

FY2007 Fujitsu Laboratories' R&D Strategy Briefing

# **Fujitsu Laboratories' R&D Strategy**

**April 13, 2007  
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Fujitsu Laboratories, Ltd.**

# Rise of Global Competition in R&D

- **Common global market**
  - Open innovation, international standards, standardization activities of major companies
- **Competition expanding from products to R&D**
  - Increasing recognition that R&D is the source of competitiveness
  - National strategic policies: Japan, US, UK, Germany, France, Finland, Australia, China, Taiwan, India, etc.
  - R&D expenditure is increasing
    - Japan: Highest level ever, 3.5% of GDP ('05)
    - OECD\*: 10% growth ('00-'04), 2.3% of GDP ('04)
    - China\*: Doubled as % of GDP, 0.6% → 1.3% ('95-'04)
  - Explosive growth in technology licensing market, reaching \$100 billion globally\* ('04)

**Innovation as key to development of society, economy, corporations**

\* OECD Science, Technology and Industry: Outlook 2006

# To Prevail in Global Competition

## Demand-Pull Innovation

- Create efficiencies, lower costs
- Pursue business incubation

## Strengthen Global Network

- Enhance activities of overseas labs

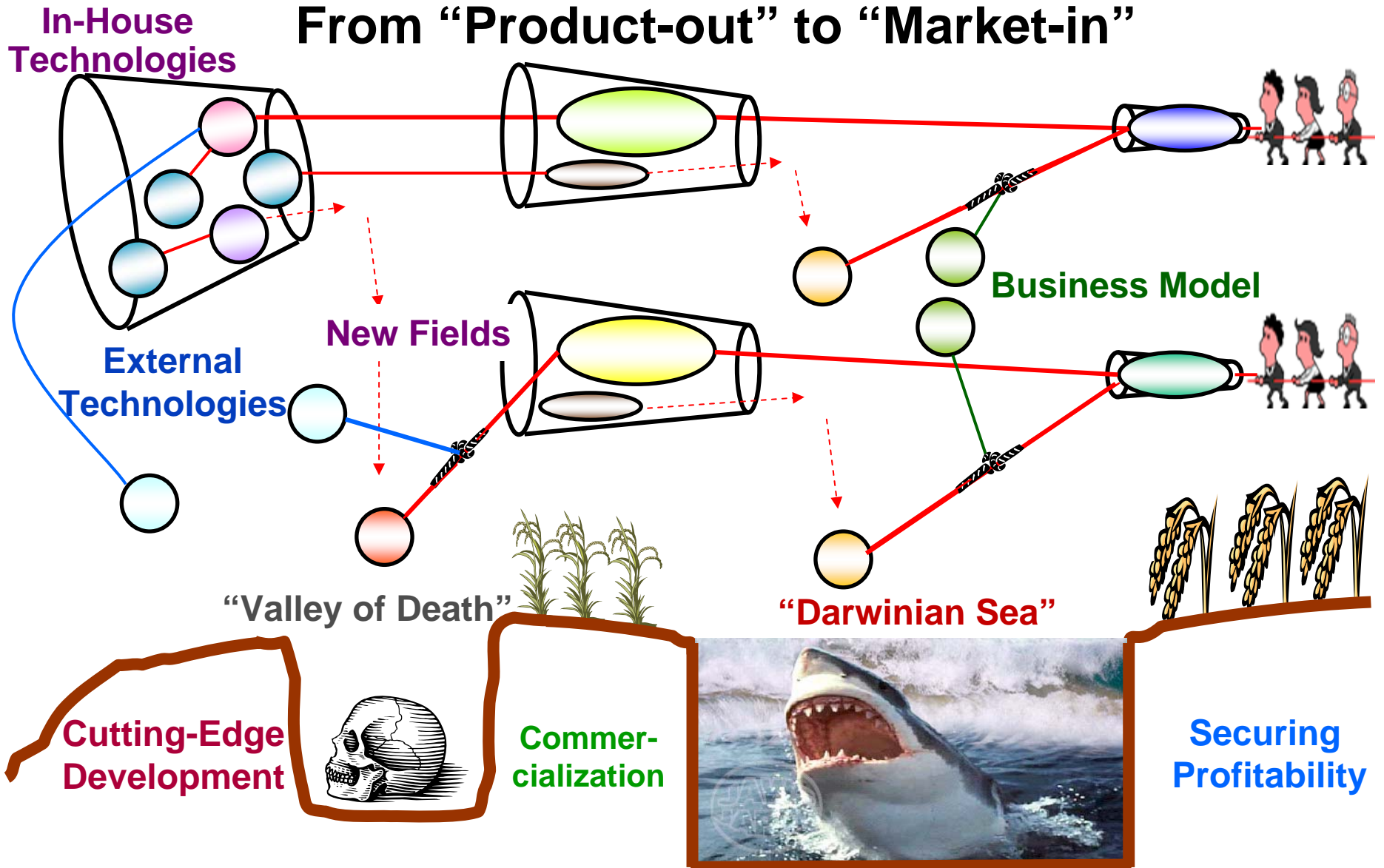
## Enhance Collaboration with Partners

- Speed development through division of tasks

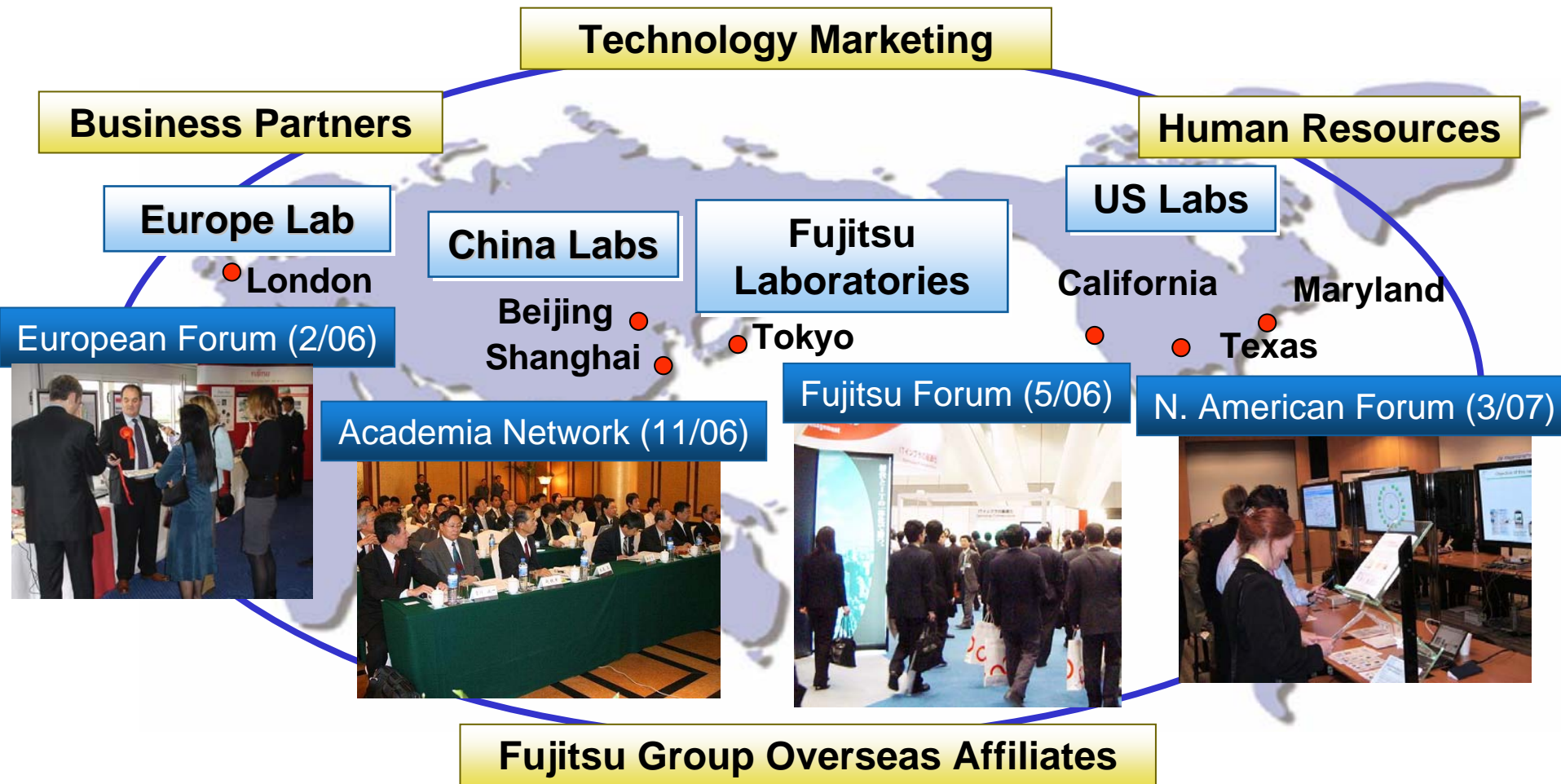
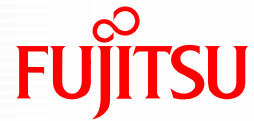
## Link with IP/Standardization Activities

