

# Financial Results for FY 2011 1H

-From April 1, to September 30, 2011 –

Nov 10th, 2011



## Contents

**I . Consolidated Financial Results FY 2011 1H**  
**- From April 1, to September 30, 2011 -**

**II . Forecasts for FY2011**  
**- From April 1, 2011 to March 31, 2012 -**

**III . Business Environment, Challenges and  
Actions for Futures**

# Consolidated Results

(Billions of JPY)

	FY 2010 ('10/4-'10/9)	FY 2011 ('11/4-'11/9)	Changes
<b>Net Sales</b>	12.8	17.2	4.4
<b>Operating Income</b>	△2.5	△0.5	2.0
<b>Ordinary Income</b>	△3.0	△1.0	2.0
<b>Net Income</b>	△3.3	△0.3	3.0

# Sales and Operating Incomes by Segment

(Billions of JPY)

<b>Net Sales</b>	<b>FY 2010 ( '10/4-'10/9)</b>	<b>FY 2011 ( '11/4-'11/9)</b>	<b>Changes</b>
<b>Titanium Metal</b>	8.4	13.1	4.7
<b>Catalysts and Chemicals</b>	4.4	4.1	△0.3
<b>Total</b>	12.8	17.2	4.4
<b>Operating Income</b>	<b>FY 2010 ( '10/4-'10/9)</b>	<b>FY 2011 ( '11/4-'11/9)</b>	<b>Changes</b>
<b>Titanium Metal</b>	△2.6	0.2	2.8
<b>Catalysts and Chemicals</b>	0.8	0.5	△0.3
<b>Others</b>	△0.7	△1.2	△0.4
<b>Total</b>	△2.5	△0.5	2.0

## Contents

**I . Consolidated Financial Results FY 2011 1H**  
**-From April 1, to September 30,2011-**

**II . Forecasts for FY2011**  
**- From April 1, 2011 to March 31, 2012 -**

**III . Business Environment, Challenges**  
**and Actions for Futures**

## Forecasts for FY11 ; Consolidated Operating Income

(Billions of JPY)

	FY 2010	FY 2011	Changes
<b>Net Sales</b>	28.1	37.6	9.5
<b>Operating Income</b>	△4.5	△0.1	4.4
<b>Ordinary Income</b>	△5.4	△0.8	4.6
<b>Net Income</b>	△5.5	△0.3	5.2

# Forecast for FY11 ; Sales and Operating Incomes by Segment

(Billions of JPY)

Net Sales	FY 2010	FY 2011		Changes
		1H	Full Year	
Titanium Metals	19.8	13.1	28.5	8.7
Catalysts and Chemicals	8.4	4.1	9.1	0.7
<b>Total</b>	<b>28.2</b>	<b>17.2</b>	<b>37.6</b>	<b>9.4</b>

Operating Income	FY 2010	FY 2011		Changes
		1H	Full Year	
Titanium Metals	△4.0	0.2	0.9	4.9
Catalysts and Chemicals	1.4	0.5	1.4	0
Others	△1.8	△1.2	△2.4	△0.6
<b>Total</b>	<b>△4.4</b>	<b>△0.5</b>	<b>△0.1</b>	<b>4.3</b>

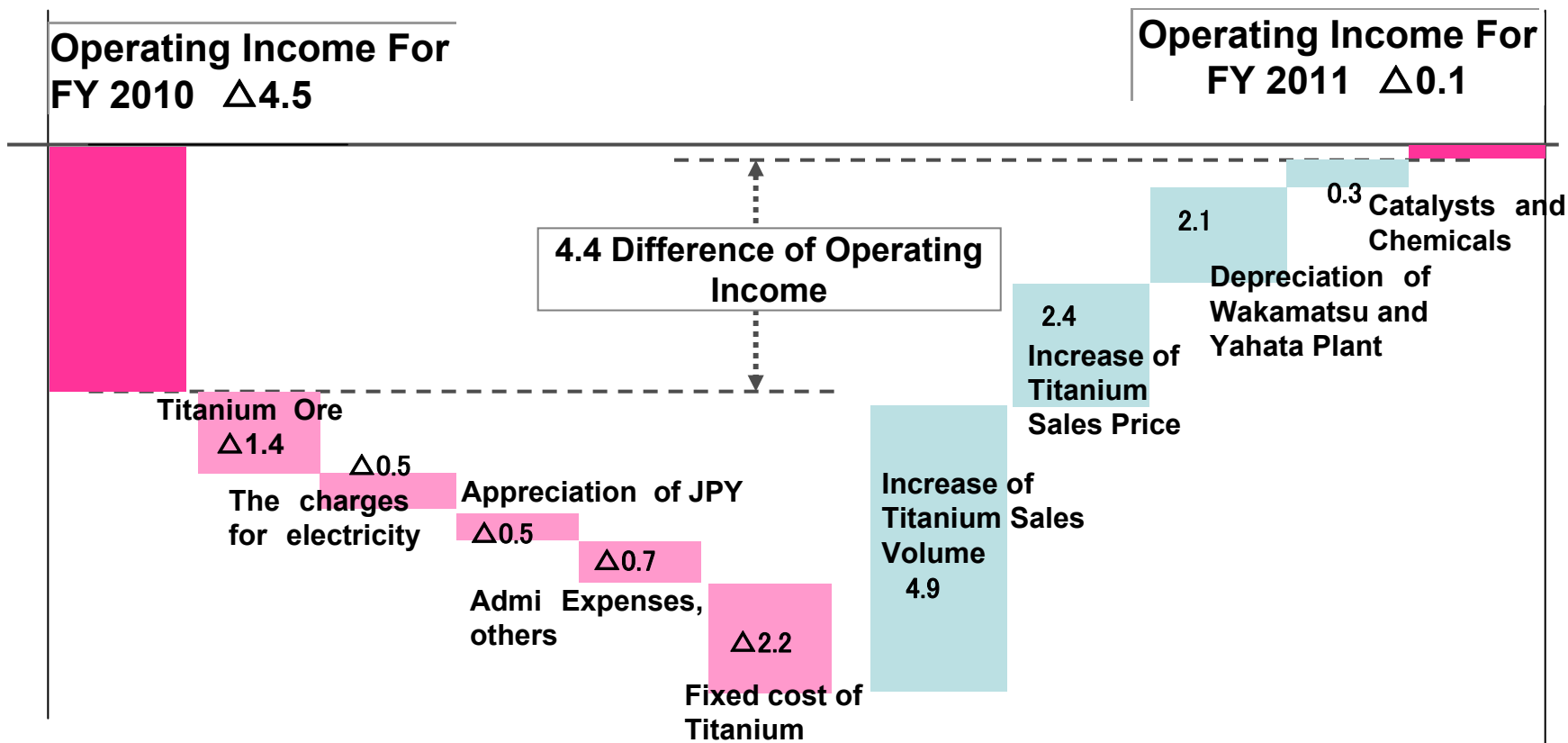
## Forecast for FY11 ; Titanium Production and Sales

(ton)

