

# Electronic Devices Business Strategy

April 4, 2007

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**Fujitsu Limited**

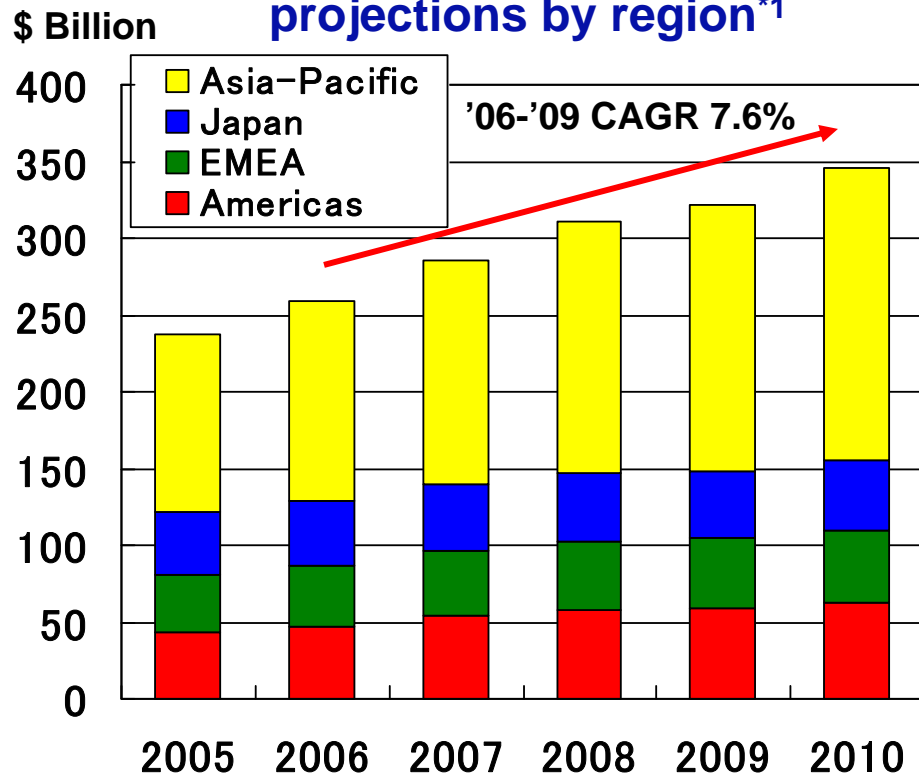
# Contents

1. Electronic Devices Market Overview
2. Electronic Devices Business Strategy
3. Business Expansion in 2007 and Beyond

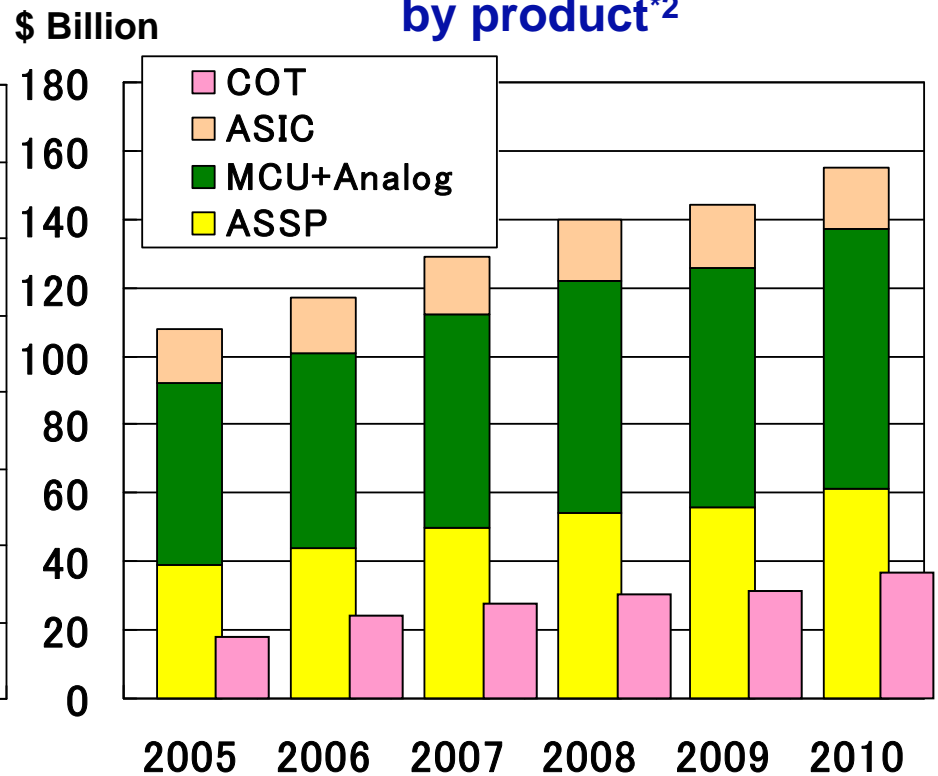
# Market Overview

- Steady growth of semiconductor market
- Adjustment continues in first half of 2007, recovery expected in second half

## Semiconductor market scale projections by region\*1



## Market scale projections by product\*2



\*1: iSuppli \*2: iSuppli; COT is Fujitsu estimate

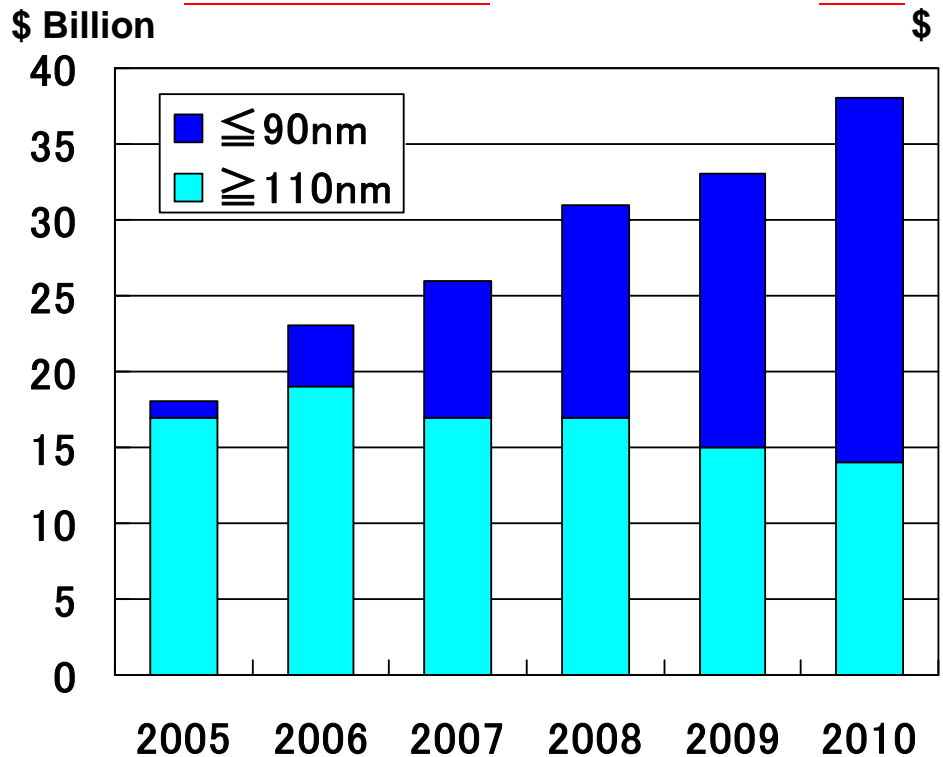
COT (Customer-Owned Tooling), ASIC (Application Specific Integrated Circuit),  
MCU (Micro Controller Unit), ASSP (Application Specific Standard Product)

# Market Overview

## Rapid growth for advanced COT, standard products in Asia

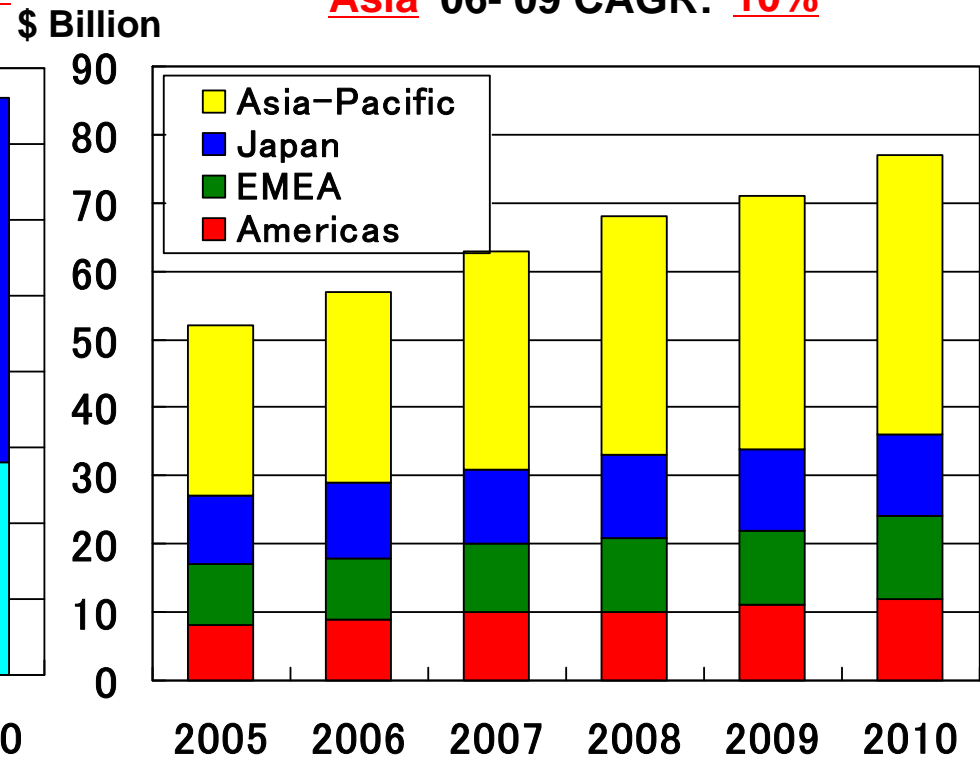
Market scale projections by COT technology\*1

