



## **FY12/19 2nd Quarter Financial Results Briefing Material**

RS Technologies Co., Ltd.

August 9, 2019



Code: 3445  
Tokyo Stock Exchange First Section

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# 1. Company Overview

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# Company Overview

- Holds the top market share worldwide in semiconductor wafer reclamation at 30%
- Conducting a full-scale advance into the prime wafer business through a joint venture with a Chinese state-owned company
- Expanding into peripheral business fields expected to produce synergy through M&A

<b>Company name</b>	RS Technologies Co., Ltd.
<b>Date of establishment</b>	December 10, 2010
<b>Corporate principles</b>	“Respect the global environment, earn the trust of people, and constantly strive to create.”
<b>Business</b>	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.
<b>Head office</b>	1-47-1, Ohi, Shinagawa-ku, Tokyo 140-0014 JAPAN
<b>Factory</b>	26-2, Yamazaki, Sanbongi Otonashi, Osaki, Miyagi 989-6313 JAPAN
<b>Capital</b>	JPY 537,300 thousand (As of end June 2019)
<b>President and CEO</b>	Nagayoshi Ho
<b>Consolidated subsidiaries</b>	RSTEC Semiconductor Taiwan Co.,Ltd Capital NT \$300 million Stake 100%
	Beijing GRINM RS Semiconductor Materials Co., Ltd. Registered Capital US \$138 million Investment ratio 45%
	Union Electronics Solutions Co., Ltd. Capital ¥27 million Stake 100%
	DG Technologies Co., Ltd. Capital ¥100 million Stake 100%

# History

- Launched business in 2010 and holds top share worldwide in the silicon wafer reclamation business
- Converted a major Chinese prime wafer manufacturer into a consolidated subsidiary in 2018 and became a comprehensive manufacturer of wafers

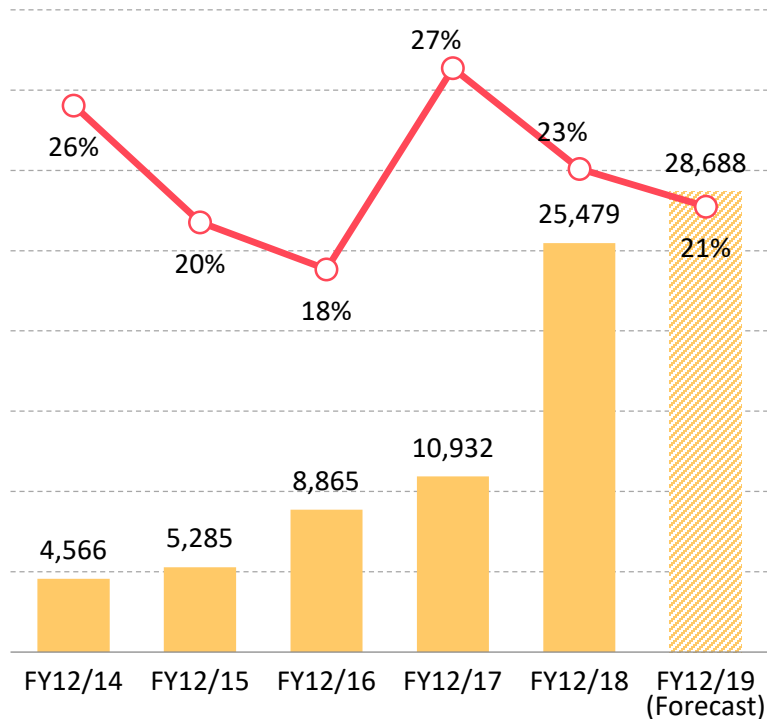
<b>Dec. 2010</b>	RS Technologies established in Shinagawa-ku, Tokyo, with silicon wafer reclamation as its primary business
<b>Jan. 2011</b>	Operations begun at the Sanbongi Factory
<b>Nov. 2011</b>	Sanbongi Factory acquires ISO9001:2008 certification from UKAS
<b>Mar. 2013</b>	Equipment sales begun
<b>Oct. 2013</b>	Solar power business begun at the Sanbongi Factory
<b>Feb. 2014</b>	RSTEC Semiconductor Taiwan established as a subsidiary in Taiwan (currently a consolidated subsidiary)
<b>Mar. 2015</b>	RST listed on the Tokyo Stock Exchange Mothers Market
<b>Jun. 2015</b>	Fab8 completed at Sanbongi Factory, with cutting-edge equipment allowing reclamation of 450mm wafers
<b>Oct. 2015</b>	RST achieves annual growth of 1299.53%, ranks third in the 13th Deloitte Touche Tohmatsu LLC Japan Technology Fast 50
<b>Dec. 2015</b>	Tainan Factory completed for RSTEC Semiconductor Taiwan (currently a consolidated subsidiary)
<b>Sep. 2016</b>	RST moved to the Tokyo Stock Exchange First Section
<b>Dec. 2017</b>	Joint venture agreement concluded with General Research Institute for Nonferrous Metals (GRINM) and Fujian Kuramoto
<b>Jan. 2018</b>	Beijing GRINM RS Semiconductor Materials Co., Ltd. (BGRS) established; Chinese prime wafer manufacturer Youyan Semiconductor Material Company Limited made a consolidated subsidiary
<b>May 2018</b>	Acquired 100% of shares at Union Electronics Solutions Co., Ltd. (distributor for Hitachi Power Semiconductor Device, Ltd.)
<b>Aug. 2018</b>	Established Shandong GRITEK Co., Ltd.
<b>Jun. 2019</b>	Acquired 100% of shares of DG Technologies Co., Ltd.

# RS Technologies Today

- A comprehensive wafer manufacturer in the silicon wafer reclamation business and prime wafer manufacturing and sales business.
- Purchasing and selling semiconductor production equipment and expanding the solar power business.
- The Company boasts the world's top share in the silicon wafer reclamation business and is expanding its prime wafer business within China.

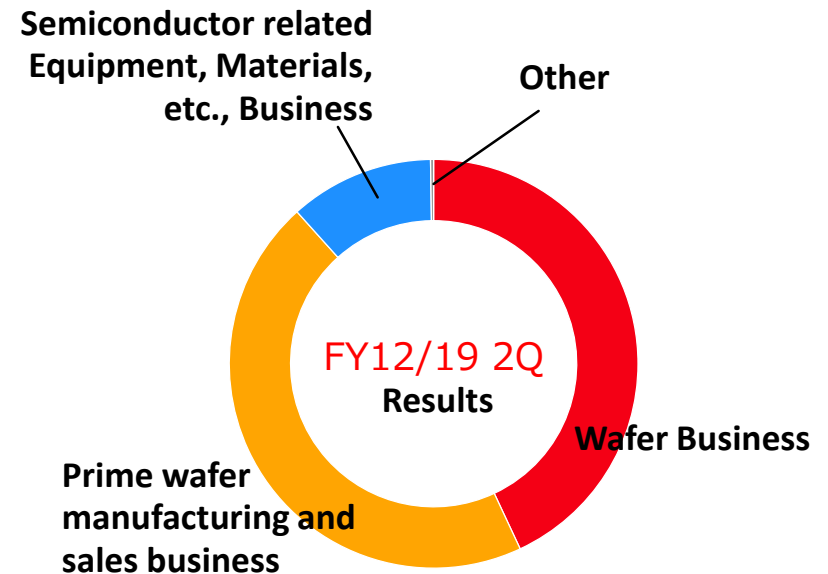
## Consolidated Net Sales and Operating Income Ratio

(Millions of yen)



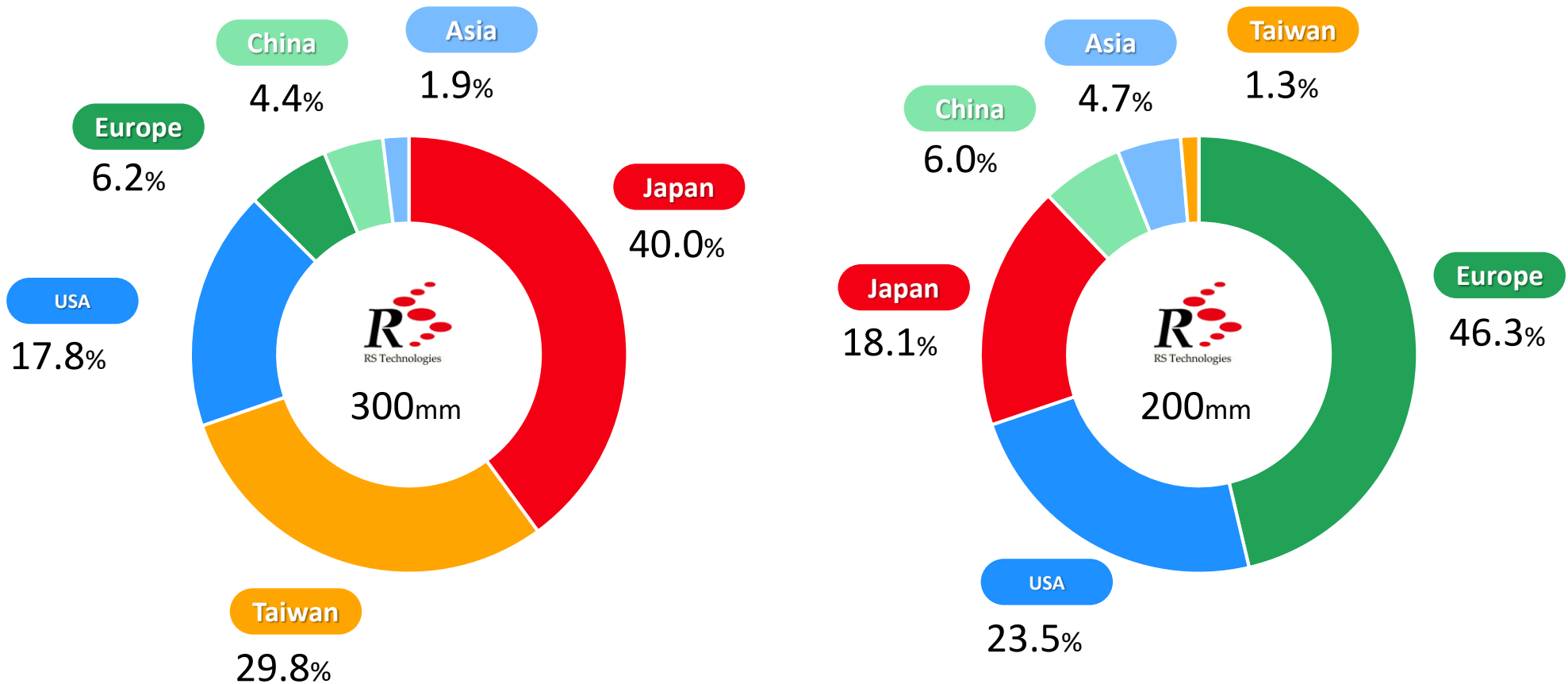
\*Figures for FY12/15–FY12/17 are revised figures released on March 5, 2019

## Results by Segment



# Share of Total Shipments from the Silicon Wafer Reclamation Business

- Global expansion targeting mainly at manufacturers in Japan, Taiwan, Europe and the United States.
- Through capital investment in 300mm wafer facilities in Japan and Taiwan, enhance production capacity of reclaimed wafers in 2019.
- Our customers in the 300mm and 200mm markets are the world's major semiconductor manufacturers.



