

A world map graphic composed of a grid of small dots, rendered in shades of blue and green, set against a background that transitions from light blue at the top to a darker blue at the bottom.

Emerging onto a Still Wider Stage

Consolidated Business Performance for the First Half of the FYE2019

November 14, 2018



TAIYO NIPPON SAN SO
The Gas Professionals

Contents

- **Business Performance for the First Half of the FYE2019**
 - Overview of business performance for the first half
 - Business performance by segment
- **Full-Year Forecasts for FYE2019**
 - Overview of forecasts for the full-year
 - Forecasts by segment
- **Business Expansion Initiatives**
 - Medical Business in Japan: Acquisition of IMI Co., Ltd.
 - Gas Business in the U.S. : Acquisition of Weld Specialty
 - Acquisition of European Businesses



Business Performance for the First Half of FYE2019



Ortus Stage 2

Overview of business performance for the first half

(Billions of yen)

	FYE2018 Q2 Results(IFRS) Margin	FYE2019 Q2 Results(IFRS) Margin	YoY % change	FYE2019 Q2 Announced targets(IFRS) Margin
Revenue	305.7	329.4	+23.7 +7.8%	328.0
Core Operating income	29.3 9.6%	28.1 8.5%	-1.2 -4.0%	30.5 9.3%
Non-recurring profit and loss	0.2	0.8	+0.6	0.7
Operating income	29.6 9.7%	28.9 8.8%	-0.7 -2.2%	31.2 9.5%
Finance costs	-1.9	-1.8	+0.1	
Income before income taxes	27.6	27.0	-0.6	
Income tax expenses	-9.3	-8.3	-1.0	
Net income	18.3	18.7	+0.4	19.0
(Attribution of net income)				
Net income attributable to owners of the parent	17.6 5.8%	17.6 5.4%	+0.0 +0.0%	18.0 5.5%
Net income attributable to non-controlling interests	0.6	1.0	+0.4	

🌐 Impact of foreign currency translations (US\$→¥): FYE2018 Q2 rate: \$1=¥111.29 FYE2019 Q2 rate: \$1=¥110.71
→Impact of currency gains led to decreases of ¥1.0 billion in revenue and ¥0.1 billion in core operating income

🌐 In its FYE2019 Q2 results, the Company has recorded advisory costs of ¥1.3 billion in connection with the acquisition of European businesses.

Business performance by segment

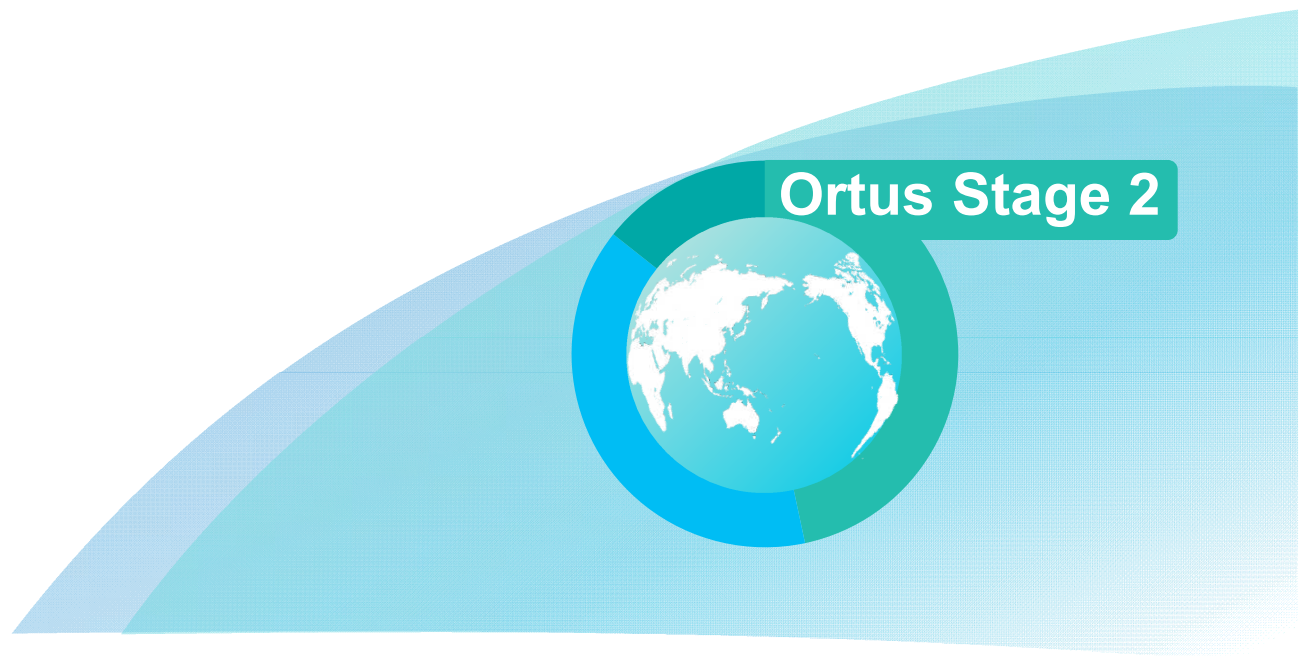
(Billions of yen)

