



FY12/17 Business Results and Medium-Term Management Plan Explanatory Material

RS Technologies Co., Ltd.



Code: 3445
Tokyo Stock Exchange First Section

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Company Overview



Company Overview

RS Technologies is a leading company in semiconductor wafer reclamation, with a 30% market share. We have also entered the prime wafer business in China, expanding the scope of operations from a specialization in reclaimed wafers to a prime wafer manufacturer.

Company name	RS Technologies Co., Ltd.
Date of establishment	December 10, 2010
Corporate principles	“Respect the global environment, earn the trust of people, and constantly strive to create.”
Business	Silicon Wafer Reclaim, Silicon Wafer Oxide Film Coating, Silicon Wafer Sales. Solar Power Station. Purchase and sale of used semiconductor equipments. Sale of chemical materials and semiconductor parts. Technical assistance and education service on semiconductor wafer manufacturing process.
Head office	1-47-1, Ohi, Shinagawa-ku, Tokyo 140-0014 JAPAN
Factory	26-2, Yamazaki, Sanbongi Otonashi, Osaki, Miyagi 989-6313 JAPAN
Capital	JPY 641,850 thousand (As of end December 2017)
President and CEO	Fang Yong Yi
Employees	600 (443 regular and 157 temporary employees, at end-Dec. 2017)
Consolidated subsidiaries	RSTEC Semiconductor Taiwan Co.,Ltd Founded in February 2014, Capital : NT\$300million Beijing GRINM RS Semiconductor Materials Co., Ltd. (Beijing, China) Established: January 2018; Capital: USD 138 million

History

RS Technologies was founded in 2010 when it took over the silicon wafer reclamation business of Rasa Industries, Ltd., and today is the world leader in wafer reclamation. The company listed on the TSE Mothers market in 2015, and moved to the First Section in 2016. In 2018, a major prime wafer manufacturer in China was made a consolidated subsidiary.

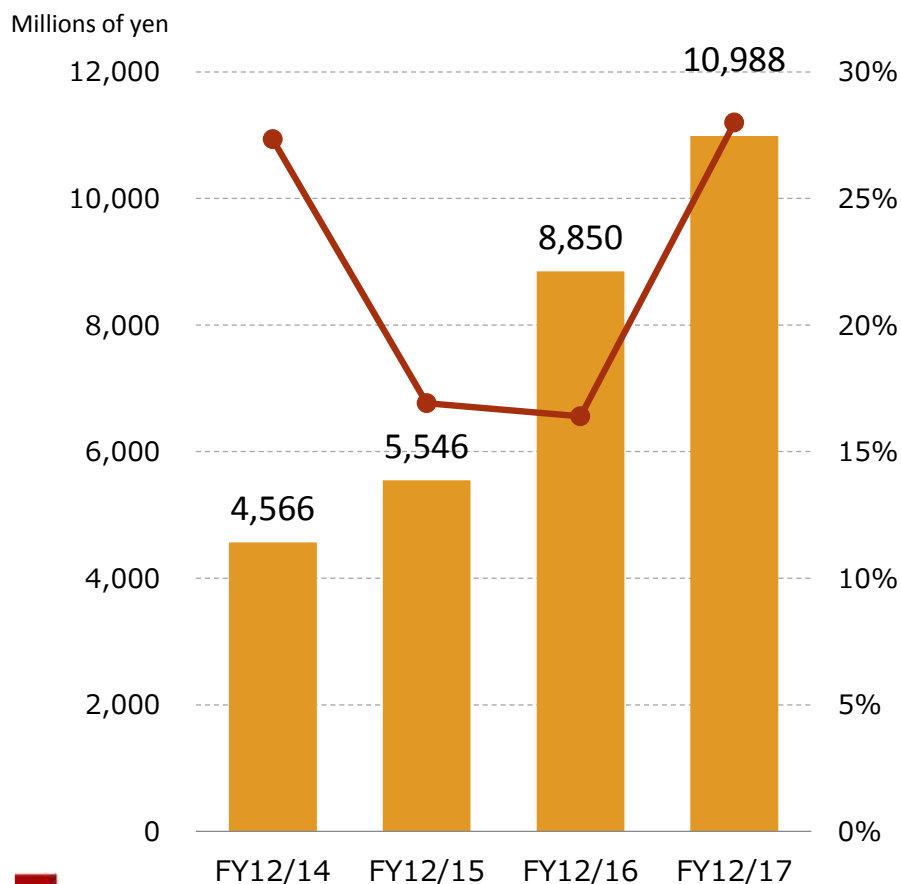
Dec. 2010	RS Technologies established in Shinagawa-ku, Tokyo, with silicon wafer reclamation as its primary business (begun by Rasa Industries in January 1984)
Jan. 2011	Operations begun at the Sanbongi Factory (re-employed some workers from Rasa Industries)
Nov. 2011	Sanbongi Factory acquires ISO9001:2008 certification from UKAS
Mar. 2013	Equipment sales begun
Oct. 2013	Solar power business begun at the Sanbongi Factory
Feb. 2014	RSTEC Semiconductor Taiwan established as a subsidiary in Taiwan (currently a consolidated subsidiary)
Mar. 2015	RST listed on the Tokyo Stock Exchange Mothers Market
Jun. 2015	Fab8 completed at Sanbongi Factory, with cutting-edge equipment allowing reclamation of 450mm wafers
Oct. 2015	RST achieves annual growth of 1299.53%, ranks third in the 13th Deloitte Touche Tohmatsu LLC Japan Technology Fast 50
Dec. 2015	Tainan Factory completed for RSTEC Semiconductor Taiwan (currently a consolidated subsidiary)
Sep. 2016	RST moved to the TSE First Section
Dec. 2017	Joint venture agreement concluded with General Research Institute for Nonferrous Metals (GRINM) and Fujian Kuramoto
Jan. 2018	Beijing GRINM RS Semiconductor Materials Co., Ltd. (BGRS) established; Chinese prime wafer manufacturer Youyan Semiconductor Material Company Limited made a consolidated subsidiary
May 2018	Planned acquisition of shares in Union Electronics Solutions Co., Ltd.



