



Emerging onto a Still Wider Stage

Consolidated Business Performance for the First Half of the FYE2018

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Business Performance for the First Half of the FYE2018



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Overview of business performance

(Billions of yen)

	FYE2017 Q2 Results (IFRS) Margin	FYE2018 Q2 Results (IFRS) Margin	YoY % change	FYE2018 Q2 Announced targets (IFRS) Margin
Revenue	268.7	305.7	+37.0 +13.7%	300.0
Core operating income	25.7 9.6%	29.3 9.6%	+3.6 +13.8%	26.8 8.9%
Non-recurring profit and loss	0.1	0.2	+0.1	0.5
Operating income	25.9 9.7%	29.6 9.7%	+3.7 +14.1%	27.3 9.1%
Net income attributable to owners of the parent	16.4 6.1%	17.6 5.7%	+1.2 +7.3%	15.9 5.3%

- Impact of foreign currency translations (US\$→¥): FYE2017 Q2 rate: \$1=¥105.39 FYE2018 Q2 rate: \$1=¥111.29
→ Currency translations had a positive impact of ¥5.7 billion on revenue and ¥0.4 billion on core operating income

Business performance by segment

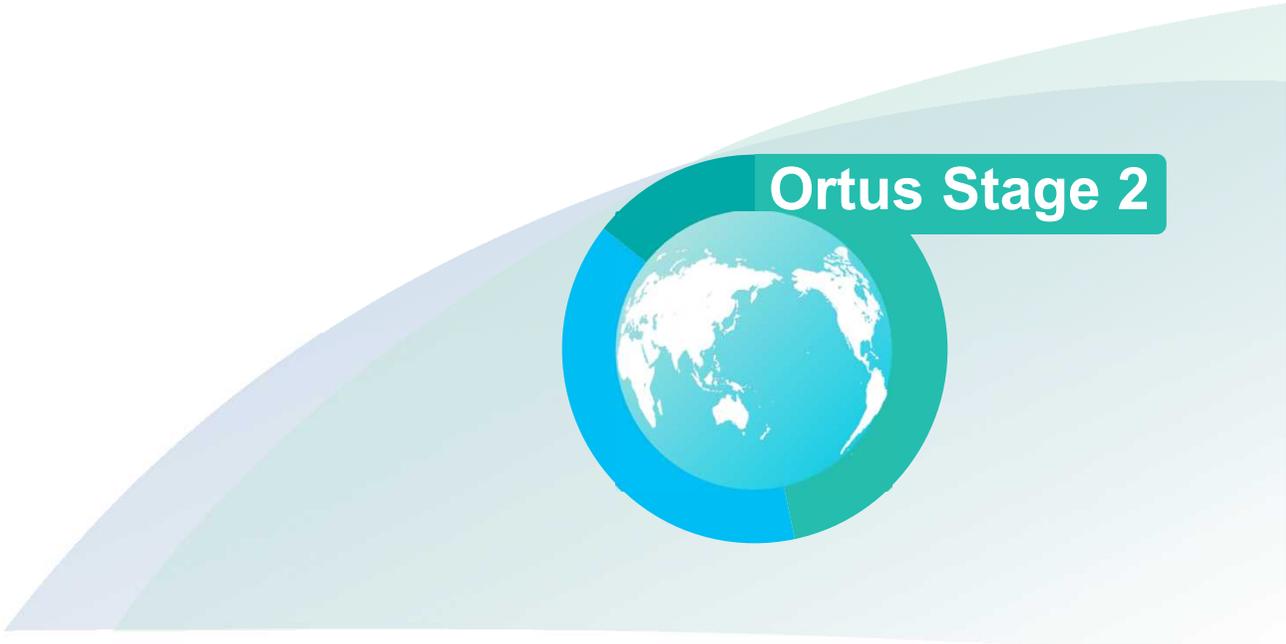
(Billions of yen)