		FYE2018 Q2 Results (IFRS)	FYE2019 Q2 Results (IFRS)	YoY % change	Factor
Gas Business in Japan *	Revenue	158.7	171.9	+13.2 +8.3%	<ul style="list-style-type: none"> >On-site: JFE SANSO CENTER Kurashiki Factory contributed to revenue >Hard goods: Favorable sales of laser cutting equipment (for metal processing) >Electronics gases: Weaker shipments for some product areas
	Segment income	14.6	12.7	-1.9 -13.6%	<ul style="list-style-type: none"> >Increased costs in line with rising crude oil prices >Higher costs mainly due to a lack of a raw material gas for carbon dioxide gas >Electronics gases: Lower profit due to weaker shipments for some product areas
Gas Business in the U.S.	Revenue	84.3	91.4	+7.1 +8.4%	<ul style="list-style-type: none"> >Bulk gases: Increased shipments of air separation gases, plus increased shipments of carbon dioxide gas, due partly to an increase in production capacity >On-site: Started supply of gases to new on-site customers in Texas >Hard goods: Favorable sales for the construction and energy industry >Impact of foreign currency translation: -¥0.4 billion
	Segment income	6.4	6.8	+0.4 +7.4%	<ul style="list-style-type: none"> >Industrial gas-related business performed firmly overall Increased segment income mainly due to higher revenue from bulk gases, packaged gases and hard goods >Impact of foreign currency translation: -¥0.0 billion
Gas Business in Asia and Oceania	Revenue	49.5	52.3	+2.8 +5.7%	<ul style="list-style-type: none"> >Industrial gas-related business: Solid sales of safety products at Leeden National Oxygen Ltd. (Leeden NOX) Increased revenue from China industrial gases and in Thailand and Australia >Electronics gases: Revenue increased, excluding the impact of changes in accounting methods in Taiwan (-¥1.5 billion) >Impact of foreign currency translation: -¥0.7 billion
	Segment income	4.8	6.3	+1.5 +31.3%	<ul style="list-style-type: none"> >Industrial gas-related: Higher segment income due to increased revenue at Leeden NOX Higher segment income due to increased revenue in China, Thailand and the Philippines >Electronics-related business: Higher profit from gases, but lower profit from equipment and installation >Impact of foreign currency translation: -¥0.1 billion
Thermos Business*	Revenue	13.0	13.5	+0.5 +4.1%	<ul style="list-style-type: none"> >Japan: Recovery in sales of mainstay vacuum insulated portable mugs and tumblers and sports bottles in Q2 >Overseas: Steady sales in South Korea. Increased shipments from plants in the Philippines and Malaysia >Impact of foreign currency translation: +¥0.0 billion
	Segment income	4.2	4.5	+0.3 +4.9%	<ul style="list-style-type: none"> >Japan: Increased segment income in Q2 due to a rebound in sales >Overseas: Increased profit due to higher revenue in South Korea, as well as increased profit at production plant. Improved profits at Group companies accounted for by the equity method. >Impact of foreign currency translation: +¥0.0 billion
Eliminations or Corporate		-0.9	-2.3	-1.4	>Recorded ¥1.3 billion in expenses related to the acquisition of European businesses

* From FYE2019, businesses other than the Thermos business that had previously been classified under the “Thermos and Other Businesses” segment have been transferred to the “Gas Business in Japan.” The columns in the above table have been adjusted to reflect the transfer in order to use the same basis of comparison.

※ Segment income: Numerical value calculated by subtracting losses (nonrecurring items) produced by nonrecurring factors from operating income.

