

Fujitsu Laboratories' R&D Strategy Briefing

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Global-scale inter-related societal issues



Extreme Weather Patterns



Global Warming



Unforeseen Natural Disasters



Environmental Pollution



Deforestation



Increased Carbon Footprint (CO₂)



Deteriorating Structures



Food and Water Supply, Sanitation



Refugee Issues

Bringing people and ICT together



Dramatic growth and development of ICT



**ICT that anyone can use
ICT-related risks**

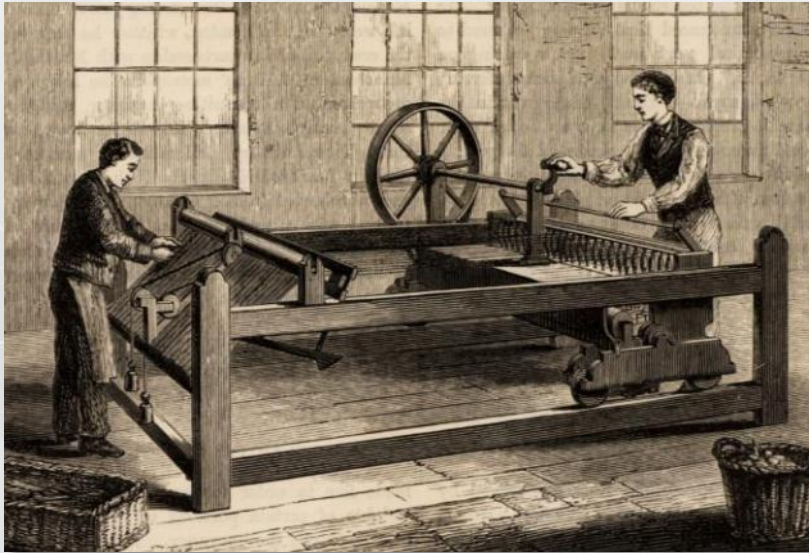


**ICT supporting
people's activities
Socially useful ICT**

(ICT: Information and Communication Technology)

A new industrial revolution

- In the coming era, people employing the power of ICT will build a new future. It is important for companies to be aware of this significant trend.



■ Fujitsu's vision:

A society where people's lives are enriched by ICT and innovation is everywhere, delivering new business and social value to enable a safer, more prosperous, and sustainable society.



A new approach for generating innovation

- In the coming era, a new approach to generating innovation is to unlock the potential of people, data, and infrastructure.