- Conduct IP search, standardization activities prior to starting R&D

# Demand-Pull Innovation

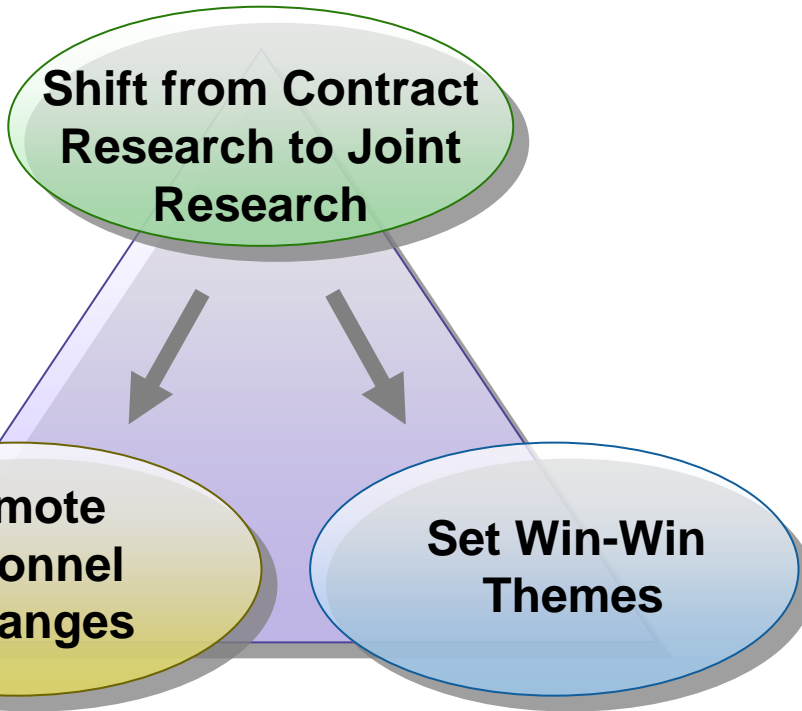


# Strengthen Global Network



- **US Labs** (1993 ~ ) **LSI-CAD, next-generation Internet, interconnect**
- **China Labs** (1998 ~ ) **Telecom systems, web info processing, system LSI**
- **Europe Lab** (2001 ~ ) **Next-generation telecom, biotechnology, grid computing**