		FYE2017 Q2 Results (IFRS)	FYE2018 Q2 Results (IFRS)	YoY % change	Factor
Gas Business in Japan	Revenue	152.4	157.4	+5.0 +3.3%	<ul style="list-style-type: none"> ➢ Electronics-related: Electronic materials gases trended favorably ➢ Revisions to carbon dioxide gas prices ➢ Higher LPG sales price following an increase in the import price
	Segment income	14.1	14.3	+0.2 +1.0%	<ul style="list-style-type: none"> ➢ Higher costs in line with rising crude oil prices ➢ Electronics-related: Electronic materials gases trended favorably
Gas Business in the U.S.	Revenue	65.1	84.3	+19.2 +29.5%	<ul style="list-style-type: none"> ➢ Recognition of business acquired from Air Liquide contributed ¥13.2 bn ➢ Carbon dioxide gas and dry ice performed strongly ➢ Impact of foreign currency translation: +¥3.7 bn
	Segment income	4.7	6.4	+1.7 +35.4%	<ul style="list-style-type: none"> ➢ Recognition of business acquired from Air Liquide contributed ¥1.6 bn ➢ Higher revenue from carbon dioxide gas and dry ice contributed to increased segment income ➢ Impact of foreign currency translation: +¥0.3 bn
Gas Business in Asia & Oceania	Revenue	37.7	49.5	+11.8 +31.2%	<ul style="list-style-type: none"> ➢ Contribution from the acquisition of Supagas Holdings Pty Ltd (Australia): ¥5.4 bn ➢ Singapore and Malaysia: Soft sales of hard goods to the oil & gas sector ➢ Taiwan: Solid sales of gas and from equipment and installation ➢ Impact of foreign currency translation: +¥2.0 bn
	Segment income	2.5	4.8	+2.3 +87.8%	<ul style="list-style-type: none"> ➢ Contribution from the acquisition of Supagas Holdings Pty Ltd (Australia): ¥1.0 bn ➢ Singapore and Malaysia: Segment income decreased in line with lower revenue ➢ Taiwan: Solid sales of gas and from equipment and installation ➢ Impact of foreign currency translation: +¥0.2 bn
Thermos and Other businesses	Revenue	13.4	14.3	+0.9 +6.4%	<ul style="list-style-type: none"> ➢ Japan: Sales increased, centered on Vacuum Insulated Mobile Mugs
	Segment income	5.0	4.6	-0.4 -8.1%	<ul style="list-style-type: none"> ➢ Japan: Firm segment income in line with higher sales ➢ Overseas: Soft business performance by Group companies accounted for by the equity method

* Segment income: Numerical value calculated by excluding profits and losses (nonrecurring items) produced by nonrecurring factors from operating income.



Full-Year Forecasts for FYE2018



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Full-Year Forecasts for FYE2018

(Billions of yen)

	FYE2017 Results (IFRS) Margin	FYE2018 Forecasts (IFRS) Margin	YoY % change
Revenue	581.5	620.0	+38.5 +6.6%
Core operating income	54.7 9.4%	56.5 9.1%	+1.8 +3.2%
Non-recurring profit and loss	-1.0	0.5	1.5
Operating income	53.6 9.2%	57.0 9.2%	+3.4 +6.2%
Net income attributable to owners of the parent	34.7 6.0%	34.5 5.6%	-0.2 -0.7%

Forecasts by segment

(Billions of yen)

		FYE2017 Results (IFRS)	FYE2018 Forecast (IFRS) Announced Nov. 1	YoY % change	FYE2018 Forecast (IFRS) Announced May 10
Gas Business in Japan	Revenue	321.4	338.0	+16.6 +5.2%	338.0
	Segment income	29.4	28.7	-0.7 -2.5%	28.5
Gas Business in the U.S.	Revenue	147.2	164.0	+16.8 +11.4%	166.0
	Segment income	12.0	13.5	+1.5 +11.8%	13.8
Gas Business in Asia & Oceania	Revenue	85.8	91.0	+5.2 +6.0%	89.0
	Segment income	5.1	7.8	+2.7 +51.0%	7.2
Thermos and Other businesses	Revenue	27.0	27.0	0.0 -0.1%	27.0
	Segment income	10.0	9.0	-1.0 -10.2%	9.0

* Segment income: Numerical value calculated by excluding profits and losses (nonrecurring items) produced by nonrecurring factors from operating income.