People

**Human
Empowerment**



Information

**Creative
Intelligence**



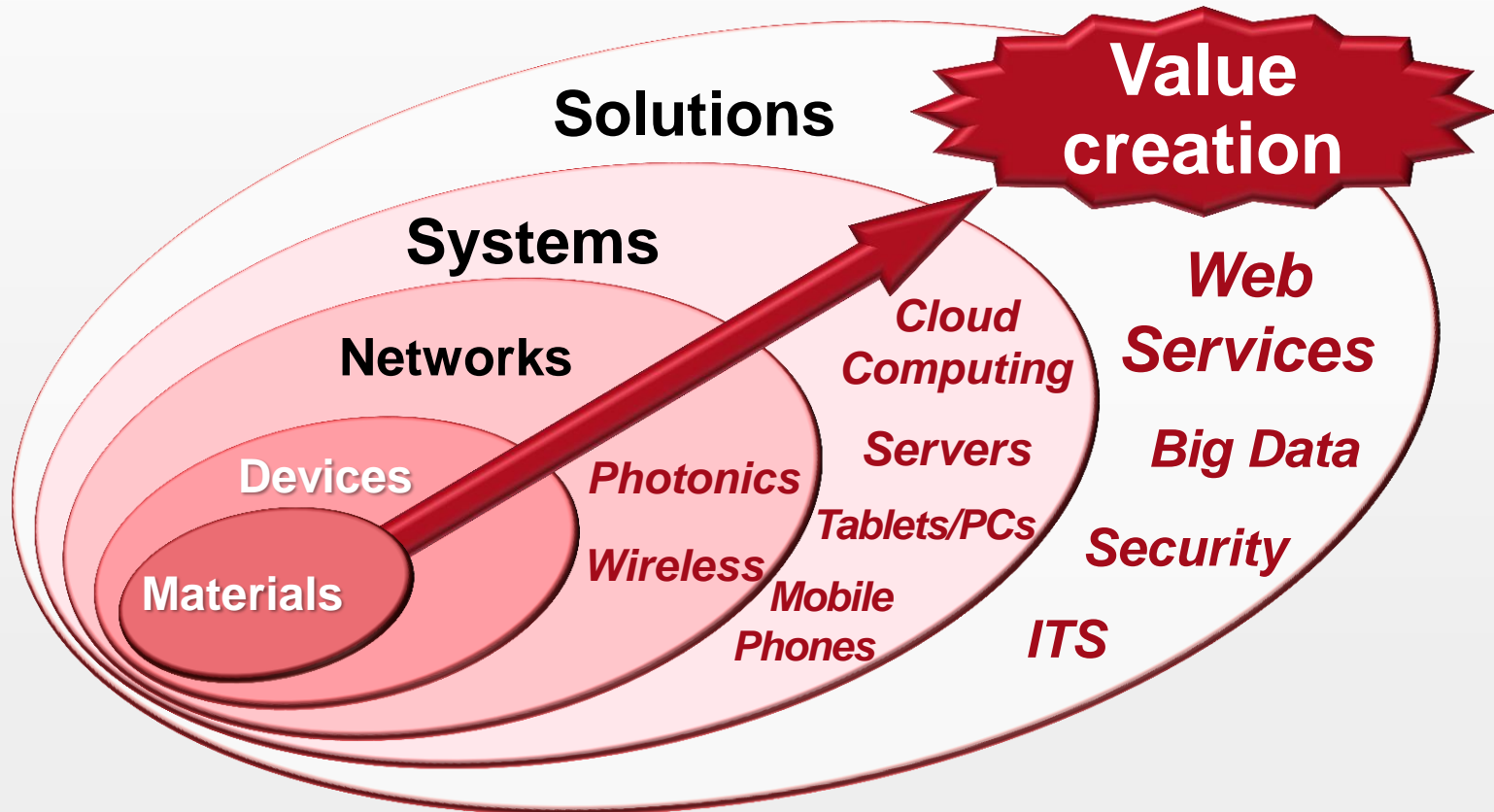
Infrastructure

**Connected
Infrastructure**



Driving the Fujitsu Group's growth with technology

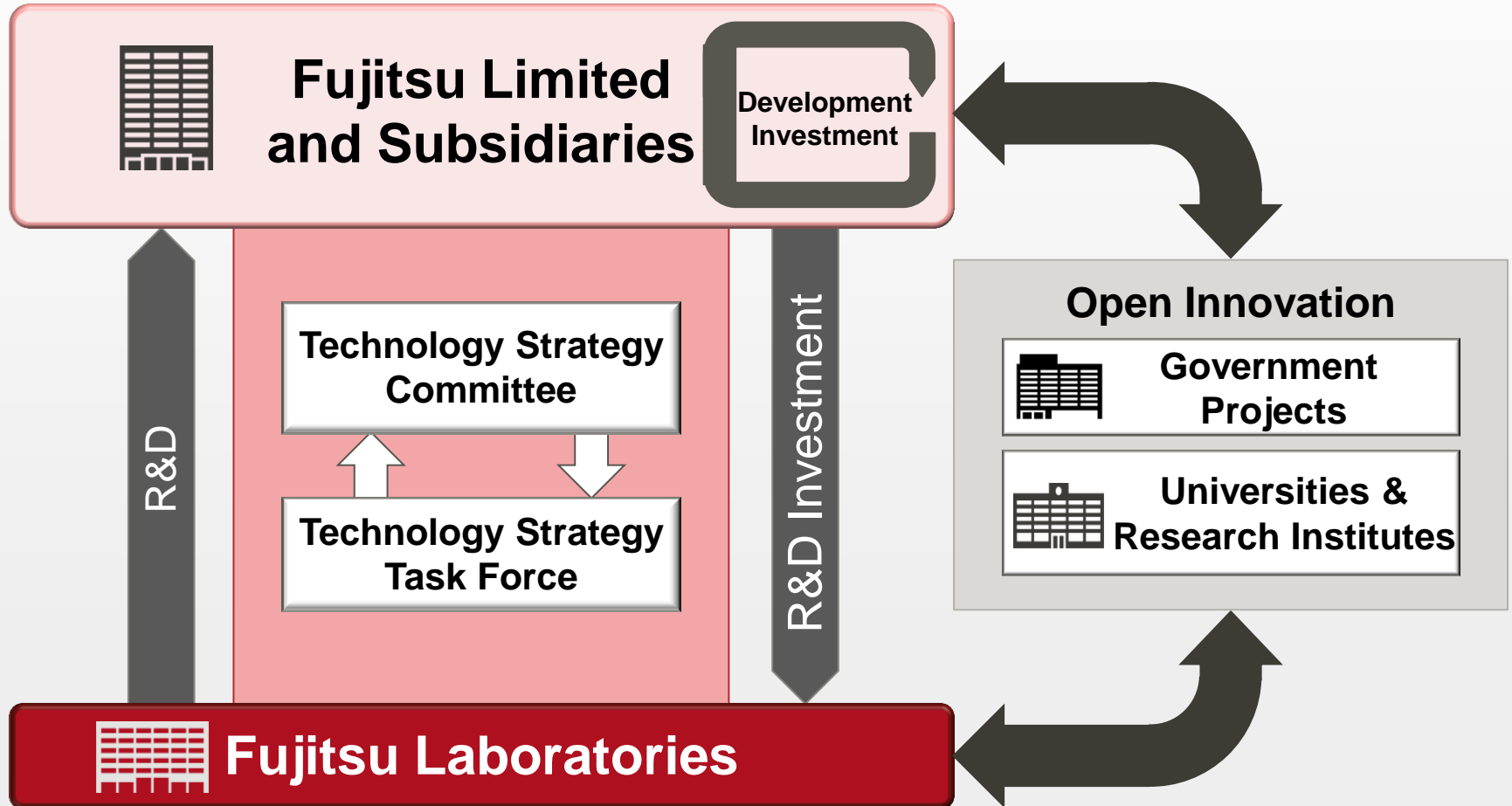
Platform of technological strengths, business model implementation