Notes: Based on wafer numbers reported in a study conducted by RST (fiscal 2018)

## 2. FY12/19 2nd Quarter Results Summary

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# FY12/19 First Half Efforts

- Converted DG Technologies into a 100% subsidiary to enhance semiconductor related equipment and component, etc., business.
- New prime wafer plant construction now underway in Dezhou, Shandong, China

Conversion of DG Technologies into a Subsidiary

**DGtec** 株式会社DGテクノロジーズ

<b>Company Name</b>	DG Technologies Co., Ltd.
<b>Established</b>	October 26, 1981
<b>Business</b>	Manufacture and sale of consumable parts for semiconductor manufacturing equipment
<b>Location</b>	3-4, Sunayama, Kamisu-shi, Ibaraki
<b>Capital</b>	JPY 100,000 thousand (as of June 30, 2019)
<b>President &amp; CEO</b>	Nagaysoshi Ho

Ground-breaking Ceremony for New Prime Wafer Plant  
Shandong GRITEK Co., Ltd.  
(Dezhou, Sangdong)

New lines added to existing lines in the new plant to establish an increased production structure.



(March 19, 2019)

# FY12/19 2nd Quarter Results Summary

- Strong demand continues for both reclaimed wafer business and prime wafer business. Since both plants running at full capacity, increase in both YoY sales and profits secured.
- Sales for reclaimed wafer business did not reach budget due to fall in average sales unit prices, caused by changes in product mix.
- In prime wafer business, improvement in profitability from reduction in cost (improved yield) resulting in profits exceeding budget.

(Millions of Yen)	FY12/18 2Q	FY12/19 2Q Budget	FY12/19 2Q	Vs. Previous Term	YoY	Against Budget	Against Full Fiscal Year	FY12/19 Budget
Net sales	11,516	13,246	12,515	+999	+8.7%	△731	43.6%	28,688
Operating income	2,253	2,678	2,755	+502	+22.3%	+77	46.1%	5,971
Operating income ratio	19.6%	20.2%	22.0%	+2.4pt	/	+1.8pt	/	20.8%
Ordinary income	2,347	2,667	2,920	+573	+24.4%	+253	47.5%	6,151
Ordinary income ratio	20.4%	20.1%	23.3%	+2.9pt	/	+3.2pt	/	21.4%
Net income attributable to owners of the parent	1,438	1,565	1,723	+285	+19.8%	+158	47.6%	3,621
Net income per share (Yen)	120.73	122.19	134.54	+13.81	+11.4%	+12.35	/	282.72

# Results by Segment and Company

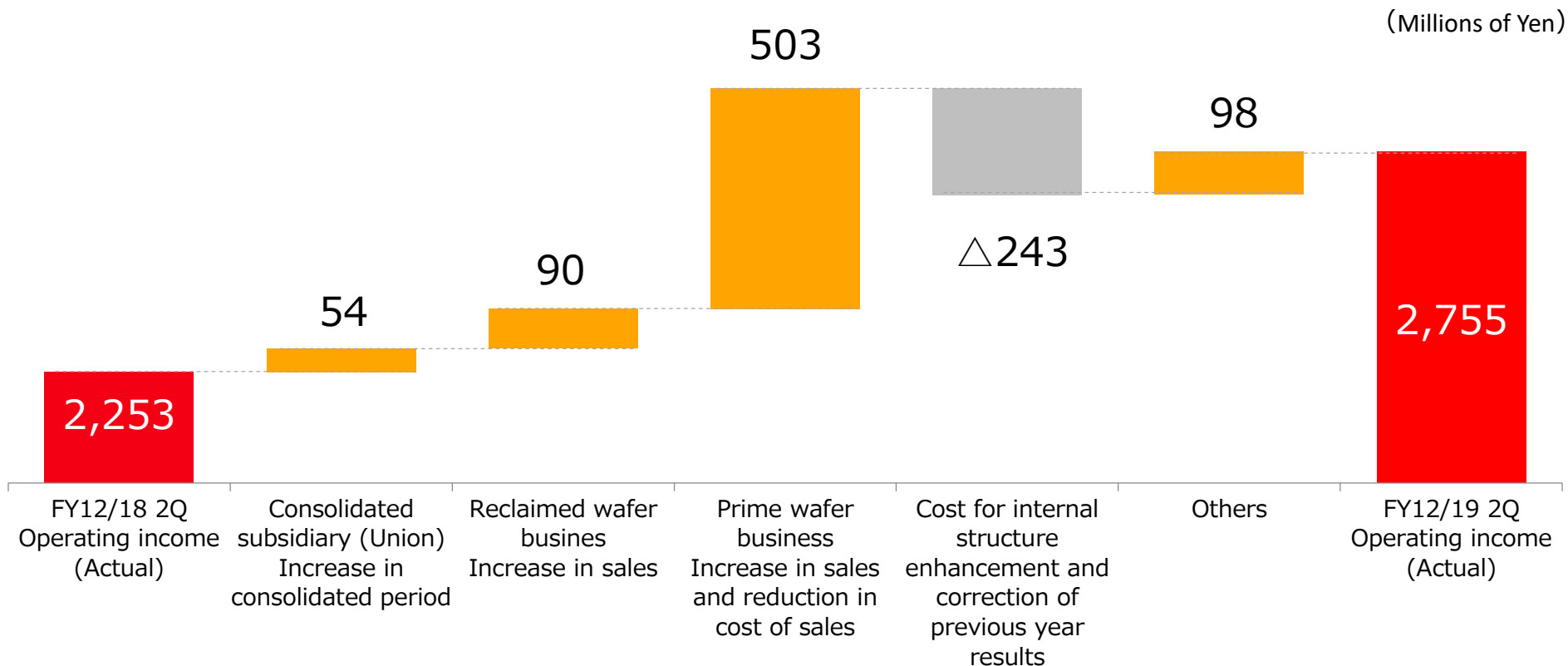
- Increased sales and profits in wafer business with contribution from the effects of increased production from capital investment in first half of FY2019 to Taiwan Plant.
- Substantial increase in profit in Prime wafer production and sales business from cost reduction (improved yield) at Beijing Plant.
- Fall in profit for non-consolidated RS from increased cost due to measures related to correction for previous fiscal year and enhancement of internal control system, such as increase in personnel.

By segment (Millions of Yen)	Wafer Business		Prime Wafer Manufacturing and Sales Business		Semiconductor related Equipment, Materials, etc., Business		Others, Adjustments		Consolidated Total	
		YoY		YoY		YoY		YoY		YoY
<b>Net sales</b>	5,284	+1.5%	5,736	+4.9%	1,662	+67.5%	△167	-	12,515	+8.7%
<b>Operating income</b>	1,925	+8.9%	1,268	+84.8%	78	△46.2%	△516	-	2,755	+22.3%
<b>Operating income ratio</b>	36.4	+2.5pt	22.1	+9.5pt	4.7	△9.9pt	-	-	22.0	+2.4pt

By segment (Millions of Yen)	RS		Taiwan Subsidiary		Beijing Subsidiary		Other Subsidiaries		Consolidated Total	
		YoY		YoY		YoY	Elimination of intra-company transactions	YoY		YoY
<b>Net sales</b>	4,459	△2.7%	1,674	+11.4%	5,736	+4.9%	646	-	12,515	+8.7%
<b>Operating income</b>	911	△12.8%	559	+14.8%	1,342	+95.6%	△57	-	2,755	+22.3%
<b>Operating income ratio</b>	20.4	△2.4pt	33.4	+1.0pt	23.4	+10.8pt	-	-	22.0	+2.4pt

# Factors Affecting Operating Income

- Operating income of JPY +502 mil (+22.3%) achieved by absorbing internal structure enhancement costs, etc. (JPY 243 mil.) exceeding budget by JPY +77 mil.
- Reduction in cost (improved yield) in prime wafer business has made a big contribution, in addition to increase in sales of reclaimed wafer business.



← Affecting factors →

# Balance Sheet and Cash Flow

- Turning DG Technologies into a subsidiary and application of IFRS 16 (Lease) at overseas subsidiaries have resulted in expansion of Assets and Total liabilities and Net assets.
- Increase in investment cashflow from commencement of investment in new Prime wafer plant, etc.

## Consolidated Balance Sheet

(Millions of Yen)	FY12/18	FY12/19 2Q
<b>Assets</b>		
Current assets	26,074	30,480
Cash and case equivalents	14,879	19,359
Notes and account receivable - trade	6,958	6,700
Merchandise and finished goods	1,343	1,496
Non-current assets	10,516	14,311
Property, plant, and equipment	8,963	10,886
Intangible assets	1,099	2,970
Investment and other assets	453	455
<b>Total Assets</b>	<b>36,591</b>	<b>44,792</b>
<b>Liabilities</b>		
Current liabilities	4,979	6,015
Notes and account payable - trade	1,554	1,816
Interest bearing debts	964	1,404
Non-current liabilities	2,474	4,555
Long-term loans payable	1,848	2,817
<b>Total Liabilities</b>	<b>7,453</b>	<b>10,570</b>
<b>Net Assets</b>		
Net assets	29,137	34,222
<b>Total Liabilities and Net Assets</b>	<b>36,591</b>	<b>44,792</b>

## Cash Flow

(Millions of Yen)	FY12/18	FY12/19 2Q
Cash flow from operating activities	2,669	3,420
Cash flow from investing activities	△22	△3,483
Cash flow from financing activities	9,550	4,932
Effect of exchange rate changes on cash and cash equivalents	△461	△418
Exchange gain on cash and cash equivalents	11,736	4,451
Cash and cash equivalents at beginning of year	2,916	14,652
Cash and cash equivalents at end of year	14,652	19,104

# Financial Outlook for FY12/19

- Original expectation maintained as the forecast for the full fiscal year.
- Production quantity of reclaimed wafers is expected to expand smoothly with capital investment in Japan and Taiwan. In addition, cost reduction (improved yield) for prime wafer business is expected to continue its contribution in the second half also.

