5	-0.8
Segment income (core operating income)	6.3	5.3	-1.0

*Impact of foreign currency translation: negative impacts of ¥2.15 billion on revenue and ¥0.32 billion on segment income.



Reasons for changes in revenue

- Bulk (Air separation gases): Revenue in Asia decreased slightly.
- LP gas: Firm sales in Australia.
- Specialty gases: Lower shipments of electronic materials gases.
- Electronics-related equipment and installation: Revenue in Taiwan rose substantially.

Reasons for changes in segment income

- Profitability improved in the LP gas business in Australia.
- Earnings declined due to lower electronic materials gas revenue.

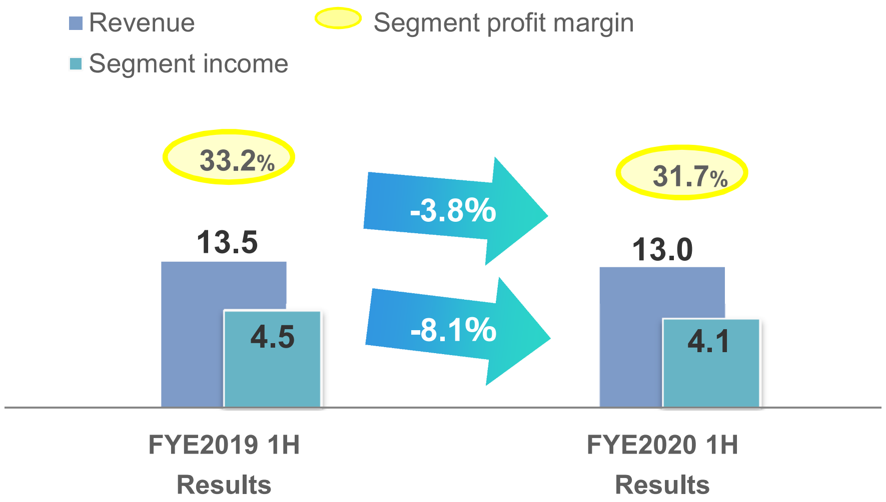
Business Performance by Segment：Thermos Business

Thermos Business

(Billions of yen)

	FYE2019 1H Results	FYE2020 1H Results	YoY Change
Revenue	13.5	13.0	-0.5
Segment income (core operating income)	4.5	4.1	-0.4

*Impact of foreign currency translation: negative impacts of ¥0.14 billion on revenue and ¥0.05 billion on segment income.



Reasons for changes in revenue

- Japan: Sales of vacuum insulated mobile mugs were solid. Sales of sports bottles were sluggish.
- Overseas: Decline in the number of shipments at Thermos production plants for overseas sales companies.

Reasons for changes in segment income

- Japan: Earnings decreased due to lower revenue from sports bottles.
- Overseas: Sales of companies accounted for by the equity method have been somewhat weak excluding a portion of regions.

Full-Year Forecasts for FYE2020

Overview

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Full-Year Forecasts for FYE2020 by Segment

- Overall performance in the first half of the fiscal year under review was generally as initially forecast and the Company's full-year forecast remains unchanged. However, for performance by segment, results have been taken into account and the initial forecast has been revised. Assumptions of earnings by each reportable segment are as follows.

Gas Business in Japan	● Bulk gas demand is sluggish and second half performance is expected to be on a par with the first half. Some improvement is envisaged through the effects of price revisions. ● Demand for electronic materials gases, equipment and installation is weak, with recovery assumed from the following fiscal year.
Gas Business in the U.S.	● Year on year shipments of industrial gases are projected to continue to increase as production in U.S. manufacturing industries is strong. ● Second half earnings from the HyCO business acquired from Linde AG of Germany are expected to be about the same as those from the first half.
Gas Business in Europe	● Euro-based business is expected to perform as initially forecast though some differences exist in regional earnings environments. ● Yen-based performance has been revised due to a revision of the conversion rate (from €1=¥125 to €1=120).
Gas Business in Asia and Oceania	● Industrial gas is expected to perform as initially forecast though some differences exist in regional earnings environments. ● Demand for electronic materials gases is weak, with the second half envisaged to be in line with the first half. Recovery is assumed from the following fiscal year.
Thermos Business	● Frying pan sales are expected to increase as demand for cookware is highest in December and March. ● Overseas, sales are strong in China, but forecast to be sluggish in North America due to competition and other factors.