The key is to build and maximize a new value chain

Fujitsu Group: R&D Scheme

- Clarify directionalities of technology/businesses, set out and promote technology strategies



■ Top-down determination of resource allocation

Research for near-term commercialization (Approx. 30%)

- Research directly linked to business with a clearly-defined commercialization plan
- Funded by business units or affiliates

Advanced research (Approx. 50%)

- Research that will create new business, or expand or enhance the competitiveness of existing business
- Commitment by the Technology Strategy Committee and Technology Strategy Task Force

Seeds-oriented research (Approx. 20%)

- Revolutionary innovative technologies driven by our laboratories'-based perception, and set out by Fujitsu Laboratories

Fujitsu Group

Approaches to Innovation

**Human
Empowerment**

**Creative
Intelligence**

**Connected
Infrastructure**

**Common
Foundation**

Fujitsu Laboratories Framework

4 Innovation Domains

1 Ubiquitous Innovation
Creating services and developing front-end interfaces linking people, data, and infrastructure

2 Social Innovation
Expansion of social business through effective use of data and information

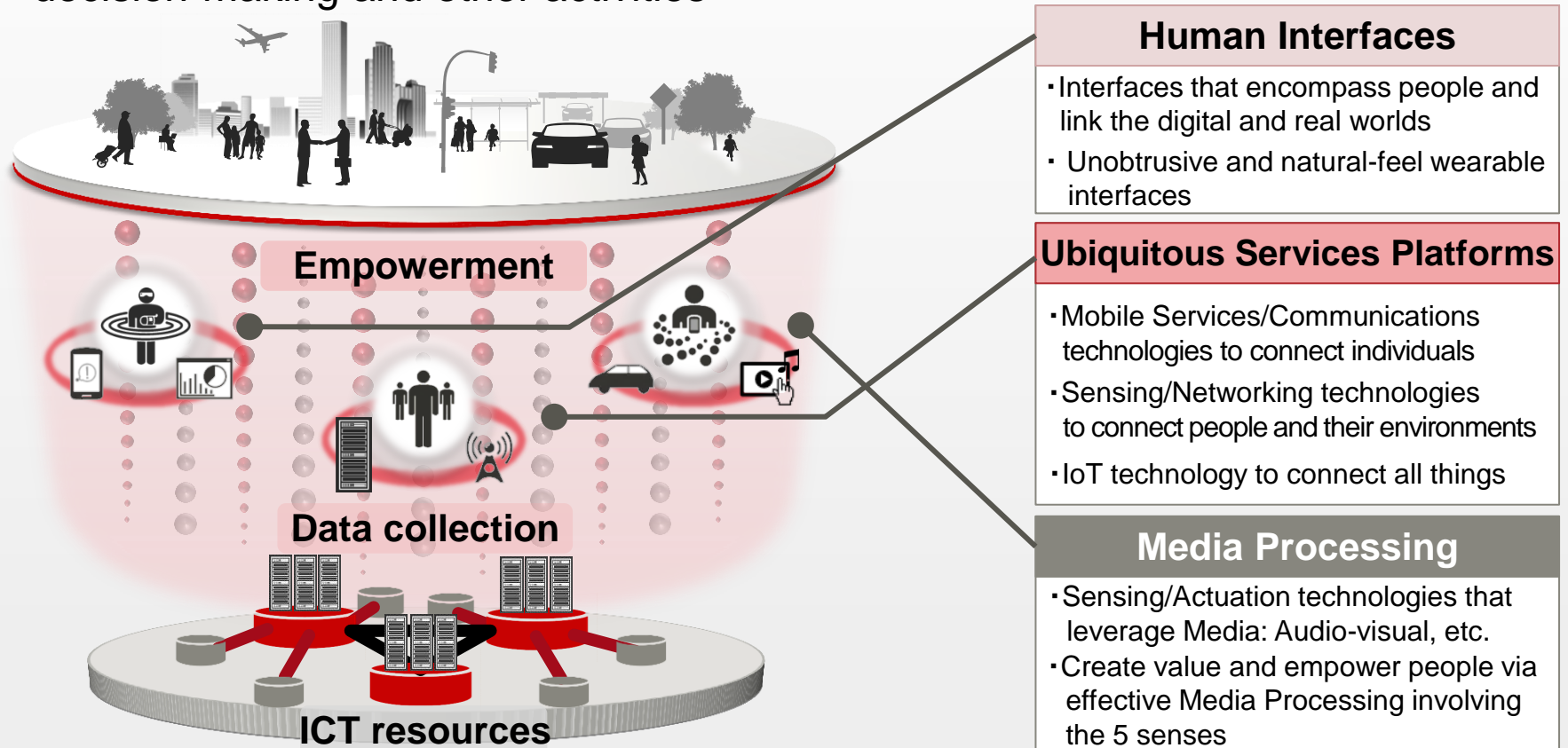
3 ICT Innovation
Development of new integrated ICT platforms to generate new value