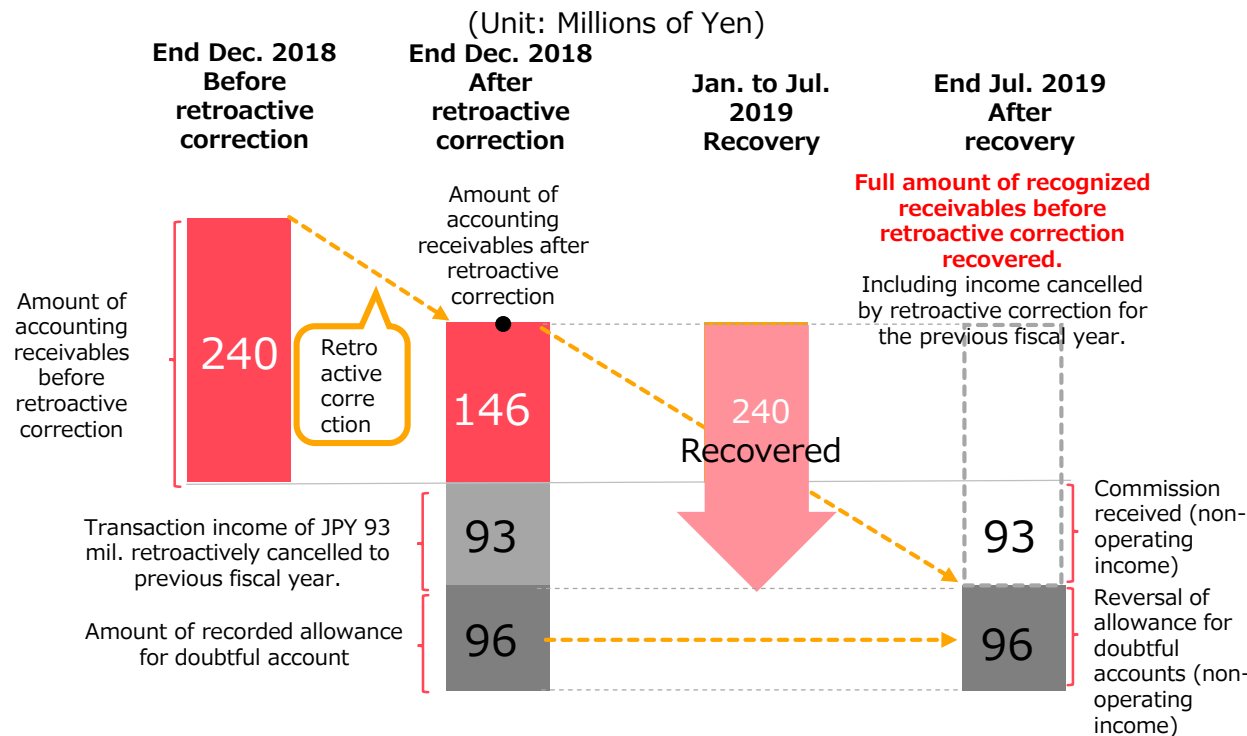
(Millions of Yen)	FY12/18 (Jan. - Dec., 2018)	FY12/19 (Jan. - Dec. 2019)	YoY	
	Full year actual results	Full year forecast	YoY	YoY%
<b>Net sales</b>	25,478	28,688	+3,210	+12.6%
<b>Operating income</b>	5,751	5,971	+220	+3.8%
<b>Operating income ratio</b>	22.6%	20.8%	△1.8pt	
<b>Ordinary income</b>	6,141	6,151	+10	+0.2%
<b>Ordinary income ratio</b>	24.1%	21.4%	△2.7pt	
<b>Net income attributable to owners of the parent</b>	3,620	3,621	+1	+0.0%
<b>Net income per share</b>	294.80 yen	282.72 yen	△12.08	△4.1%
<b>Annual dividend</b>	10 yen	10 yen	-	-

(Millions of Yen)	RS		Taiwan Subsidiary		Beijing Subsidiary		Other Subsidiaries	Consolidated Total	
		YoY		YoY		YoY			YoY
<b>Net sales</b>	10,101	△4.3%	3,271	+12.6%	11,867	△0.40%	3,449	28,688	+12.6%
<b>Operating income</b>	2,025	△23.0%	935	△3.8%	2,786	+35.9%	225	5,971	+3.8%
<b>Operating income ratio</b>	20.0%	△4.9pt	28.6%	△4.9pt	23.5%	+6.3pt	6.5%	20.8%	△1.8pt

# Status of Recovery and Recurrence Prevention Measures Related to the Correction of Financial Results for the Previous Fiscal Year

- Improvement Report submitted to Tokyo Stock Exchange on April 26, 2019. Started implementation of recurrence prevention measures as well as structural upgrading, and now progressing smoothly.
- Decision regarding levying Administrative Monetary Penalty of JPY 6 million received from Financial Services Agency on May 30, 2019. Payment completed.
- Full amount of receivables related to this case has been recovered by July 31, 2019. Reversal of allowance for doubtful accounts conducted.

Regarding the Status of Receivables Recovery related to this Case  
(Full amount recovered by end of July 2019)



Recurrence Prevention Measures		Implementation Status
Document review items regarding trading firm-like transactions		Done
Enhance contents to be listed in various Ringi forms, etc.		Done
Newly establish Internal Audit Office and enhance personnel		Done
Review rules regarding receivables management		Done
Upgrade operations related to receivables management		Done
Implement compliance education	For directors	Done
	For employees	Done
Increase and enhance administrative division staffs		Done
Enhance reporting contact office		Done
Establish Recurrence Prevention Measure Committee		Done

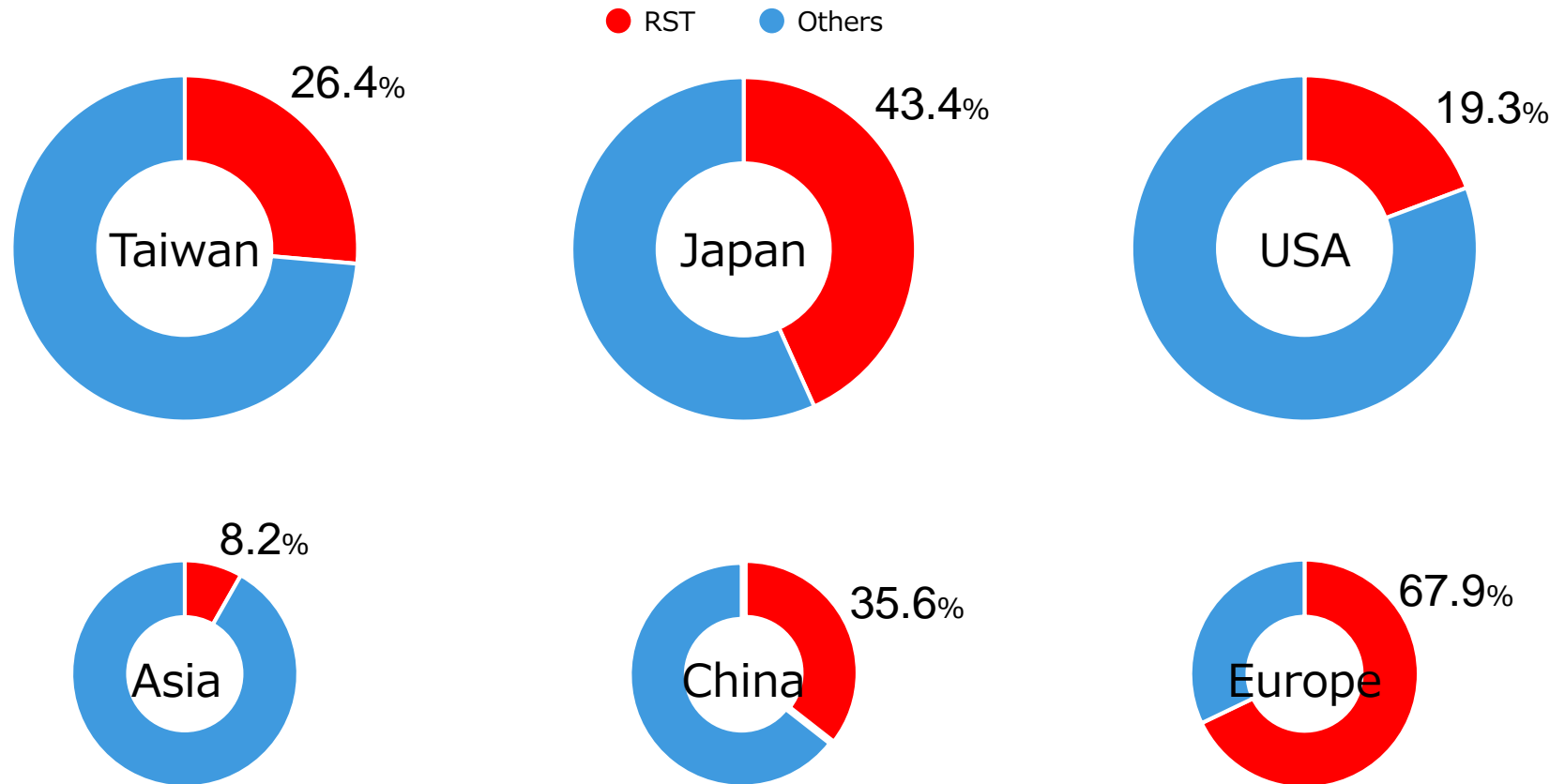
## 3. The Expanding Reclaimed Wafer Market

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# RST Share of Reclaimed Wafer by Region: 300mm