**Advanced COT '06-'09 CAGR: 64%**



MCU, analog market scale projections by region\*2

**Asia '06-'09 CAGR: 10%**



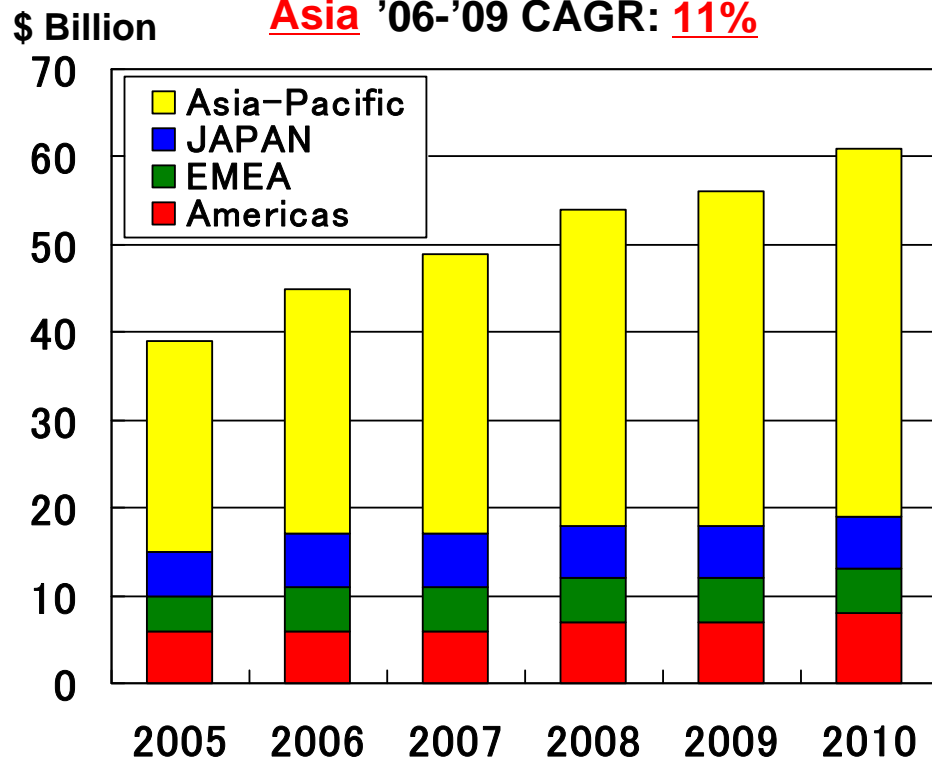
\*1: Fujitsu estimates, \*2: iSuppli

# Japanese Customers' Changing Business Structure

Particularly in the digital AV market, demand is rapidly shifting from ASICs for set manufacturers in Japan to ASSPs for EMS/ODMs in Asia

## ASSP market scale projections by region\*1

Asia '06-'09 CAGR: **11%**



- ASIC use limited to high value-added models; shift to ASSPs for other models
- For high-volume models, contract design to EMS/ODM, rather than designing in-house (in Japan) → Business base shift to Asia



EMS (Electronics Manufacturing Service), ODM (Original Design Manufacturer)

\*1: iSuppli

# Contents

1. Electronic Devices Market Overview
- 2. Electronic Devices Business Strategy**
3. Business Expansion in 2007 and Beyond

## ■ Our Mission

Fujitsu continually seeks to create new value by providing customers with comprehensive solutions comprising highly reliable high-performance products and services based on powerful technologies. Through this, we aim to grow, realize profits and foster mutually beneficial relationships in our communities worldwide.

## ■ Our Values

Our Dream Is to Make Our Customers' Dreams Come True



Every One of Us Has a Leading Role to Play

We Strive to Meet the Expectations of Customers, Employees and Shareholders

We Consider Environmental Impact in All That We Do

We Aim to Earn Our Customers' Trust in Fujitsu

## ■ Our Code of Conduct



Respect Human Rights



Protect Intellectual Property



Comply With Laws and Regulations



Reject Unethical Behavior



Maintain Confidentiality

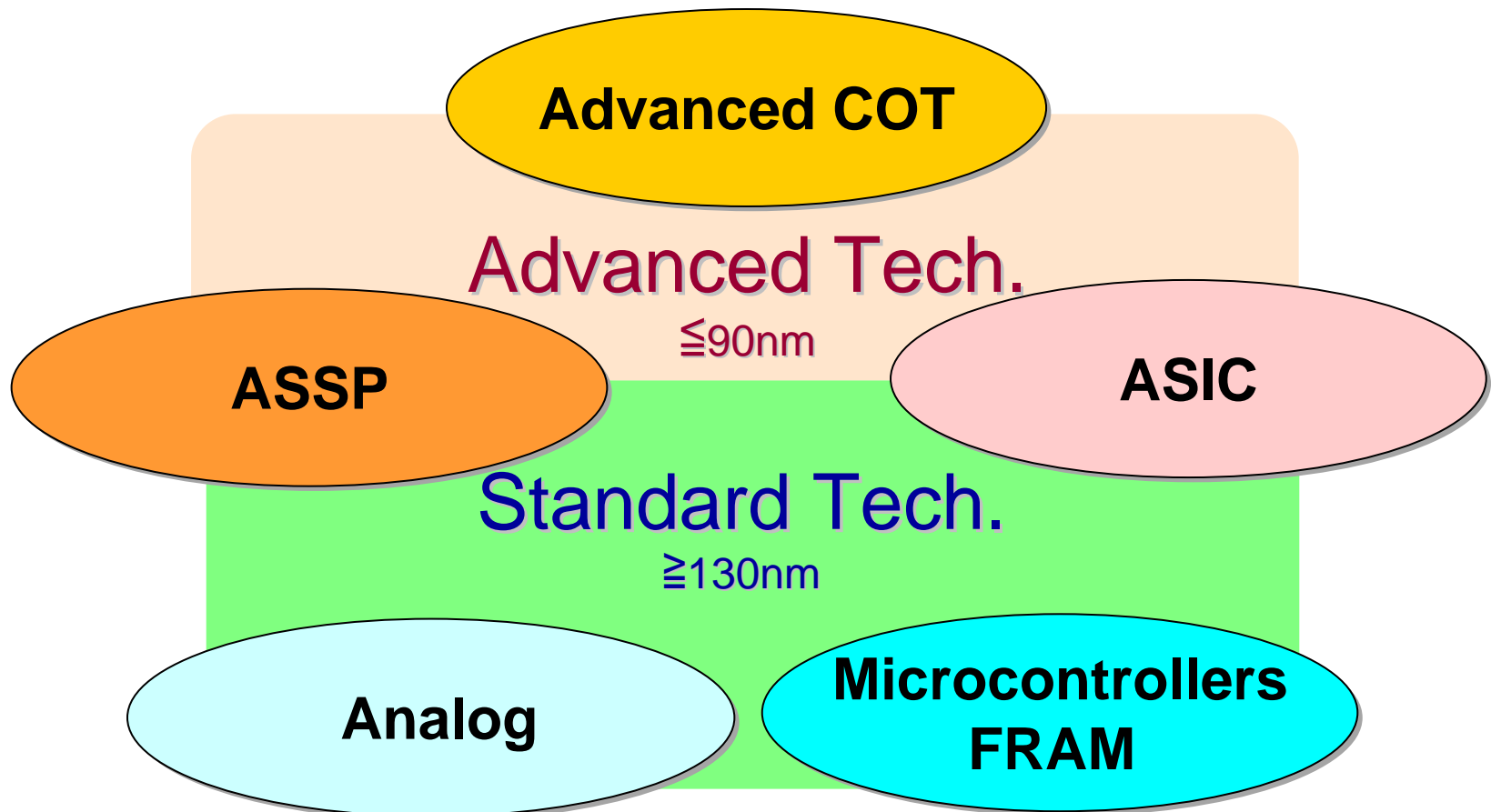


Act With Fairness in Our Business Dealings

# Business Strategy

Focus on Logic Business, Dramatically Increase Profits

- ◆ 2004 - 2005: Focus resources on logic business
- ◆ 2006 - : Strengthen profitability of advanced and standard technology logic business