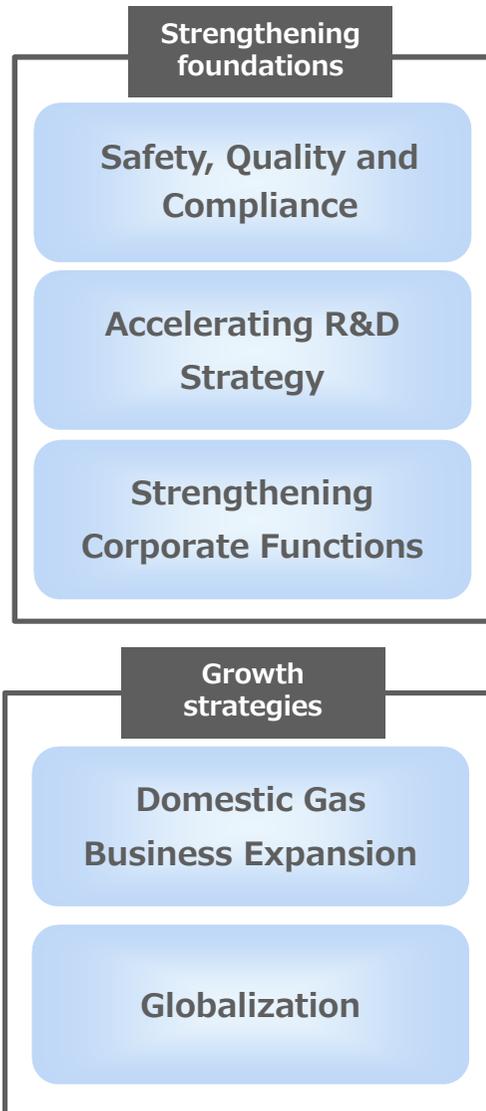
Initiatives to Achieve the Medium-term Management Plan

- Total Electronics



Medium-term Management Plan Ortus Stage 2 Strategic Policy

Basic policies



Key strategies

1. Structural reform

Maximizing group power by augmenting collaboration



- Strengthen collaboration in the sales and marketing functions
- Integration of engineering functions
- Integration of production & logistics
- Promotion of shared services

2. Innovation

Driving innovation by harnessing external resources and IoT

- R&D innovation
- Engineering innovation
- Sales approaches innovation
- Production & logistics innovation

3. Globalization

Enhancing governance

- Strengthen the function of the Global Operations
- Strengthen the function of regional holding companies

Growth strategy

- Expand business areas
- Total Electronics



4. M&A

Striving for the sustained growth of the Company and accelerating growth through M&As

- Expand business territory and reinforce operational density
- Acquire new products, technologies and supply chains
- Expand medical business

Total Electronics

- Established the “Total Electronics” function with the aim of more flexibly addressing the globalization of overseas semiconductor manufacturers and technology and market trends

Trends in strategic accounts

- The market has been growing at an extremely rapid pace owing to the globalization of the production configurations of semiconductor manufacturers.

Current status of the Company

- In the Company’s electronics business, businesses and resources are spread out across various regions, and are managed by each Group company.
- Electronic materials gases are a global product and offer prospects for growth through the network built up in the course of globalizing the industrial gas business.

Established “Total Electronics” function

- Supply higher value-added products and services by establishing the “Total Electronics” function