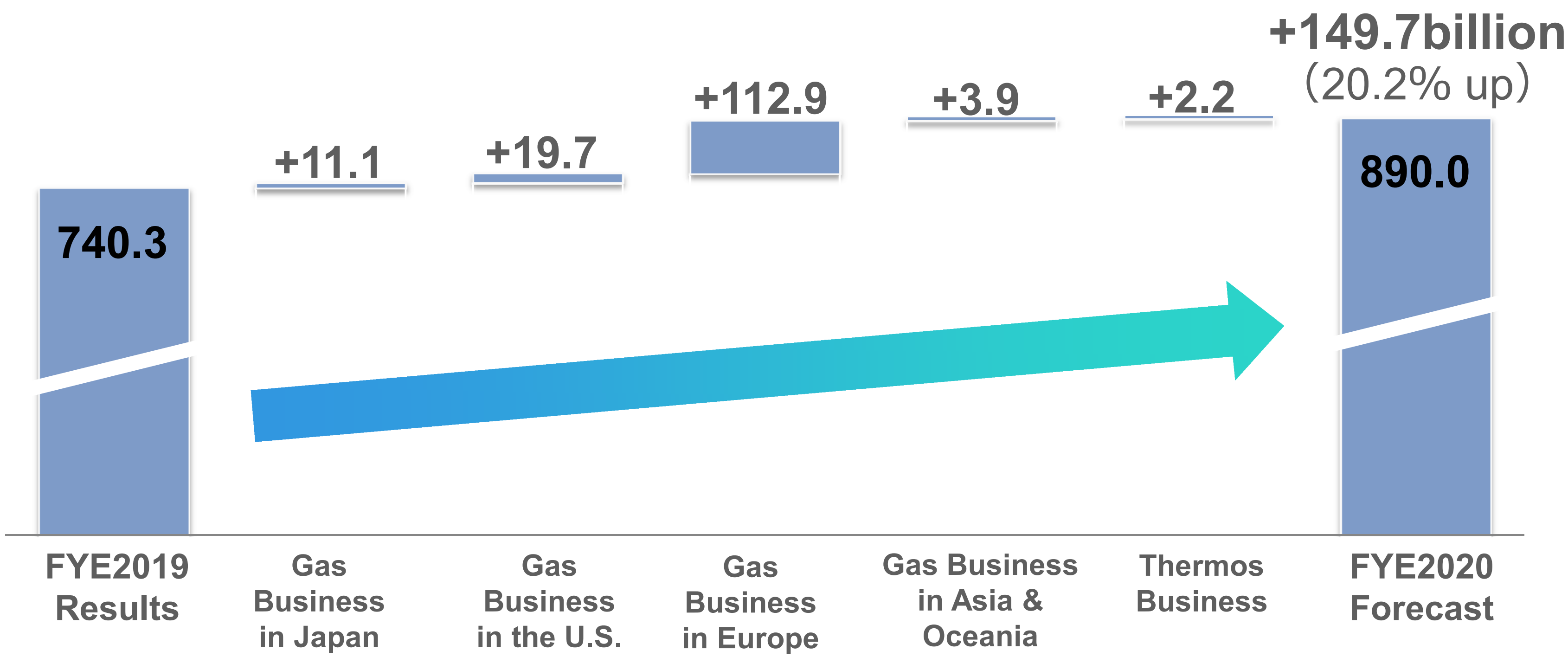
Full-Year Forecast

(Billions of yen)

	FYE2019 Results	Margin	FYE2020 Forecast	Margin	YoY Change	
Revenue	740.3		890.0		+149.7	+20.2%
Core operating income	65.8	8.9%	95.0	10.7%	+29.2	+44.3%
Non-recurring profit and loss	1.0		7.0		+6.0	
Operating income	66.8	9.0%	102.0	11.5%	+35.2	+52.6%
Net income attributable to owners of the parent	41.2	5.6%	57.0	6.4%	+15.8	+38.0%

- Assumed exchange rate for FYE2020: (US$→¥): $1=¥110, (EUR→¥): €1=¥120
- In FYE2020, the Company plans to record non-recurring profit of ¥7.0 billion on the sale of its assets as part of efforts to improve asset efficiency.