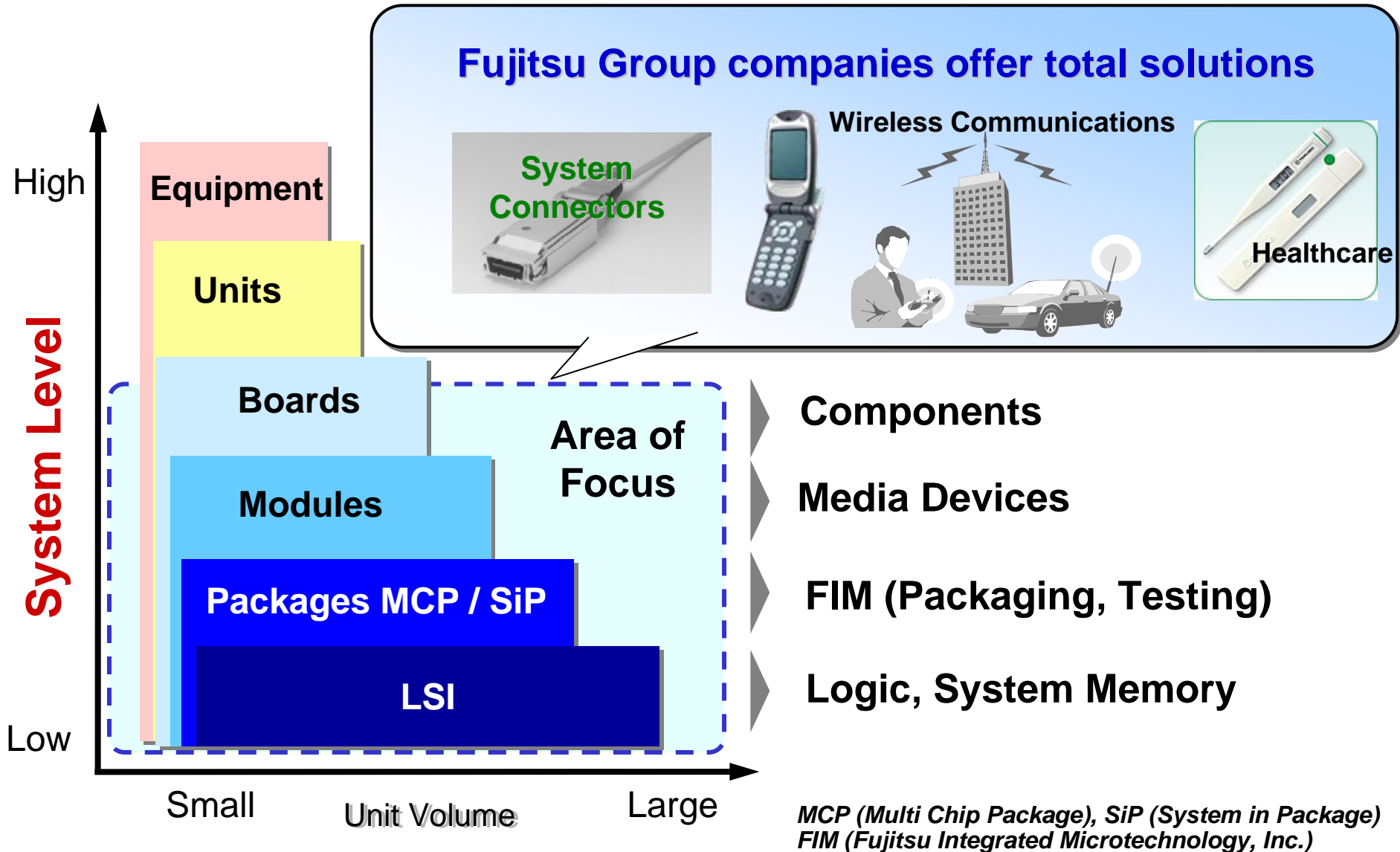




# Business Strategy



## Synergy in Electronic Devices Business

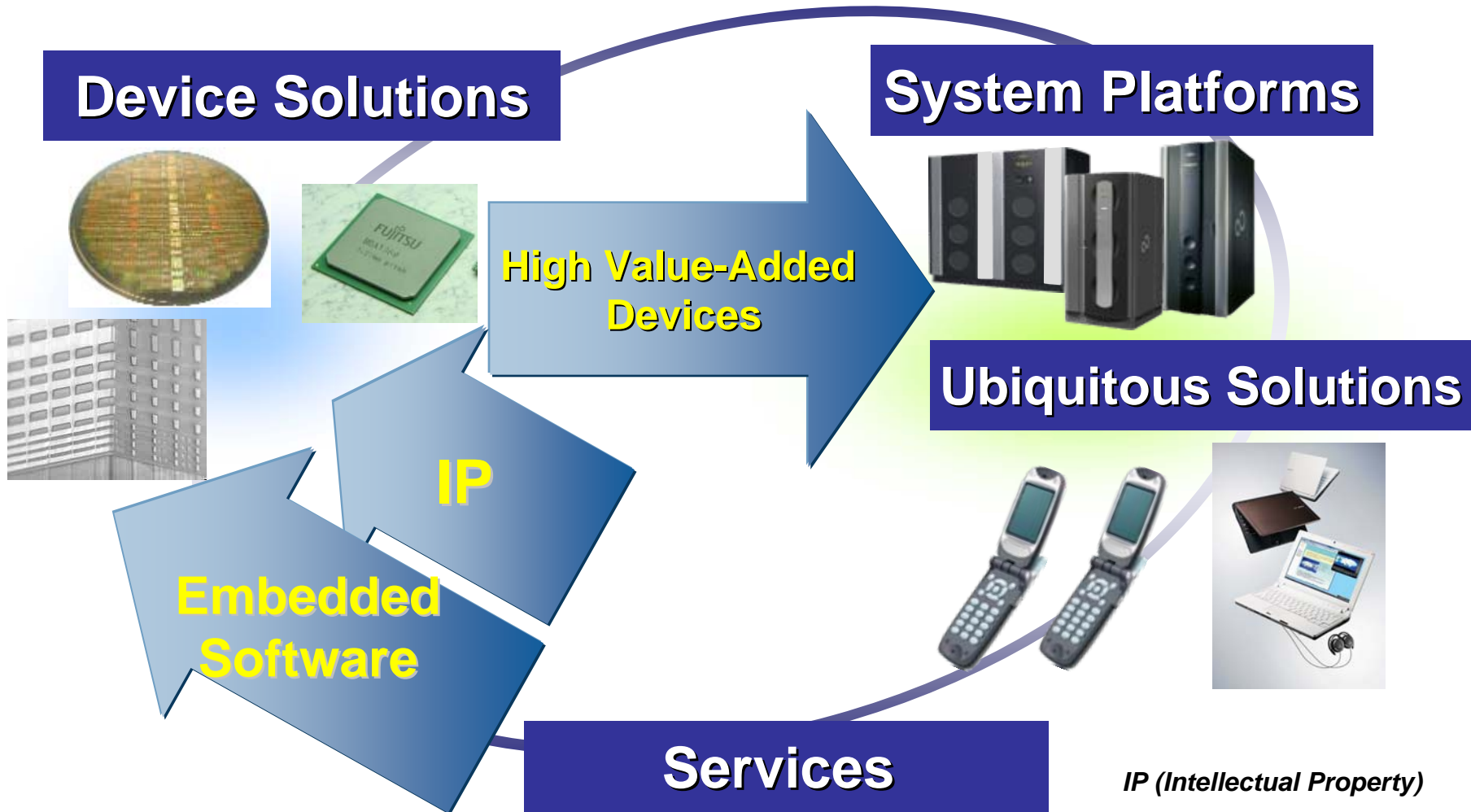


# Business Strategy



Increase Product Competitiveness Through Internal Synergies

Providing high value-added devices that help make Fujitsu products more competitive



*IP (Intellectual Property)*

**Leverage New IDM model to further accelerate emphasis on logic business and expand volume business**

**Maintain balance between advanced and standard products**

- Pursue product development and manufacturing in synch with fab lifecycle  
→ Continuously increase and reinvest profits

**Differentiated technology and value creation**

- Leverage low-leak, low-power strengths to pursue higher volumes worldwide
- Maintain “Fujitsu for Image Processing” brand image

**Pursue further globalization**

- Develop ASSP and standard product businesses on a global basis to achieve higher volumes