Full-Year Forecasts for FYE2019



Overview of forecasts for the full-year

(Billions of yen)

	FYE2018 Results (IFRS) Margin	FYE2019 Forecasts (IFRS) Margin	YoY % Change
Revenue	646.2	670.0	+23.8 3.7%
Core operating income	60.0 9.3%	64.0 9.6%	+4.0 +6.6%
Non-recurring profit and loss	-0.1	0.5	+0.6
Operating income	59.8 9.3%	64.5 9.6%	+4.7 +7.7%
Net income attributable to owners of the parent	48.9 7.6%	40.0 6.0%	-8.9 -18.2%
Income tax decrease (Exceptional item)	-12.2 (U.S. corporate tax reduction)	0 (Not scheduled)	+12.2
Net income attributable to owners of the parent (excluding impact of income tax increase)	36.7 5.7%	40.0 6.0%	+3.3 +8.9%

 In FYE2018, income tax expenses decreased by ¥12.2 billion due to the reversal of deferred tax liabilities at a subsidiary based in the U.S.

Forecasts by Segment

(Billions of yen)

		FYE2018 Results (IFRS) (IFRS)	FYE2019 Forecasts (IFRS) Announced May 9	FYE2019 Forecasts (IFRS) Announced Oct. 31	Change % change
Gas Business in Japan*	Revenue	345.0	360.0	355.0	-5.0 -1.4%
	Segment income	31.3	31.8	30.3	-1.5 -4.7%
Gas Business in the U.S.	Revenue	172.6	175.0	181.0	+6.0 +3.4%
	Segment income	13.5	14.0	14.4	+0.4 +2.9%
Gas Business in Asia and Oceania	Revenue	103.1	107.0	107.0	+0.0 +0.0%
	Segment income	9.2	10.7	12.1	+1.4 +13.1%
Thermos Business*	Revenue	25.3	28.0	27.0	-1.0 -3.6%
	Segment income	7.7	9.3	9.0	-0.3 -3.2%

【Reason for change in segment income (Forecast Announced May 9. vs. Forecast Announced Oct. 31.)】

Gas Business in Japan	<ul style="list-style-type: none"> • Costs to increase further than anticipated due to rising crude oil prices • Increased costs for carbon dioxide gas due to a lack of a raw material gas in the first half of the fiscal year • Lower segment income based on decreased revenue from electronic gases • Effects of the acquisition of IMI, a medical equipment sales company
Gas Business in the U.S.	<ul style="list-style-type: none"> • Solid U.S. economy • Increased segment income based on higher revenue from the industrial gas-related business
Gas Business in the Asia & Oceania	<ul style="list-style-type: none"> • Impact of revision to exchange rate assumption • Stronger-than-expected recovery in business performance at Leeden NOX • China industrial gases to post increased segment income based on improved market conditions
Thermos Business	<ul style="list-style-type: none"> • Electronics gases in East Asia to perform favorably as planned • Recovery trend from Q2 onward, despite the impact of lower profits from decreased revenue in Japan in Q1

* From FYE2019, businesses other than the Thermos business that had previously been classified under the "Thermos and Other Businesses" segment have been transferred to the "Gas Business in Japan." The columns in the above table have been adjusted to reflect the transfer in order to use the same basis of comparison.

※ Segment income: Numerical value calculated by subtracting losses (nonrecurring items) produced by nonrecurring factors from operating income.