	FY 2009	FY 2010	FY 2011		Changes
			1H	Full Year	
<b>Sponge Production</b>	7,700	14,800	10,600	23,200	8,400
<b>Sponge Sales</b>	4,100	8,600	5,300	12,100	3,500
<i>for Mill Products</i>	<i>2,600</i>	<i>6,000</i>	<i>3,800</i>	<i>8,500</i>	<i>2,500</i>
<i>for Steel Additives</i>	<i>1,500</i>	<i>2,600</i>	<i>1,500</i>	<i>3,600</i>	<i>1,000</i>
<b>Ingot Sales</b>	3,700	7,800	5,600	11,700	3,900
<b>Sponge + Ingot Sales</b>	7,800	16,400	10,900	23,800	7,400

# Consolidated Current Operation Income Positive / Negative Factors

(Billions of JPY)



## Consolidated Balance Sheets

(Billions of JPY)

	at the end of Mar. 2011	at the end of Mar. 2012	Change	Details
<b>(Assets)</b>				
<b>Current Assets</b>	21.2	27.3	6.1	Accounts receivable 2.1 Inventories 3.7
<b>Fixed Assets</b>	67.3	70.8	3.5	Depreciable assets 2.1 Lease receivables 1.1
<b>Total Assets</b>	88.5	98.1	9.6	
<b>(Liabilities)</b>				
<b>Debt</b>	47.6	53.9	6.3	Short Term 10 Long Term $\Delta$ 3.6
<b>Other Liabilities</b>	11.8	15.7	3.9	Accounts payable-trade Accrued expenses 2.5 Lease obligations 1.2
<b>(Net Assets)</b>	29.1	28.5	$\Delta$ 0.6	Net income $\Delta$ 0.3 Dividend $\Delta$ 0.3
<b>Total Liabilities and Net Assets</b>	88.5	98.1	9.6	

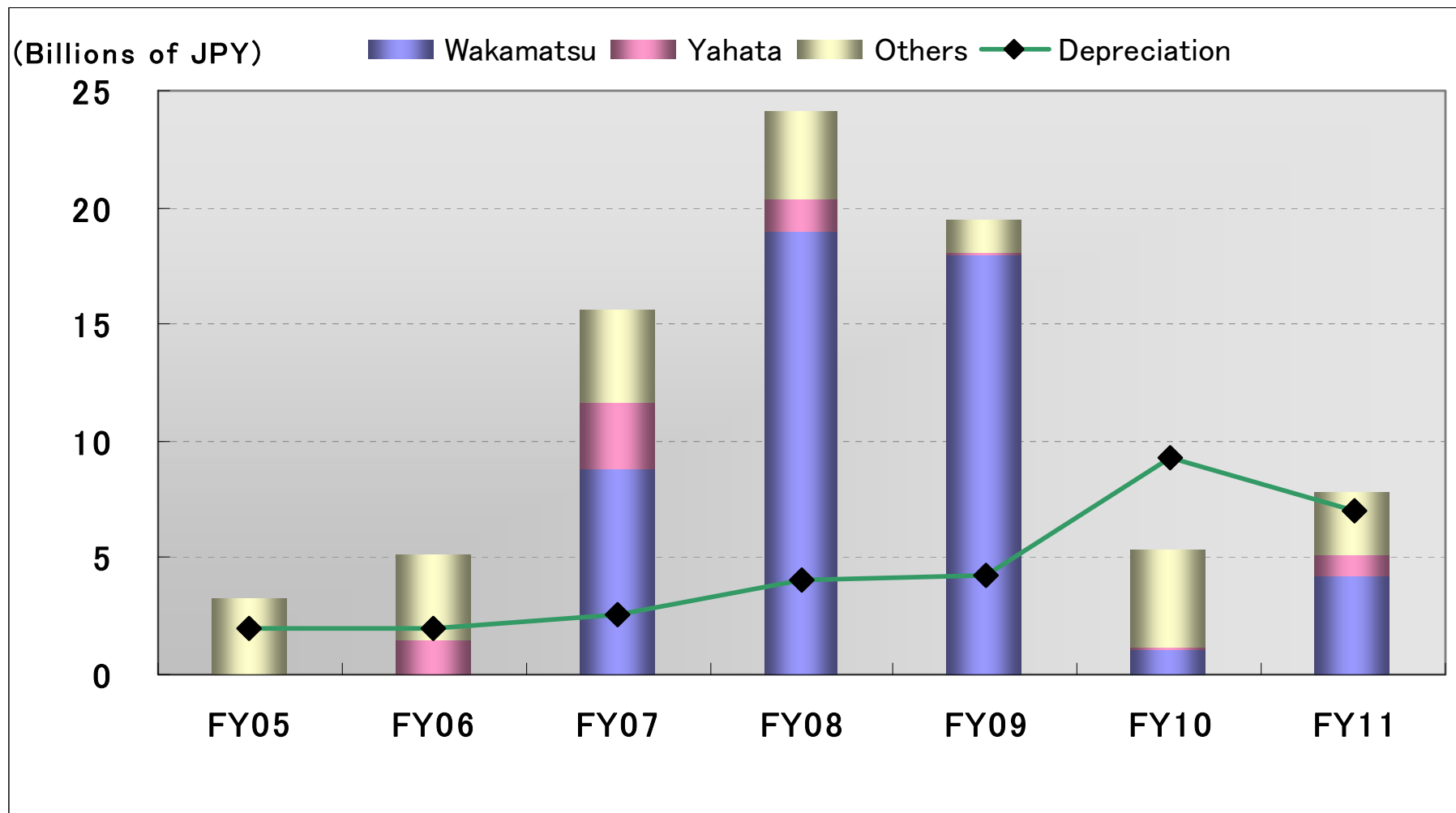
# Cash Flows

(Billions of JPY)

	FY 2010	FY 2011	Change	Details
<b>Profits Before Income Taxes</b>	△5.1	△0.3	4.8	
<b>Depreciation</b>	9.3	7.0	△2.3	Wakamatsu·Yahata△2.8
<b>Others</b>	0.1	△2.9	△3.0	Current assets, Increase (decrease) in other liabilities
<b>From Operating Activities</b>	4.3	3.8	△0.5	
<b>Acquisition of Properties and Equipments</b>	△5.2	△7.8	△2.6	Wakamatsu△2.3
<b>Others</b>	△0.4	△0.3	0.1	
<b>From Investing Activities</b>	△5.6	△8.1	△2.5	
<b>Increase/Decrease Debt</b>	△1.3	6.4	7.7	Short Term 10.5 Long Term△2.8
<b>Payment of Dividends</b>	△0.3	△0.3	—	
<b>Others</b>	2.4	△1.5	△3.9	Seale and leaseback △3.5
<b>From Financing Activities</b>	0.8	4.6	3.8	
<b>Balance</b>	△0.5	0.3	0.8	