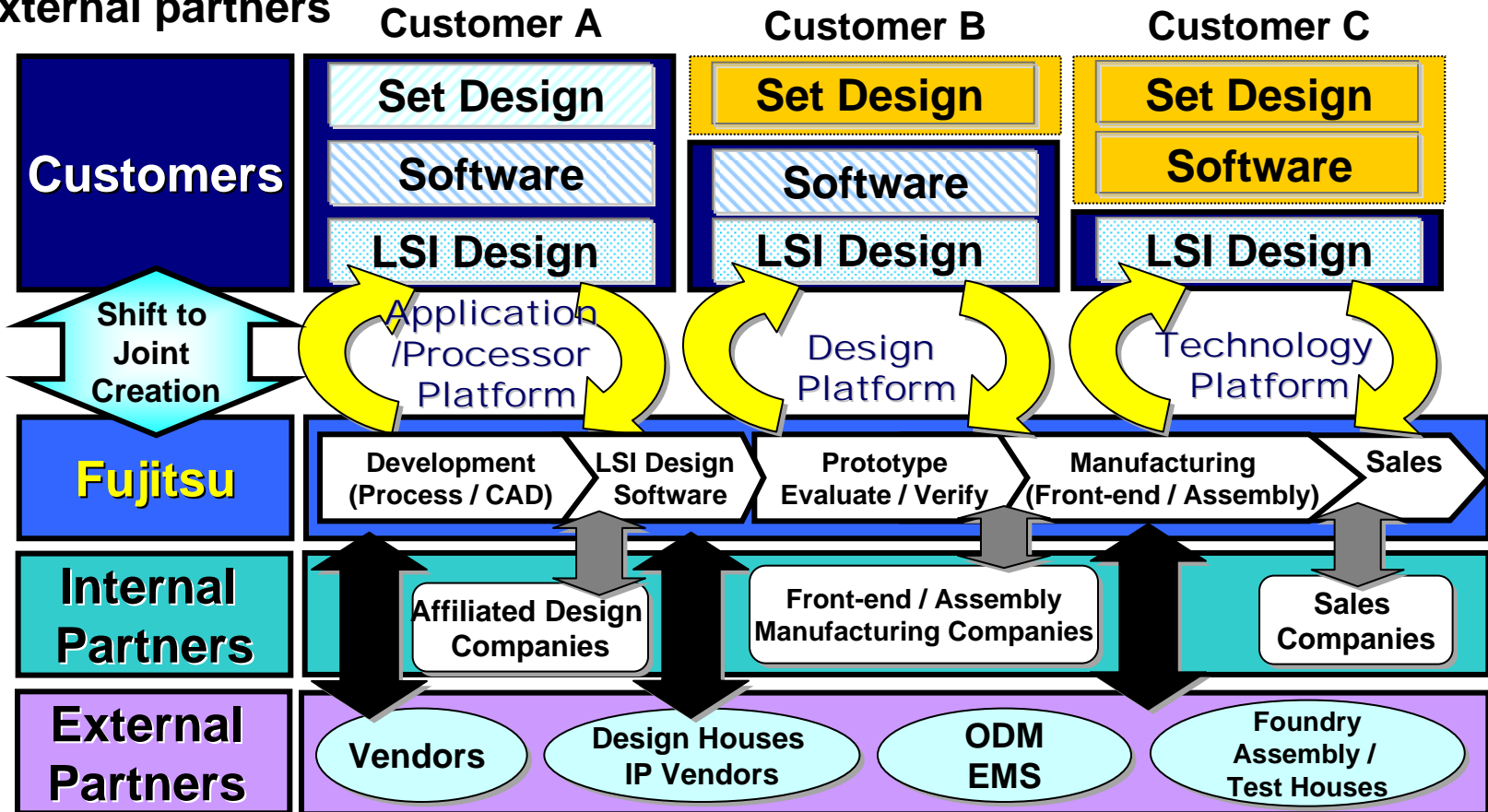
*IDM (Integrated Device Manufacturer)*

# Target Business Model

## New IDM

Continue to adhere to New IDM model, deepen and expand business in response to market changes

- Build strategic partnerships with customers from earliest stages
- Offer consistent services through close collaboration with internal and external partners



# Device Solutions Projections for FY 2006

Billion Yen

	FY05 Results	FY06 Forecast at 3Q <sup>1</sup>	FY06 Forecast at 1H <sup>2</sup>	Change in Forecast
Net Sales	707.5	760.0	810.0	-50.0
LSI Devices	460.1	460.0	510.0	-50.0
Electronic Components, Others	247.4	300.0	300.0	-
Operating Income	33.3	20.0	30.0	-10.0
Operating Income Margin	4.7%	2.6%	3.7%	-

**Reason for Revisions:**  
*Lower sales of logic LSI devices*

■ **Standard Logic LSI**  
Lower sales due to production adjustments by several customers, primarily in digital AV and mobile phone areas

■ **Advanced Logic LSI**  
Lower demand from some digital AV customers

1) Forecast at 3Q as of January 31, 2007 2) Forecast at 1H as of October 26, 2006

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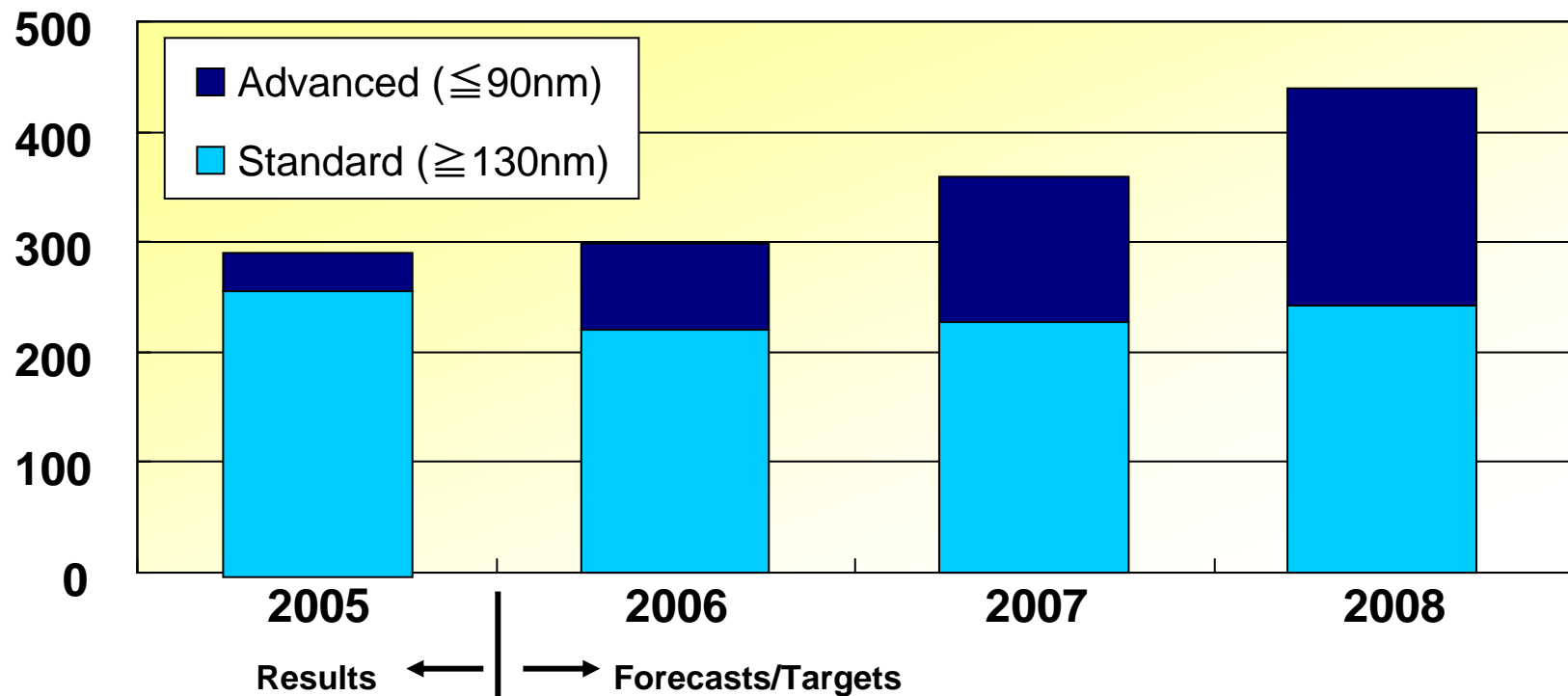
# Expanding Our Logic Business



**Positioning 90nm and finer advanced technology as growth engine to greatly expand sales**

## Sales of Logic Devices (consolidated\*)

Billion Yen

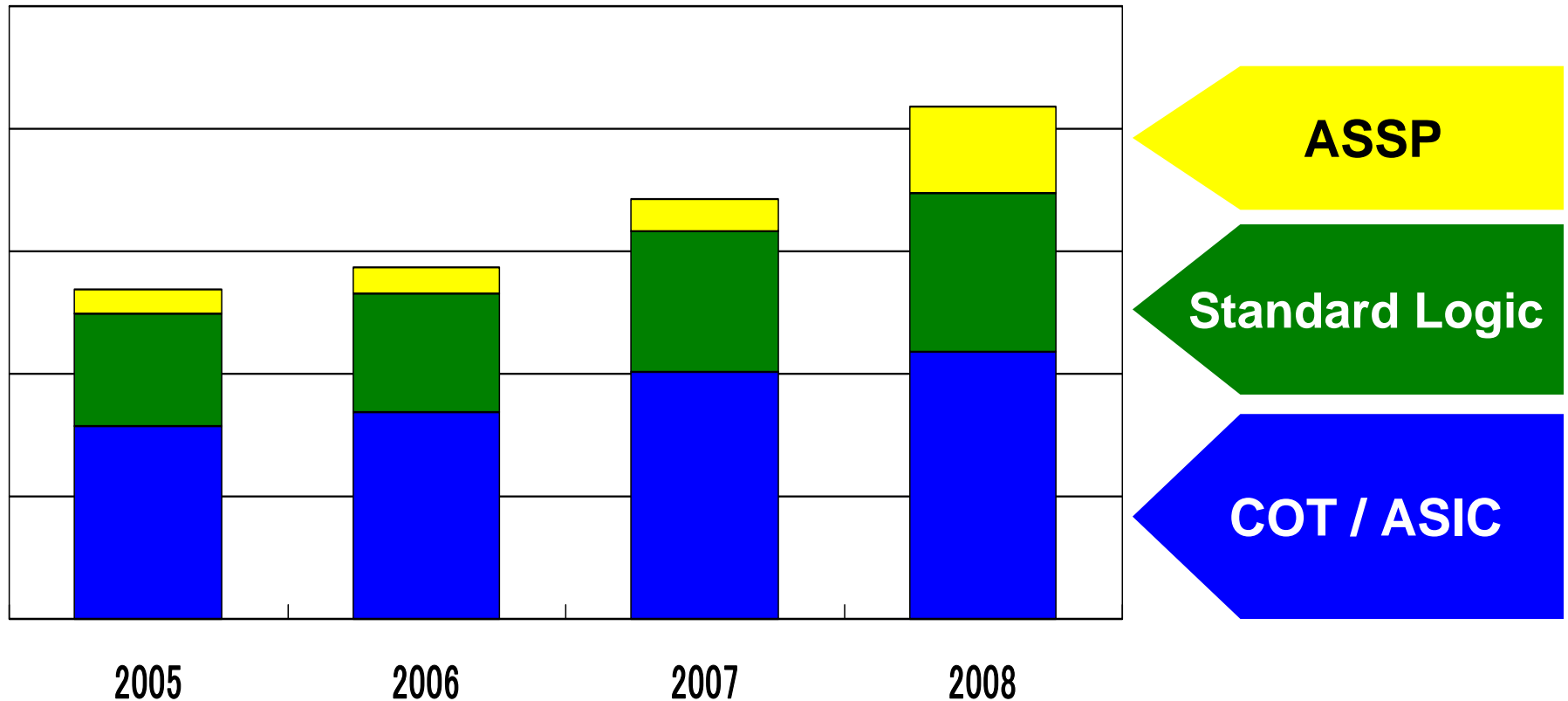


\* Sales of Fujitsu-produced products only

# Optimizing Our Product Mix

- Maintain position in COT/ASIC as baseload of business
- Expand scale of ASSP and standard logic (microcontrollers, analog devices) business, and optimize product mix