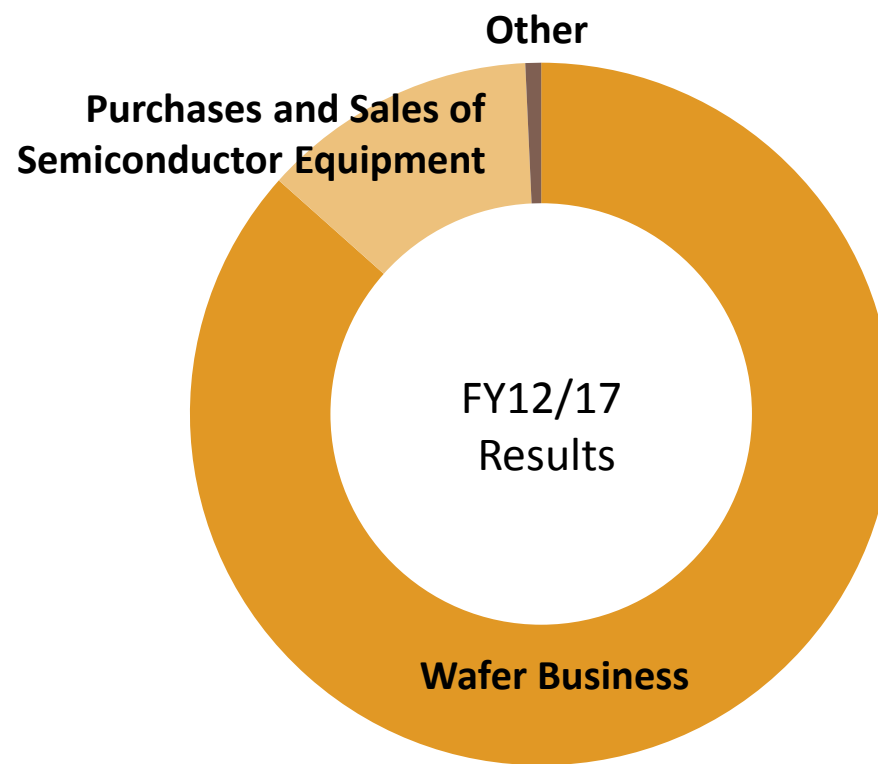
RS Technologies Today

The wafer business, centered on reclaimed wafers, accounts for around 80% of sales. The remainder includes purchases and sales of semiconductor equipment, mainly in China, and the solar power business.

Consolidated Sales and Operating Profit Margin



Results by Segment



Strengths of CEO Fang Yong Yi

President and CEO **Fang Yong Yi** has knowledge gained from over 20 years in Japan, as well as strengths in sales, personal connections, solution proposals, and financing throughout the world through his business network.

President Ho has assembled a team of professionals from a broad range of fields including advanced technology and finance.



Fang Yong Yi, center front (taken September 2016 at TSE)

Fang Yong Yi

b. 1970 in Fujian Province, China

Completed Josai International University Graduate Program

Specialty fields:

M&A, business alliances

(successful M&As with more than 10 companies)