# Enhance Collaboration with Partners **FUJITSU**



**Established QD Laser Inc. (April 2006)**

## Universities

**Japan**

**University of Tokyo**

**Tokyo Institute of Technology**

**US**

**University of Maryland**

**MIT**

**University of California**

**Carnegie Mellon University**

**Europe**

**Munich University of Technology**

**University of Cambridge**

**China**

**Peking University**

**Shanghai Jiao Tong University**

**etc.**

## Research Institutes

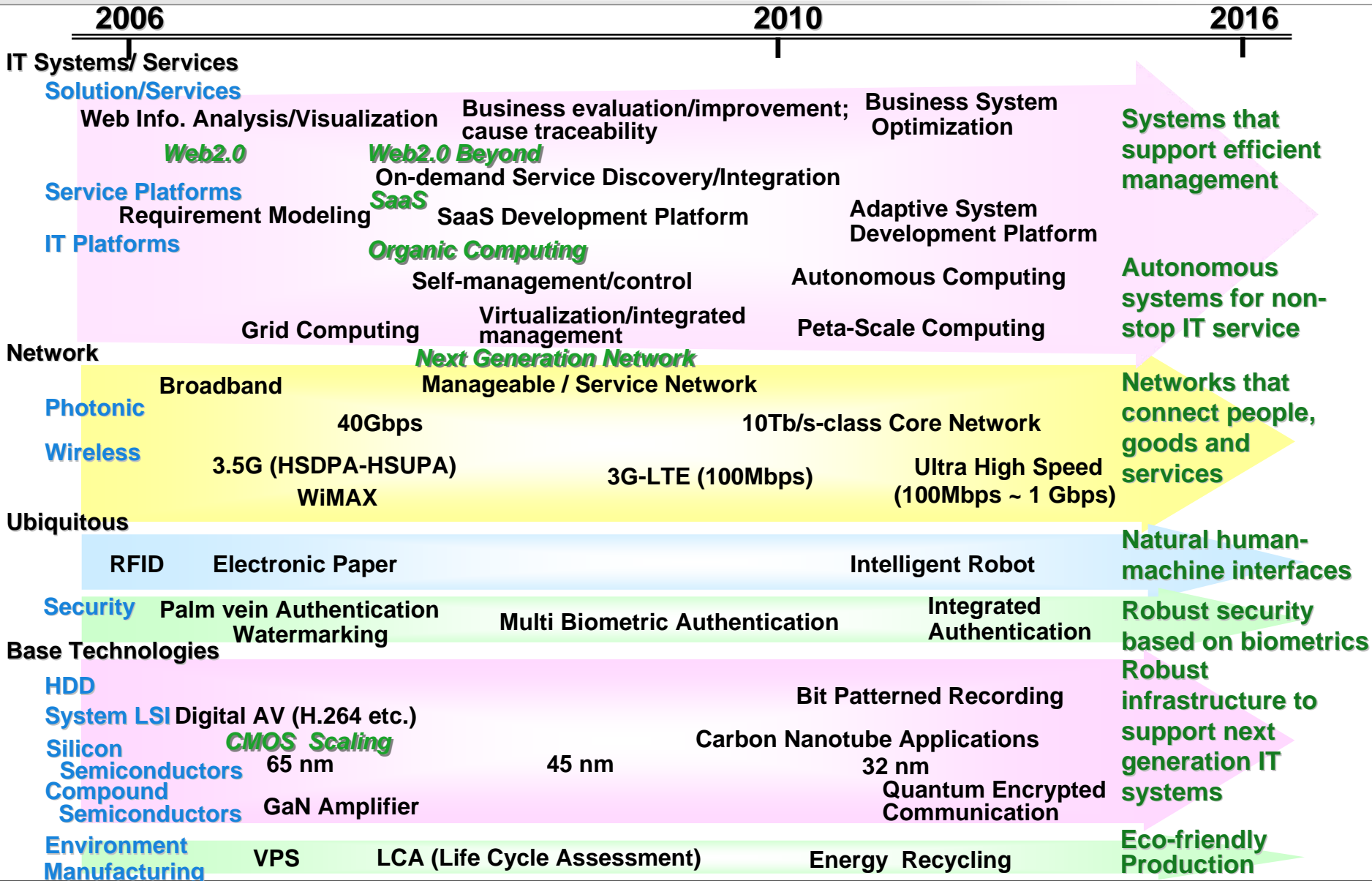
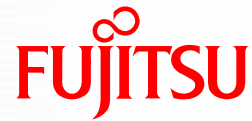
**PARC**