11

# Forecast for FY2011 ; Investment and Depreciation in Facilities and Equipment



## Contents

**I . Consolidated Financial Results FY 2011 1H**  
**-From April 1, to September 30, 2011-**

**II . Forecasts for FY 2011**  
**- -From April 1, 2011 to March 31, 2012-**

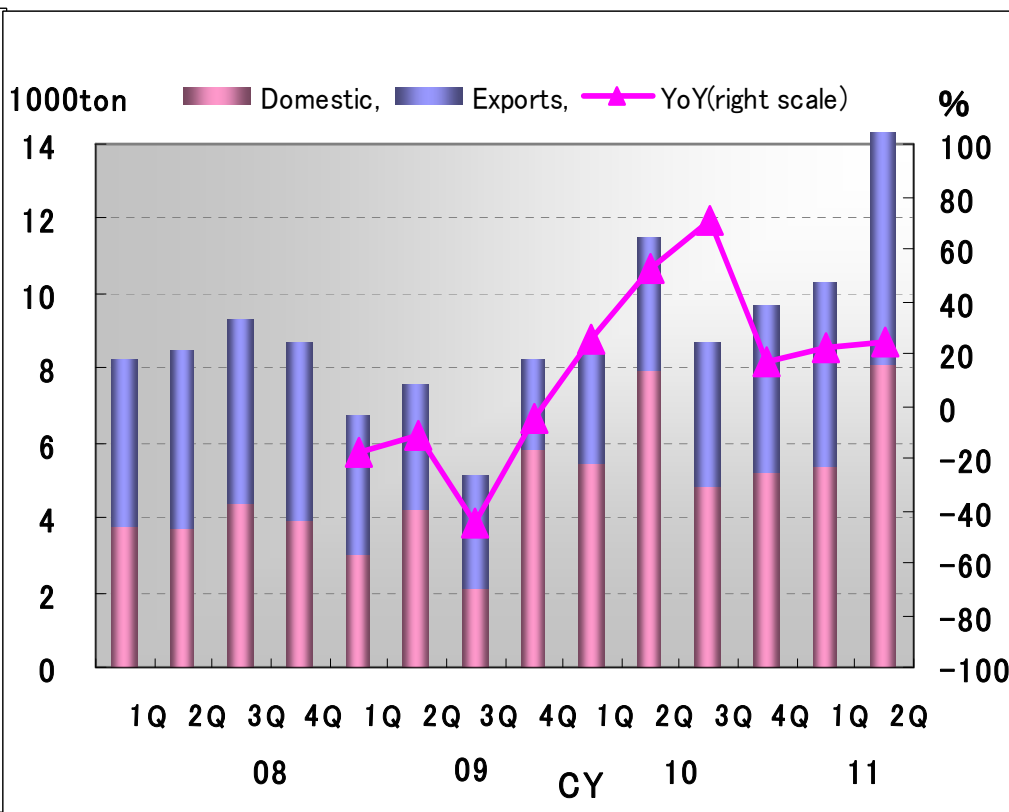
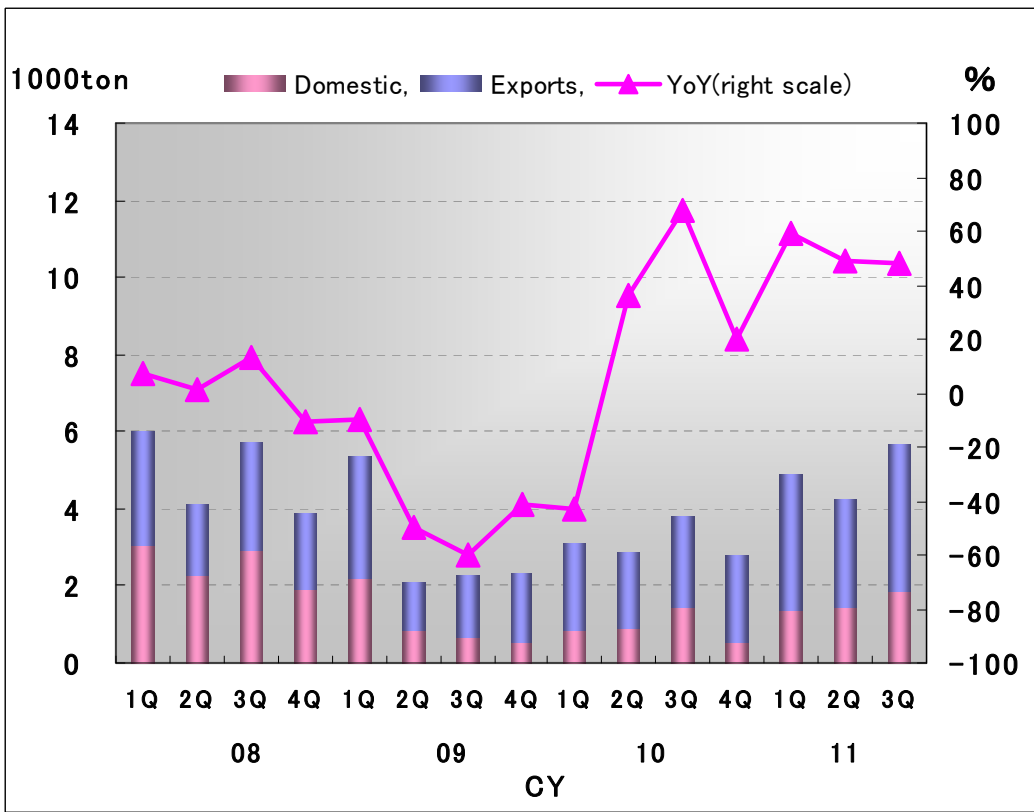
**III . Business Environment, Challenges and  
Actions for Futures**