1998 Established Eiki Shoji Co., Ltd.

2006 Appointed president of Eiki Shoji

2010 Established and appointed president of RTS
(current position)

Favorite maxim: **Where there is a will, there is a way**

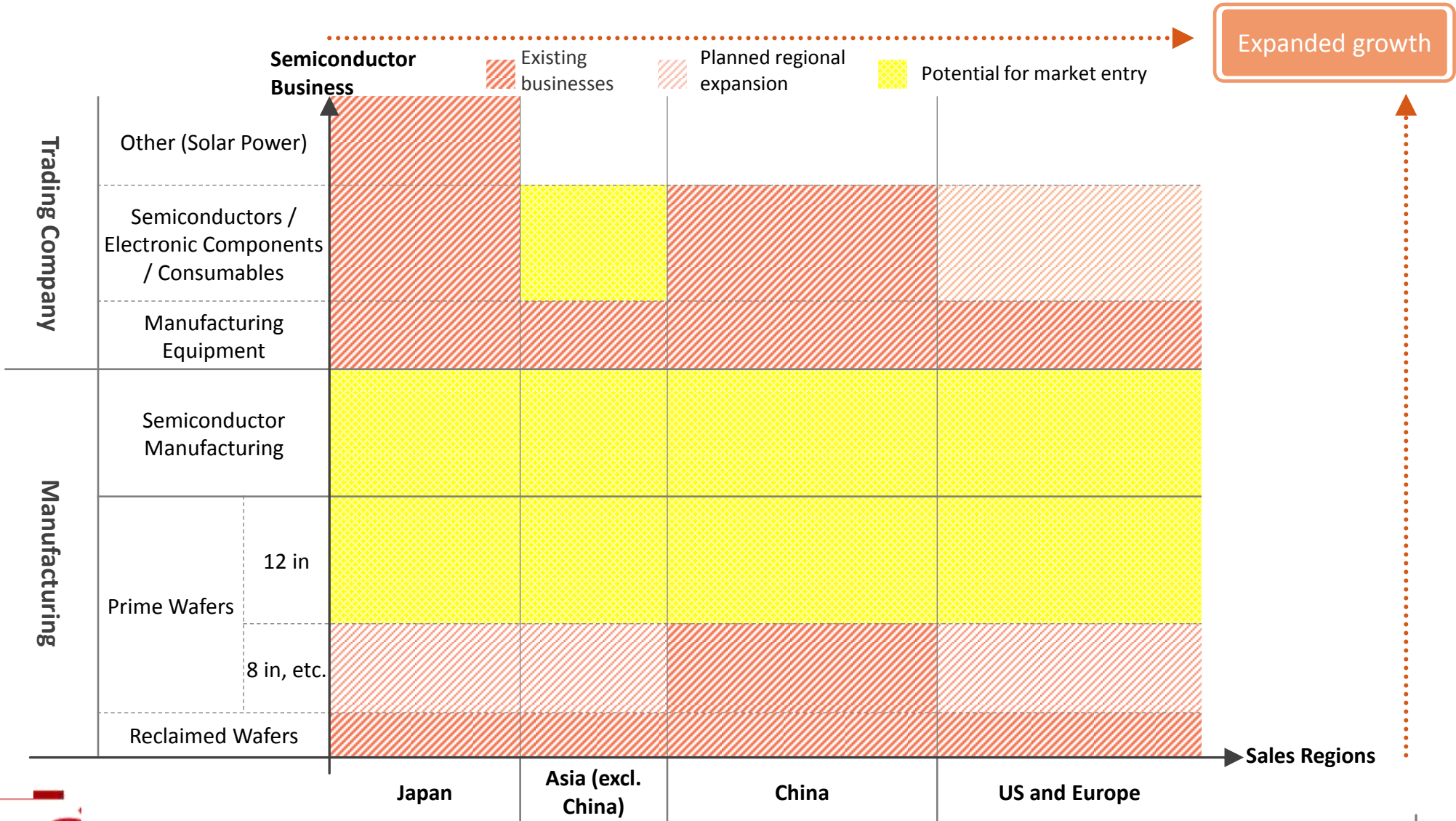
Supplementary information:

Fang Yong Yi came to Japan after graduating high school. He has invested in more than 20 companies in Japan and abroad. In addition to semiconductors, he has experience investing in a range of businesses, including investment funds, trade, hotels, IT, and agriculture. He has traveled the world promoting his belief that Japanese manufacturing is the best in the world.

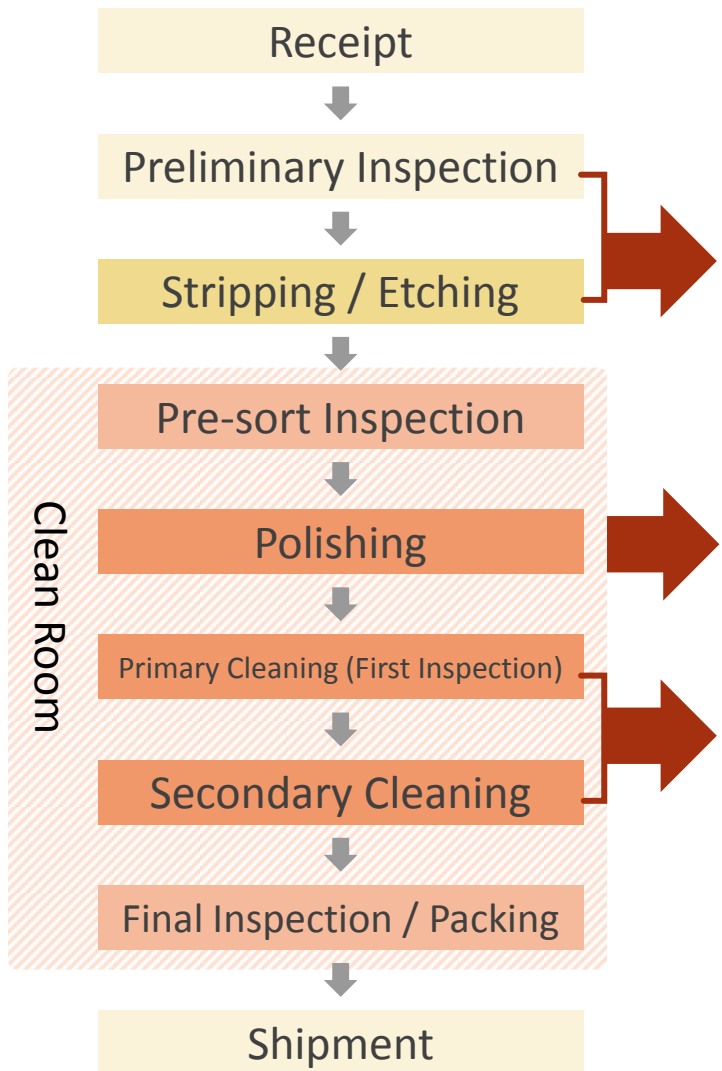
Medium-Term Management Plan

RS Technologies' Aims

Steady expansion of business domains and regions



Reclaimed Wafer Business (1)