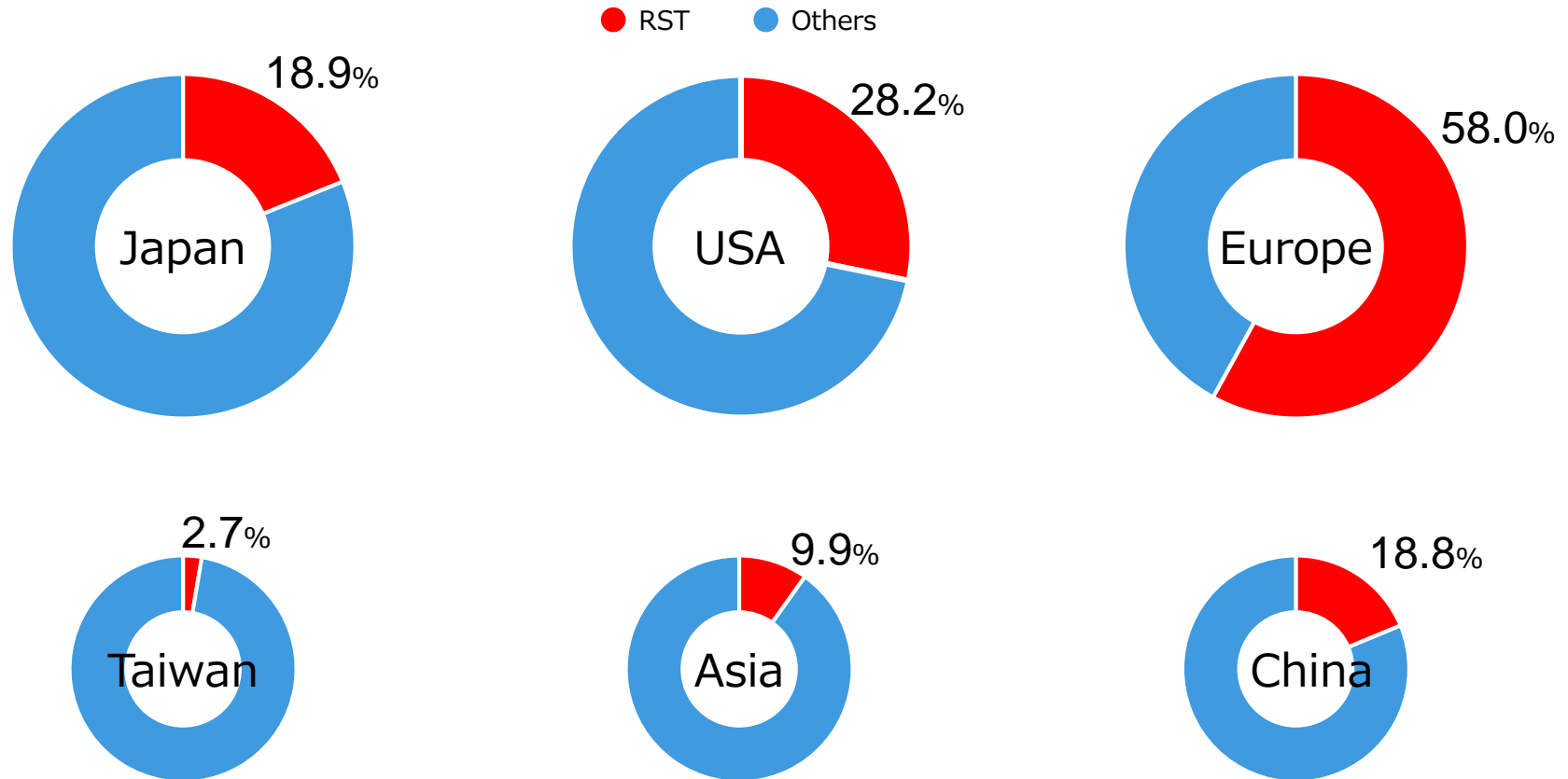
- RST holds the global top share in the reclaimed wafer market.
- Factories are in Miyagi Prefecture (Sanbongi Factory) and Taiwan (Tainan Factory).
- Demand for reclaimed wafers is large and both Sanbongi and Tainan Factories continue to operate at full capacity.



Notes: Based on wafer numbers reported in a study conducted by RST (fiscal 2018)

# RST Share of Reclaimed Wafer by Region: 200mm

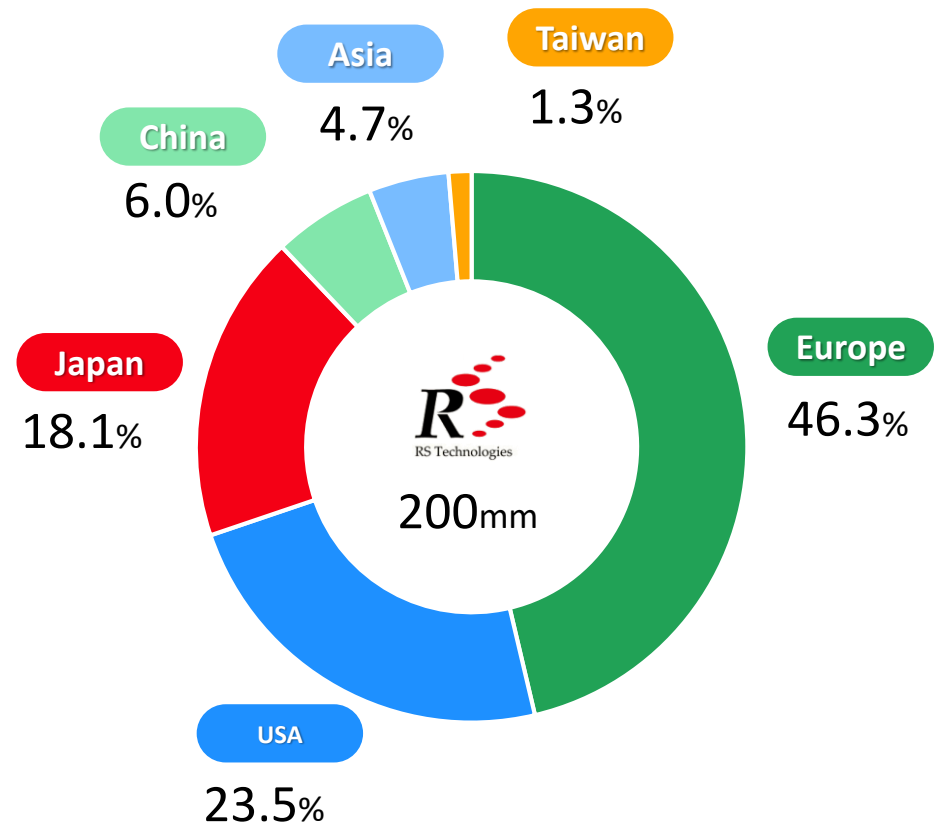
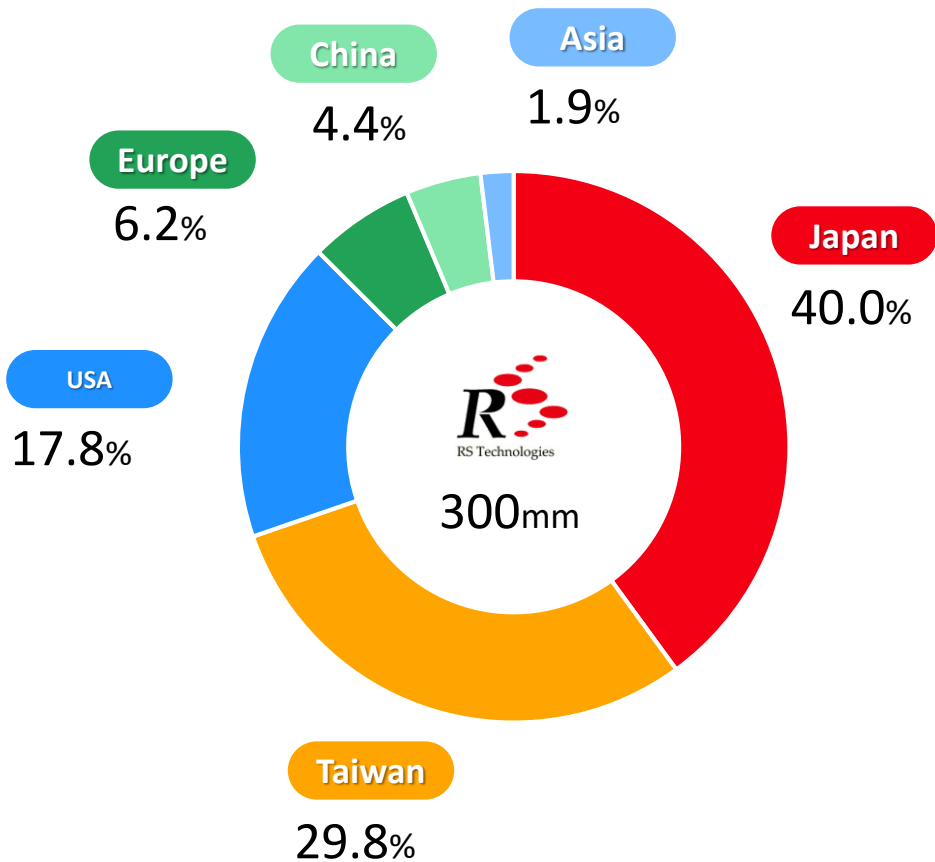
- Factory in Miyagi Prefecture (Sanbongi).
- Customers for 200mm are centered on devices for automobile systems, power semiconductors, etc., that are not affected by business conditions.
- Market share stands slightly less than 60% for European manufacturers, slightly less than 30% in USA, and slightly less than 20% in Japan and China.



Notes: Based on wafer numbers reported in a study conducted by RST (fiscal 2018)

# Efforts Being Made for Company Growth under Decentralized Customer Base in the Expanding Market

- RST has a decentralized customer base consisting of major global semiconductor manufacturers.
- Construction of new plants are being planned to meet semiconductor demand related to self-driving, and expansion of reclaimed wafer market is expected.
- Based on the decentralized customer base, RST intends to capture the expansion in the reclaimed wafer market by implementing capital investment for reclaimed wafer facilities, both in Japan and Taiwan, to increase production capacity for growth.