# Titanium Metal Business Environment

## “Recovery of Titanium markets”

Japan’s mill products shipment

US shipment of mill products

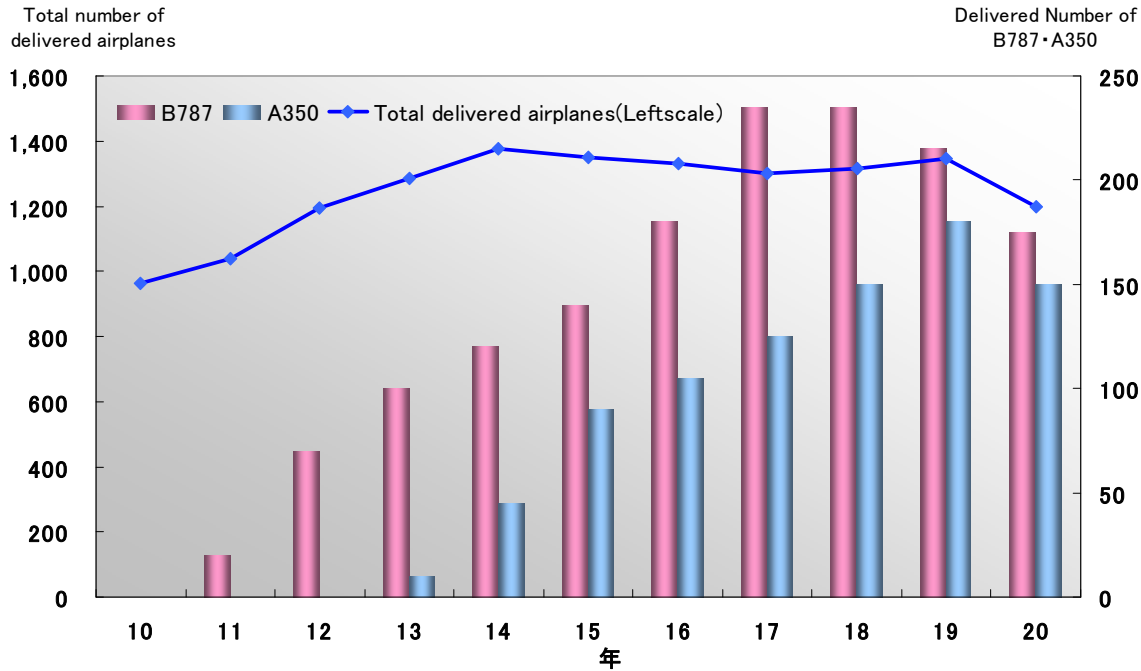


Source: Japan Titanium Society

Source: U.S. Geological Survey

# Delivery of Commercial Aircraft (Estimate)

*“B787 delivery started and its production ramps up”*



Source: Airline Monitor as of Jul, 2011



- ◆ Delivery of B787 No. 1 to ANA was completed on September 25<sup>th</sup>
- ◆ First commercial flights began in October
- ◆ JAL to receive first aircraft in November

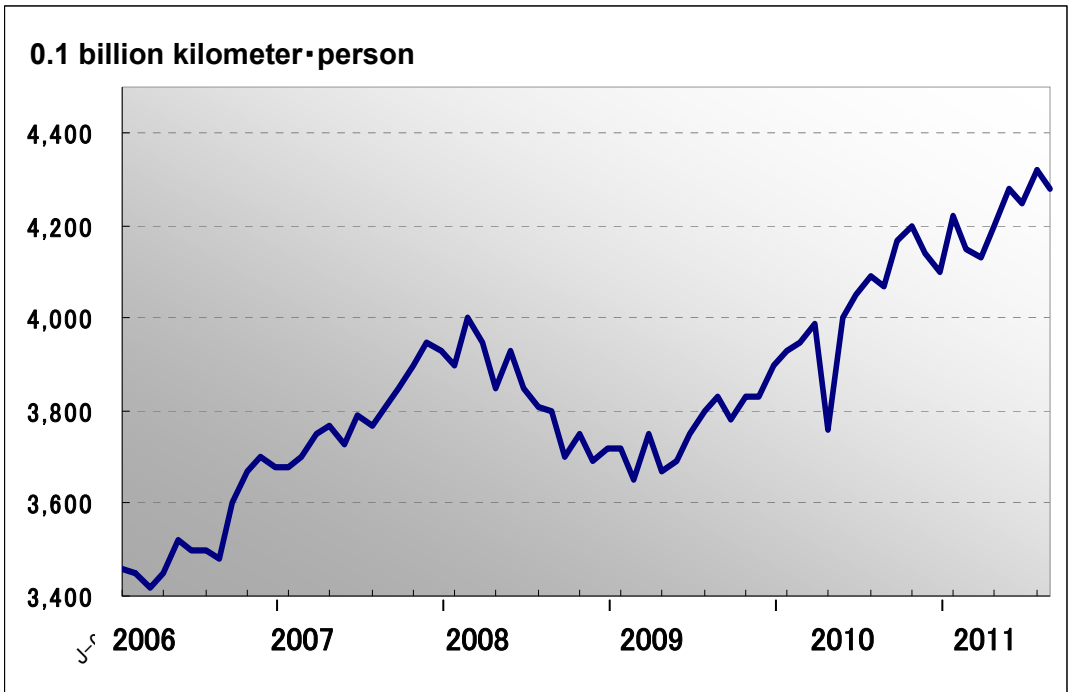
# Amount of Titanium used by Aircraft Model and Backlog

*“Airplane backlog is about 7 years”*

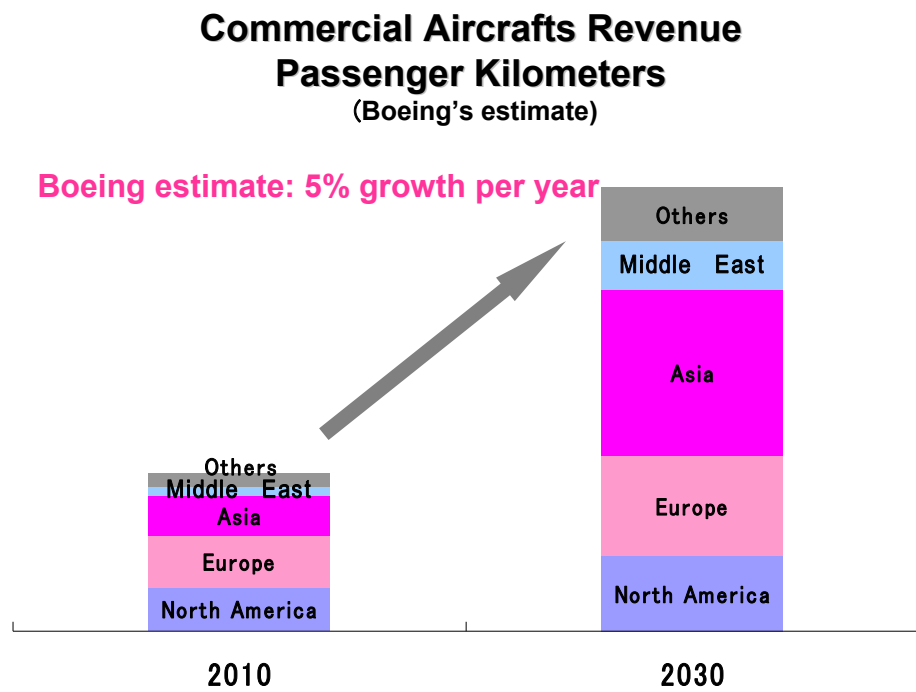
Model	Commercial Aircraft Backlog	Buy Weight (t)
	(as of September, 2011) (Source: Japan Aircraft Development Association)	(Estimated by Toho Titanium)
<b>B737</b>	<b>2,212</b>	<b>20</b>
<b>B747-8</b>	<b>111</b>	<b>76</b>
<b>B767</b>	<b>50</b>	<b>19</b>
<b>B777</b>	<b>325</b>	<b>64</b>
<b>B787</b>	<b>816</b>	<b>136→105</b>
<b>Boeing Total</b>	<b>3,514</b>	
<b>A318</b>	<b>7</b>	<b>14</b>
<b>A319</b>	<b>211</b>	<b>14</b>
<b>A320</b>	<b>2,490</b>	<b>12</b>
<b>A321</b>	<b>395</b>	<b>12</b>
<b>A330</b>	<b>366</b>	<b>20</b>
<b>A340</b>	<b>4</b>	<b>36</b>
<b>A350</b>	<b>567</b>	<b>102</b>
<b>A380</b>	<b>180</b>	<b>118</b>
<b>Airbus Total</b>	<b>4,220</b>	
<b>Total</b>	<b>7,734</b>	

# Commercial Aircrafts Revenue Passenger Kilometers

*The number of aircraft passenger continues to increase steadily, and is expected to grow 3 times over the next 20 years*