Business Performance Forecast: Reasons for Changes in Revenue

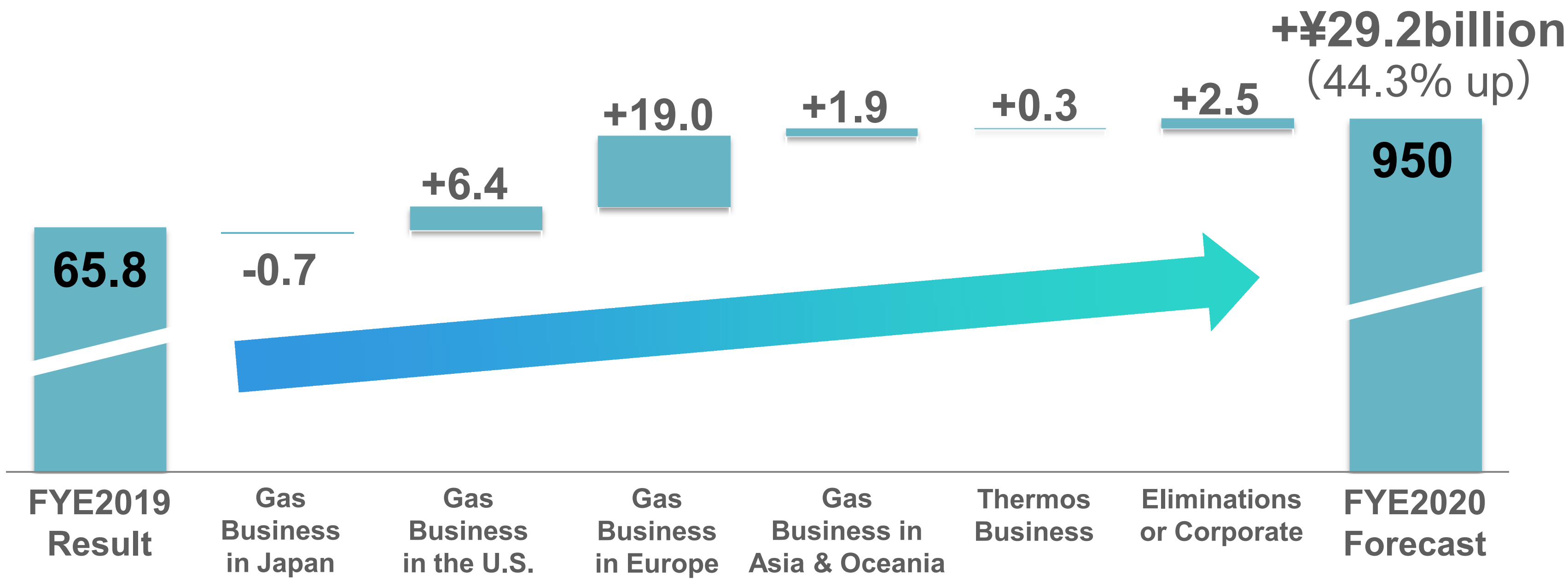


(Billions of yen)

FYE2020 Revised forecast	375.0	207.0	168.0	110.0	30.0
Initial forecast	*375.0*	*201.0*	*173.0*	*111.0*	*30.0*
FYE2019 Results	363.9	187.3	55.1*	106.1	27.8

*For the business performance in FYE2019, the European business acquired from U.S. company Praxair, Inc. only accounts for a four-month period from December 2018 to March 2019.

Business Performance Forecast: Reason for Changes in Core Operating Income



(Billions of yen)

	Gas Business in Japan	Gas Business in the U.S.	Gas Business in Europe	Gas Business in Asia & Oceania	Thermos Business	Eliminations or Corporate
FYE2020 Revised forecast	29.1	22.0	25.5	11.0	9.4	-2.0
Initial forecast	*30.6*	*19.0*	*26.5*	*11.5*	*9.4*	*-2.0*
FYE2019 Results	29.8	15.6	6.5 *1	9.1	9.1	-4.5 *2

*1 For the business performance in FYE2019, the European business acquired from U.S. company Praxair, Inc. only accounts for a four-month period from December 2018 to March 2019.

*2 In its FYE2019 full-year results, the Company has recorded advisory costs of ¥2.7 billion on core operating income in connection with the acquisition of European businesses.

Full-Year Forecasts for FYE2020

Condensed Consolidated Statements of Cash Flows

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Condensed Consolidated Statements of Cash Flows

(Billions of yen)