Note: Survey by RST (Wafers, FY 2018)

# New Demand in Reclaimed Wafer Business: Plans for new 300mm semiconductor plants

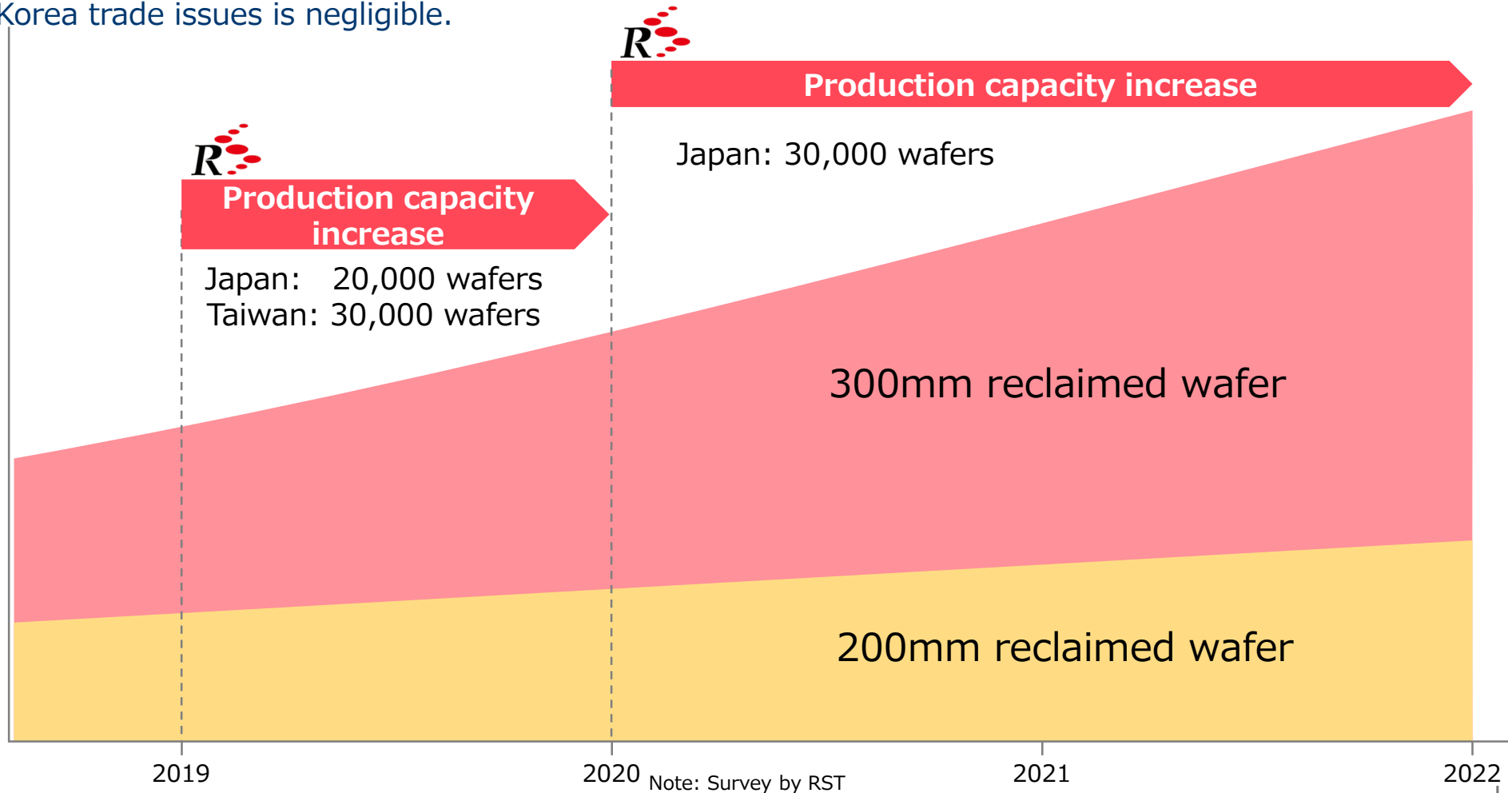
- Construction of new semiconductor plants are being planned to meet the robust demand for semiconductors in Europe, USA, Japan, etc., where the share of automobile digitization (EVs, self-driving, in addition to computerization of automobiles) is high.
- Meet new demand by new factories through capital investments in Japan and Taiwan.



Note: Survey by RST

# Reclaimed Wafer Demand Outlook: Expansion to continue focused on 300mm

- To meet the expanding reclaimed wafer demand, capacity enhancement of 50,000 wafers in Japan and 30,000 in Taiwan to be made by 2022.
- Additional capital investment to meet further increase in future demand to be continuously reviewed (in consideration of the transition in unit sales price).
- As reclaimed wafer market is distributed globally, the influence of US-China trade disputes and Japan-South Korea trade issues is negligible.



## 4. China's Rapidly Emerging Prime Wafer Market

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# China's Prime Wafer Market

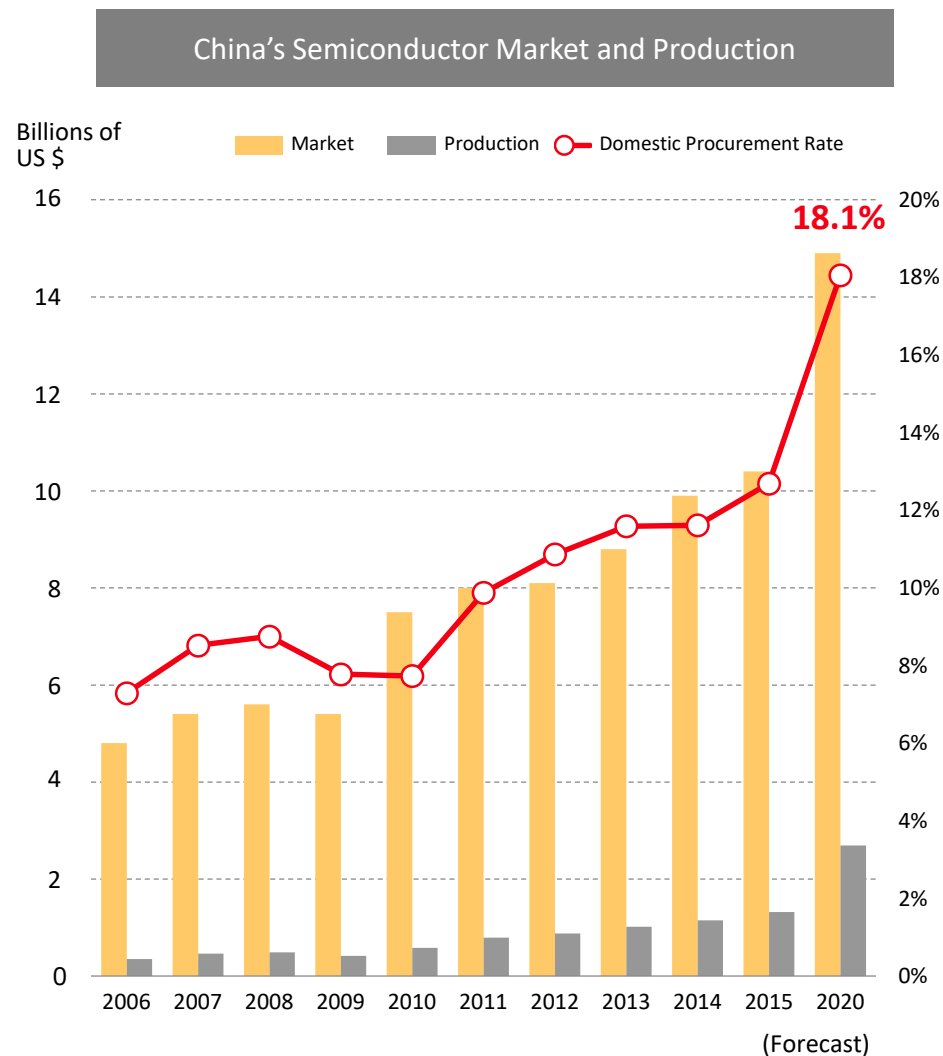
■ Rapid expansion of prime wafer market is expected owing to the policy to raise domestic production ratio.

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.**



Source: SEMI, August 2017 Issue, Report 1

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**

**Current circumstances:**  
**Issues concerning quality remain despite rapid enhancement of production capacity.**

# Regarding our Joint Venture Partner in China (Technical risk reduction)

- Through a joint venture with a Chinese state-owned company, a win-win relationship has been established by reduction of technical risk and compression of investment capital coupled with productivity increase achieved by technical support from RST.
  - Established in 1952, **GRINM is the largest state-owned research institute in China.**
  - Out of the roughly 13 million companies in China, about 300 thousand are state owned. Out of these, about 88 are directly owned by the central national government and GRINM is one of these.
  - GRINM is a research institute through which government, industry and science come together. Nonferrous metal policies of the central national government are transmitted through GRINM.
  - GRINM established operating companies that serve as evidence of its successful research. Currently, 34 of these companies exist.
  - GRITEK, a subsidiary of Beijing GRINM RS Semiconductor Materials Co., Ltd., an RST joint venture, was established as GRINM's first operating company in 2001.





# Establish Subsidiaries and Construct Factories through Partnership with the City of Dezhou in Shandong, China

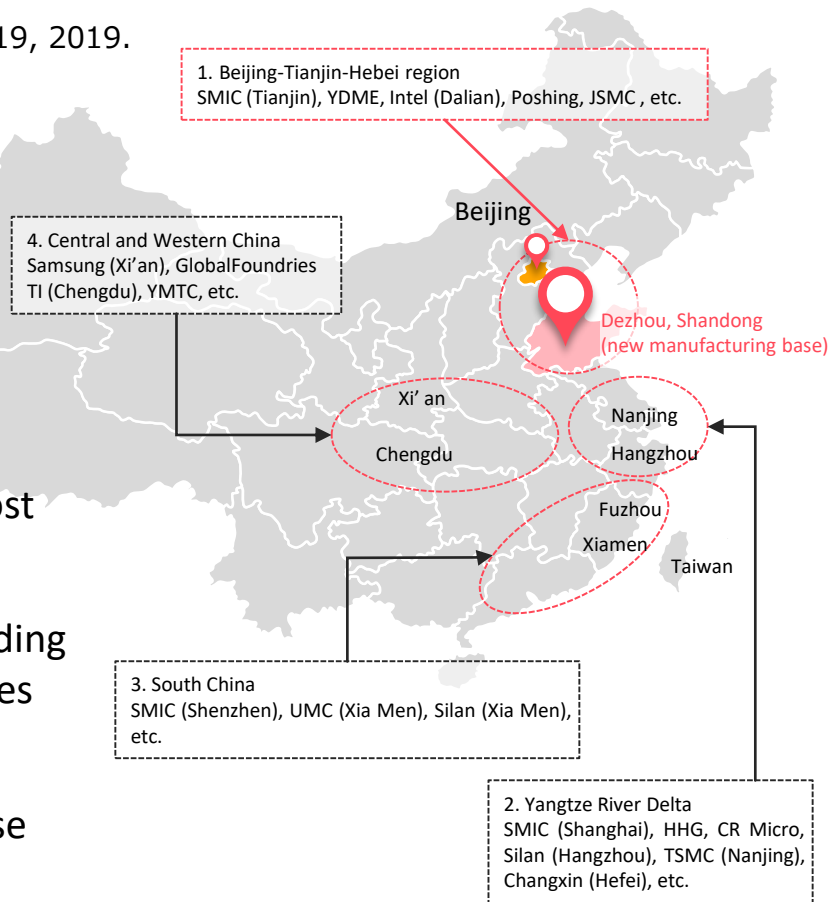
- Have achieved reduction of fund burden, as well as the risks unique to China, through the establishment of a partnership with the City of Dezhou, Shandong, China, and receiving their investment.