Strength

1

Able to strip all films

- Removed using chemical processes to minimize damage to surfaces

► Reclaimed many times ► Potential for greater cost reductions

Special (chemical) technique inherited from Rasa Industries



Polishing of scratches and uneven areas on the surface to make it smoother

Strength

2

Removal of metallic impurities

- Cleaning to remove minute particles and dirt on the wafer surface

+ Removal of metallic impurities

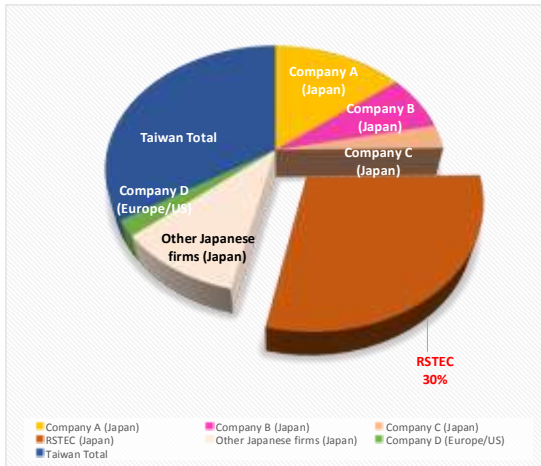
Particular strength in removing copper (Cu)



Reclaimed Wafer Business (1)

Increasing Share of the Reclaimed Market

RS Technologies' Share of the 300mm Reclaimed Market



A new plant in Taiwan and expansion of the Sanbongi Factory increased production capacity, increasing our market share to 30%.

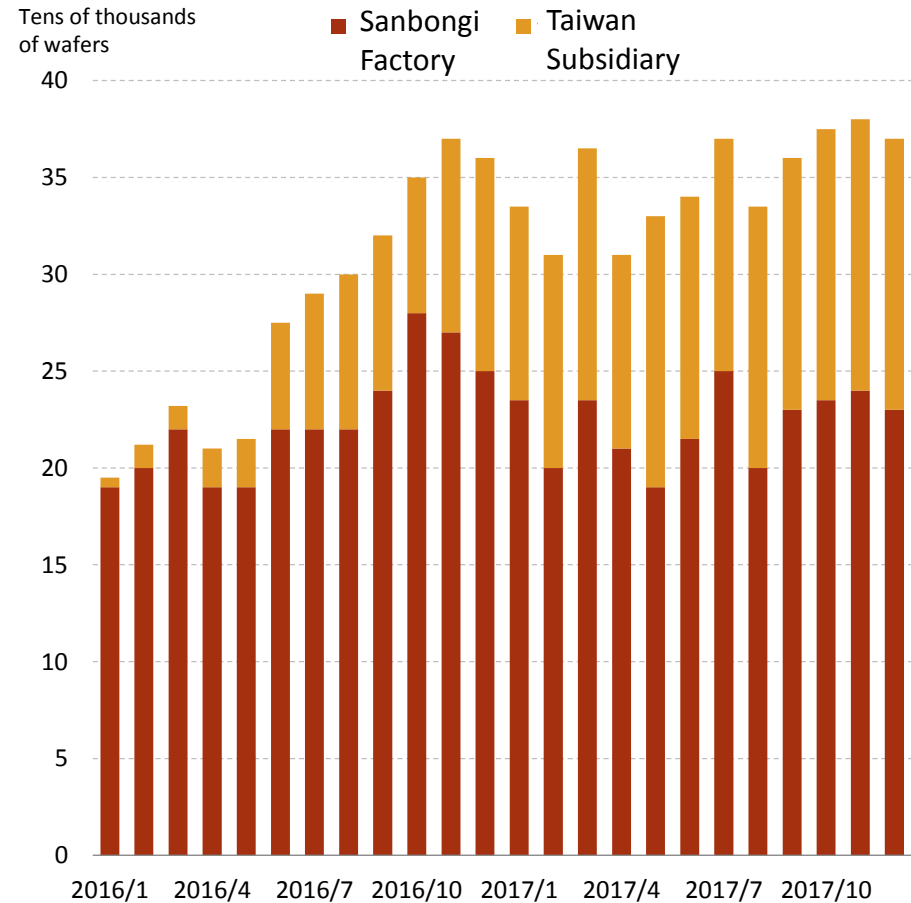
We will further enhance production capacity at both plants by using empty factories at Sanbongi, and utilizing business partnerships, M&A, and other means.