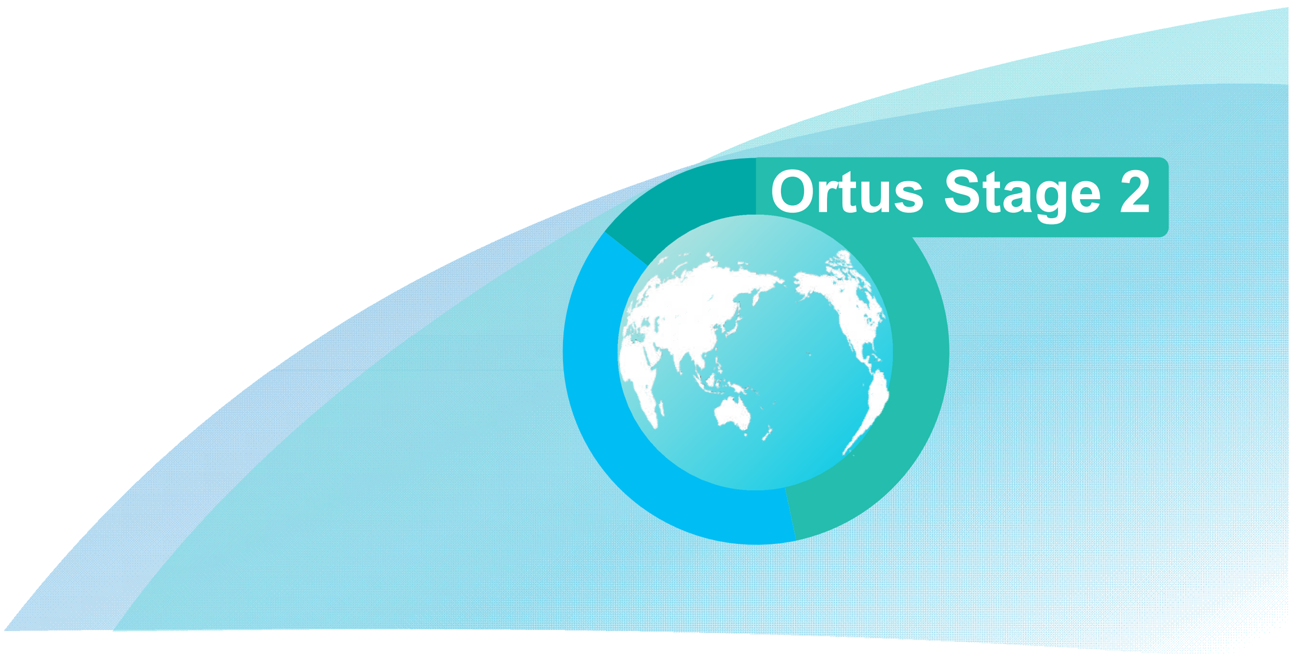
	FYE2019 Results	FYE2020 Forecast (Announced on November 15)	YoY Change	FYE2020 Forecast (Announced on May 23)
Profit before income taxes	62.0	**86.5**	+24.5	86.5
Depreciation and amortization	56.1	**86.0**	+29.9	83.0
Changes in working capital	-2.4	**-3.5**	-1.1	-3.5
Other	-17.0	**-33.5**	-16.5	-35.5
Cash flows from operating activities	98.6	**135.5**	+36.9	130.5
Capital expenditures	-74.1	**-92.5**	-18.4	-103.4
Investment and loans	-691.1	**-0.3**	+690.8	–
Other (sale of assets, etc.)	10.3	**7.4**	-2.9	8.0
Cash flows from investing activities	-754.9	**-85.5**	+669.4	-95.4
Free cash flows	-656.2	**50.0**	+706.2	35.1
Net interest-bearing debt*	945.7	**933.5**	-12.2	922.8
Adjusted net D/E ratio	1.54x	**1.44x**	-0.1 pt.	1.38x

* As a result of the application of IFRS 16 for FYE2020, the carrying amount of the TNSC Group's lease liabilities in net interest-bearing debt increased by ¥34.6 billion compared to FYE2019. Furthermore, the increased amount of lease liabilities under IFRS 16 was not included as part of net interest-bearing debt in the full-year forecast for FYE2020 (announced on May 23, 2019).

- Net interest-bearing liabilities: Interest-bearing debt – cash and cash equivalents
- Adjusted net D/E ratio: (Net Interest-bearing debt – equity-type debt) / (equity attributable to owners of the parent + equity-type debt)
- Equity-type debt: The amount of debt procured by hybrid finance that has been recognized as equity credit by rating agencies. (50% of the procured amount)
- Hybrid finance: A form of debt financing that has features resembling equity, such as voluntary deferral of interest, extremely long-term redemption periods and subordination during liquidation or bankruptcy procedures.

Starting the Four-hub Global Network

Overview of European Businesses



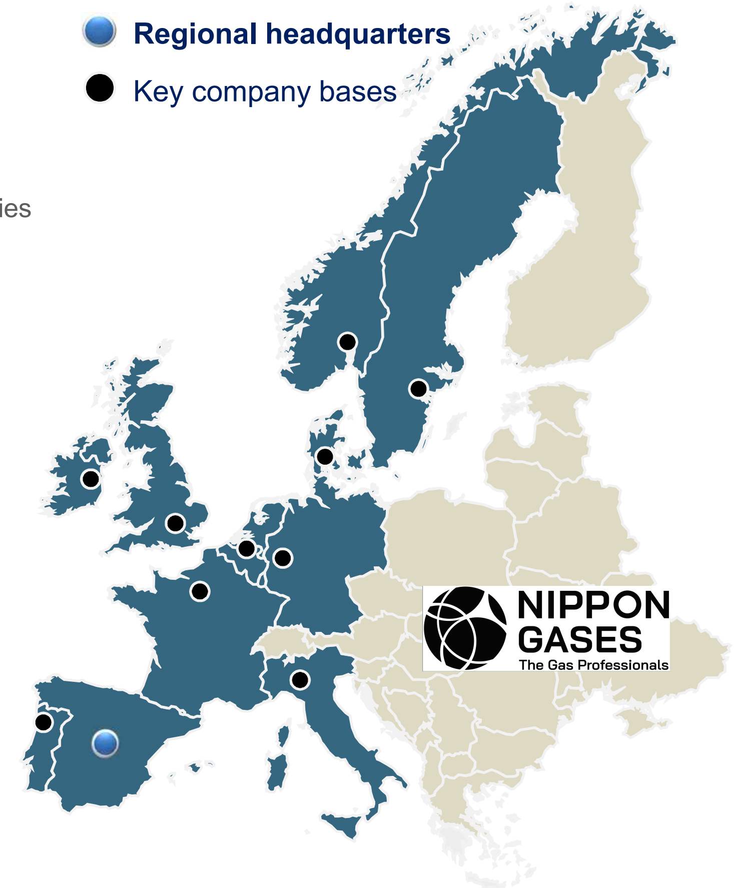
Overview of the European Businesses – Development Region