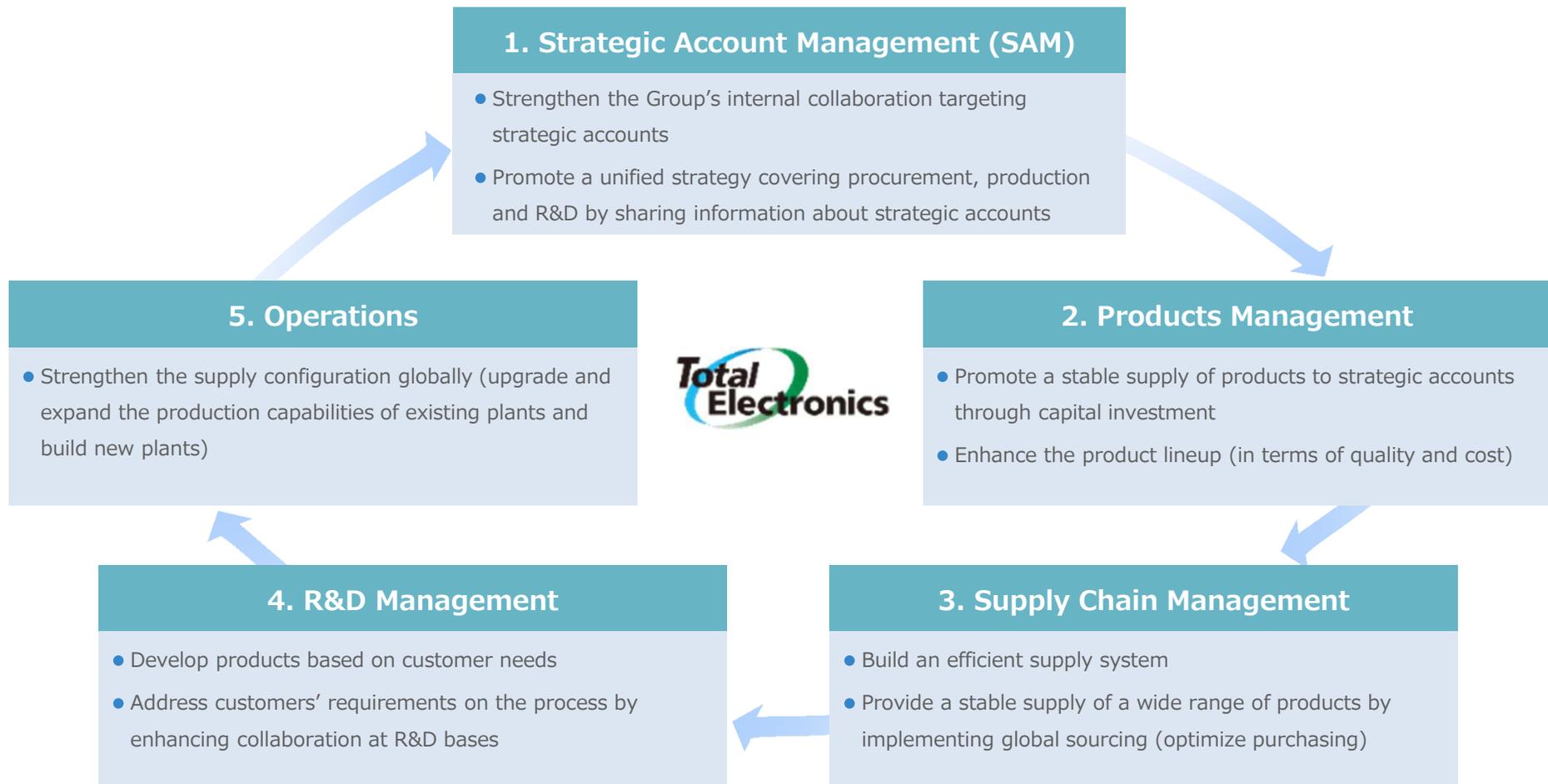
Geographic location of the Company’s strategic accounts in East Asia



The Company conducts cross-border business transactions with global semiconductor manufacturers.

Total Electronics

- Established the “Total Electronics” function at the Shanghai base of Taiyo Nippon Sanso (China) Investment Co., Ltd., a regional holding company in China, one of the world’s largest markets in terms of semiconductor demand. The “Total Electronics” function will address increasing demand for electronic materials gas in the Asian region by upgrading and expanding the following five functions.