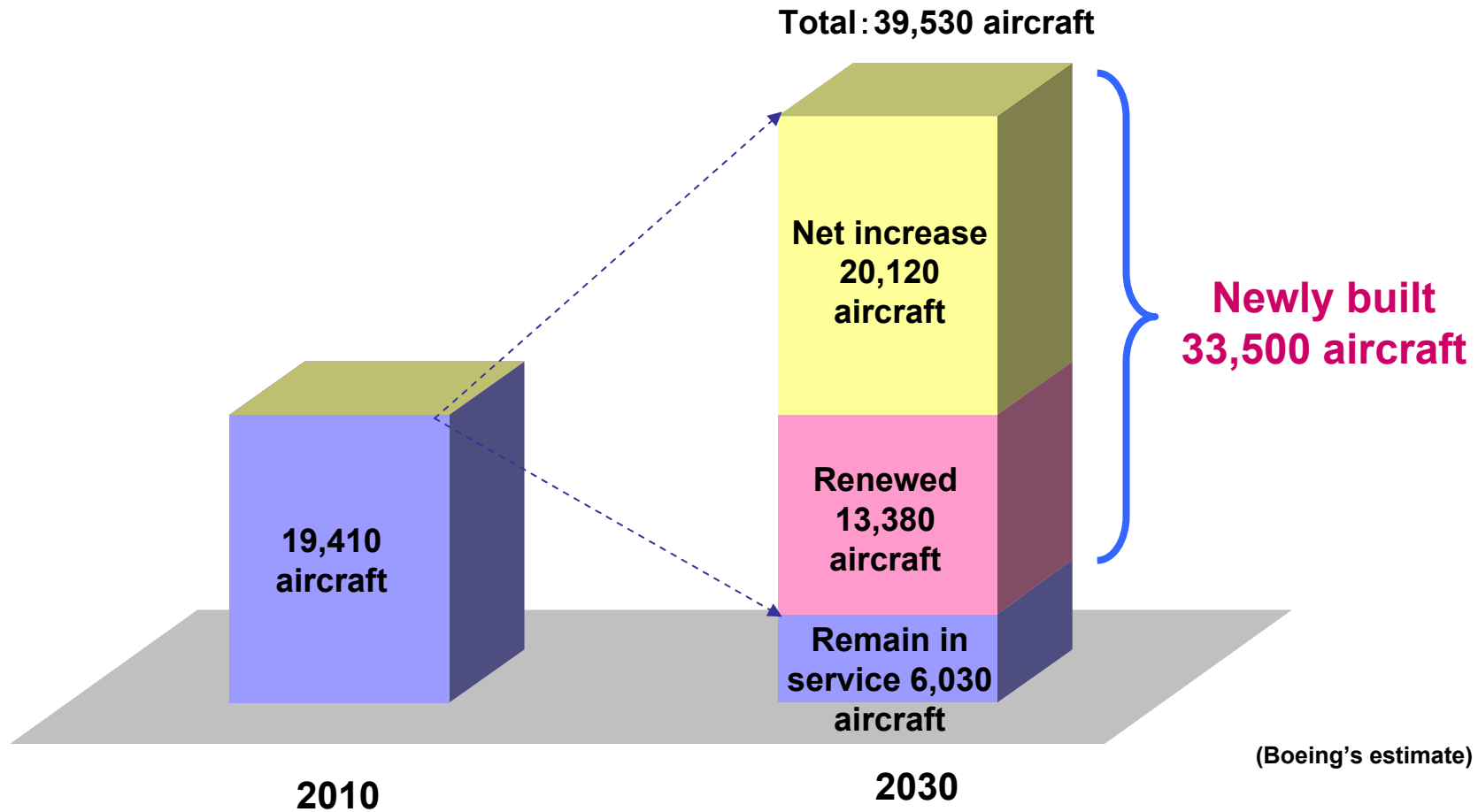


Seasonally Adjusted Data Source: IATA



# Growth Forecast for the number of aircraft

*The number of aircraft is expected to double over the next 20 years*



# Plans for Seawater Desalination

*“Huge increase of titanium usage for large-scale desalination plants in MiddleEast ”*

Country	Project	Desalination capacity/Method *
Saudi Arabia	Ras Al Zour Titanium tube requirement :6,200MT	1,020km <sup>3</sup> per day MSF/RO
Saudi Arabia	Yanbu 3 Titanium tube requirement :5,500MT	550km <sup>3</sup> per day MED/MSF
Qatar	Ras Abu Fontas 2	410km <sup>3</sup> per day MSF
UAE	Taweelah-C (Abu Dhabi)	450km <sup>3</sup> per day MED/MSF
Kuwait	Al Zour North ( Phase 1)	460km <sup>3</sup> per day (1,270 km <sup>3</sup> per day on Phase 1 to 4)



Shift from conventional cupronickel (CuNi) tubes to titanium tubes

- ◆ Relative cost superiority of titanium
- ◆ High corrosion resistance of titanium