## History and current status

1. New company (SDGRITEK) established on August 23, 2018.
2. Ground-breaking ceremony for new factory in City of Dezhou held on March 19, 2019.
3. Buildings currently under construction. Scheduled for completion in 1Q 2020.

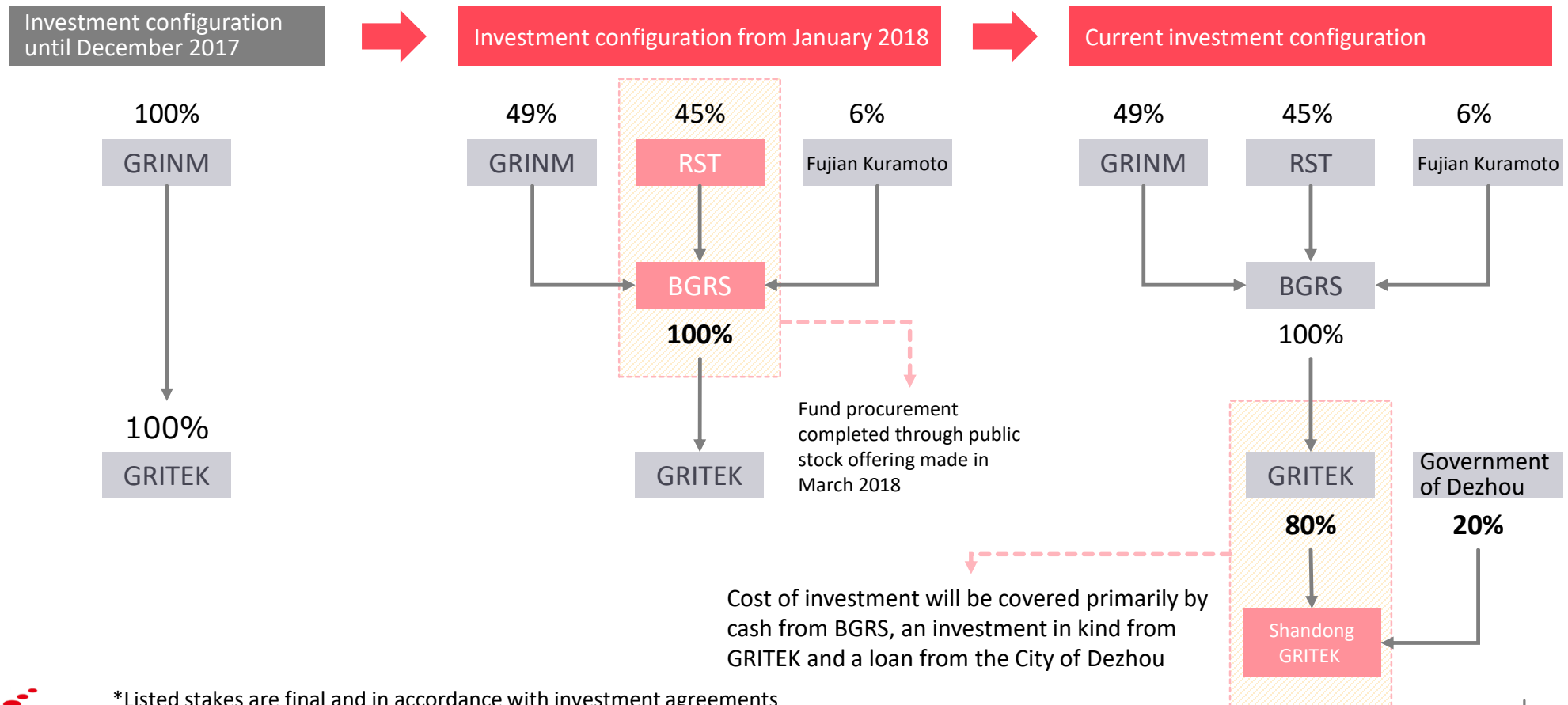
## Background of Partnership

1. Invitations for major semiconductor manufacturers to set up factories in the area are gaining momentum. Several semiconductor manufacturers are located nearby, making the area a prime location (see image on the right)
2. GRITEK will be able to offer plentiful benefits, including low-cost company housing and reduced utility expenses.
3. Science and engineering universities are located nearby, providing favorable circumstances for acquiring superior human resources
4. Land expandable to a maximum of about 500,000m<sup>2</sup> (initially 200,000m<sup>2</sup>) has been procured, allowing for adequate response to future business progress in China



# Investment Strategy: Receive Support from Chinese Government as a Domestic Capital Company

- RST has materially secured 51% holding of GRITEK through joint investment with Fujian Kuramoto (RST: 45% + Fujian Kuramoto: 6%). The right of management has been acquired by RST and has made GRITEK into a consolidated subsidiary.
- On the other hand, 55% holding by Chinese companies (GRINM: 49% + Fujian Kuramoto: 6%) has allowed GRITEK to be certified as a domestic capital company. This has enabled GRITEK to receive various incentives inside China, as well as reducing risks unique to China.
- Entry into China's prime wafer market where growth is expected has been achieved while suppressing the risk, enabling to establish a mechanism to capture the market growth into RST.



\*Listed stakes are final and in accordance with investment agreements

# 5. Impacts of Global Trade Disputes

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# Impact of Global Trade Disputes

- Global trade disputes are expected to continue for some time.

US-China Trade Dispute		Japan-South Korea Trade Issue
US Tariffs imposed on Chinese goods (Imports from China)	Retaliatory tariffs by China (Imports by China)	
<p><b>2018</b></p> <p>Jul. 1<sup>st</sup> Step US\$ 34 bil. (started) →</p> <p>Aug. 2<sup>nd</sup> Step US\$ 16 bil. (started) →</p> <p>Sep. 3<sup>rd</sup> Step US\$200 bil. (started) →</p>	<p>US\$ 34 bil. equiv.</p> <p>US\$ 16 bil. equiv.</p> <p>US\$ 60 bil. equiv.</p>	<p><b>Jun. 4, 2019</b></p> <p>Export procedures tightened for 3 items, such as high-purity hydrogen fluoride (etching gas) destined for South Korea.</p>
<p><b>2019</b></p> <p>May 4<sup>th</sup> Step US\$300 bil. (published)</p>		<p><b>Aug.</b></p> <p>South Korea excluded from “white country” who are granted with preferential export procedures.</p>
<p><b>Impact on other countries</b></p> <p>↓</p> <p>Decrease in China’s semiconductor production accompanying reduction in export.</p> <p>Production in neighboring countries other than China and growth in export to USA.</p>	<p><b>Impact on other countries</b></p> <p>↓</p> <p>Large impact on export market for Chinese communications equipment, etc.</p> <p>Impact on cutting-edge equipment exports to China.</p>	<p><b>Impact on other countries</b></p> <p>↓</p> <p>Impact on South Korea’s semiconductor production and high-tech equipment production.</p>

\* Entity List

# Impact of Global Trade Dispute on our Company

- Impact on our Company is either limited or positive.

## Impact on our Company

### US-China Trade Dispute



Our subsidiary in China is focused on customers inside China.



No change in China to manufacture prime wafers in-house.



Domestic production of semiconductors being accelerated.



Expansion in production in neighboring countries other than China.

### Japan-South Korea Trade Issue



South Korean share only consists about 2% of RST's sales.



Semiconductor order placement to South Korea shifting to manufacturing in Taiwan, etc., where RST enjoys a high share

## 6. Medium-Term Management Plan Progress Status

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# Summary of Medium-Term Management Plan (four years)

- Aim for a higher share as a reclaimed wafer manufacturer and begin full-scale expansion of the prime wafer business in China
- Further enhance production of reclaimed wafers, promote the establishment and relocation of prime wafer factories and make headway toward globalized quality and increased production capacity
- Aim for sales of ¥33.8 billion, operating income of ¥8.3 billion and net income of ¥4.7 billion in 2022

	FY12/18	FY12/19 Plans		FY12/20 Plans		FY12/21 Plans		FY12/22 Plans
	Results	Previous	New	Previous	New	Previous	New	New
Net sales	25,478	21,000	28,688	25,000	29,000	29,000	30,600	33,800
Operating income	5,751	3,600	5,971	4,800	6,100	6,300	6,600	8,300
Operating income ratio	22.6%	17.1%	20.8%	19.2%	21.0%	21.7%	21.6%	24.6%
Ordinary income	6,141	3,900	6,151	4,700	6,300	6,200	6,600	8,400
Ordinary income ratio	24.1%	18.6%	21.4%	18.8%	21.7%	21.3%	21.6%	24.9%
Net income attributable to owners of the parent	3,620	2,500	3,621	2,900	3,700	3,800	3,900	4,700
Net income per share (Yen)	294.80	195.00	282.72	226.00	288.89	296.00	304.50	366.97

- Projected net income per share is determined based on the number of outstanding shares as of end-FY12/18.
- Medium-term management plan (Previous) are figures published on March 6, 2018. Medium-term management plan (New) are figures published on March 6, 2019.