Total Electronics

- Strive to enhance customer satisfaction by developing electronic materials gases, ensuring stable quality and reducing cost, and providing stable supplies, as required by the global electronics market

R&D Management

R&D Policy

Research

- Enhance the lineup of etching gases (COS, CH₃F, etc.), where the Group excels
- Conduct research focused precursor (liquid chemical), which offer prospects for growth in demand

Development

- Ensure stable quality by enhancing cylinder treatment, purification and analysis technologies
- Promote technological development based on customer requests obtained by strengthening network functions

Operation

Expand plants and build new plants



Expand plant at Japan Fine Products (JFP) in Japan

- Implemented in April 2017
- Purification of COS
- Investment: ¥0.2 billion



Expand plant at Matheson Gas Products Korea Co., Ltd. (MGPK) in South Korea

- Scheduled to start commercial production in January 2018
- Synthesis and purification of B₂H₆ and CH₃F
- Investment: USD 45 million



Build new plant in China

- Scheduled to start commercial production in January 2019
- Synthesis and purification of B₂H₆, CH₃F and mixing of SiH₄, Si₂H₆
- Investment: USD 30 million

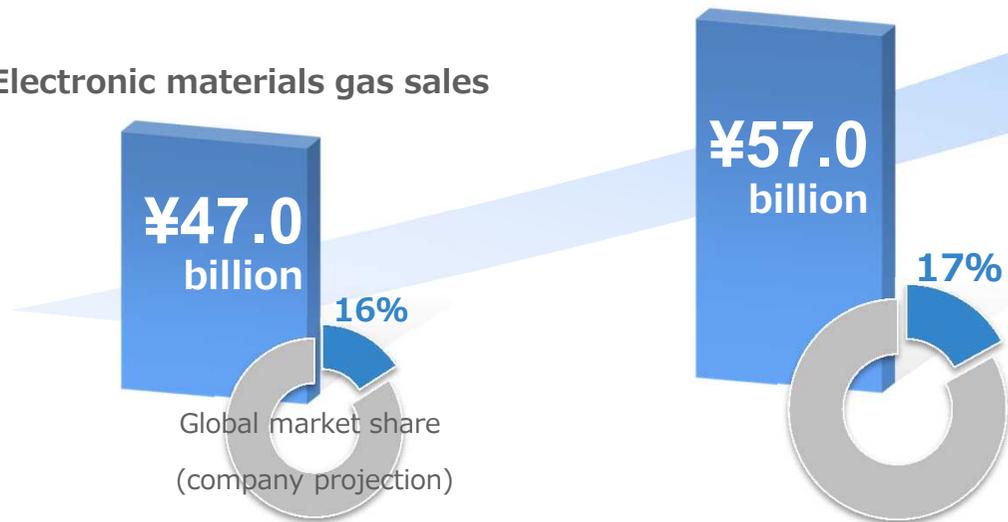
* Supplemental information on molecular formulas
COS: Carbonyl sulfide; B₂H₆: Diborane; CH₃F: Monofluoromethane; SiH₄: Silane; Si₂H₆: Disilane

Total Electronics

- Expand the electronics business centered on Asia, with the aim of establishing a leading position in the global electronics market



Electronic materials gas sales



- Targeting rapid growth from 2020 onward through the effects of capital investment in China and South Korea and R&D-driven materials development