\* Method

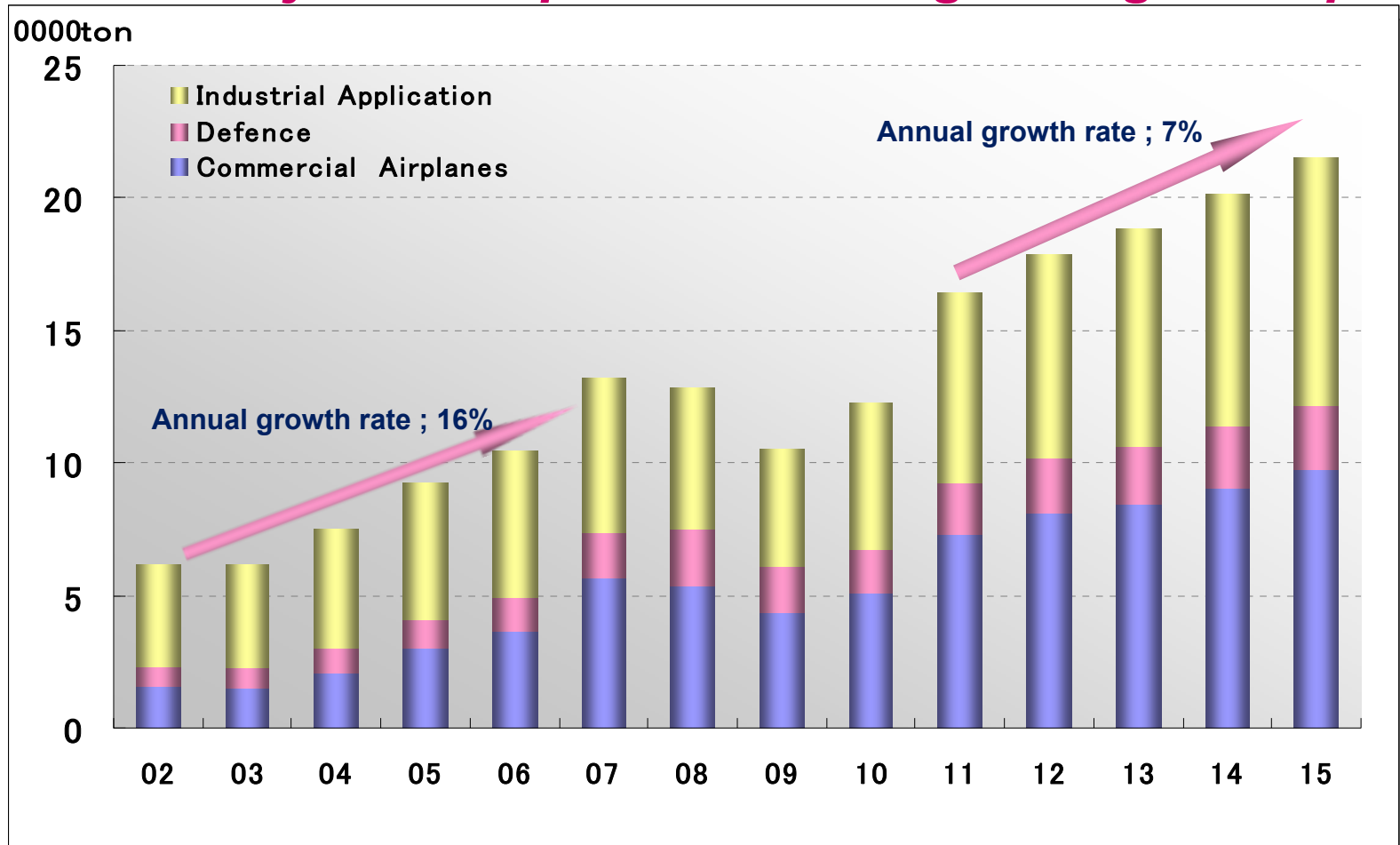
MSF : Multi Stage Flash Distillation

MED : Multi-Effect Desalination

RO : Reverse Osmosis Desalination

# Titanium Sponge Demand for mill products

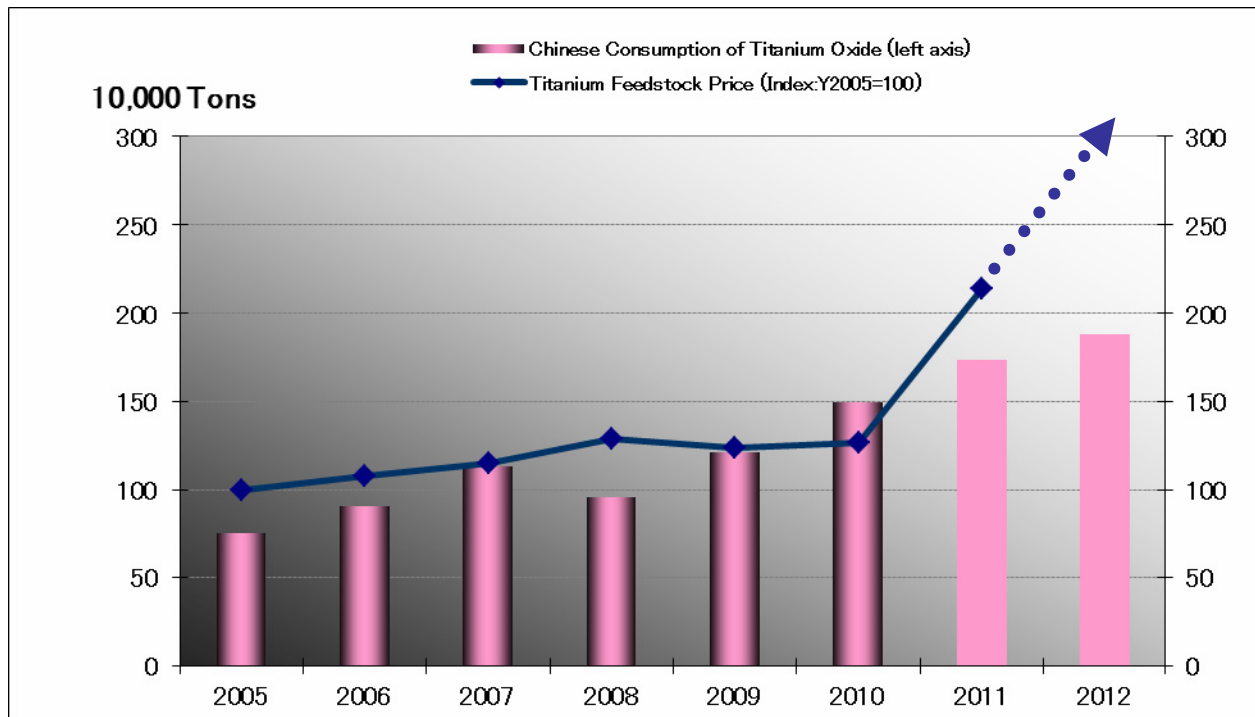
*“From Adjustment period to a long term growth period”*



Estimated by Toho Titanium

# Titanium Ore

**Raw materials crunch and rising prices caused by rapidly increasing consumption of titanium oxide in China**



Estimation by Toho Titanium

- ◆ Decrease the number of mining companies
- ◆ Delays in new mine development
- ◆ Rapid increase in demand for titanium oxide in China
- ◆ Consolidation of the world's titanium oxide manufacturers and mines
- ◆ Shortages of high-quality raw materials



**Our challenge is to secure titanium feedstocks on a long term basis.**

# Expansion of titanium production capacity

## Capacity expansion of Wakamatsu plant by 30 %

Capacity expansion of Wakamatsu plant  
(1,000 t / month to 1,300 t / month)

- ◆ Feb. to Mar. 2012: Test operations (hot run)
- ◆ Apr. 2012: Start of full-scale operations

Production capacity for sponge titanium (ton/year)