Business Expansion Initiatives

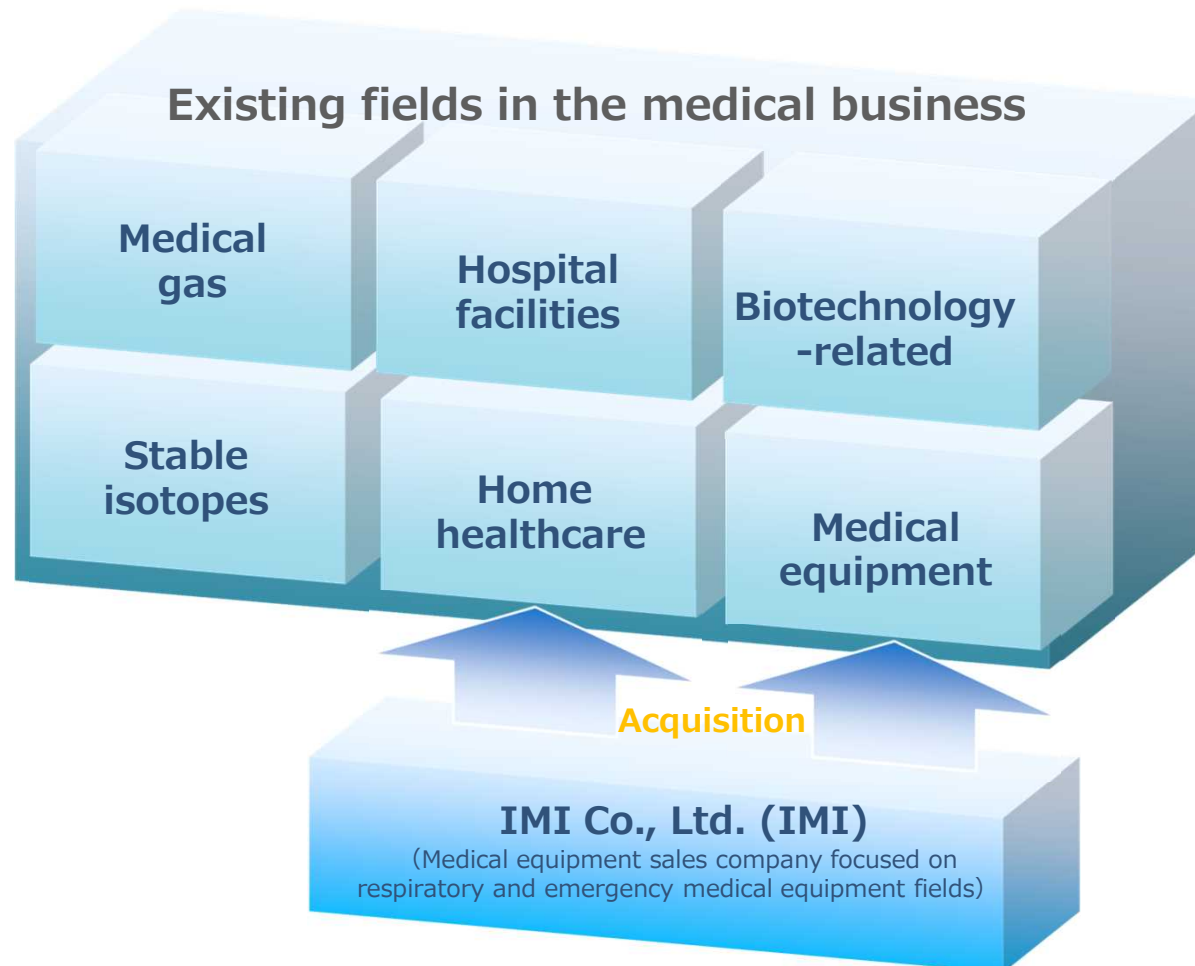
Medical Business in Japan: Acquisition of IMI Co., Ltd.



Ortus Stage 2

Expand Medical Business in Japan

To develop the medical business into one of the Company's core businesses, the Company will effectively utilize external resources through M&As and alliances, with the aim of expanding business in existing fields and capturing business in new fields.



Press release dated August 30, 2018

Expand the Medical Business Through the Acquisition of IMI

Through the acquisition of IMI Co., Ltd. (IMI), a medical equipment sales company focused on respiratory and emergency medical equipment fields, the Company will seek to capture synergies between IMI and Taiyo Nippon Sanso Group, thereby gaining a solid foothold in the medical equipment business.

Company outline

Name	IMI Co., Ltd. (IMI)
Features	<ul style="list-style-type: none"> ● Japan's largest ventilator enterprise IMI has an extensive product lineup, ranging from high-end devices to general models. ● IMI carries products in the emergency medicine, surgery and intensive care fields ● IMI provides rental and maintenance services across its entire product range, and its expertise in these services are a major strength.
Business size	Net sales ¥5.96 billion (result for the year ended December 2017)