Secure a solid position in the growing market for electronic materials gases

Business Overview

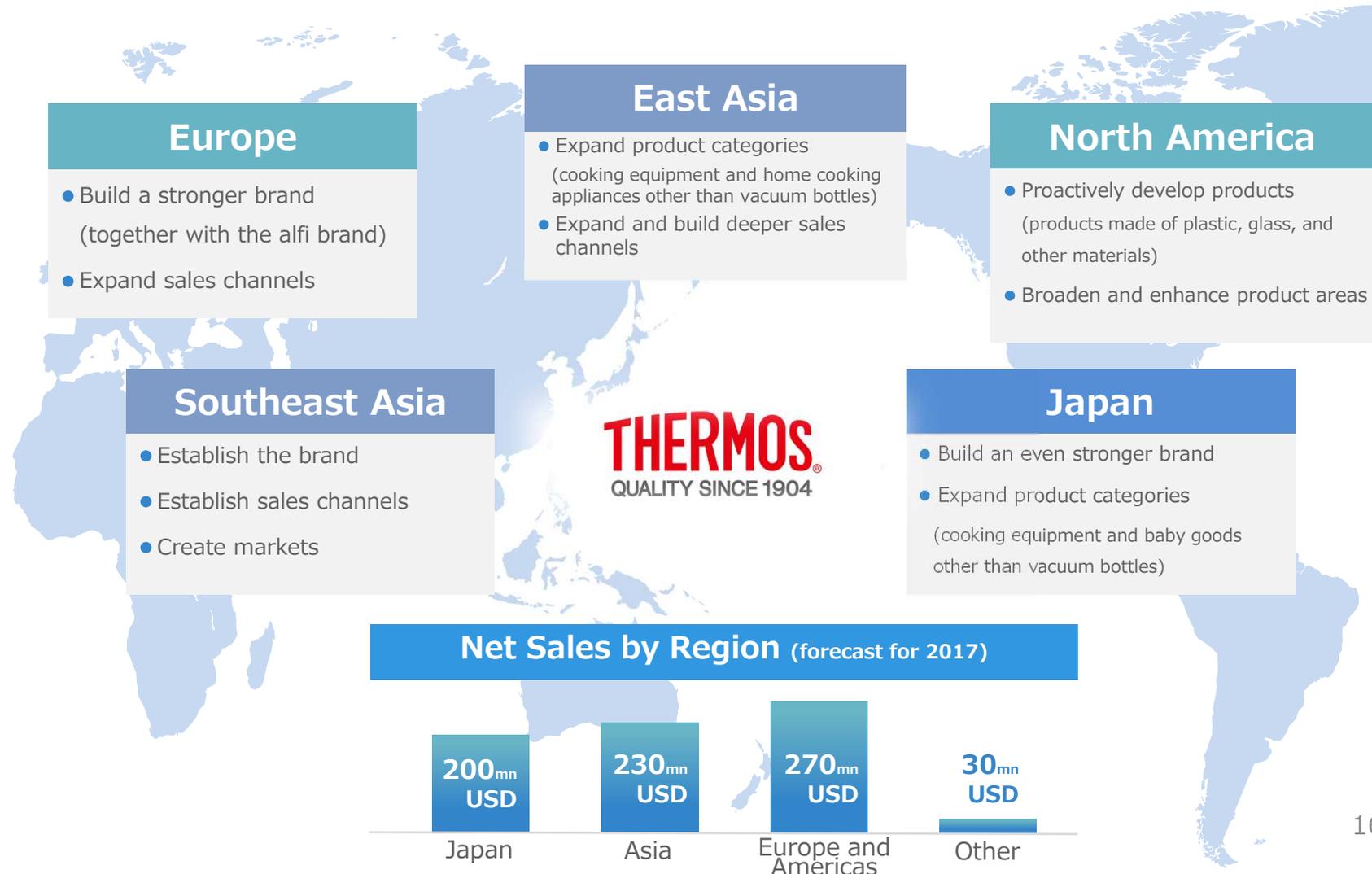
- Global expansion of the Thermos business