Increase market share to 40% in 2018

	FY12/15 1H	FY12/15 2H	FY12/16	FY12/17	FY12/18 (Target)
RST Group Production Capacity	180,000 wafers	240,000 wafers	280,000 wafers	300,000 wafers	≥ 40% Target
RST Group Market Share	19%	24%	29%	30%	

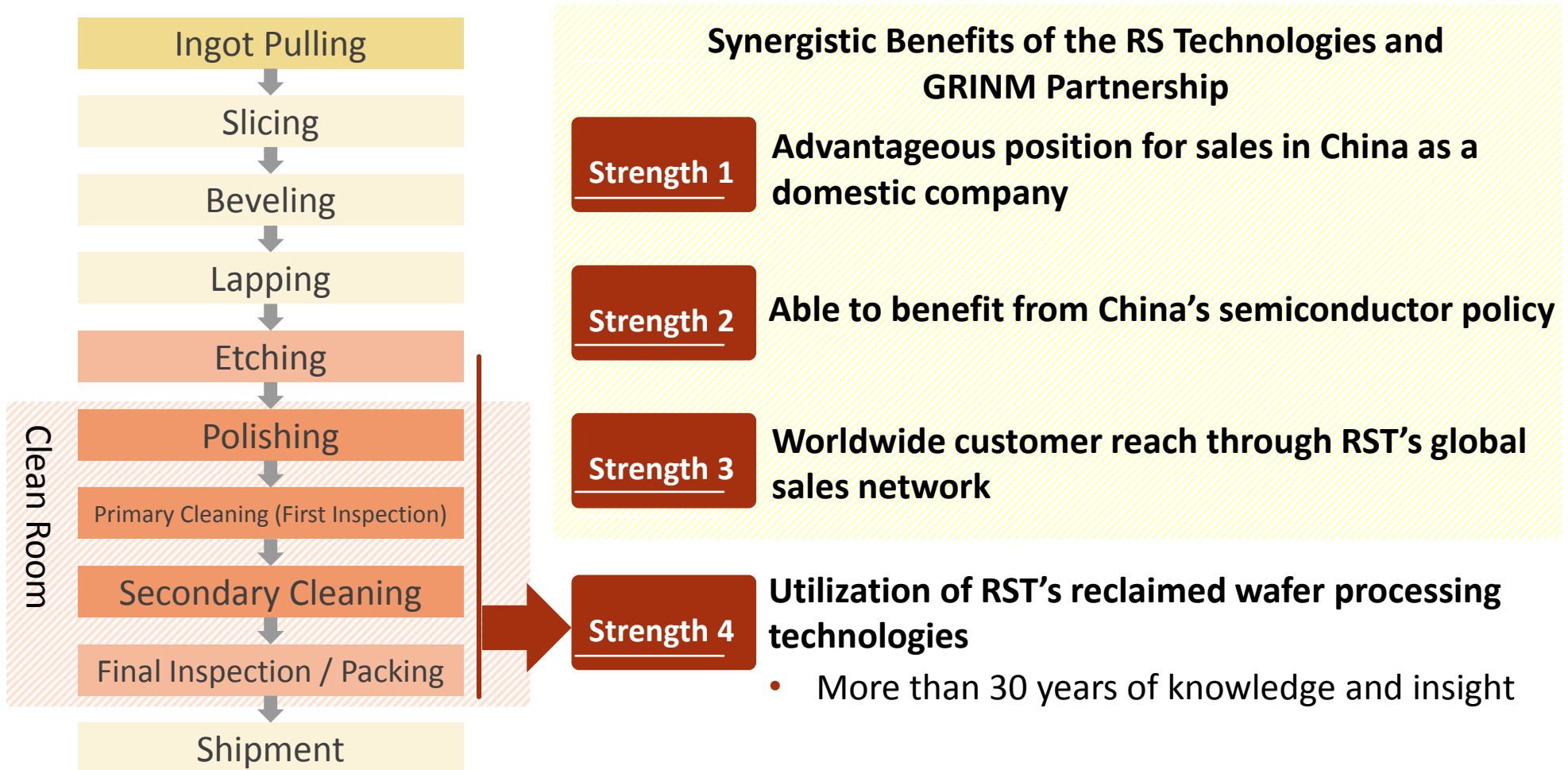
Shipments from the Sanbongi Factory and Taiwan Subsidiary