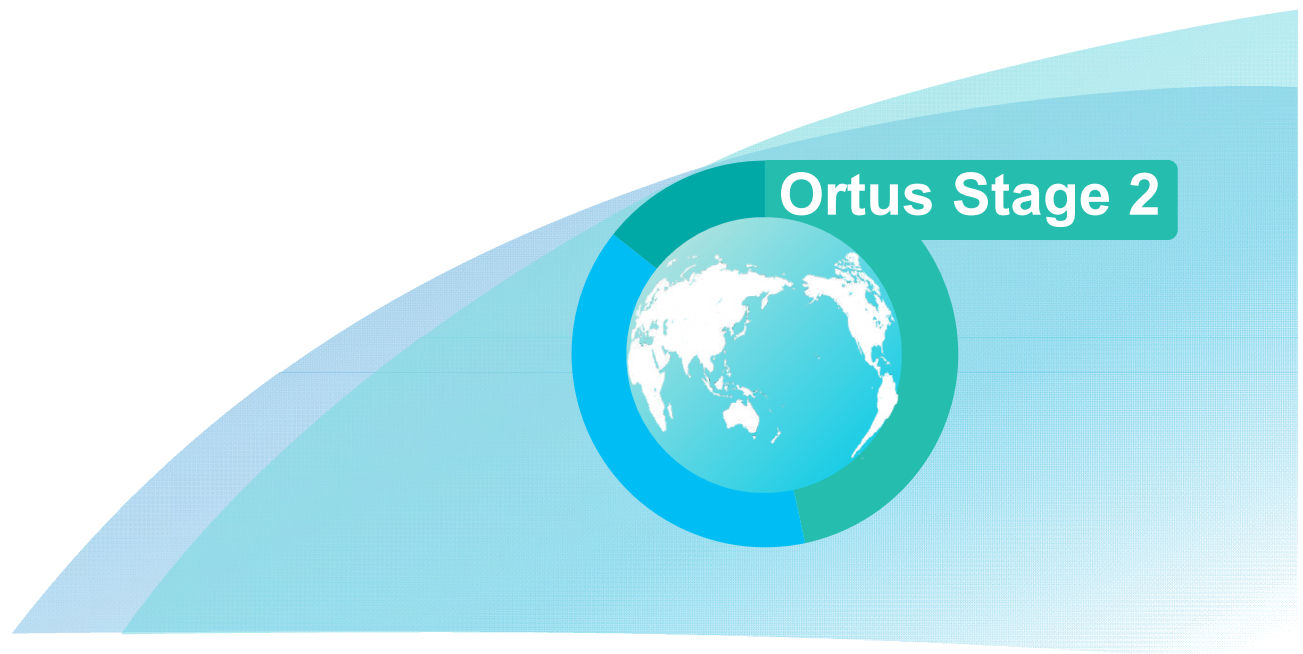
Expected synergies

- 1 Establish and expand the Taiyo Nippon Sanso Group's medical equipment business**
 - Expand the medical equipment business for hospitals in areas related to Taiyo Nippon Sanso's business fields
 - Strengthen rental and maintenance services
- 2 Enhance and expand business in the respiratory field in collaboration with Taiyo Nippon Sanso and Pacific Medico Co., Ltd.**
 - Upgrade and expand the product lineup
 - Mutual sharing and use of sales and logistics sites
 - Enhance and expand the home healthcare business

Expand the medical business by strengthening the medical equipment business and the home healthcare business