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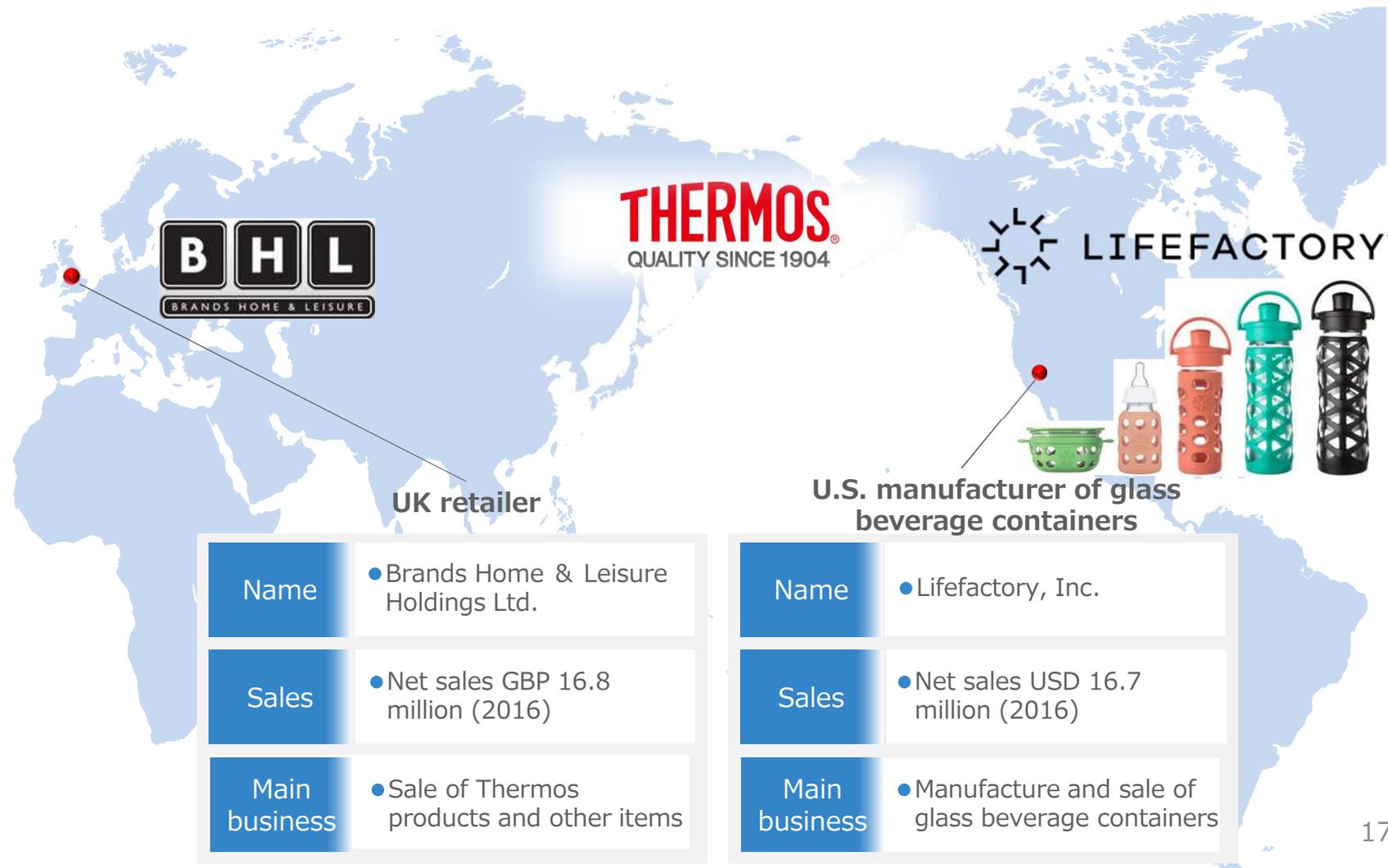
Global expansion of the Thermos business

- Enhance the brand value of Thermos through regional strategies, with the aim of increasing market share based on regional sales (sales volume) around the world



Global expansion of the Thermos business

- Acquired Brands Home & Leisure Holdings Ltd. (BHL), a UK retailer, and Lifefactory, Inc., a U.S. manufacturer of glass beverage containers, in order to augment the existing network with upgraded and expanded sales channels and product lineups



THERMOS
QUALITY SINCE 1904

LIFEFACTORY

B H L
BRANDS HOME & LEISURE

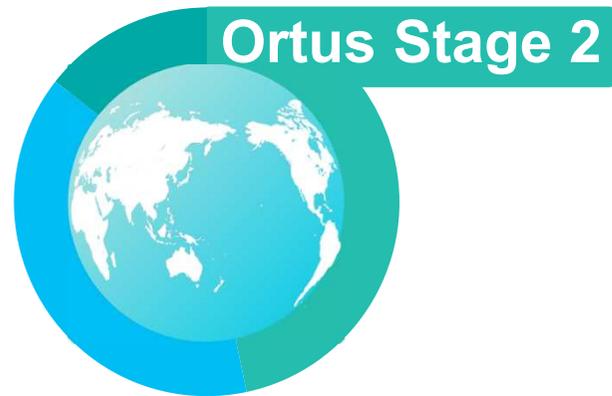
UK retailer

U.S. manufacturer of glass beverage containers

Name	• Brands Home & Leisure Holdings Ltd.
Sales	• Net sales GBP 16.8 million (2016)
Main business	• Sale of Thermos products and other items

Name	• Lifefactory, Inc.
Sales	• Net sales USD 16.7 million (2016)
Main business	• Manufacture and sale of glass beverage containers

Thank you for your attention.



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.