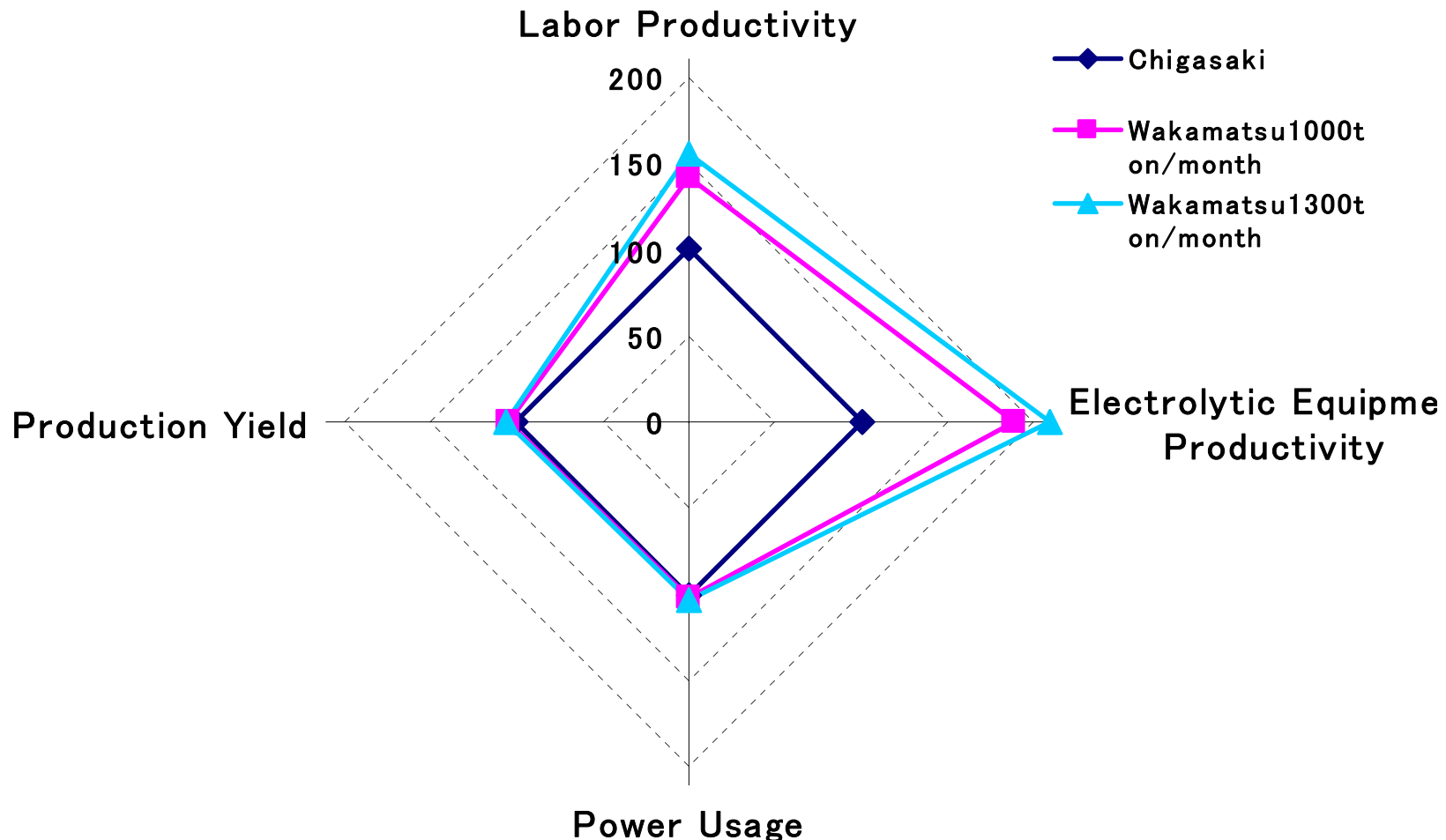
	Chigasaki	Wakamatsu	Total
FY 09	14,400		14,400
FY10 1 <sup>st</sup> Half	14,400	12,000	26,400
FY10 2 <sup>st</sup> Half	13,800	12,000	25,800
FY11 1 <sup>st</sup> Half	13,200	12,000	25,200
FY11 2 <sup>st</sup> Half	13,200	12,000	28,800

*Chigasaki ; dismantled* old facilities by the end of 2010

# Challenges and Action in Titanium Sponge

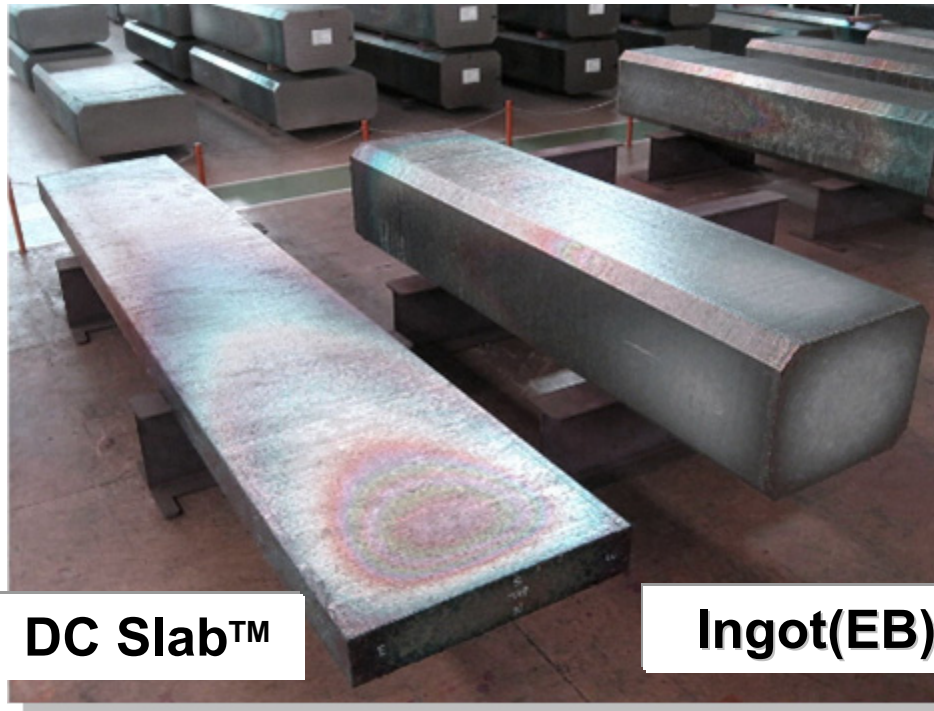
## *“Improvement of productivity in Titanium Sponge*

The productivity index of Wakamatsu plant where Chigasaki (BM 1200 ton/month in FY07) is 100