Sales of Logic Devices by Product





- Developing Our ASSP Business
- Developing Our Standard Logic Business
- Developing Our COT / ASIC Business

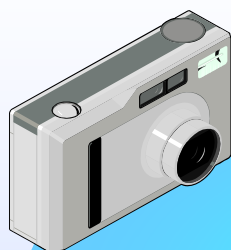
# ASSPs that Enhance “Fujitsu for Image Processing” Brand Image

FUJITSU

## Digital AV

No. 1 share worldwide

- ASSPs used in single lens reflex cameras
- ASSPs used in camcorders (H.264 codec)



Fujitsu for Image Processing

## Mobile

No. 1 share in Japan

- (OFDM) ASSPs for digital terrestrial broadcasting and 1seg / 3seg



## Automotive

- Over 12 million ASSPs for on-board terminals and car navigation systems shipped worldwide

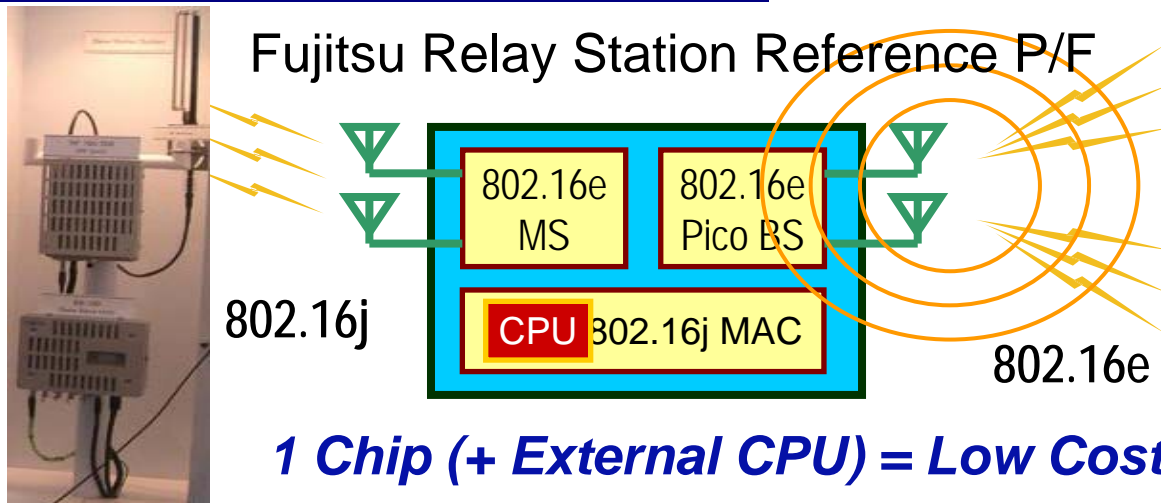
OFDM (Orthogonal Frequency Division Multiplexing)

# Early Participation in Standards Efforts Benefits Solutions Business

## Case Study 1) Wireless: Development of Global WiMAX Business

- Early promoter of WiMAX Forum and IEEE 802.16 Consortium
- Developing solutions based on RF technology (including MIMO)
- Building consistent support capability via partnerships to reduce development time and costs and improve time-to-market for WiMAX products of terminal vendors and carriers

### Fujitsu Relay Station Concept



High-performance PDAs



Low-cost VoIP



Mobile Station

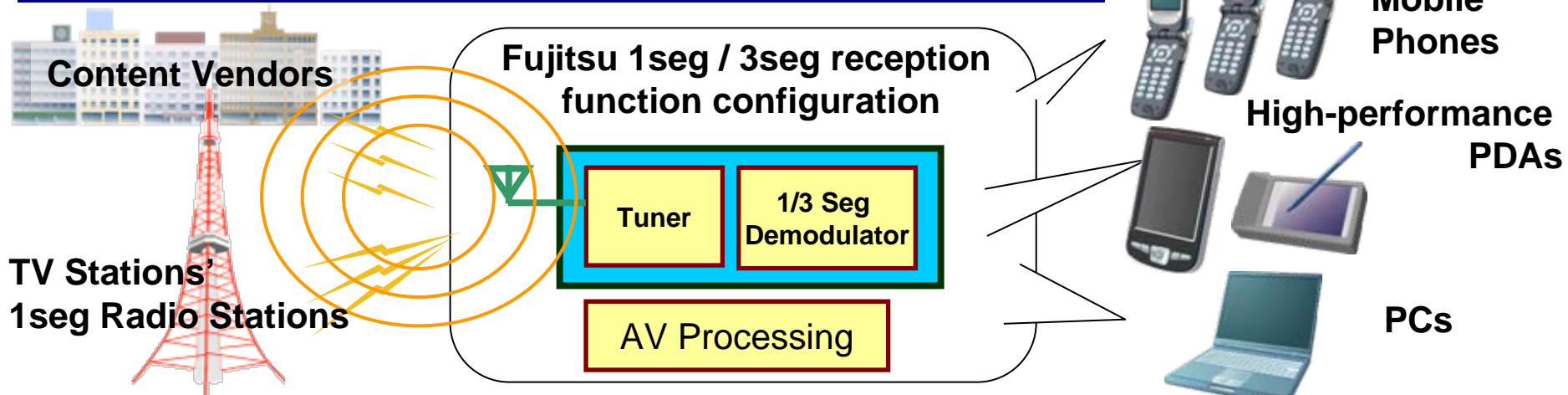
WiMAX (Worldwide Interoperability for Microwave Access), MIMO (Multiple-Input Multiple-Output), RF (Radio Frequency), PDA (Personal Digital Assistant), VoIP (Voice over Internet Protocol)

# Early Participation in Standards Efforts Benefits Solutions Business

## Case Study2) Developing Terrestrial Digital Radio (3seg)

- Together with FM Tokyo, drove standards activities early on at Digital Radio New Business Forum and ARIB\* to build new business model converging telecommunications and broadcasting
- Developing solutions based on extensive expertise in demodulation ICs / mobile technology
- Achieve early market entry through alliances with digital terrestrial broadcasting module makers, mobile phone handset makers and carriers

### Fujitsu 1seg / 3seg Digital Terrestrial Broadcasting Solution



\*Association of Radio Industries and Businesses

# Adding Engineers to Strengthen ASSP Capability

**Established European GCC\***  
Approximately 20 engineers mobilized to enhance image processing technology (September 2006)

Shifting AEs from Japan to Asia to expand sales

**Calgary, Canada**

**Munich Germany**

**Chengdu, China**

**Japan**

**Wi-LAN Inc.**  
Wi-LAN's design division acquired to ensure smooth development of Mobile WiMAX (May 2006)

**West Star Chips Co., Ltd.**  
Approximately 50 LSI and system engineers brought onboard to enhance image processing technology (July 2006)

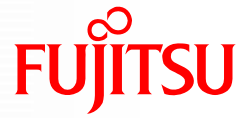
Application / system engineers mobilized as an advisory team

*GCC (Graphics Competence Center), AE (Application Engineer)*

- Developing Our ASSP Business
- **Developing Our Standard Logic Business**
- Developing Our COT / ASIC Business

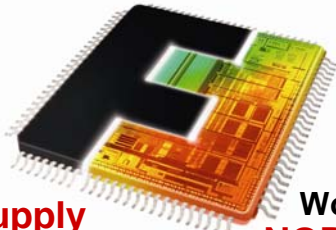
# Introducing Standard Products for the Global Market

## Microcontrollers



### Worldwide Flash Microcontroller Development

Rewritable **100,000** times



Guaranteed **Stable supply**

World's leading **NOR-type** Flash MCU technology

**Supply**

Two manufacturing locations in Japan

**Technology**

Guaranteed 100,000x rewrite capability

**Reliability**

0ppm defect rate\*1

### Product / Business Development by Region

**250 million Flash microcontroller units shipped**

(Cumulative, as of January 2007)



**Automobiles: Standard products for on-board LAN**

→ **Europe, Japan, USA**

**4<sup>th</sup> Largest share WW (10%) for Flash microcontrollers in 2005\*2**

→ Targeting No. 2 share by 2010



**Consumer/Industrial products: 8/16/32-bit standard products**

→ **Industrial: Europe Consumer: Japan, Asia**



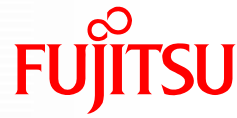
**DAV: 32-bit custom products**

→ **Japan, Asia**

\*1) Actual results of on-board Flash Microcontrollers in July \*2) Fujitsu estimate