# Capital Investment Plan: Reclaimed Wafer Business

- Expand production capacity for 300mm through capital investment (Add 50,000 in 2019 and further 30,000 after 2020). Full capacity production expected to continue, supported by new construction of semiconductor factories in Europe, USA, Japan, and others.
- Further additional investment to be studied in the future, with eyes on the transition of reclaimed wafer unit prices.

## Japan

**Total investment: JPY 2.1 bil.**

- Expand production capacity for 300mm reclaimed wafers
- 2019: JPY 0.7 bil. (20,000 wafers)
- 2020 to 2021: JPY 1.4 bil. (30,000 wafers)

**300mm reclaimed wafer production capacity  
(wafers, monthly)**

2018 → 2019 → 2021  
**220k → 240k → 270k**

FY2019	FY2020	FY2021
JPY 0.7 bil.	JPY 0.7 bil.	JPY 0.7 bil.

## Taiwan

**Total investment: JPY 0.7 bil.**

- Expand production capacity for 300mm reclaimed wafers
- 2019: JPY 0.7 bil. (30,000 wafers)

**300mm reclaimed wafer production capacity  
(wafers, monthly)**

2018 → 2019 → 2021  
**120k → 150k → 150k**

FY2019	FY2020	FY2021
JPY 0.7 bil.	Undecided	Undecided



# Capital Investment Plan: Prime Wafer Business

- New prime wafer factory building under construction in City of Dezhou. Completion scheduled by 1Q 2020.
- Infrastructure upgrading and new production equipment installation to be made after completion of buildings. Then, existing factory equipment (Beijing) to be transferred in stages.

## China

**Total investment: JPY 16.0 bil.**

- Expand production capacity for 200mm prime wafers

### 1<sup>st</sup> Stage plan

**200mm prime wafer production capacity  
(wafers, monthly)**

2019 → 2021  
**70k → 220k**

Investment period: 2019 to 2020

Operation to commence in stages from Autumn, 2020.

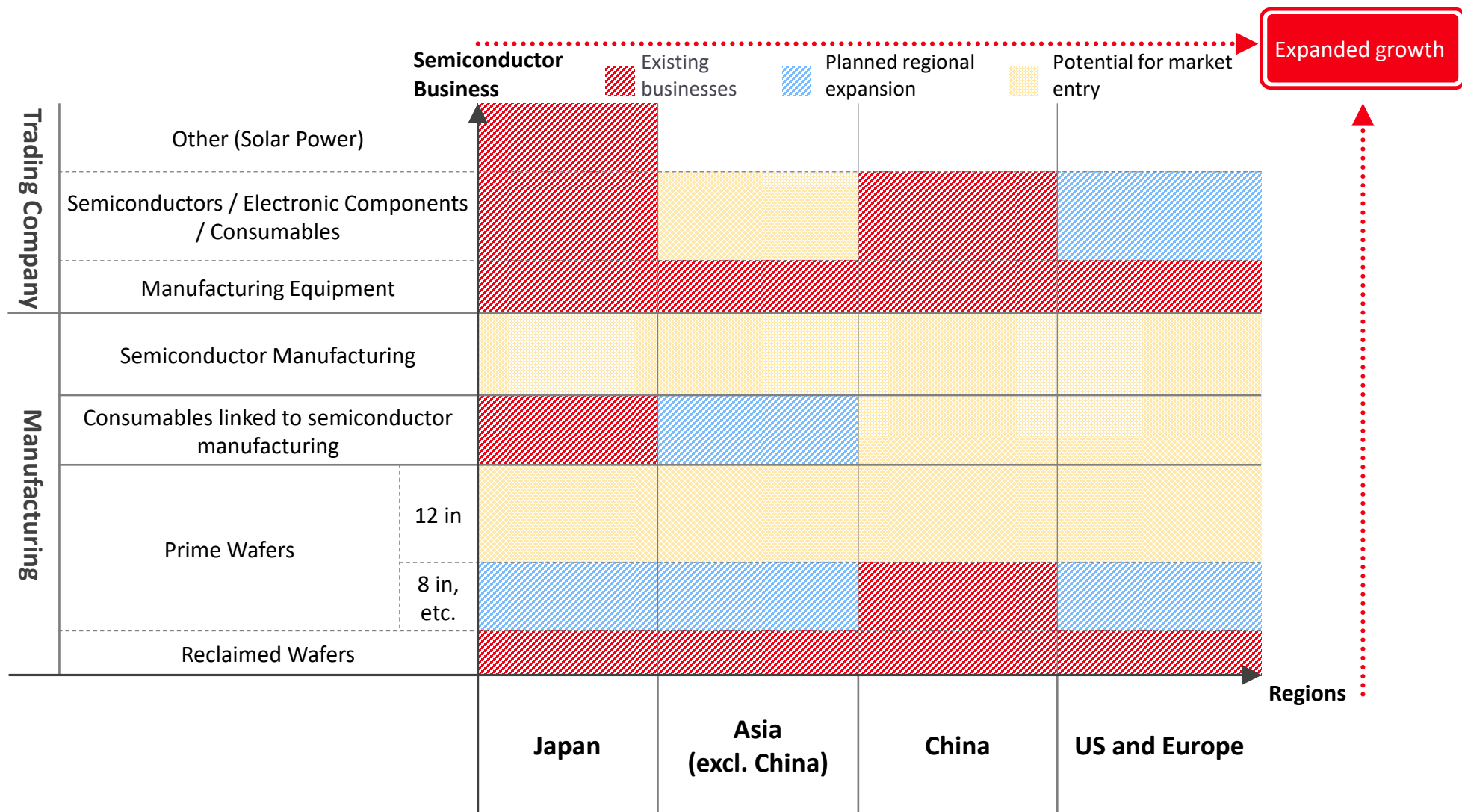
FY2019	FY2020	FY2021
JPY 16.0 bil.		Undecided

## New factory Construction and Transfer schedule



# RS Technologies' Aims

- Steady expansion of business domains and regions



# Appendix

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# Strengths of CEO Nagayoshi Ho

- President and CEO Nagayoshi Ho 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.



Nagayoshi Ho, center front (taken September 2016 at TSE)

## Nagayoshi Ho

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.

2010 Established and appointed president of RTS  
(current position)

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

### Supplementary information:

Nagayoshi Ho 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.

# Year-by-Year Results

(Millions of Yen)	FY12/13	FY12/14	FY12/15	FY12/16	FY12/17	FY12/18
Net sales	3,475	4,566	5,285	8,864	10,932	25,478
Gross profit	1,173	1,820	1,852	2,544	4,252	8,366
Selling, general and administrative expenses	471	654	791	958	1,269	2,615
Operating income	703	1,166	1,061	1,585	2,982	5,751
Ordinary income	819	1,247	770	1,444	3,159	6,141
Net income	525	664	143	861	2,113	3,620
Dividend (Yen)	—	—	—	10	5	10
Capital investment	338	3,503	4,665	209	95	1,330
Depreciation	87	103	326	682	714	1,298
Research and development expenses	1	6	11	85	183	501
Number of employees (Regular employees)	152	191	265	373	434	1,159

\*Financial figures for FY12/15, FY12/16 and FY12/17 are revised figures released on March 5, 2019.

# Principal Financial Statements

(Millions of Yen)	FY12/13	FY12/14	FY12/15	FY12/16	FY12/17	FY12/18
<b>Assets</b>						
Current Assets	1,811	2,759	3,732	5,348	7,388	26,208
Cash and cash equivalent	397	1,190	1,842	1,952	3,243	14,879
Notes and accounts receivable - trade	681	696	795	2,531	2,916	6,958
Merchandise and finished goods	396	376	361	348	446	1,344
Non-current assets	508	4,064	5,845	5,333	4,843	10,510
Property, plant and equipment	461	3,918	5,667	5,152	4,674	8,964
Intangible assets	19	15	29	23	19	1,100
Investments and other assets	27	130	148	158	149	447
<b>Total Assets</b>	<b>2,320</b>	<b>6,823</b>	<b>9,577</b>	<b>10,682</b>	<b>12,231</b>	<b>36,719</b>
<b>Liabilities</b>						
Current liabilities	960	2,292	2,295	2,993	3,370	4,979
Notes and accounts payable - trade	138	151	186	283	398	1,554
Interest-bearing debt	136	827	1,216	1,538	1,276	976
Non-current liabilities	709	2,934	4,798	4,317	3,335	2,602
Long-term loans payable	615	2,925	4,079	3,620	2,767	1,849
<b>Total Liabilities</b>	<b>1,670</b>	<b>5,227</b>	<b>7,093</b>	<b>7,310</b>	<b>6,705</b>	<b>7,581</b>
<b>Net assets</b>						
Net assets	649	1,596	2,483	3,371	5,526	29,138
<b>Total Liabilities and Net Assets</b>	<b>2,320</b>	<b>6,823</b>	<b>9,577</b>	<b>10,682</b>	<b>12,231</b>	<b>36,719</b>

\*Financial figures for FY12/15, FY12/16 and FY12/17 are revised figures released on March 5, 2019.