Nippon Gases Europe has its business mainly in Spain and Portugal, Italy and Germany. Stable base business in key industrial zones. Solid combination of onsite/ piping, merchant, and package lines of business across key European industrial zones.

Business areas and assets held

(As of October 1, 2019)

- 2,725 Employees
- Over 100,000 Customers
- 14 Pipelines
- 5 Specialty Gases Laboratories
- 27 Air Separation Units
- 6 Hydrogen plants
- 44 Small On-Site
- 14 CO_2 plants
- Over 600 trucks
- Over 2.6 million cylinders
- 38 Filling Stations
- 17 Dry Ice Plants
- 7 CO_2 Terminals
- 3 CO_2 Ships



Revenue composition by region

(1H results for FYE2020)

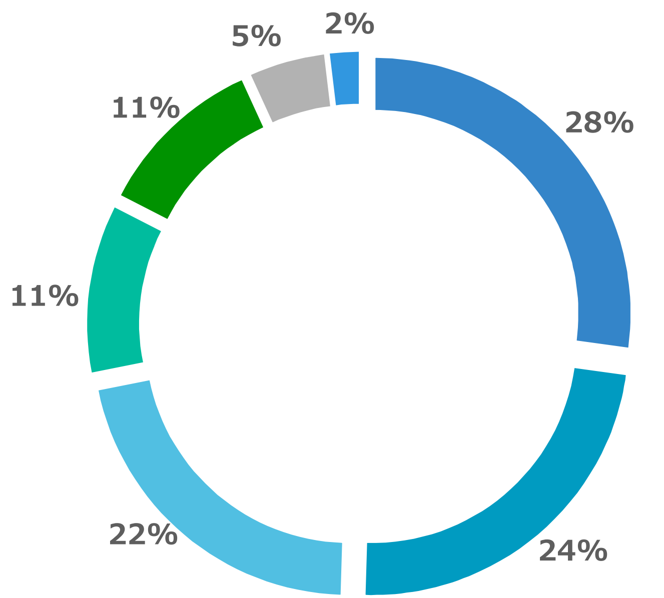


*Diagram excludes -3% elimination of intra-company transactions within the Group

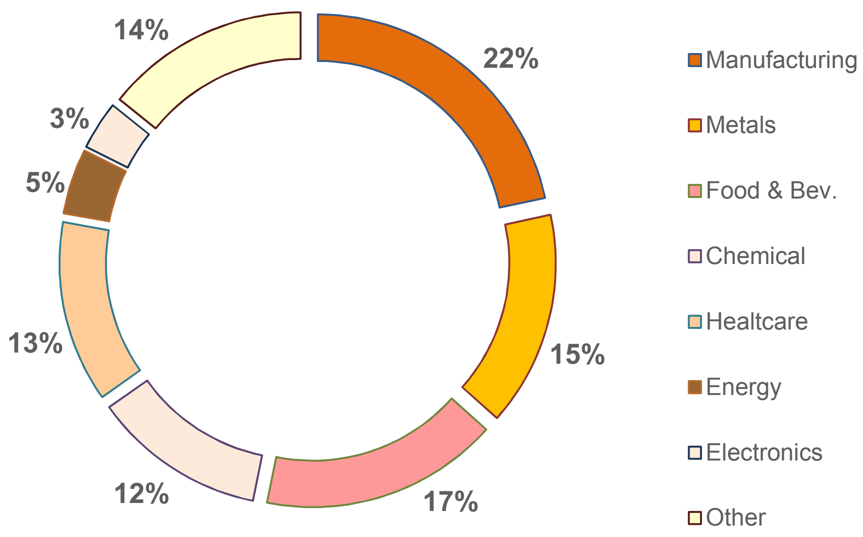
- Spain & Portugal
- Italy
- Germany
- Benelux
- Scandinavia
- UK, Ireland & France
- Offshore