# Introducing Standard Products for the Global Market

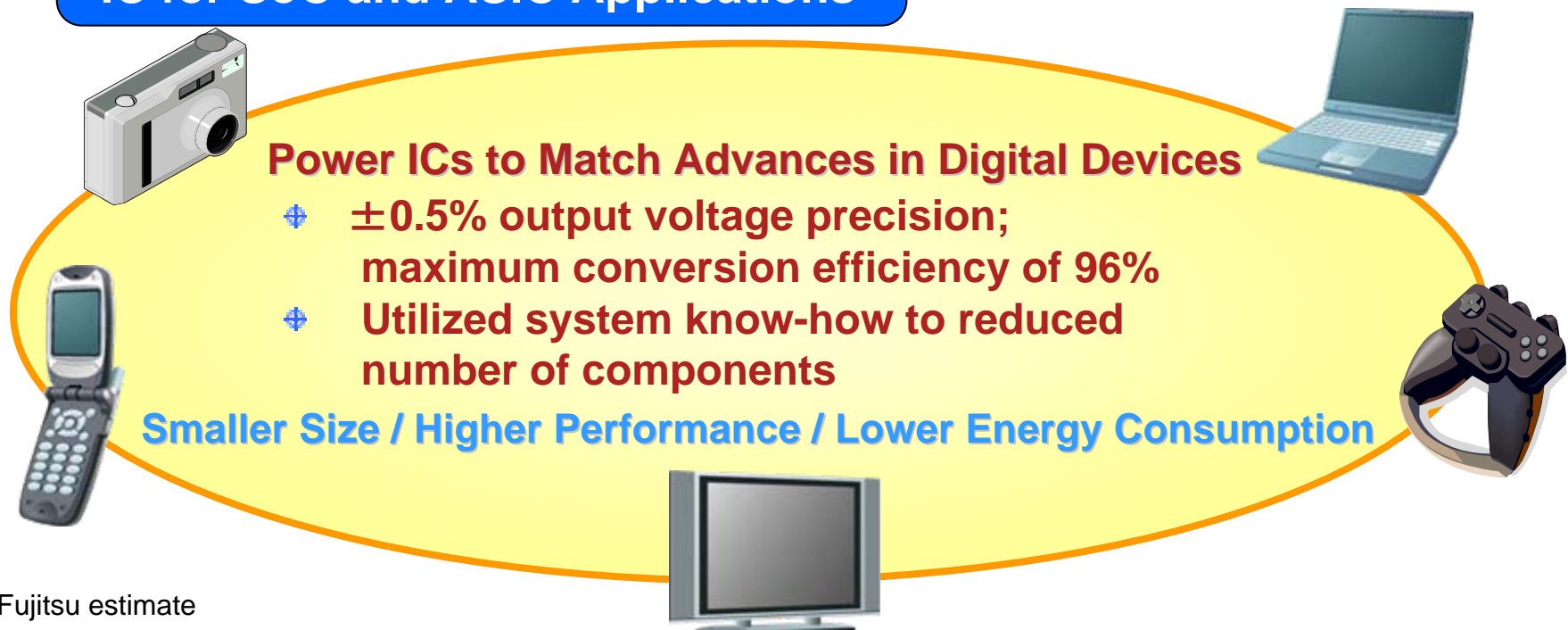
## Analog Devices



### Expansion of Business Geared Towards Asia

- Pursuing higher volumes and expansion of Asia business by leveraging our accumulated system know-how and experience in Japan
- DC/DC converters: No. 1 share in Japan and No. 7 WW in 2006\*1

### High-Efficiency DC/DC Converter IC for SoC and ASIC Applications



\*1) Fujitsu estimate

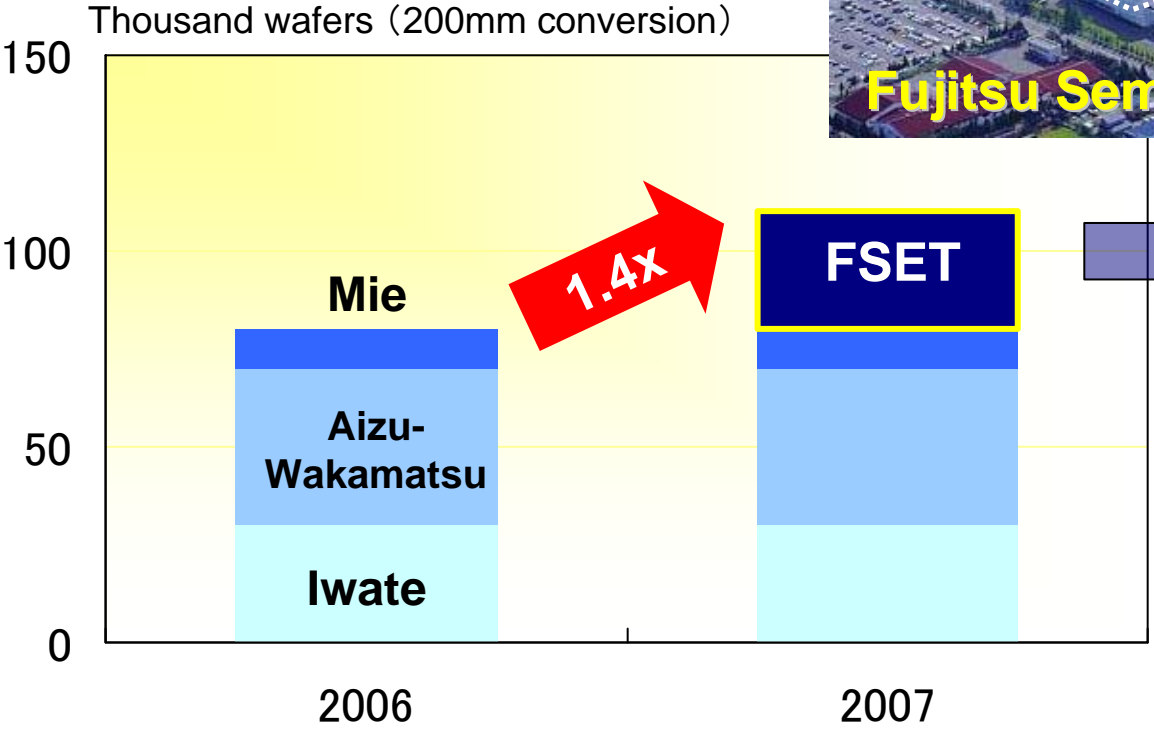
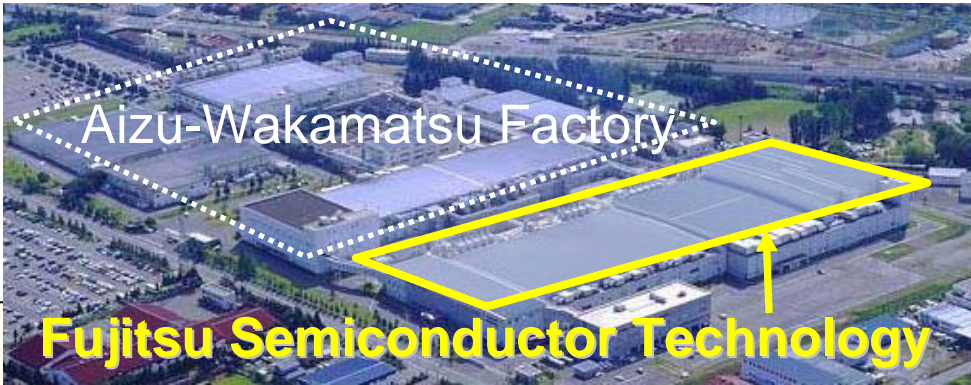


# Boosting Standard Tech. Logic Production

Pursuing volume to ensure sustained earnings from standard technology factories

## Strengthening standard tech production capability

April 2, 2007  
 Newly established Fujitsu Semiconductor Technology, Inc. (FSET) begins operations



**FSET**  
**Manufacturing Capacity:**  
**30,000 wafers/month**

Purchase of Spansion facility adjacent to the Aizu-Wakamatsu facility announced in Sep. 2006

# Enhancing Assembly Operations



## Maintain Volume, Boost Efficiency and Cost-Competitiveness through Consolidation

- March 30, 2007: Announced Gifu Plant production to be consolidated at Kyushu Plant

Fujitsu Miyagi Electronics Ltd.