Shipments of 300mm Wafers from the Sanbongi Factory and Taiwan Subsidiary



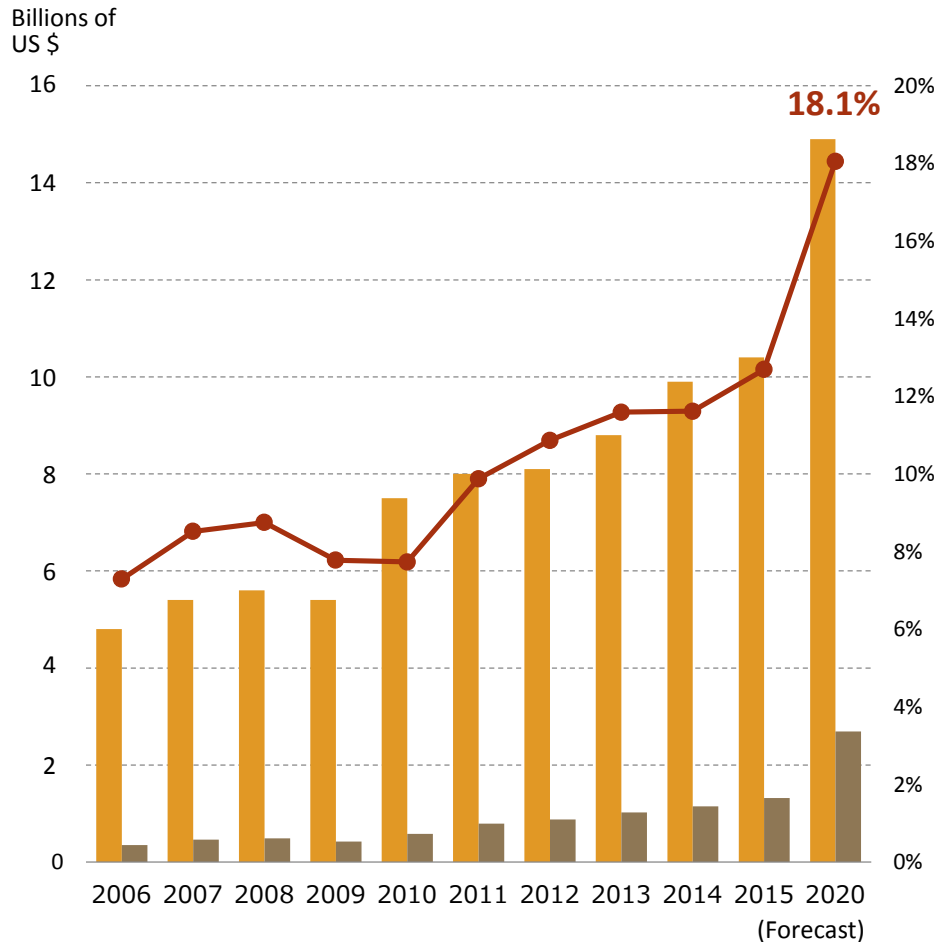
Entry into the Prime Wafer Business

RS Technologies has established a joint venture with Chinese state-owned company General Research Institute for Nonferrous Metals (GRINM), and is developing its semiconductor business as a domestic Chinese company.



China's Semiconductor Policy : Aim to Raise the Domestic Production Rate

China's Semiconductor Market and Production



China's semiconductor consumption has grown to account for 40% of the world's total. However, its domestic production rate is around 10% of the consumption.

Raising the domestic production rate has become **an important policy issue.**

June 2014

Promotion of a National IC Industry Development Guidelines

May 2015

China Manufacturing 2025

[Excerpt]

China is aiming to improve the self-sufficiency rate for ICs in the nation to **40% in 2020**, and boost the rate further to **70% in 2025**.

Target is a domestic production rate of 40% by 2020, and 70% by 2025

Source: SEMI, August 2017 Issue, Report 1

Capital Investment Plan / Business Plan

Japan

Total Investment: ¥400 million

- Expand production capacity for 300mm reclaimed wafers
- Begin production in 2019

FY12/18	FY12/19	FY12/20
	¥400 million	

Taiwan

Total Investment: ¥700 million

- Expand production capacity for 300mm reclaimed wafers
- Begin production in 2019

FY12/18	FY12/19	FY12/20
	¥700 million	

Beijing

Total Investment: ¥9,400 million

- Expand production capacity for 200mm prime wafers

FY12/18	FY12/19	FY12/20
¥4,200 million	¥5,200 million	— million

Benefits of China's semiconductor policy

1. Subsidy for the acquisition of new factory sites
2. Provision of factory construction funds
3. Subsidized portion of total investment amount
4. Subsidy for interest-bearing debt interest
5. Priority sales in China of domestically manufactured prime wafers

Phase 1 Plan

**200mm
prime wafers**

2018
50,000
wafers

2021
**200,000
wafers**



Investment Period: 2019-2020

Begin operations from 2020



Overview of the Medium-Term Plan (4 Years)

Expand scope of operations from reclaimed wafer maker to prime wafer manufacturer

Goals for final plan year (2021)

Be a leading company for silicon wafers in the Chinese semiconductor market

Establish a solid position in the reclaimed wafer market

(Millions of Yen)	FY12/17	FY12/18 Plans	FY12/19 Plans	FY12/20 Plans	FY12/21 Plans
Net sales	10,988	20,993	21,000	25,000	29,000
Operating income	3,075	3,891	3,600	4,800	6,300
Operating income ratio	28.0	18.5	17.1	19.2	21.7
Ordinary income	3,223	3,897	3,900	4,700	6,200
Ordinary income ratio	29.3	18.6	18.6	18.8	21.3
Net income attributable to owners of the parent	2,210	2,585	2,500	2,900	3,800
Net income per share (Yen)	199.31	208	201	233	306

* Unit price for reclaimed silicon wafers is unchanged from the initial price for 2018.

- Forecast results for the Purchases and Sales of Semiconductor Equipment business are incorporated into figures for 2018 and 2019, but not for 2020 or after.
- Net income per share is a make decision from 6.Mar,2018.(without New Stock by O.A)

Business Results

FY17 Results Summary

The business environment for the reclaim wafer industry was positive, with tight supply/demand for semiconductors (foundry and Memory) and silicon wafers. Business conditions for RS Technologies were also favorable overall.

(Millions of Yen)	FY12/16 (Jan-Dec 2016)	FY12/17 Revised Forecast (Jan-Dec 2017)	FY12/17 (Jan-Dec 2017)	YoY	Against Forecast
Net sales	8,849	9,450	10,988	124.2%	116.3%
Operating income	1,557	2,550	3,075	197.4%	120.6%
Operating income ratio	17.6%	26.9%	28.0%		
Ordinary income	1,450	2,650	3,223	222.2%	121.6%
Ordinary income ratio	16.3%	28.0%	29.3%		
Net income attributable to owners of the parent	869	1,630	2,210	254.1%	135.6%
Net income per share (Yen)	79.98	145.87	199.31	119.33	136.6%