**France Telecom**

**Fraunhofer Institutes**

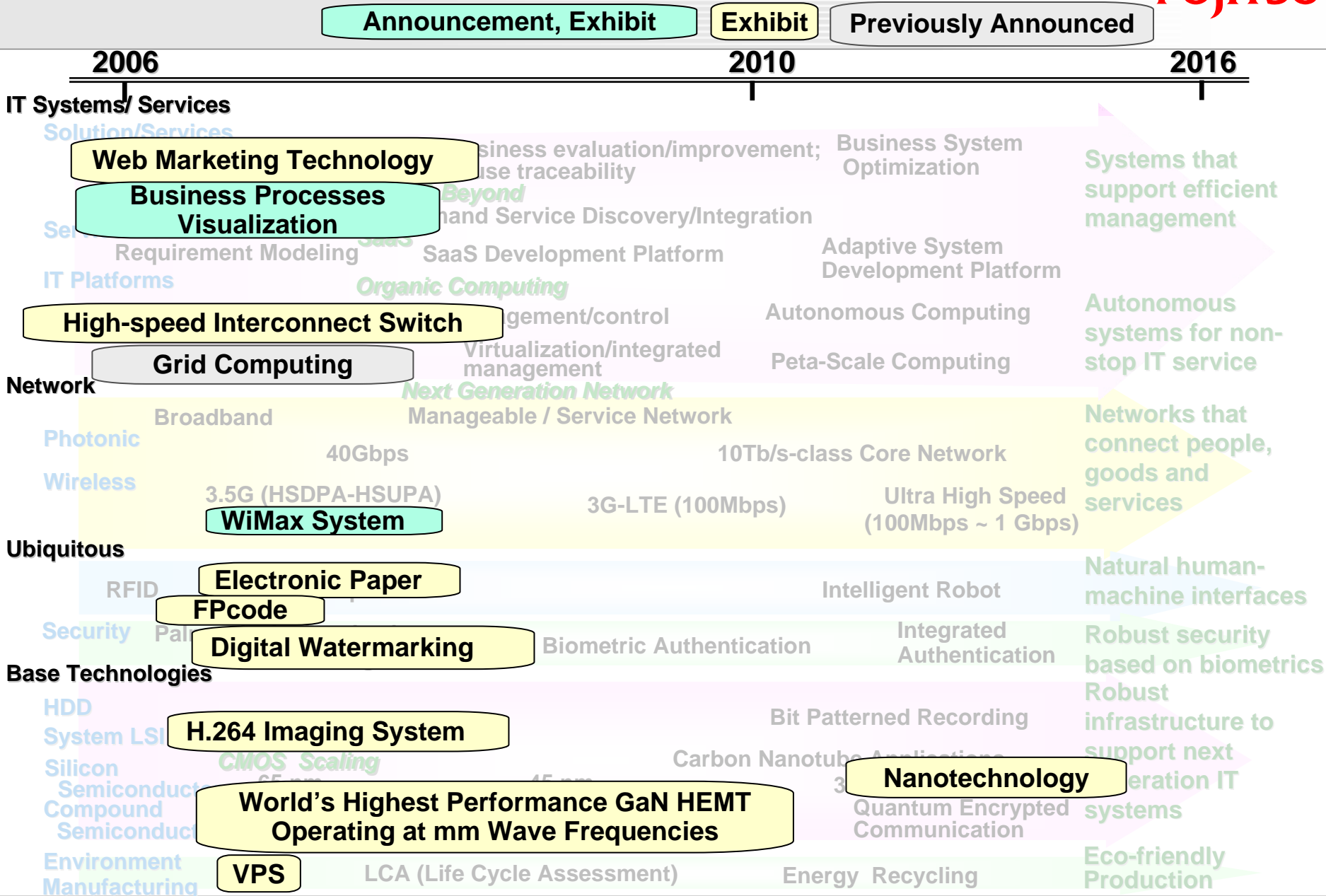
**etc.**

# R&D Roadmap



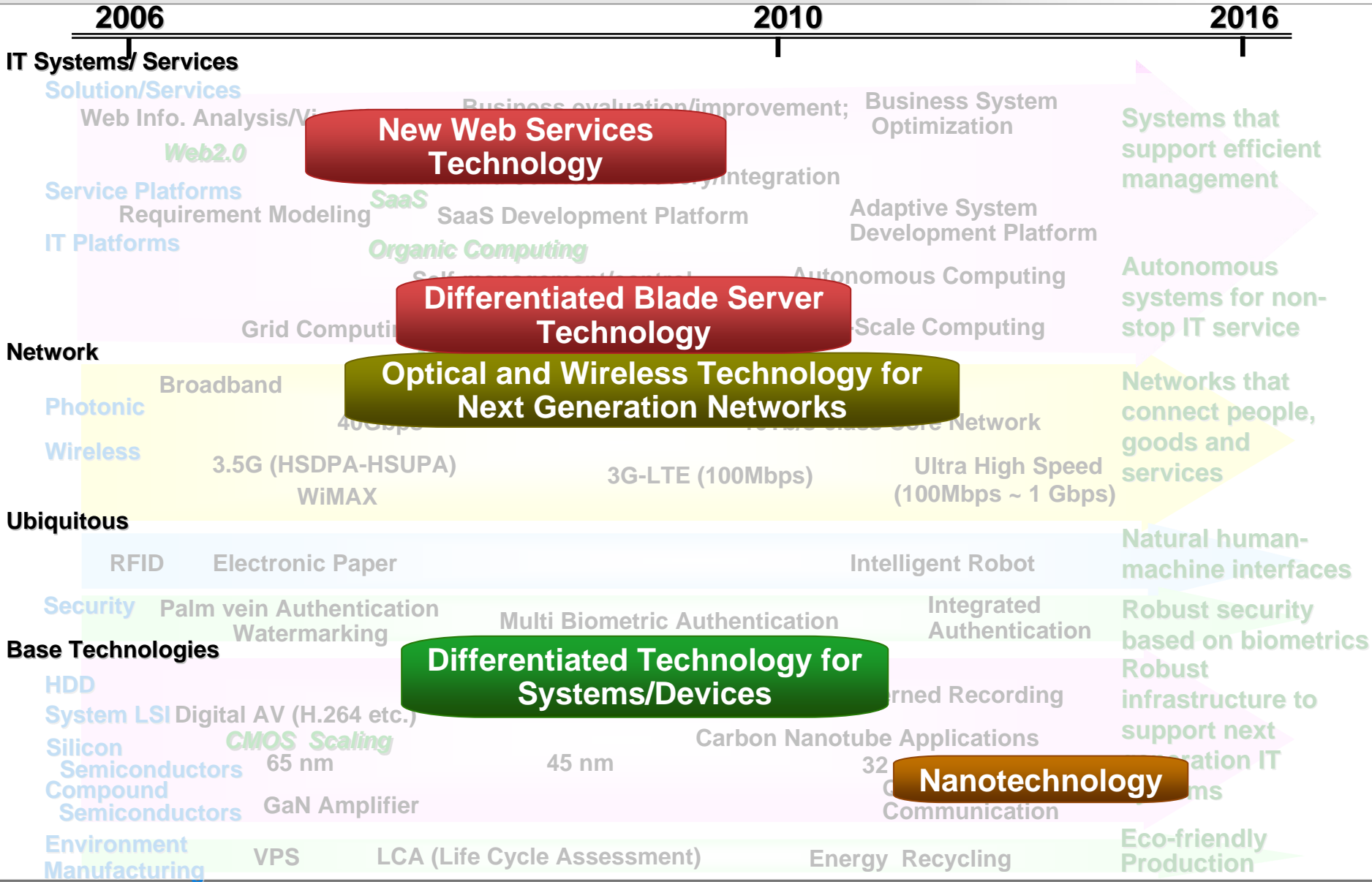


# Main Results in FY 2006





# Key Themes for FY 2007



# Our Global R&D Laboratory Model for the 21st Century

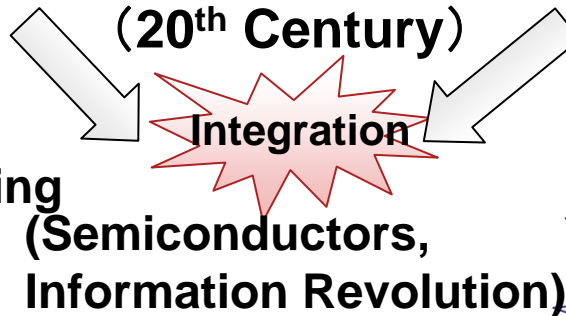
**Science**

Einstein...

Atomic Energy, Moon Landing

**Engineering**

Edison, Bell...  
Light Bulb, Telephone



**Business Model**

i-mode, Google,  
iTunes Music Store

**CSR**  
(Corporate Social Responsibility)

Environment, Compliance,  
Quality of life