# Direct-cast Titanium Slab Mass-production Technology

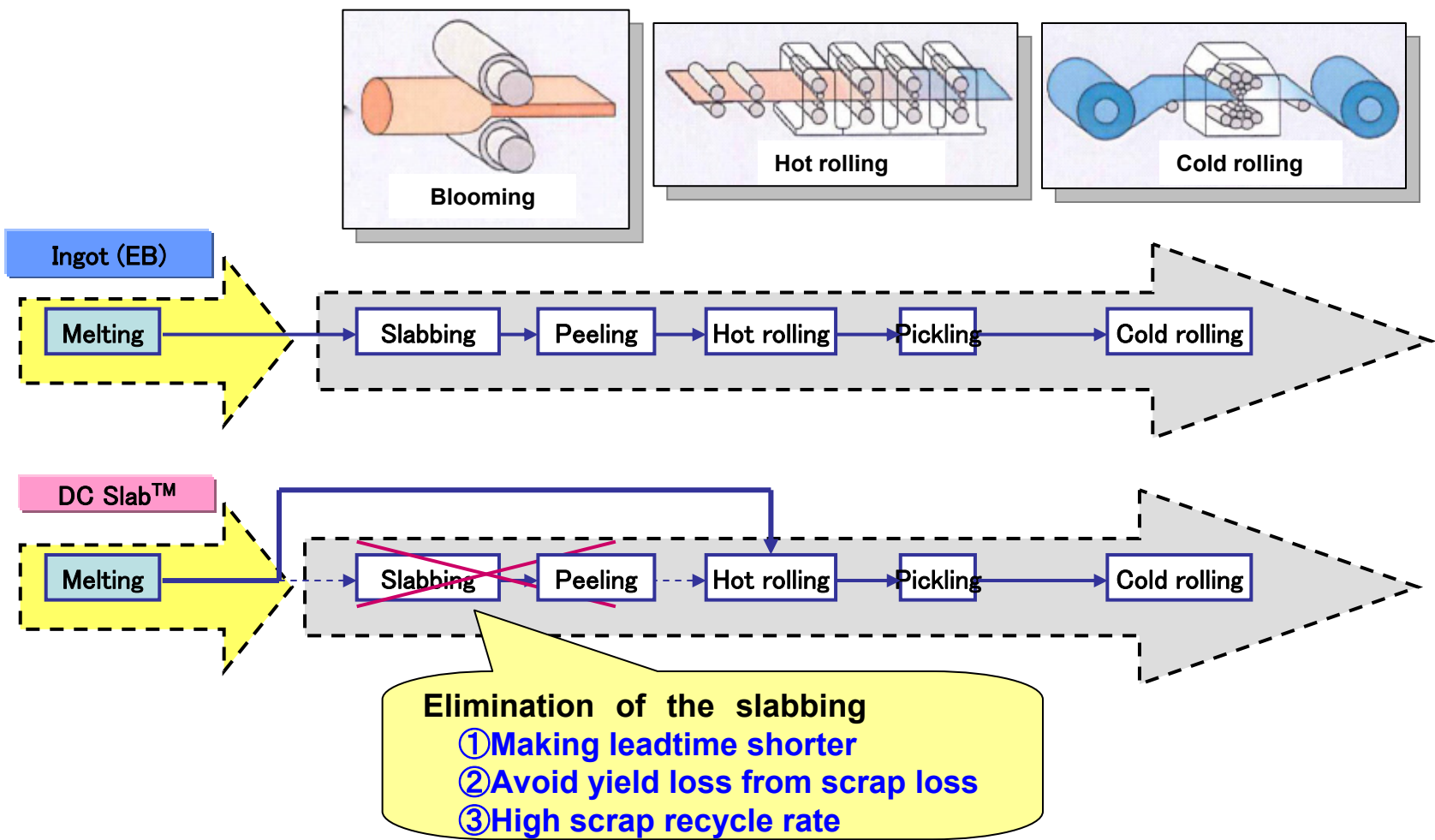
## *Successful Development of the World's First Direct-cast Titanium Slab Mass-production Technology*



◆The novelty of DC Slab™ lies in the fact that, while the breakdown process is eliminated, optimum casting conditions and other parameters necessary for the advanced control of the surface conditions and casting structure of the slab have been established so that sheet products having quality equal to that of conventional products can be produced.

◆the elimination of the breakdown process, etc., it has become possible to shorten the term of titanium sheet manufacture by about 20%, as well as to compress intermediate inventories and avoid yield loss from scrap loss.

# DC Slab™ Mass-production



# Building Scrap Recycling System

Titanium ingot



- Thick plate chips
- Crushed chips
- Cold Rolling Chips
- Hot Rolling chips
- Hot Rolling Crop
- Breakdown Crop



## Propylene Polymerization Catalyst Business

- **Demand for polypropylene over the next five years: Worldwide average growth of 5-6% per year**
- **Slight growth in developed countries**
  - **Japan and U.S. flat or falling slightly**
  - **Europe has some growth: Enforcement of the REACH regulations in 2015**
- **Remarkable growth in China, the Middle East, and India**
  - **Chinese production will continue to expand**  
**However, it will not catch up with demand and there will be imports from the Middle East, etc.**

# Electronic Materials - Ultra-Fine Nickel Powder Business

**MLCC Demand: Growth of approximately 6% per year**

- Over the mid-to-long term, MLCC demand steady driven by smartphones, tablet computers, etc.
- However, excessive, inventories are currently being adjusted in the aftermath of the Great East Japan Earthquake, etc.



## Number of MLCCs per electronic device

▪ Car	:	Approx. 1000
▪ LCD TV	:	700 to 800
▪ 3D TV	:	1000 to 1100
▪ PC	:	700 to 800
▪ Tablets	:	500 to 600
▪ Smartphone	:	400 to 600
▪ Cell phone	:	200 to 300

## Challenges and Action




### [Catalyst]

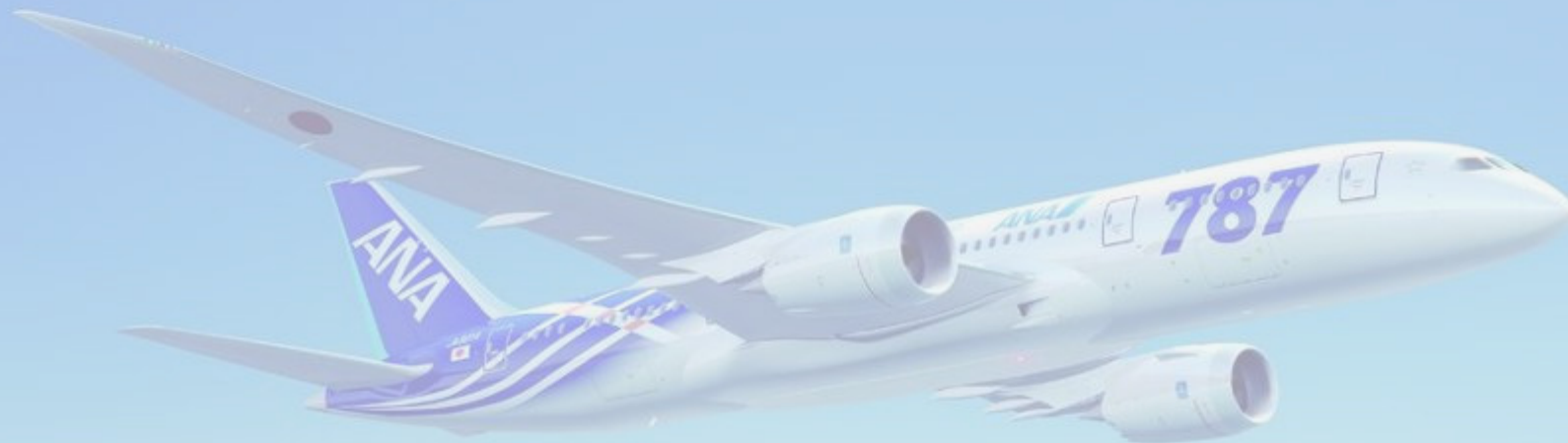
- **Development and sales expansion of environmentally friendly catalysts  
(Response to chemical regulations such as the EU REACH regulations)**
- **Sales expansion to regions with increasing production capabilities and polypropylene demand**

### [Electronic Component Materials]





- **Quick responses to trends in the electronic component market**
- **Sales expansion of small-particle products that are suited to MLCCs  
for tablet computers and smartphones**

## Prospect for FY 2012

-  **Exchange rates: 1 USD = 75 JPY**
-  **Return to black figure by increase in sales and production of titanium**
-  **Cope with the increases in raw material prices by increasing the prices of products**



## Disclaimer

-  This material includes Toho Titanium's future plans, strategies, earning forecast and outlook.
-  Information in this material include not only facts that have occurred, but also forecasts and assumptions based on available information as of the date this material was prepared.
-  This also includes unlimited risks and uncertainties related to the economic condition, fierce competition in the industry, market demand, foreign exchange rate, tax system and other regulations.
-  Hence please note that actual results may differ from our forecasts described in this material.