4 Manufacturing Innovation
Development of hardware/software technologies essential to the technology value chain

1. Ubiquitous Innovation

■ Creating new services by linking front-end interfaces to computing resources

Linking people with environments through the power of ICT, to support their decision-making and other activities

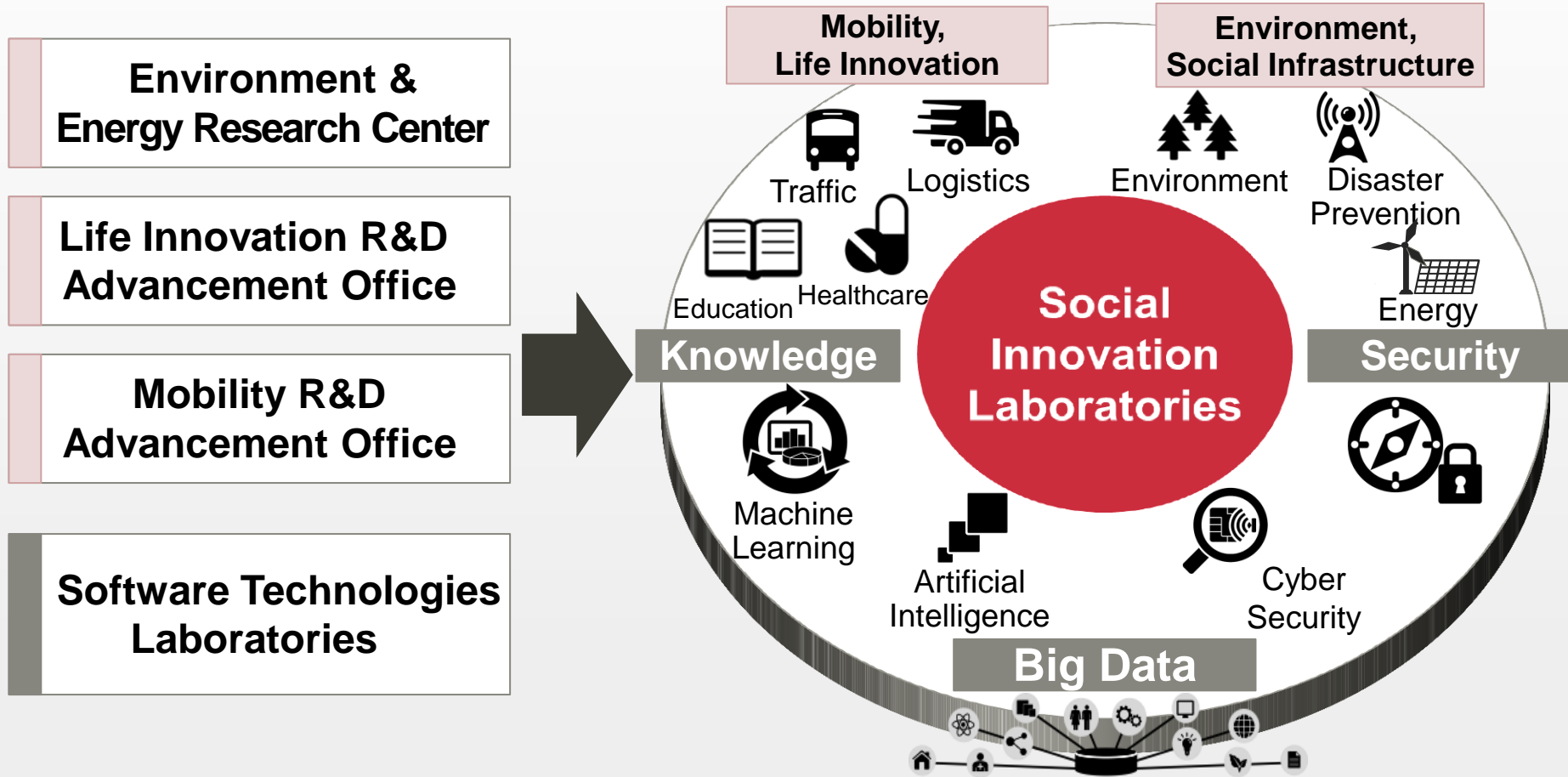


User-friendly ICT for innovation in front-end interfaces

2. Social Innovation

■ Exploitation of new ICT business domains

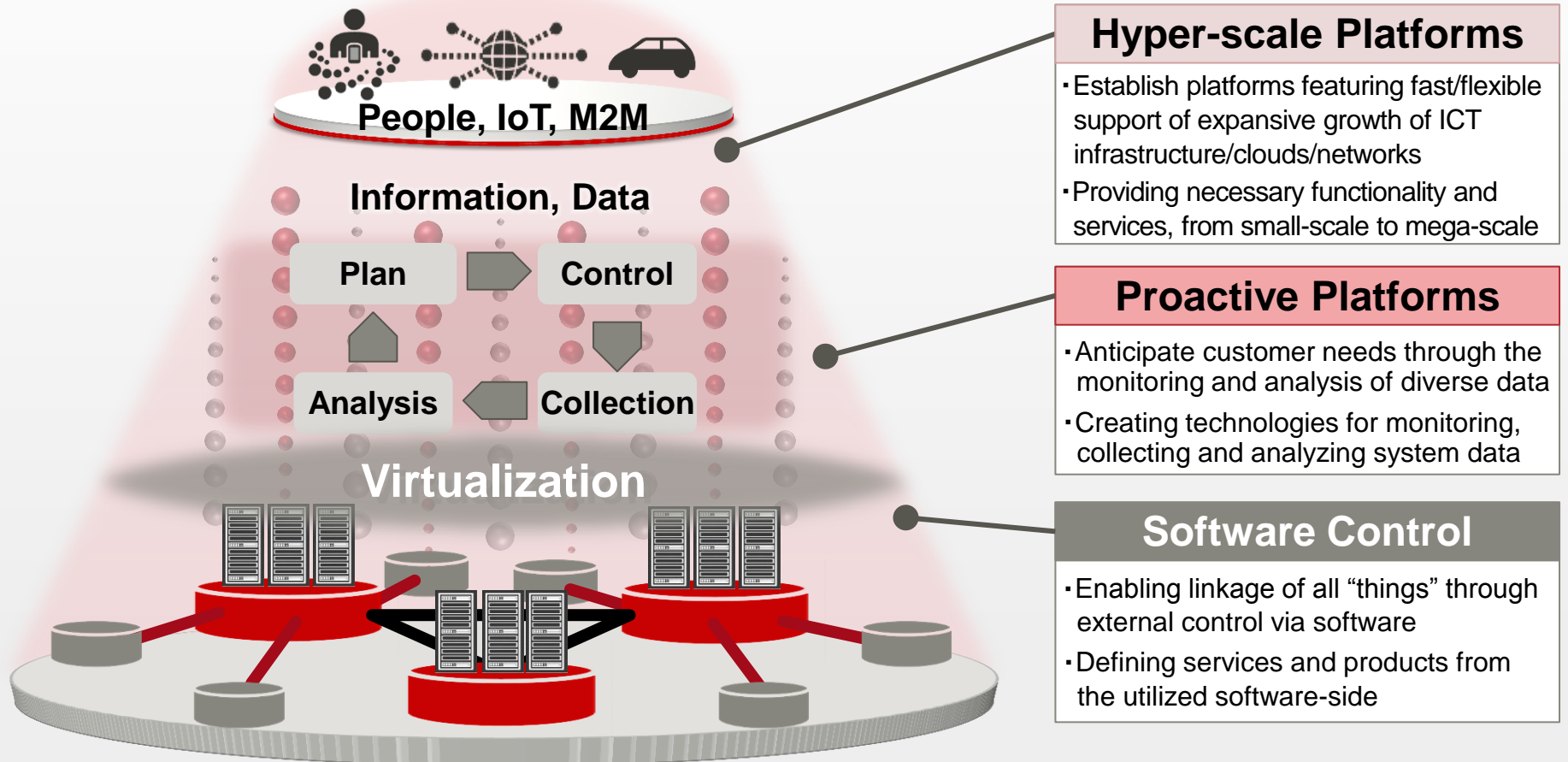
Generating social innovation by linking and leveraging heterogeneous data



Social platforms that generate new value/knowledge from information