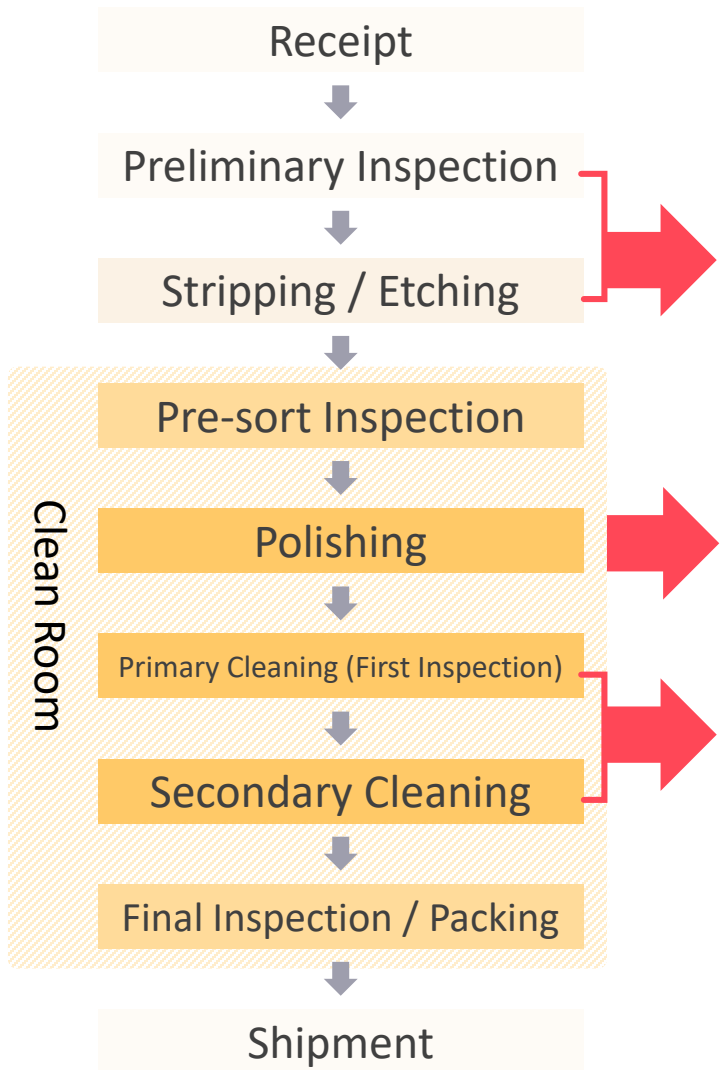
\*FY12/13 figures are non-consolidated

# Performance by Segment

(Millions of Yen)	FY12/13	FY12/14	FY12/15	FY12/16	FY12/17	FY12/18
<b>Net sales</b>						
Wafer Business	3,347	4,414	5,107	7,144	9,487	10,973
Prime wafer manufacturing and sales business	—	—	—	—	—	11,918
Purchases and Sales of Semiconductor Equipment Business	—	—	—	1,654	1,393	2,918
Other, adjustments	127	151	178	66	52	(331)
<b>Segment profit</b>						
Wafer Business	916	1,444	1,377	1,765	3,396	4,012
Prime wafer manufacturing and sales business	—	—	—	—	—	2,049
Purchases and Sales of Semiconductor Equipment Business	—	—	—	230	130	366
Other, adjustments	(214)	(278)	(316)	(409)	(543)	(675)
<b>Segment assets</b>						
Wafer Business	1,337	5,040	6,987	5,657	8,120	9,150
Prime wafer manufacturing and sales business	—	—	—	—	—	21,313
Purchases and Sales of Semiconductor Equipment Business	—	—	—	1,137	1,305	1,939
Other, adjustments	982	1,783	2,589	3,887	2,805	4,315

\*Financial figures for FY12/15, FY12/16 and FY12/17 are revised figures released on March 5, 2019.

# 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)

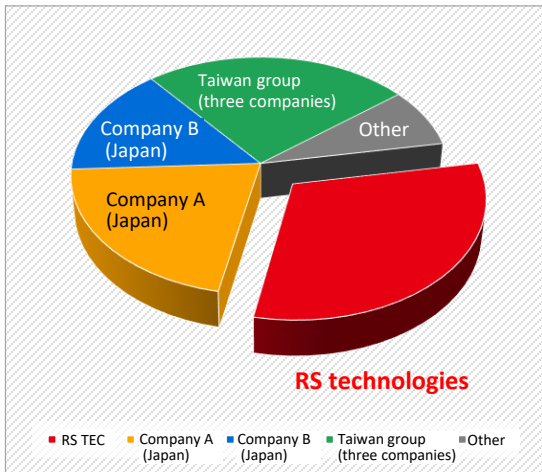




# Reclaimed Wafer Business (2)

## 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%.

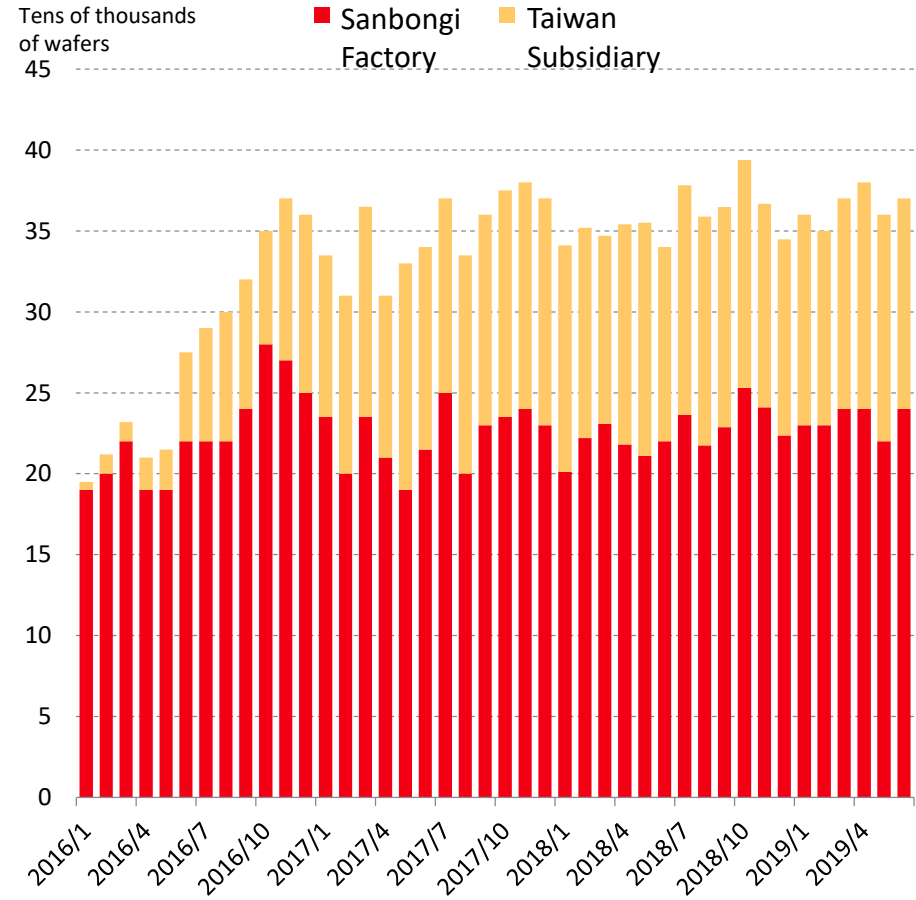
We will further enhance production capacity at both plants by using empty factories at Sanbongi, and utilizing business partnerships, M&A, and other means.

Aim to expand share to 40%

	FY12/15 1H	FY12/15 2H	FY12/16	FY12/17	FY12/18
RST Group Production Capacity	180,000 wafers	240,000 wafers	280,000 wafers	300,000 wafers	340,000 wafers
RST Group Market Share	19%	24%	29%	30%	31%

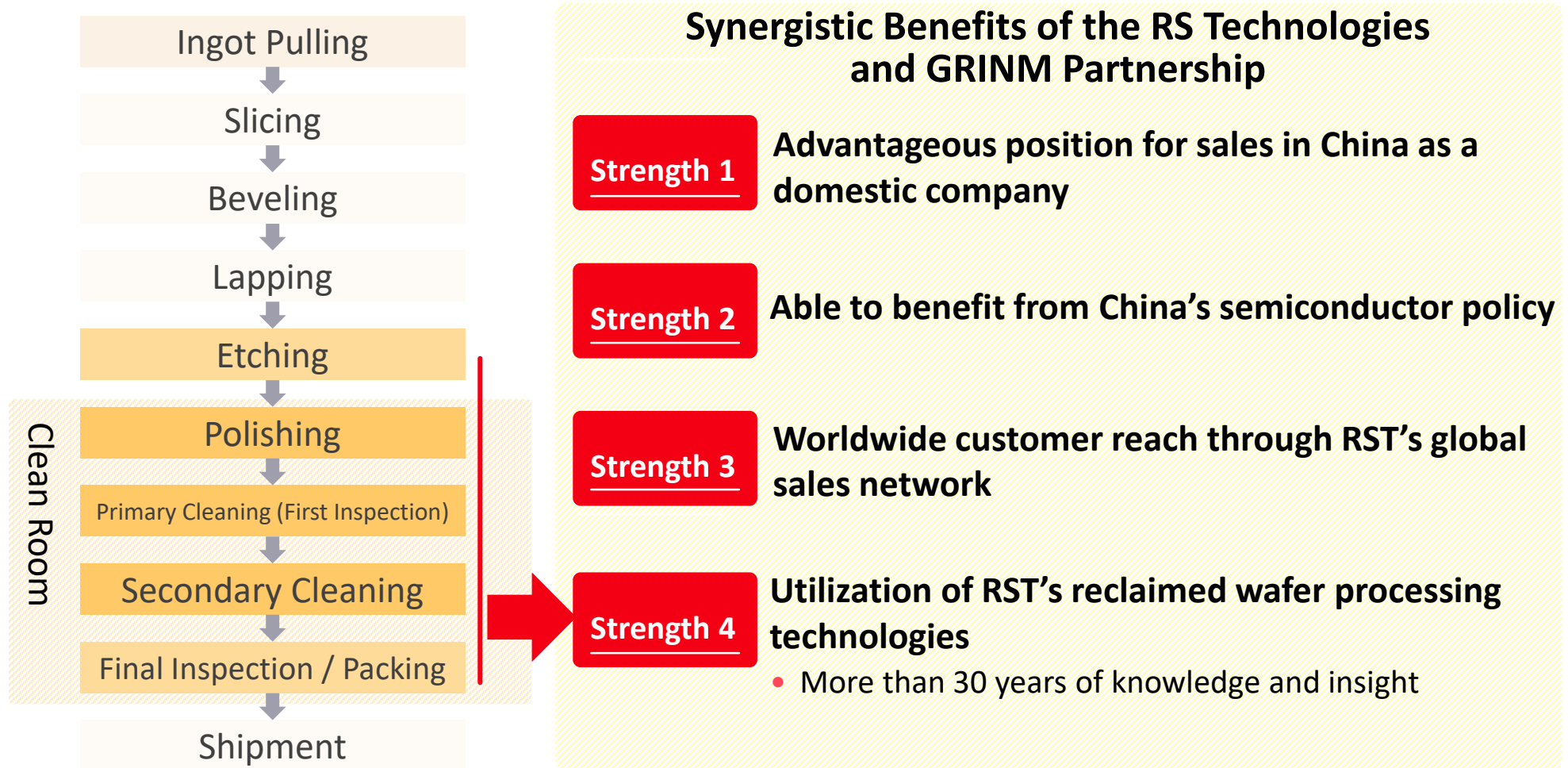
## Shipments from the Sanbongi Factory and Taiwan Subsidiary (2016-2018)

### 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.



# Forward-looking Statements

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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.