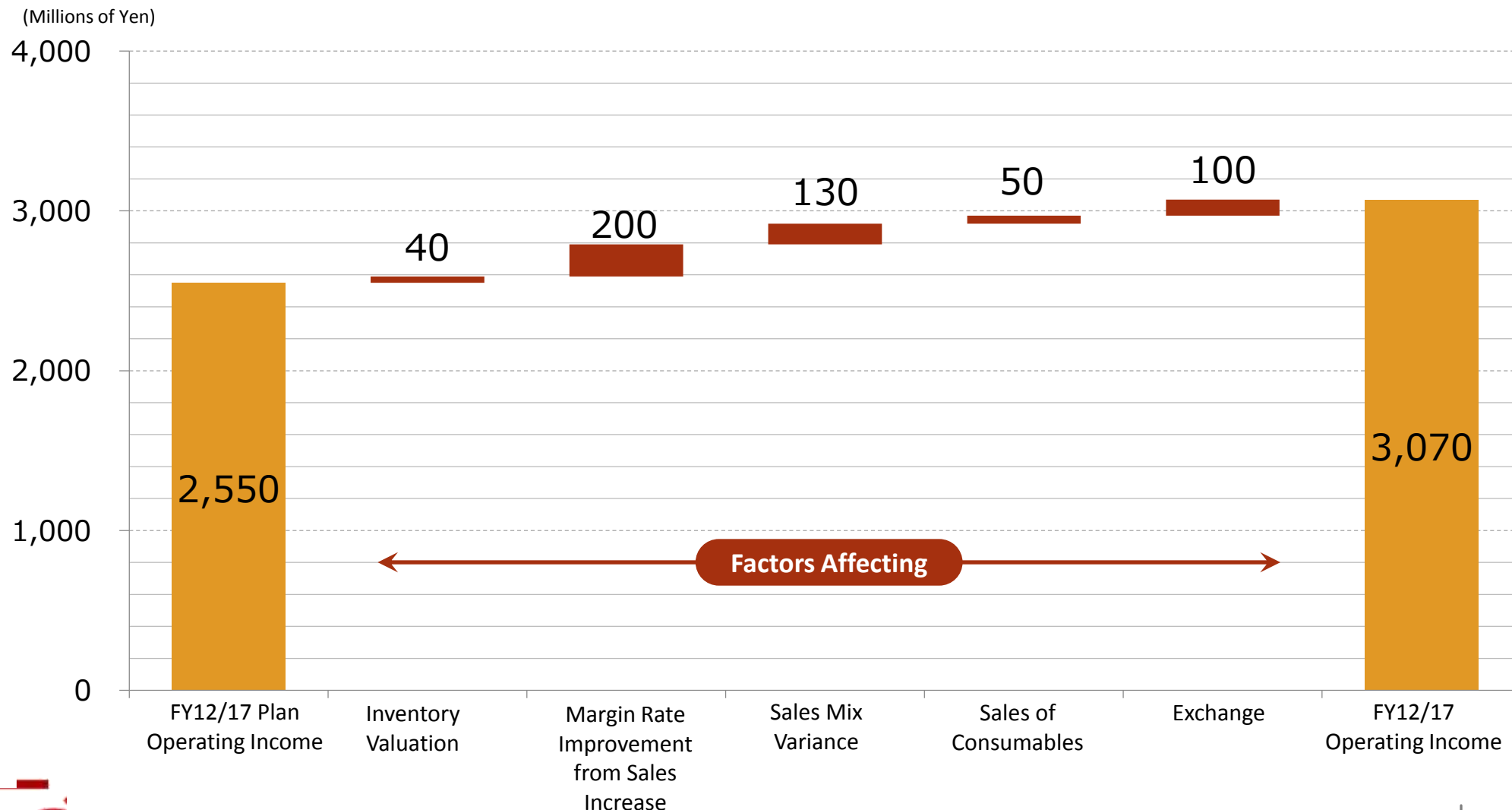
FY17 Results by Segment and Company

(Millions of Yen)	Wafer Business	Purchases and Sales of Semiconductor Equipment Business	Other	Consolidated Total
Net sales	9,513	1,395	79	10,988
Operating income	3,461	129	(516)	3,075
Operating income ratio	36.4%	9.2%	—	28.0%

	RS	Taiwan Subsidiary	Elimination of Intra-company Transactions	Consolidated Total
Net sales	8,503	2,647	(162)	10,988
Operating income	2,139	885	50	3,075
Operating income ratio	25.2%	33.5%	—	28.0%

Factors Affecting Operating Income

- Increase in unit prices for certain customers improved the marginal profit ratio.
- Exchange rate also boost profits as the yen weakened beyond initial expectations (¥107/\$).



Financial Statements

Consolidated Balance Sheets

(Millions of Yen)	FY12/16	FY12/17
Assets		
Current Assets	5,525	7,625
Cash and cash equivalent	1,952	3,243
Notes and accounts receivable - trade	2,727	3,141
Merchandise and finished goods	361	463
Non-current Assets	5,333	4,843
Property, plant and equipment	5,152	4,674
Intangible assets	23	19
Investments and other assets	158	149
Total Assets	10,859	12,468
Liabilities		
Current liabilities	3,000	3,384
Notes and accounts payable - trade	283	398
Interest-bearing debt	1,537	1,275
Non-current liabilities	4,317	3,291
Long-term loans payable	3,620	2,767
Total Liabilities	7,317	6,676
Net Assets		
Net Assets	3,541	5,792
Total Liabilities and Net Assets	10,859	12,468

Cash Flows

(Millions of Yen)	FY12/16	FY12/17
Cash flows from operating activities	964	2,744
Cash flows from investing activities	(776)	(202)
Cash flows from financing activities	(91)	(1,252)
Effect of exchange rate changes on cash and cash equivalents	13	(87)
Exchange gain on cash and cash equivalents	110	1,201
Cash and cash equivalents at beginning of year	1,603	1,714
Cash and cash equivalents at end of year	1,714	2,916



Outlook for FY18

Revenue is forecast to increase considerably with the contribution from the prime wafer business in China (BGRS). Profitability is expected to decline year on year, due to the comparatively low margins in the prime wafer business compared to the reclaimed business.