Business Expansion Initiatives

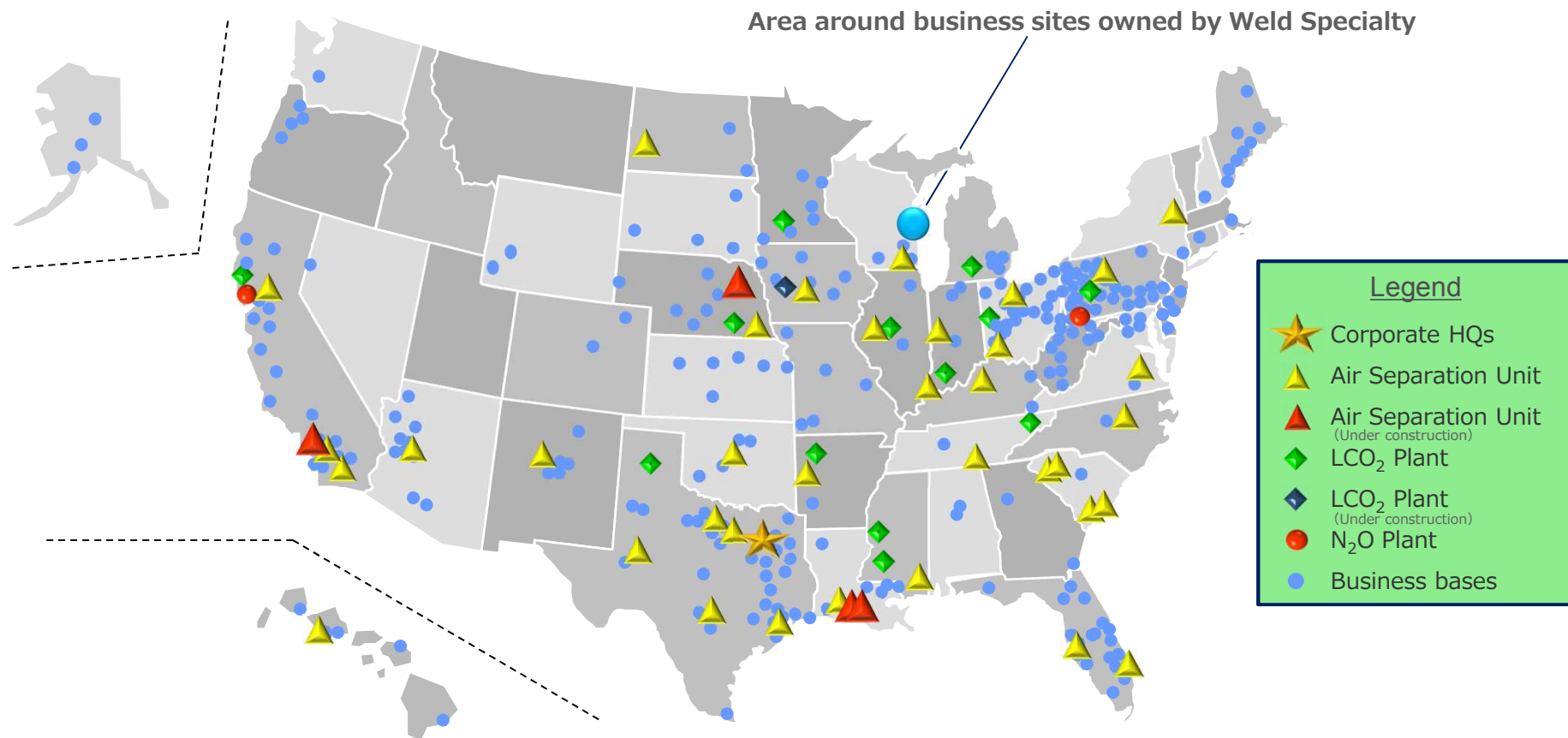
Gas Business in the U.S. : Acquisition of Weld Specialty



Further Enhance and Expand the Gas Business in the U.S.

Establish a nationwide production and sales platform in the U.S. by expanding business fields and increasing the density of operations through M&As and capital investments in ASUs*
 Acquired the business assets of Weld Specialty (a distributor) in Wisconsin in August 2018

*ASU : Air Separation Unit

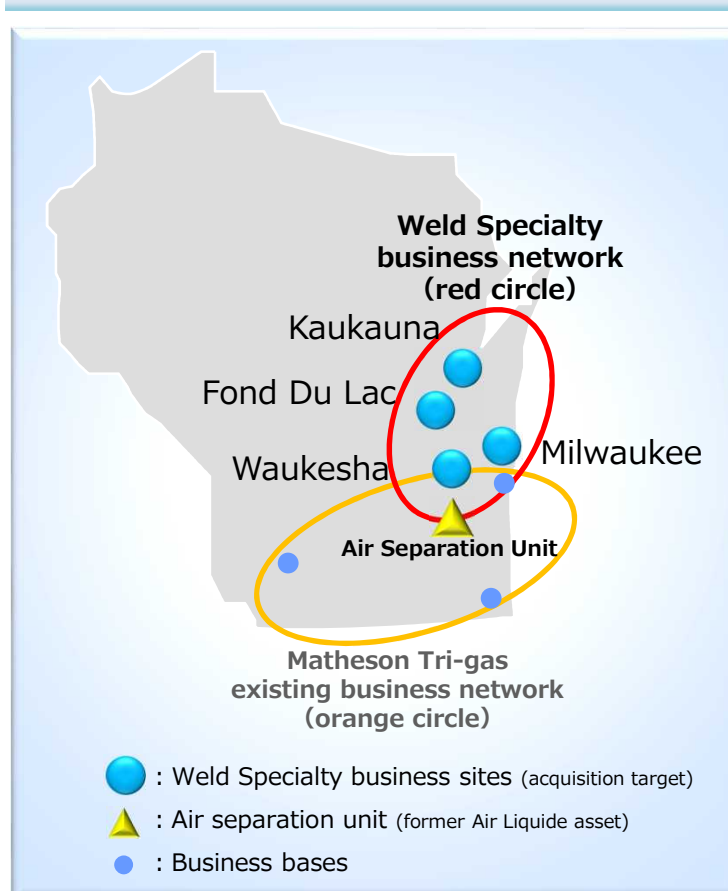


Increase the density of operations by expanding the sales network in Wisconsin, thereby strengthening the core business