**21<sup>st</sup> Century  
Fujitsu  
Laboratories**

**Market Creation**

**Global Networks**

**IP, Standardization**

**Creating a Ubiquitous  
Networking World**

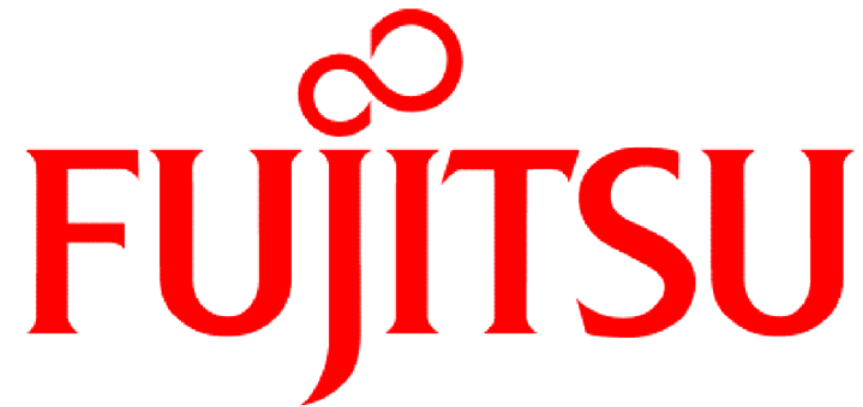
**Partnerships**

• i-mode is a registered trademark of NTT DoCoMo, Inc.  
• Google is a registered trademark of Google Inc.  
• iTunes is a registered trademark of Apple Computer, Inc. in the United States and other countries.

# 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.

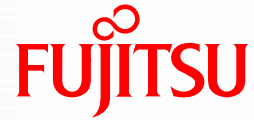


**FUJITSU**

**THE POSSIBILITIES ARE INFINITE**

# Appendix

# Overview of Fujitsu Laboratories



- **Capital: 5 billion yen**
- **Budget: 40 billion yen**  
(Fujitsu's FY 2006 consolidated R&D expenditure: 255 billion yen)
- **Employees: 1,500 in Japan,  
180 at Overseas Labs  
(US, Europe, China)**
- **Organization (Japan):**
  - 7 Research Labs**
  - 7 Centers**
  - 1 Project Group**





# R&D Portfolio

- **Business Unit-commissioned projects: 55%**  
**HQ-commissioned projects: 45%**

- **Development**
  - Research: 15%**
- Advanced**
  - Research: 40%**
- Common Base**
  - Technologies: 30%**
- Exploratory**
  - Research: 15%**

