Fujitsu Laboratories’ R&D Strategy

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Fujitsu Laboratories Ltd.
Our Global R&D Laboratory Model for the 21st Century

Science
Einstein...
Atomic Energy, Moon Landing

(20th Century)
Integration
(Semiconductors, Information Revolution)

Engineering
Edison, Bell...
Light Bulb, Telephone

Business Model
i-mode, Google, iTunes Music Store

21st Century
Fujitsu
Laboratories

Market Creation
Global Networks
Partnerships

IP, Standardization

A Rewarding Networked Society that Fulfills People’s Dreams

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R&D Roadmap

IT Systems/Services
- Business system optimization
- Grid computing
- Operation process management
- SaaS development platform
- Cloud Computing
- Virtualization/integrated management
- Peta-scale computing
- Self-management control
- Multi-biometric authentication
- SaaS
- Security improvement for SaaS

Platform
- Palm vein authentication
- Watermarking
- Requirement modeling
- Watermarking
- Security improvement for SaaS
- Self-management control
- Cloud Computing
- Adaptive system development platform
- Virtualization/integrated management
- Peta-scale computing
- Autonomous computing

Security
- Palm vein authentication
- Watermarking
- Multi-biometric authentication
- Security improvement for SaaS
- Self-management control
- Cloud Computing
- Adaptive system development platform
- Virtualization/integrated management
- Peta-scale computing
- Autonomous computing

Network
- Photonic: 40Gbps
- Wireless: WiMAX
- Ubiquitous: Electronic paper
- RFID
- Mobile thin client
- Sensor network
- Tangible interface
- Service / home robots
- Next Generation Network
- Manageable / service network
- 3G-LTE (100Mbps)
- 100Gbps
- 10Tb/s-class core network
- IMT-advanced
- 100Mbps~1Gbps
- Networks that connect people, goods and services
- Natural human-machine interfaces
- Organic Computing
- Adaptive system development platform
- Self-management control
- Cloud Computing
- Adaptive system development platform
- Virtualization/integrated management
- Peta-scale computing
- Autonomous computing

Base Technologies
- Storage: HDD, System LSI, Silicon semiconductors, Compound semiconductors
- Digital AV (H.264, UDTV)
- CMOS Scaling
- Perpendicular recording
- Bit patterned recording
- Heterogeneous multi-core LSI
- CNT applications
- Compound semiconductors
- GaN amplifier
- Perpendicular recording
- Heterogeneous multi-core LSI
- CNT applications
- Compound semiconductors
- GaN amplifier
- Perpendicular recording
- Heterogeneous multi-core LSI
- CNT applications
- Compound semiconductors
- GaN amplifier

Green Technologies
- Analysis of hazardous substances
- VPS
- Photocatalysis
- Quantification of CO₂ emission
- Energy recycling
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- Energy recycling
- Photocatalysis
- Quantification of CO₂ emission
- Energy recycling
Cutting-Edge Technologies Supporting Fujitsu’s Business

- **Systems**
  - Operations
  - Applications

- **Platforms**
  - Middleware
    - OS
    - CPU, IO, Chipset

- **Infrastructure**
  - Operations, Monitoring
    - Land, Buildings, Power & Other Facilities
    - Network
    - In-vehicle Networks
    - Base Technologies
    - Nanotechnology
    - WiMAX
    - Advanced Environmental Technologies
    - Operational Management Database
    - System Visualization
    - Secure VM
    - Risk Mining
    - Software Verification for Web Applications
FY2008 Research Strategies and Enhancement Policies

Looking ahead while strongly supporting Fujitsu’s business

Fujitsu Laboratories

■ Create new business domains in medium- to long-term horizon.
  Green Technologies, Sensor Technologies, System Solutions, Next-Generation Terminals & Services

■ Strengthen research contribution to Fujitsu’s main businesses.
  Next-Generation Services & Solutions, Server Systems and Networking Technologies.

■ Promote globalization, cost reductions, accelerated commercialization, business incubation.

■ Enhance internal technological synergies.

Fujitsu Group

Pursue sustained growth based on development of powerful products and services.
Green Technology Initiatives

Green Policy Innovation

Reducing customers’ environmental burden

Provided to Customers

Fujitsu’s Green IT

Solutions

Software / Services (Outsourcing, Consulting, etc.)

IT Infrastructure

Platforms, Networks, Software, Ubiquitous Product Solutions,
Electronic Devices, Semiconductors

R&D, Design, Production, Procurement,
Logistics, Recycling

Environmental know-how from Fujitsu’s own internal initiatives

Using IT to reduce environmental burden
6.3 mil. tons less CO₂

IT infrastructure with lower environmental burden
0.76 mil. tons less CO₂

Fujitsu Laboratories’ Strategies: Develop technologies that will lead to a reduction in CO₂ emissions.

High-efficiency Devices & Power-efficient Networks,
Energy-efficient Data Centers, Environmental Solutions, Sensing Technologies, etc.
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
Supplementary Materials
Overview of Fujitsu Laboratories

- Capital: 5 billion yen
- Budget: 40 billion yen (50% commissioned from business units, 50% from HQ)
  Fujitsu’s consolidated R&D expenditure: 260 billion yen (estimate for FY2007)
- Employees: 1,450 in Japan,
  190 at Overseas Labs (US, China, Europe)

R&D Portfolio

- Exploratory Research 15%
- Development Research 20%
- Common Base Technologies 35%
- Advanced Research 30%

Identity of BU Using Technology

Research Fields

- Services & Solutions
- Systems
- Networks
- LSI
- IT