Increase the Density of Operations Through the Acquisition of Weld Specialty

Enhance synergies with existing businesses and expand the sales network through the acquisition of the Weld Specialty business and business assets

Business expansion in Wisconsin, U.S.



Background to the acquisition

- The Air Liquide assets acquired in September 2016 included one air separation unit (ASU) in Wisconsin. The Taiyo Nippon Sanso Group took this opportunity to enter Wisconsin in earnest.
- In GDP rankings by state, Wisconsin is ranked in the middle tier. The state's primary industries, specifically the food processing, manufacturing, agriculture, and healthcare sectors, have been growing firmly.

Business size

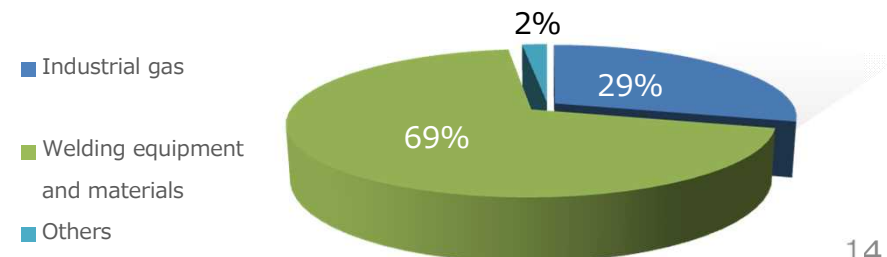
Net sales US\$25.8 million (result for the year ended December 2017)

Products

Industrial gas overall (bulk and packaged), welding equipment and materials, etc.

Sales mix

(result for the year ended December 2017)



Business Expansion Initiatives

Acquire businesses in Europe

— Major acquisition deal as part of global industrial realignment



Ortus Stage 2

Progress of Business Acquisition

July 5, 2018

- Taiyo Nippon Sanso Corporation (TNSC) announced that it had executed a share purchase agreement to acquire the shares of the corporations running certain European businesses of Praxair.

- The execution of the share purchase agreement was conditional upon the current Linde (Linde AG) and Praxair obtaining approval from the competition authorities for the merger in the relevant countries and TNSC obtaining approval from the European Commission and the other relevant competition authorities for executing the acquisition.

August 20, 2018

- The European Commission granted conditional approval of the merger of Linde and Praxair.

October 17, 2018

- The European Commission approved the acquisition of a part of Praxair's European businesses by TNSC.

October 22, 2018

- The U.S. Federal Trade Commission (FTC) granted conditional approval of the merger of Linde and Praxair (conditional upon the sale of a portion of the current Linde's businesses in the U.S.).

Now that all of the conditions for the acquisition of the European businesses have become clear, TNSC has entered the final stages of closing the deal.

Purpose of Business Acquisition

To make significant strides toward the achievement of target of the Ortus stage 2 in final fiscal year, we will execute the acquisition of Praxair's European businesses. The acquisition will give us a solid position as an industrial gas manufacturer in Europe, a region we have not yet entered.

Background

- Merger of Linde AG and Praxair, Inc.

Significance of the Acquisition

- Acquire businesses with a certain scale in Europe, the world's second largest industrial gas market behind the U.S.
- The businesses to be acquired are highly profitable, with a 16% share of the market areas of businesses to be acquired* (internal estimate)
- Acquire talented personnel, including the current top management team, and business platforms

* In U.K., Ireland, the Netherlands and France, the scope of the businesses to be acquired is limited only the carbon dioxide gas business.

Post-Merger Integration (PMI) Strategy

- Strengthen Group-wide collaboration (across Japan, the U.S., Asia, and Europe) and governance
- Strengthen the Customer Relationship Management through the TNSC's global business network
- Optimize the TNSC's supply chain of strategic products

Summary of the Businesses to Be Acquired

The acquisition covers the shares of companies engaged in the industrial gas business (including the carbon dioxide gas business) undertaken by the U.S. company Praxair in 12 European countries and companies engaged in helium-related businesses. Acquired Business is equivalent scale to TNSC's U.S. Business which has grown over a period of 30 years.