■ Developing hyper-scale ICT platforms

Diverse and flexible processing of massive data and traffic

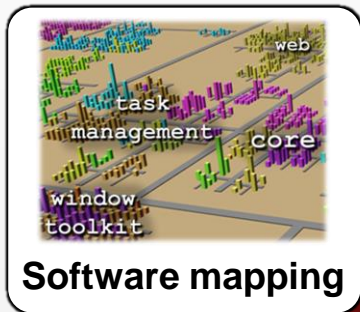


New ICT infrastructure and services that deliver new value

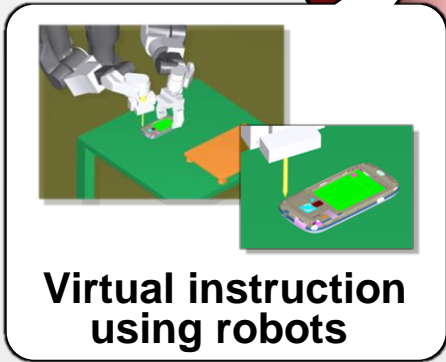
4. Manufacturing Innovation

■ Advanced technologies that fully leverage manufacturing platforms

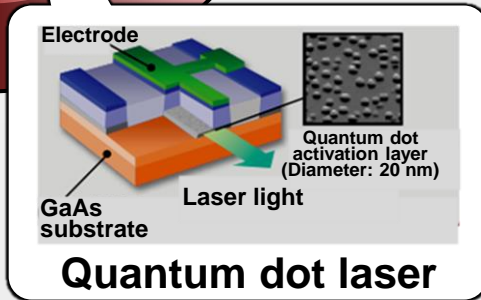
Supporting Fujitsu's products and services, from hardware to system integration/services



Software mapping



Virtual instruction using robots



Quantum dot laser

System Integration (SI) & Services

- Modernization that leverages resource-analysis technologies
- Greater efficiencies in development of diverse software