Overview of European Businesses – Supply Destinations and mode

Revenue composition by supply destination

(1H results for FYE2020)

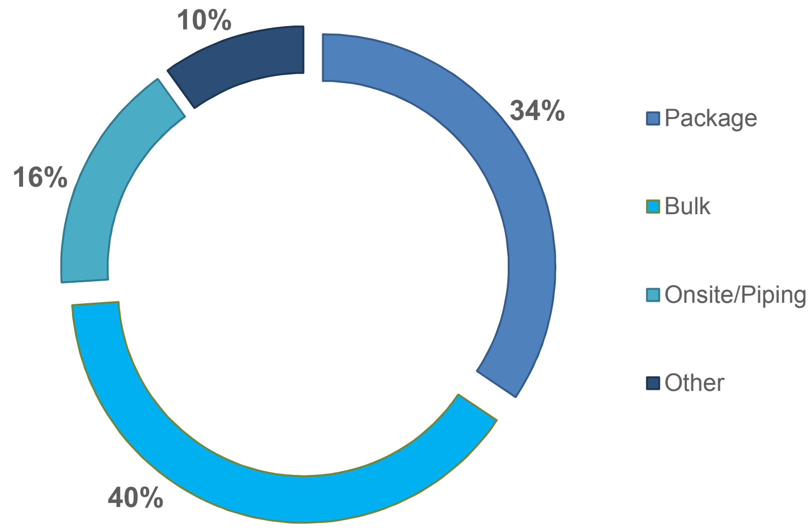
- Nippon Gases Europe supplies various industries in common with other industrial gas business segments.
- Manufacturing and metal (including Steel and Non-ferrous) accounts for around 40% of the end user in Nippon Gases business.



Revenue composition by supply mode

(1H results for FYE2020)

- **On-site/piping business -** stable and large scale supply system with supply contract for mid and long term accounts for 16% of the whole.
- **Bulk business -** supply for diversified customers : Steel, Chemical, Transportation machinery (Shipbuilding and automotive), Food, Drink etc. accounts for 40% of the whole.



Norway ASU* investment for Aquaculture

*ASU: Air separation unit

With the increasing worldwide demand for food fish and fishery products, Nippon Gases Europe decided to invest in a new ASU for the booming aquaculture industry in Norway.

Background and purpose of the investment

Trends in demand for seafood

The health trend in advanced countries and increased population in developing countries has increased and is expected to continued to increase the demand of fish and fishery products. This trend boosts the global demand in aquaculture for sustainable fish supply more than the wild capture of fish.

Regional business environmental awareness

In Norway, we expect to see CAGR 6% growth in the salmon production by aquaculture.

In Northern West coast of Scandinavian peninsula, aquaculture and sea food processing industries grow strongly.

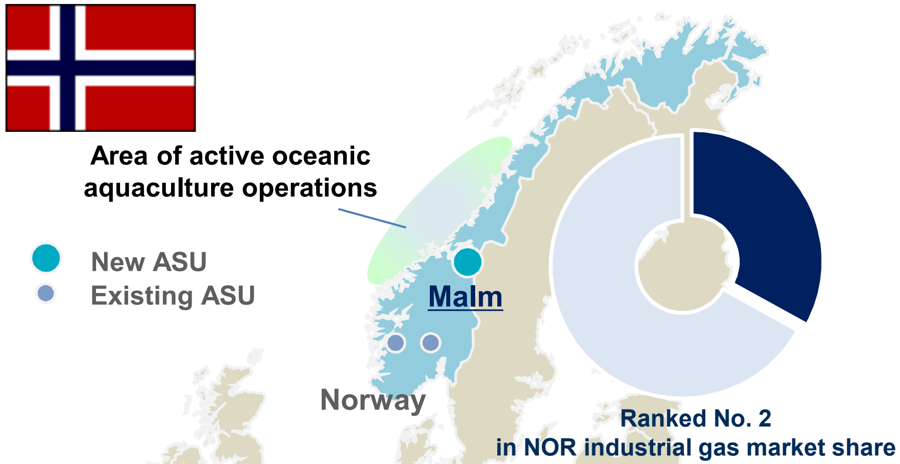
Industrial gas applications

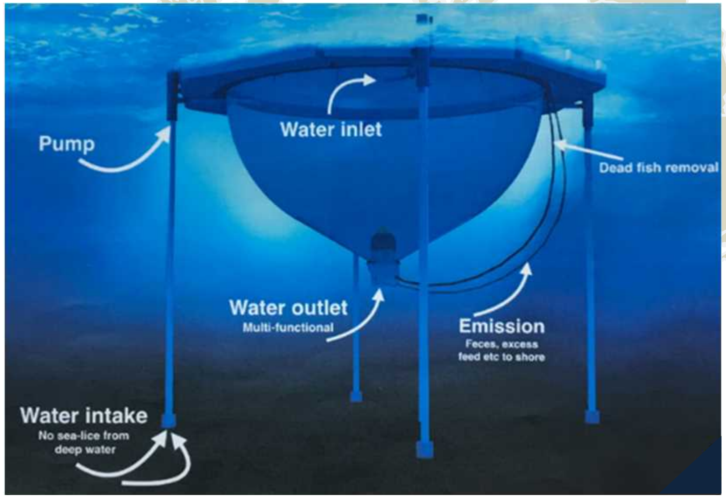
In aquaculture, oxygen is used for increasing the concentration in fish-pond due to growth promotion and activating of fishes.