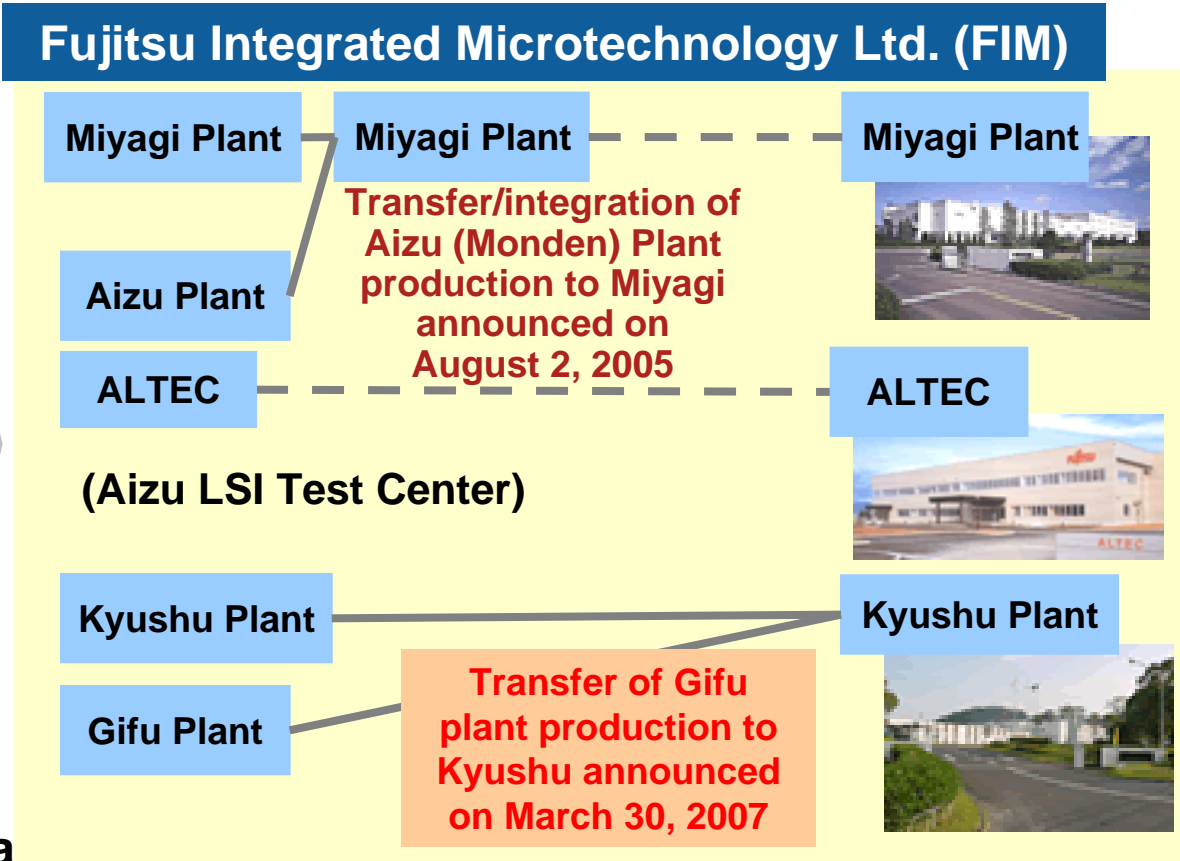
Oct. 1, 2003

Fujitsu Tohoku Electronics Ltd.

Consolidation of Japanese Manufacturing Locations into a single entity

Kyushu Fujitsu Electronics Ltd.

Fujitsu VLSI Limited (Gifu Plant)



## Further Localization in China

Low pin count devices to be shifted to Nantong Fujitsu (local production for local market)

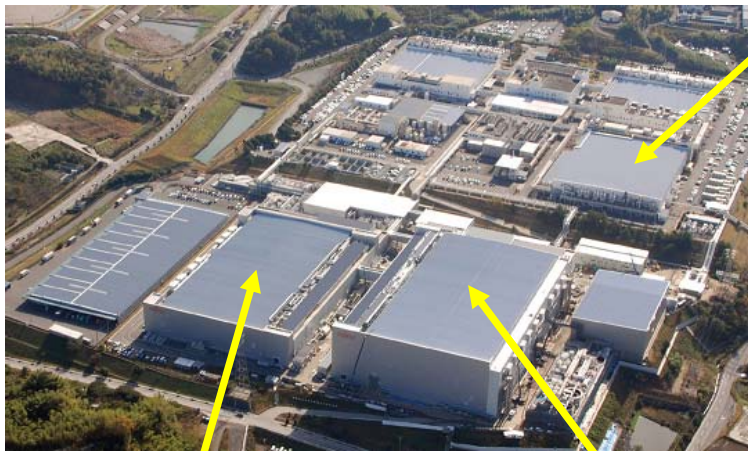
\*Nantong Fujitsu was introduced as a successful Japanese-Chinese corporation at a national conference in China \*

- Developing Our ASSP Business
- Developing Our Standard Logic Business
- **Developing Our COT / ASIC Business**

# Volume Production Starting at Mie Plant 300mm Fab No. 2

**Scheduled to go on-line in April 2007; volume shipments begin in July 2007**

## View of the Mie Facility



200mm Fab

## View of 300 mm Fab No. 2



300mm Fab No. 1

300mm Fab No. 2

- **Technology: 65nm/90nm CMOS Logic (as of 2007)**
- **Production Capacity: 25K wafers / month (maximum output)**
- **Building Construction: Hybrid seismic isolation structure (2-story clean room)**

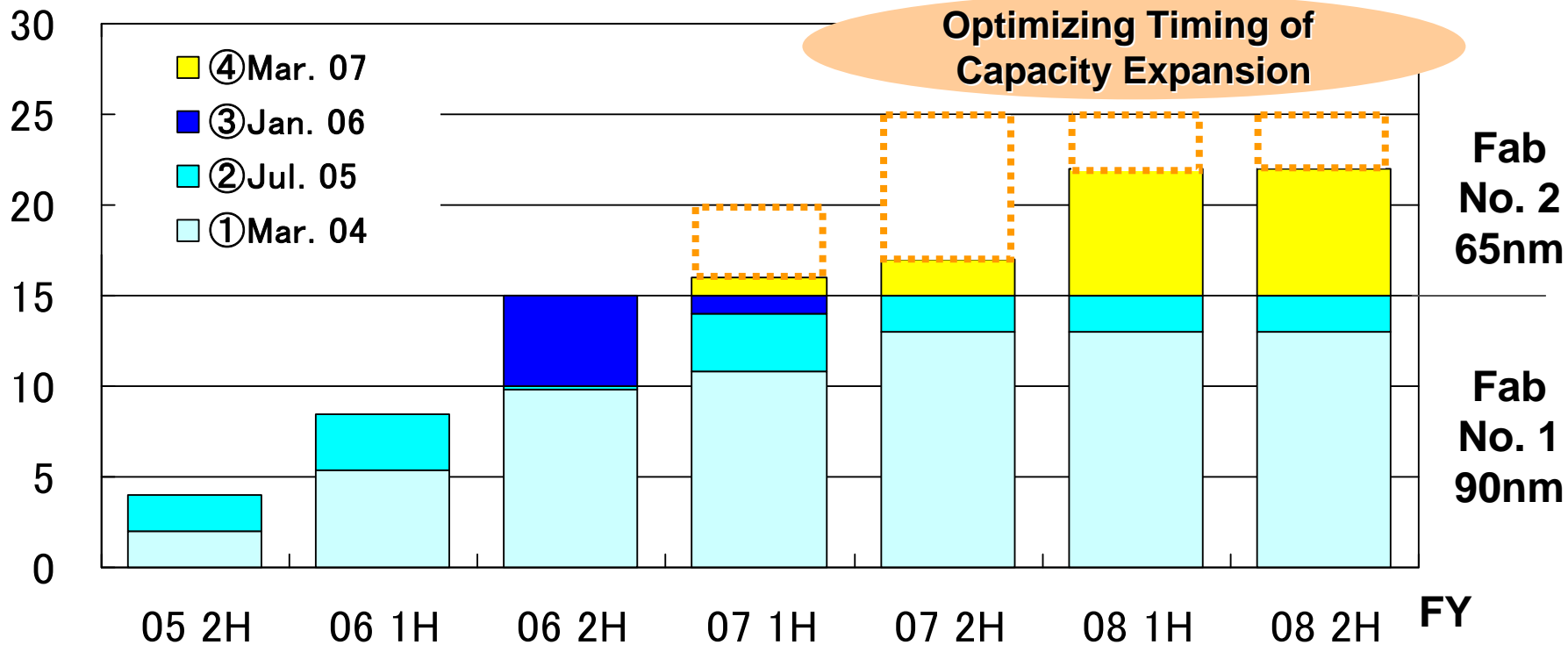
# Revisions to Advanced Technology Production Capacity Expansion Plan



- 90nm: Capacity expansion to 15K wafers/month completed on schedule in 2H FY06
- 65nm: Volume production starting as planned in April 2007; capacity expansion timing being adjusted for lower customer demand  
→ ongoing review of capacity expansion based on demand