Design and Manufacturing

- Unified design/development of hardware and software
- Manufacturing technology platforms that brings together elemental technologies
- Advanced mounting technology for making things more compact and lighter
- Automated production technology

Advanced Devices

- Ultra-high-speed data transmission using wireless or photonics technology
- High-sensitivity sensors for expanding detection range
- Energy harvesting

Contribute to enhancing ICT value via revolutionary manufacturing innovation

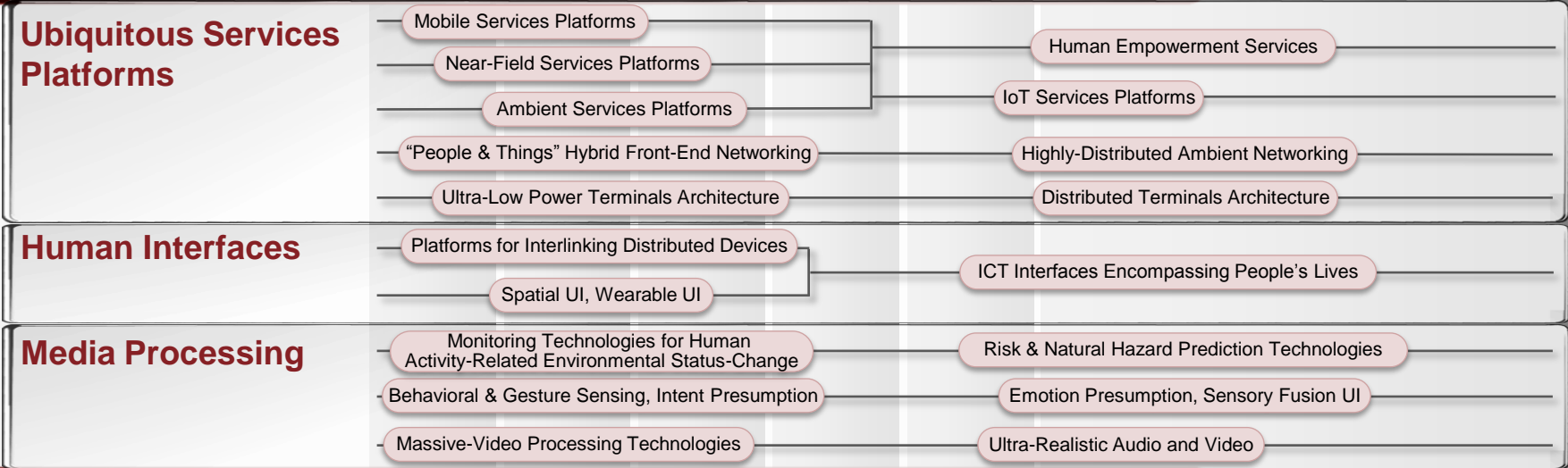
R&D Roadmap FY2014 (1/2)

FY2014

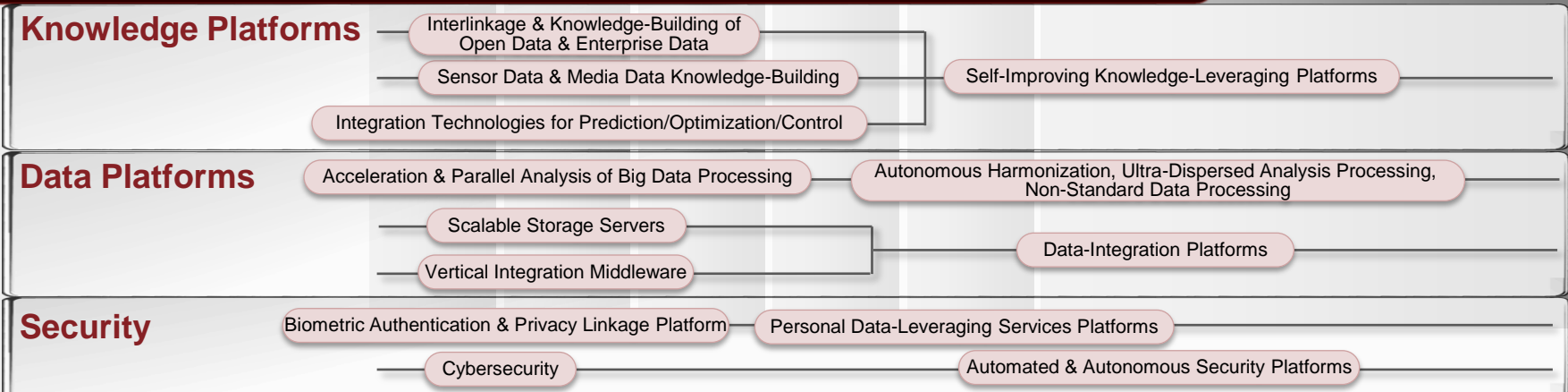
2019

2024

People: Human Empowerment Enabling Front-End-Based ICT to Enhance and Support People's Activities



Information: Creative Intelligence Providing Societal Services Enabled by Interlinking and Leveraging Heterogeneous Data