In sea food processing, nitrogen is used for encapsulated gas when food is packaged due to freshness keeping of processed foods

By installing the new ASU near consumption area, Nippon Gases Europe enhances its reliable supply network and captures the growing demand of industrial gas.

Business area in Norway





(Reference) The supply environment for the aquaculture industry in Norway

Initiatives to Improve the Group's Comprehensive Capabilities

Steadily progressing toward complete comprehensive integration[*1] for the TNSC Group. The Group's comprehensive capabilities will increase by way of mutual benefits and demonstration of synergistic effects among the European business bases and existing businesses bases.

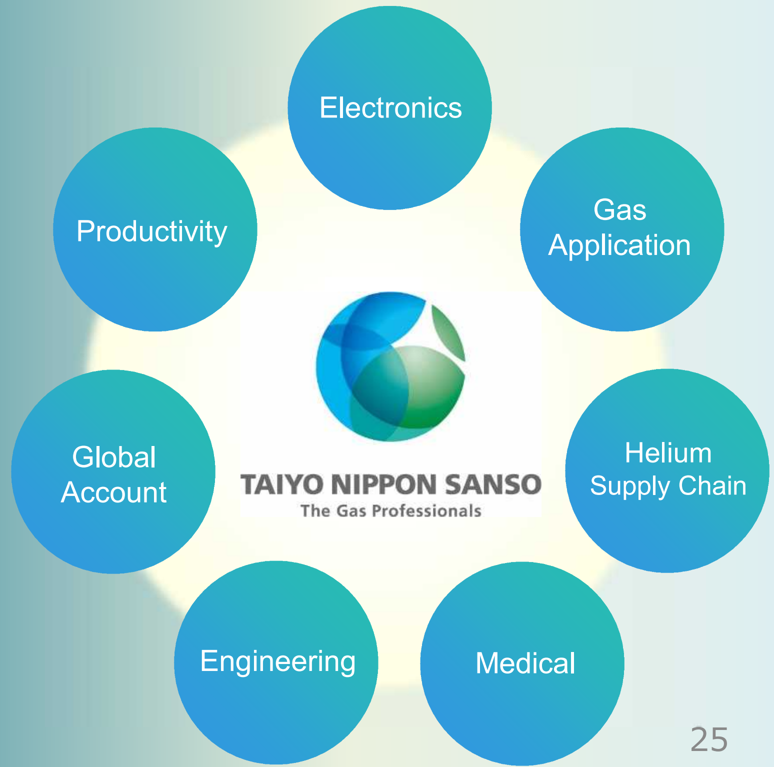
[*1] Main target fields: IT networks, accounting and management systems, rebranding, purchasing, and human resource systems

Separation from Praxair Inc. → **Integration into the TNSC Group** → **Demonstration of the Group's comprehensive capabilities**

TNSC promoted integrated work shared by 12 project teams for Post Merger Integration (PMI).

[*2] EHSQ: Environment Health(occupational health) Safety Quality

To demonstrate the Group's comprehensive capabilities TNSC is pursuing mutual benefits and synergistic effects for each business base and undertaking initiatives for the below seven key themes.



Initiatives to Improve the Group's Comprehensive Capabilities

Electronics
- Incorporate Europe into the existing strategy for Total Electronics, build an optimal supply and sales system.

Productivity
- Develop knowledge of cost reduction accumulated in Europe and programs and knowledge on improving productivity for other regions.

Gas Application
- Share gas application technology that the Company accumulated in Europe and Japan, promote expansion for customers.

Global Account
- Promote sales development in other regions that have companies from many different countries, including Japanese companies.

Helium Supply Chain
- Utilize new sources obtained from the acquisition in Europe, promote optimization of the supply chain.

Engineering
- Development in Europe, such as installations of the Company's own air separation units and related engineering technology.

Medical
- Promote evaluations of various types of medical equipment, mutual utilization of handling knowledge and joint purchasing.

Further improvement to the satisfaction levels of customers through demonstrating the TNSC Group's comprehensive capabilities.