(Millions of Yen)	FY12/17 (Jan.-Dec. 2017)	FY12/18 Forecast (Jan.-Dec. 2018)	YoY
Net sales	10,988	20,993	+10,005
Operating income	3,075	3,891	+816
Operating income ratio	28.0%	18.5%	(9.5)%
Ordinary income	3,223	3,897	+674
Ordinary income ratio	29.3%	18.6%	(10.7)%
Net income attributable to owners of the parent	2,210	2,585	+375
Net income per share (Yen)	199.31	208.00	+8.69
Annual dividend (Yen)	5	undecided	—

Exchange rate assumption

FY12/17 Actual: ¥113/US\$, ¥3.7/NT\$
 FY12/18 Forecast: ¥111/US\$, ¥3.5/NT\$, ¥17/RMB



1. **Expand share** of the reclaimed wafer market
 - 1) Increase production capacity
 - 2) Capture growing demand
 - 3) Develop the potential reclaimed market
2. **Enter** the Chinese semiconductor market
 - 1) Increase production capacity for 200mm prime wafers
 - 2) Enter the market for 300mm prime wafers
 - 3) Expand the target materials (semiconductor components) business to China
 - 4) Increase sales in China of semiconductor production equipment and related materials

Appendix

Long-term Data

Year-by-Year Results

(Millions of Yen)	FY12/12	FY12/13	FY12/14	FY12/15	FY12/16	FY12/17
Net sales	1,433	3,475	4,566	5,545	8,849	10,988
Gross profit	156	1,173	1,820	1,872	2,516	4,345
Selling, general and administrative expenses	186	471	654	791	958	1,269
Operating income	(31)	703	1,166	1,081	1,557	3,075
Ordinary income	44	819	1,247	937	1,450	3,223
Net income	50	525	664	304	869	2,210
Capital investment	32	347	2,901	4,538	209	95
Depreciation	72	87	103	326	682	714
Research and development expenses	1	1	6	11	85	183
Number of employees (Regular employees)	126	152	191	265	373	443



Year-by-Year Results

(Millions of Yen)	FY12/12	FY12/13	FY12/14	FY12/15	FY12/16	FY12/17
Net sales						
Wafer Business	1,433	3,347	4,414	5,107	7,144	9,513
Purchases and Sales of Semiconductor Equipment Business	—	—	—	372	1,611	1,395
Other	—	127	151	282	93	94
Segment profit						
Wafer Business	(31)	916	1,444	1,386	1,718	3,461
Purchases and Sales of Semiconductor Equipment Business	—	—	—	135	221	129
Other	—	27	61	29	66	67
Segment assets						
Wafer Business	994	1,337	5,040	6,993	5,620	8,148
Purchases and Sales of Semiconductor Equipment Business	—	—	—	42	1,132	1,300
Other	—	396	382	533	556	532



Principal Financial Statements

(Millions of Yen)	FY12/12*	FY12/13*	FY12/14	FY12/15	FY12/16	FY12/17
Assets						
Current Assets	745	1,811	2,759	3,892	5,525	7,625
Cash and cash equivalent	56	397	1,190	1,842	1,952	3,243
Notes and accounts receivable - trade	363	681	696	970	2,727	3,141
Merchandise and finished goods	142	396	376	346	361	463
Non-current assets	248	508	4,064	5,845	5,333	4,843
Property, plant and equipment	233	461	3,918	5,667	5,152	4,674
Intangible assets	7	19	15	29	23	19
Investments and other assets	8	27	130	148	158	149
Total Assets	994	2,320	6,823	9,737	10,859	12,468
Liabilities						
Current liabilities	391	960	2,292	2,295	3,000	3,384
Notes and accounts payable - trade	116	138	151	186	283	398
Interest-bearing debt	17	136	827	1,216	1,537	1,275
Non-current liabilities	478	709	2,934	4,798	4,317	3,291
Long-term loans payable	426	615	2,925	4,079	3,620	2,767
Total Liabilities	869	1,670	5,227	7,093	7,317	6,676
Net assets						
Net assets	124	649	1,596	2,644	3,541	5,792
Total Liabilities and Net Assets	994	2,320	6,823	9,737	10,859	12,468

*Unconsolidated

Forward-looking Statements

The content of these materials was prepared based on generally recognized economic potential and certain assumptions considered reasonable by the Company, but is subject to revision without notice due to changes in the various business environments affecting management.

Materials and information provided for this announcement contain forward-looking statements. This information is based on assumptions pertaining to the current outlook, forecasts and risks, and contains uncertainties that could result in different outcomes.

Even in the case of new information, future events, or other relevant matters, the Company is under no obligation to update or revise the forward-looking statements contained in this material.