R&D Roadmap FY2014 (2/2)

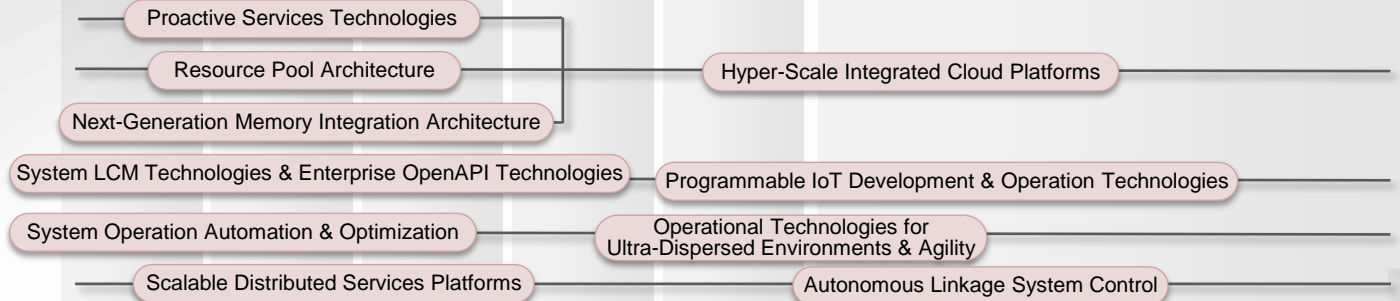
FY2014

2019

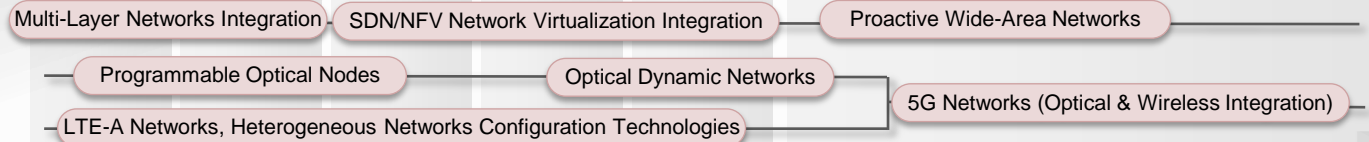
2024

Infrastructure: Connected Infrastructure Providing Software Control-Based On-Demand Services

ICT Services Platforms

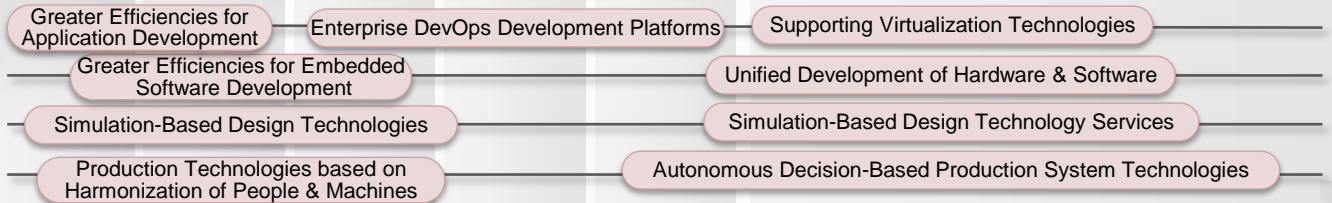


Network Systems



Common Foundation: Supporting Manufacturing, Contributing to ICT Value Enhancement

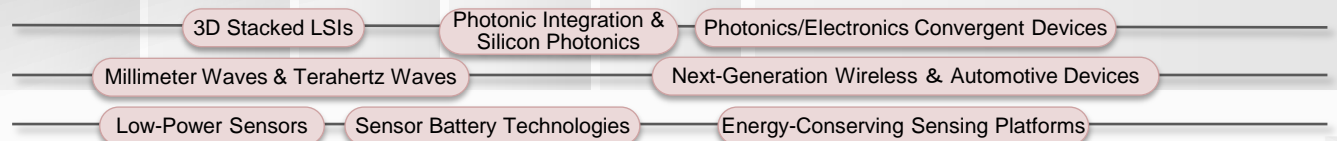
Software Manufacturing & Hardware Manufacturing