Shareholder Returns

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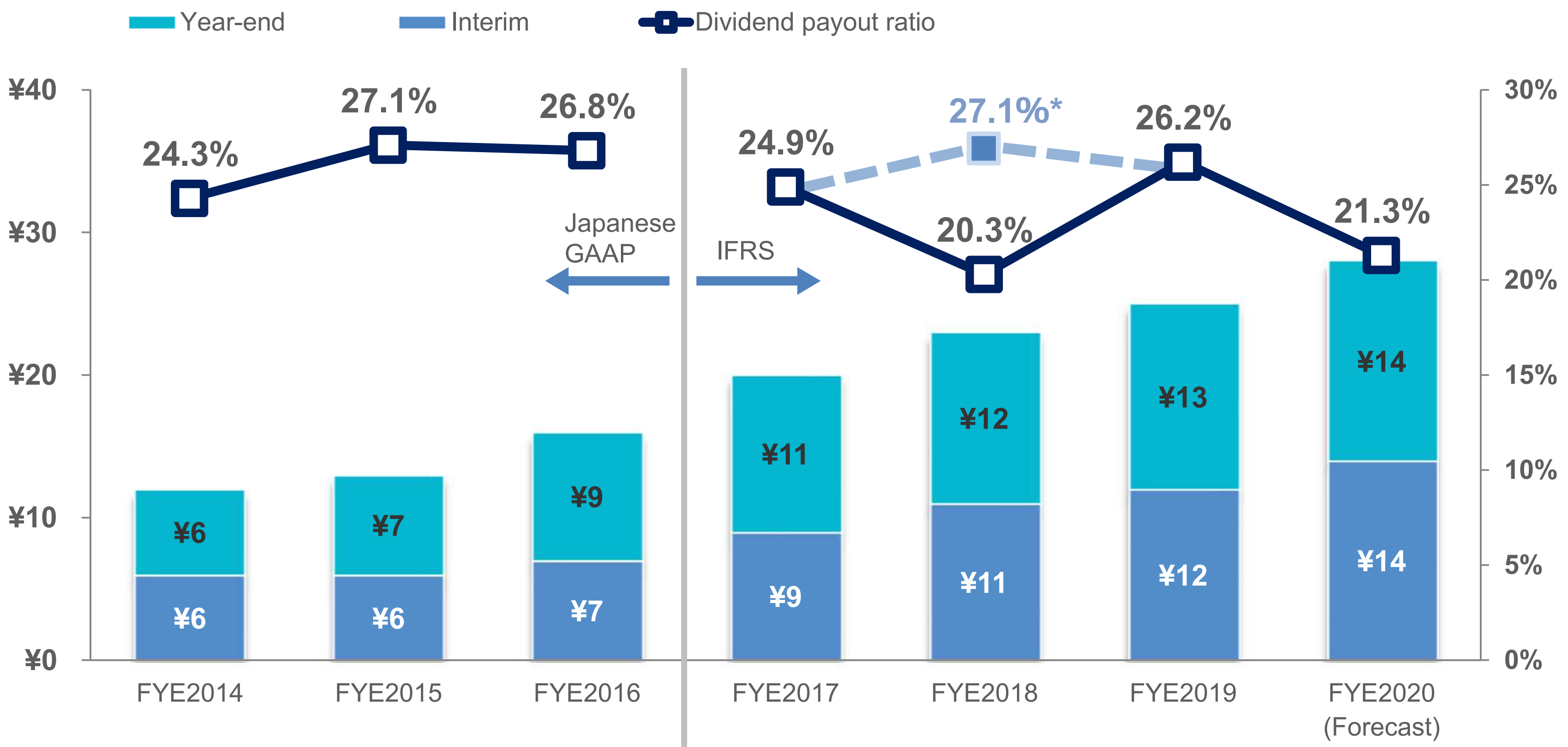
Shareholder Returns

Implement a dividend policy linked to business performance, while maintaining a stable dividend.



Net income per share (yen)	49.42	47.98	59.72	80.28	113.04	95.42	131.71

* Large-scale corporate income tax deductions arose from a reform of the U.S. tax system that resulted in a lowering of the federal corporate tax rate during FYE2018. Excluding the effects of the above, the dividend payout ratio was 27.1%.

Thank you

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Reminders

- The information contained here is not disclosure information for securities trading. The accuracy and completeness of this information are not guaranteed.

- The briefing session and this material describe future plans and strategies, as well as forecasts and outlooks of business performance. These plans and strategies, as well as forecasts and outlooks, are made by Taiyo Nippon Sanso based on its judgments and estimations made in accordance with the information available at present. Actual performance will be subject to changes caused by a variety of risks and uncertainties (such as economic trends, market demand, exchange rates, taxation systems and various other systems and institutions, but not limited to them).

- We wish to remind you, therefore, that the actual business performance may differ from the forecasts and outlooks made at this time. Please refrain from making investment judgments based solely on this information.