Production Capacity  
(thousand wafers / month)  
300mm conversion

## 300mm Production Capacity Plan



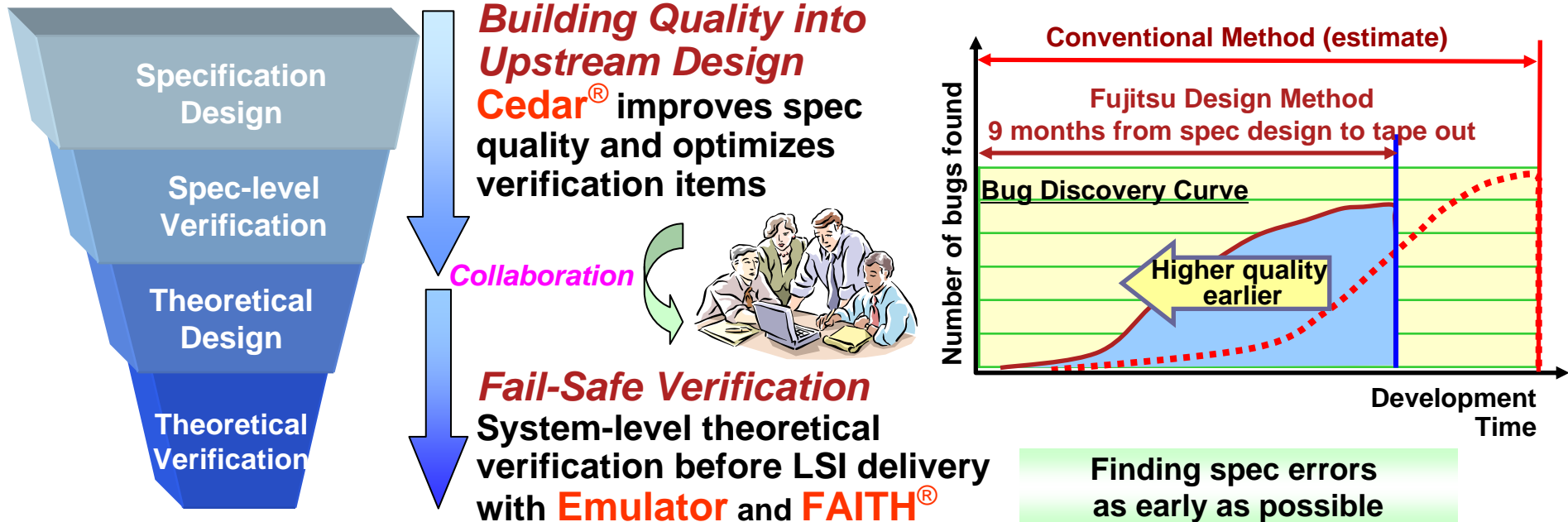
**World-Class Advanced Logic Production Capacity**

# Leveraging “First-Shot Full Operation” to Open New Markets, Gain New Customers

- Achieved “First-Shot Full Operation” of 280 consecutive advanced ASIC designs

Example: camcorder LSI (over 10m gates)

“First-shot full operation” enabled development in 11 months



**“First-Shot Full Operation” for Customers’ Systems**

Cedar (C-based Effective Design-flow Apply to Real Design),  
FAITH (FPGA and ASIC Concurrent Implementation Methodology)

# Aggressive Promotion of COT Business

- Not simply contract manufacturing; Fujitsu COT strength in value-added services (design, assembly, verification, etc.)

Over 30 partner companies globally

Main Customers: IDM, Fab Lite – Japan

Fabless – N. America, Asia

## Value-Added Services Example



### Established JV with Advantest (Nov. 2006): “e-Shuttle”

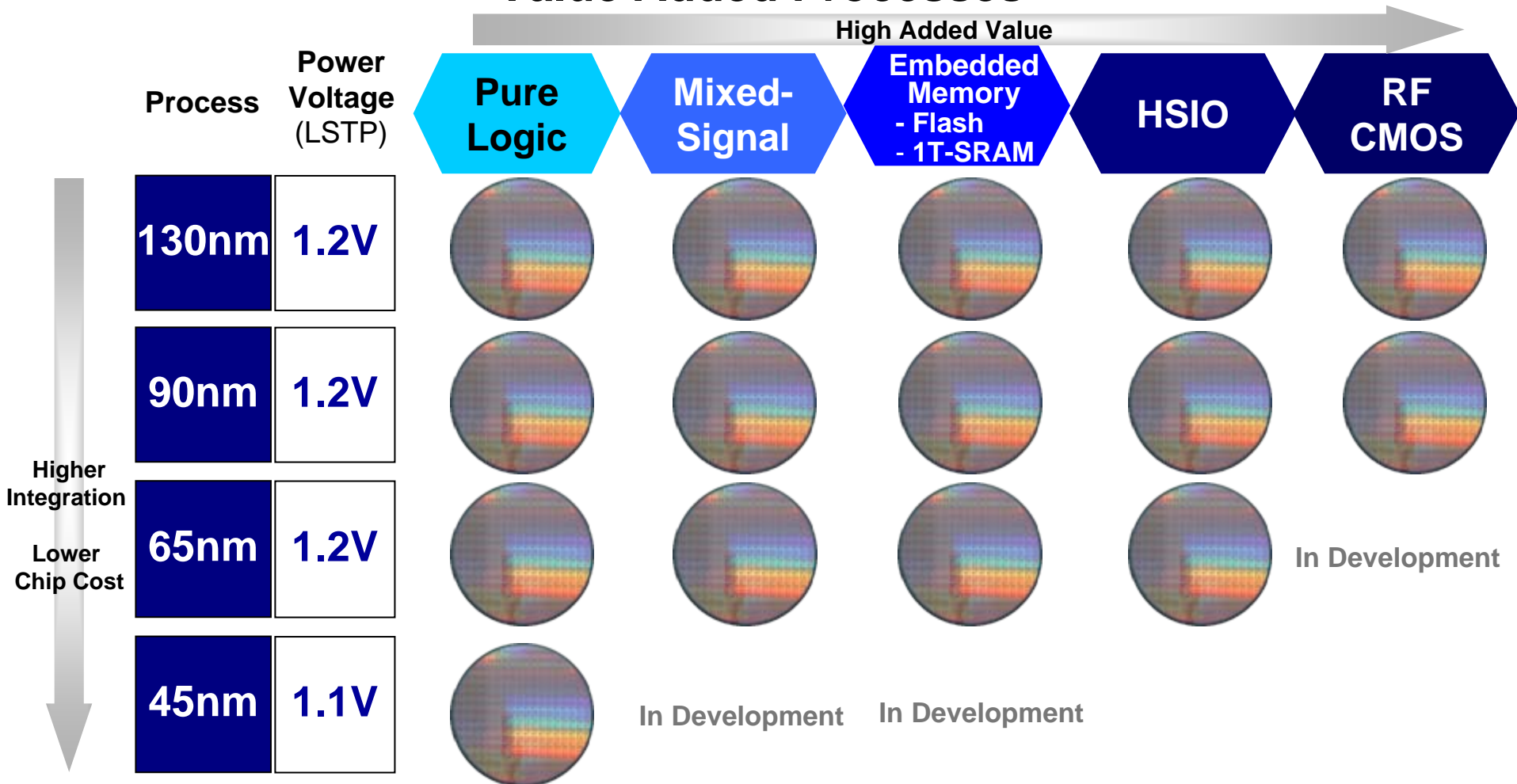
Provides prototyping service using EB direct lithography technology, which does not require expensive masks. → *World's first for 65nm*

By enabling fast and economical IP verification for advanced technology, service meets needs of customers who want to accelerate time to market.



# Developing Value-Added Technologies

## Leadership in Advanced Technology Development and Value Added Processes



LSTP (Low Stand-by Power), HSIO (High Speed Input Output)



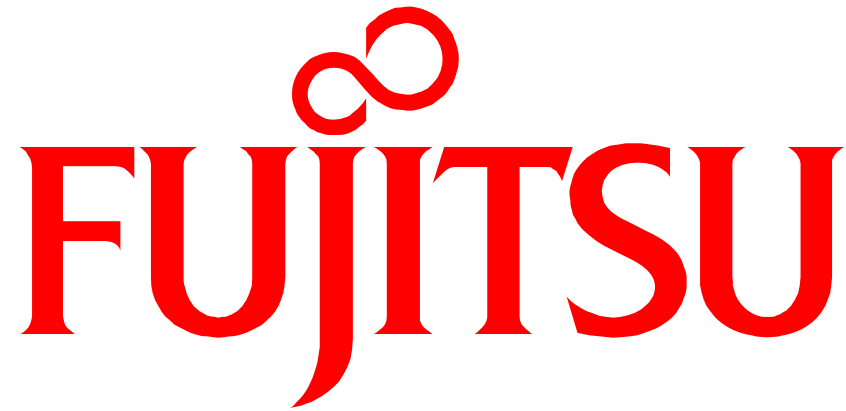
# Direction Going Forward



**Deepen Implementation of New IDM Business Model**

**Create ASSPs that Become New Global Standards**

**Expand Business Areas that Can  
Quickly Become Cash Cows**



**THE POSSIBILITIES ARE INFINITE**

# Cautionary Statement

These presentation materials and other information on our meeting may contain forward-looking statements that are based on management's current views and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in such statements. Words such as "anticipates," "believes," "expects," "estimates," "intends," "plans," "projects," and similar expressions which indicate future events and trends identify forward-looking statements. Actual results may differ materially from those projected or implied in the forward-looking statements due to, without limitation, the following factors:

- general economic and market conditions in the major geographic markets for Fujitsu's services and products, which are the United States, EU, Japan and elsewhere in Asia, particularly as such conditions may effect customer spending;
- rapid technological change, fluctuations in customer demand and intensifying price competition in the IT, telecommunications, and microelectronics markets in which Fujitsu competes;
- Fujitsu's ability to dispose of non-core businesses and related assets through strategic alliances and sales on commercially reasonable terms, and the effect of realization of losses which may result from such transactions;
- uncertainty as to Fujitsu's access to, or protection for, certain intellectual property rights;
- uncertainty as to the performance of Fujitsu's strategic business partners;
- declines in the market prices of Japanese and foreign equity securities held by Fujitsu which could cause Fujitsu to recognize significant losses in the value of its holdings and require Fujitsu to make significant additional contributions to its pension funds in order to make up shortfalls in minimum reserve requirements resulting from such declines;
- poor operating results, inability to access financing on commercially reasonable terms, insolvency or bankruptcy of Fujitsu's customers, any of which factors could adversely affect or preclude these customers' ability to timely pay accounts receivables owed to Fujitsu; and
- fluctuations in rates of exchange for the yen and other currencies in which Fujitsu makes significant sales or in which Fujitsu's assets and liabilities are denominated, particularly between the yen and the British pound and U.S. dollar, respectively.