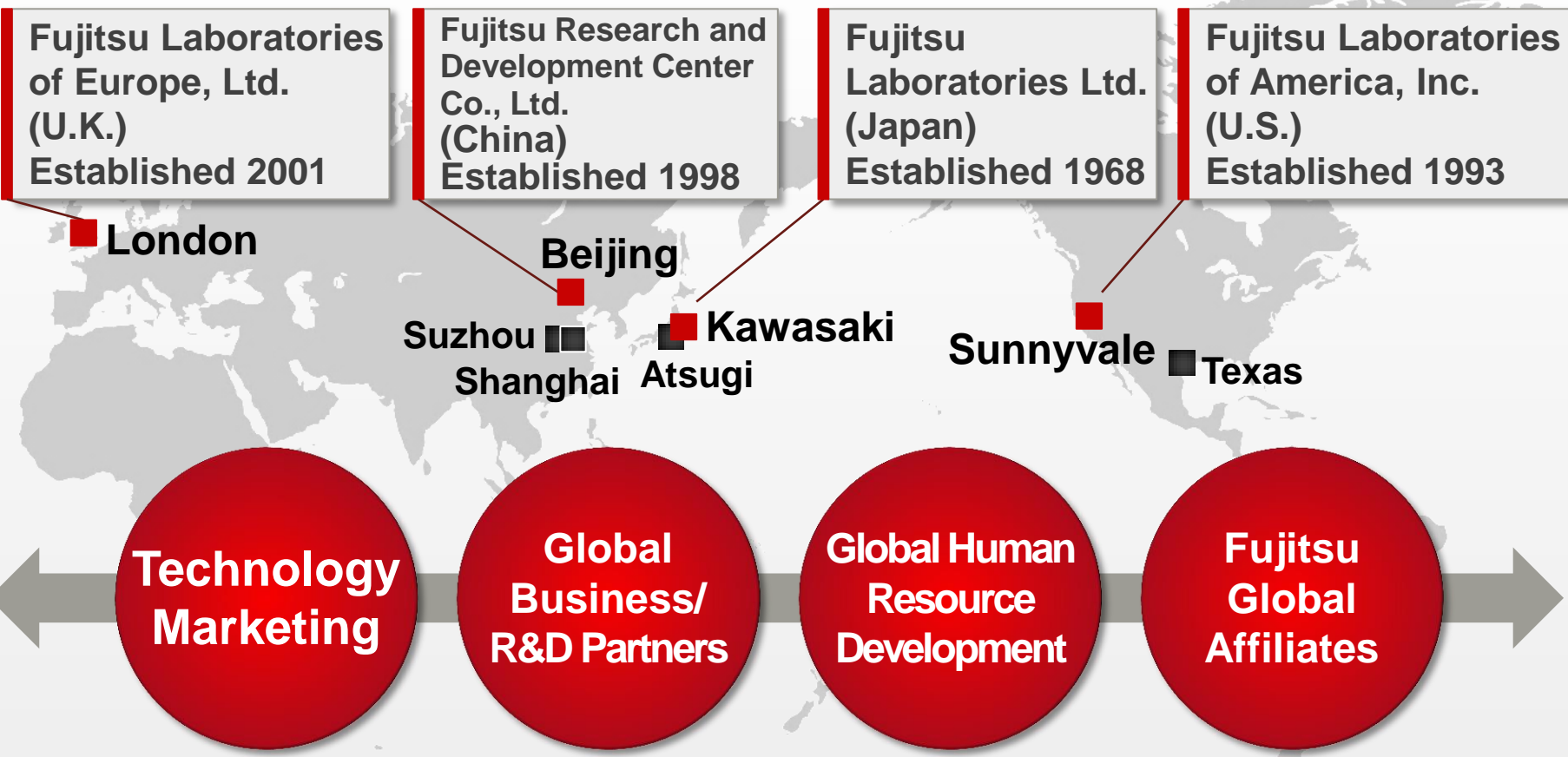
Packaging Technologies



Core Device Technologies



Global R&D Sites and Collaborations



■ 107 R&D projects in 16 countries worldwide



Major Achievements in FY2013 (1/2)

R&D Domain	Achievements	Press Releases
Creative Intelligence	Technology to Quickly Detect Latent Malware Activity in Internal Networks	New Press Releases
Human Empowerment	Platform Technology that Speeds Development of On-Site Information Exchange Services	
Connected Infrastructure	High-Throughput, High-Speed Storage and Search System for Vast Amounts of 40Gbps Time-Series Data	Previous Press Release
	High-Speed Data Transfer Technology using Deduplication and Compression	
	Distributed Service Platform Technology: Automating Construction and Operation of Distributed Systems	
	Analyzing Operational Manuals for Runbook Automation	
Human Empowerment	Speech Synthesis Technology that Clearly Conveys Information in a Variety of Voices and Tones	Previous Press Release
	Haptic Sensory Tablet Prototype Conveys Realistic Tactile Sensations	
	A Glove-Style Wearable Device to Support Field Work	


Major Achievements in FY2013 (2/2)

R&D Domain	Achievements	Press Releases
Creative Intelligence	Demand Response Solution Compliant with OpenADR 2.0 to Reduce Energy Costs	Previous Press Release
	Increasing the Value of Data with Technology that Assigns Links to Linked Open Data (LOD)	
	Fast Image Sharpening and Fire/Smoke Detection Technology for Video Monitoring System	
	Gaze Tracking Sensor to Collect Gaze Information in the Field	
	Advanced Marketing by Applying Social Media Analysis	
Common Foundation	World's Most Energy-Efficient Wireless Transmission Technology	Previous Press Release
	Simple and Convenient High-Speed Communications: Millimeter-Wave Wireless Communications Technology	

Innovation

= Invention & Business Models

- Technology strategies for swift application and implementation to businesses
- Advanced technologies-driven co-creation as the Fujitsu Group comprehensively



FUJITSU

shaping tomorrow with you

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These presentation materials may contain forward-looking statements that are based on management's current views and assumptions and involve 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 affect 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.