Consolidated management performance of the target businesses

(result for the year ended December 2017)

It is a highly profitable business including a certain scale business of Bulk and Piping.

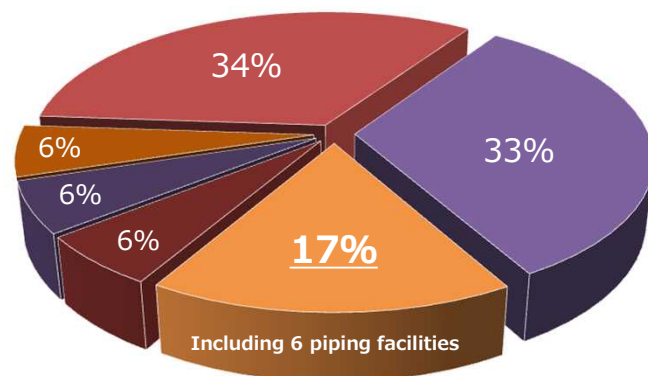
- Net sales €1,273 million (approx. ¥165 billion*)

*converted at the exchange rate of one Euro to ¥130

Sales mix by delivery format

(result for the year ended December 2017)

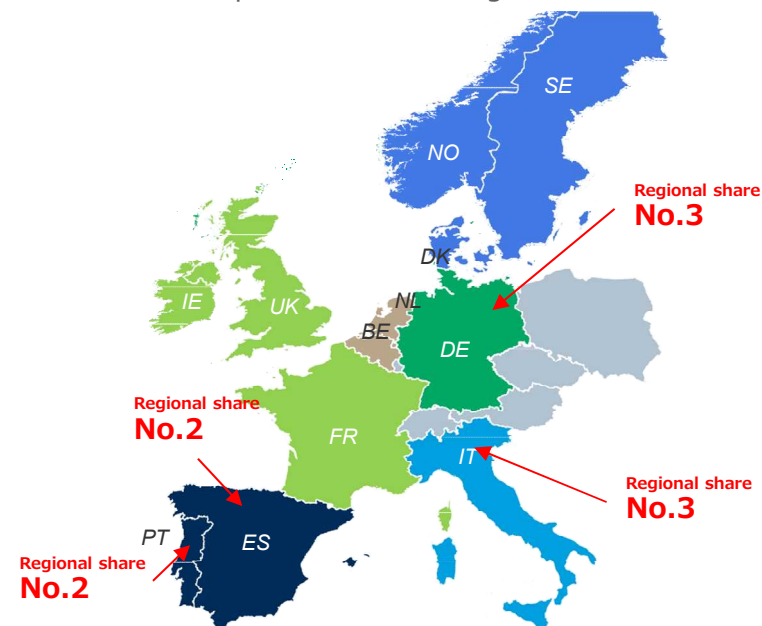
The business portfolio is well balanced and diversified, with on-site/pipeline business – a steady source of strong earnings – accounting for 17% of the whole.



■ Bulk ■ Package ■ On-site/Pipeline ■ Homecare ■ Medicalcare ■ Others

Scope of the businesses to be acquired

The businesses hold a market share of 16% throughout the market areas of businesses to be acquired, with a No.2 or No.3 position in each regional market.



<Summary of major assets>

Air Separation Units	Cylinder filling plants	Liquide CO2 plants	Dry ice plants
27	35	12	19

Raising Capital

Capital will first be raised through bridge loans, followed by efforts to promptly shift to permanent financing.

Bridge loan scheme

Borrowing from financial institutions

Format • Borrowing from financial institutions

Amount • € 5.0 billion

Permanent financing scheme

Borrowing from financial institutions

Issuing straight corporate bonds

Hybrid financing*

~~Equity financing~~
(No execution)

Format • Combination of borrowing from financial institutions, issuing straight corporate bonds, and hybrid financing

Amount • € 5.0 billion (using both yen- and euro-denominated financing)

Considerations

- Procure the full amount via debt to avoid any dilution of shares.
- Measures to mitigate foreign exchange risk
- Maintain an "A" external credit rating (current credit ratings are "A" from R&I and "A+" from JCR)

Thank you



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.