

Fujitsu Laboratories' R&D Strategy

October 13, 2011

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President

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Challenges in Enabling Sustainable Growth

- Increasingly complex societal issues -



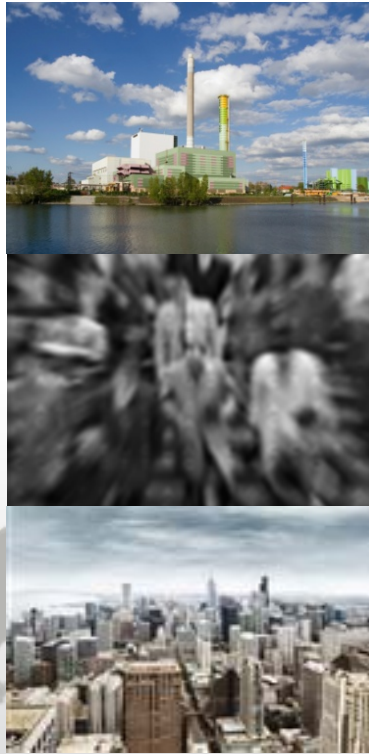
New unconventional innovation is required

What is happening in Japan?

Great East Japan Earthquake & Tsunami



Nuclear power generation



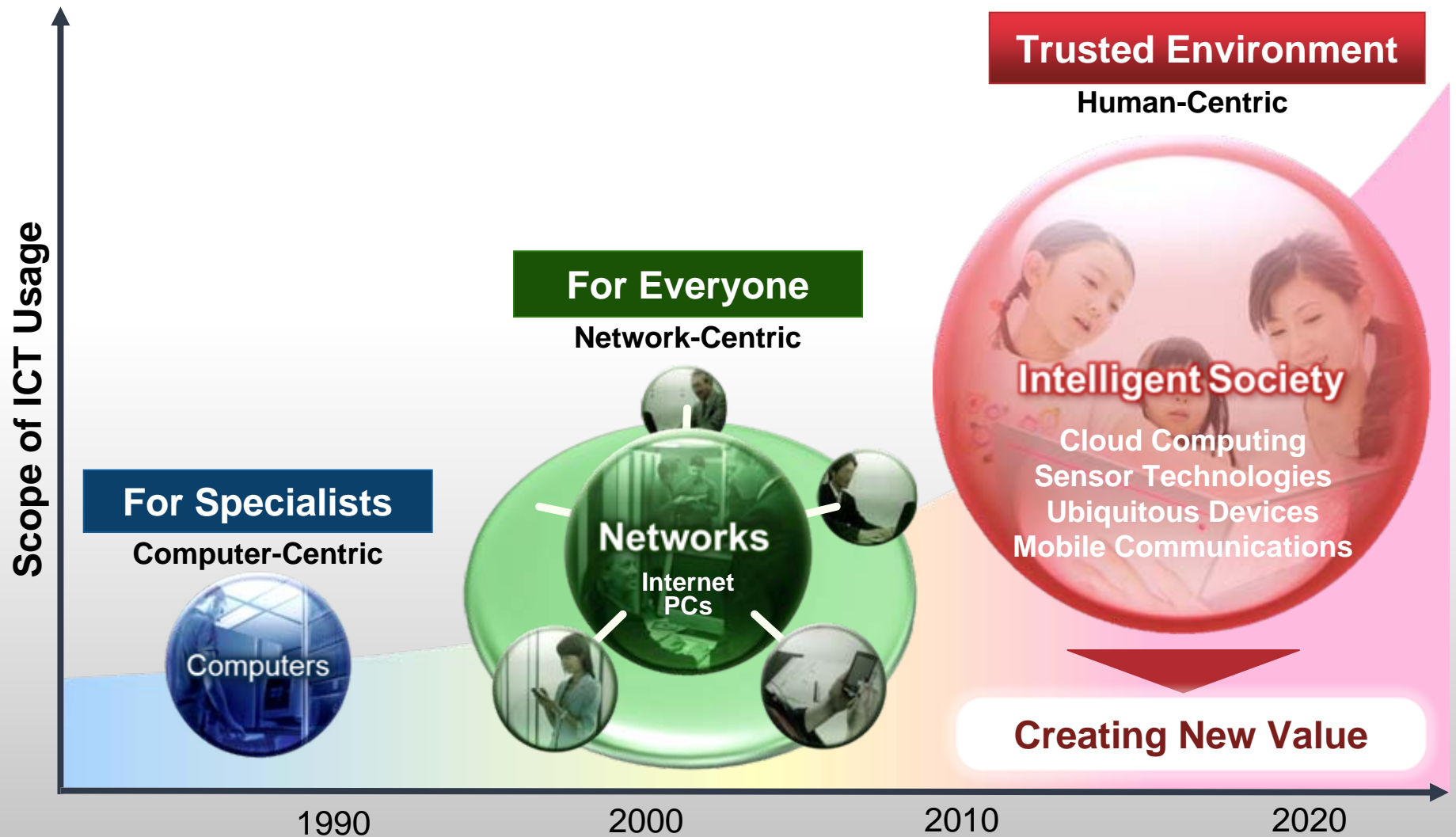
Typhoons



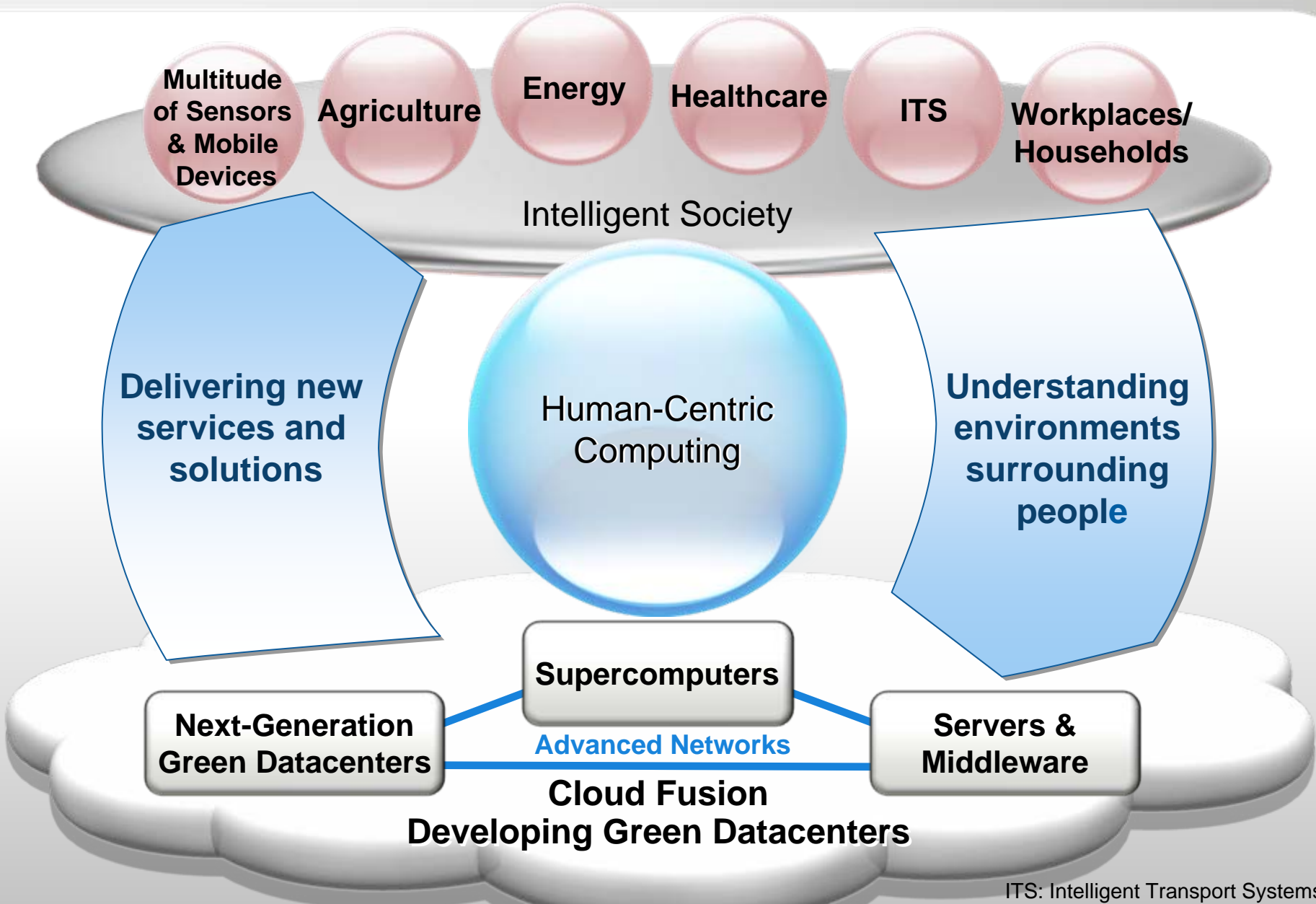
Building a society that is resilient to disasters

Paradigm Shift in ICT

From “Technology-Centric” to “Human-Centric”
Enabling an Intelligent Society

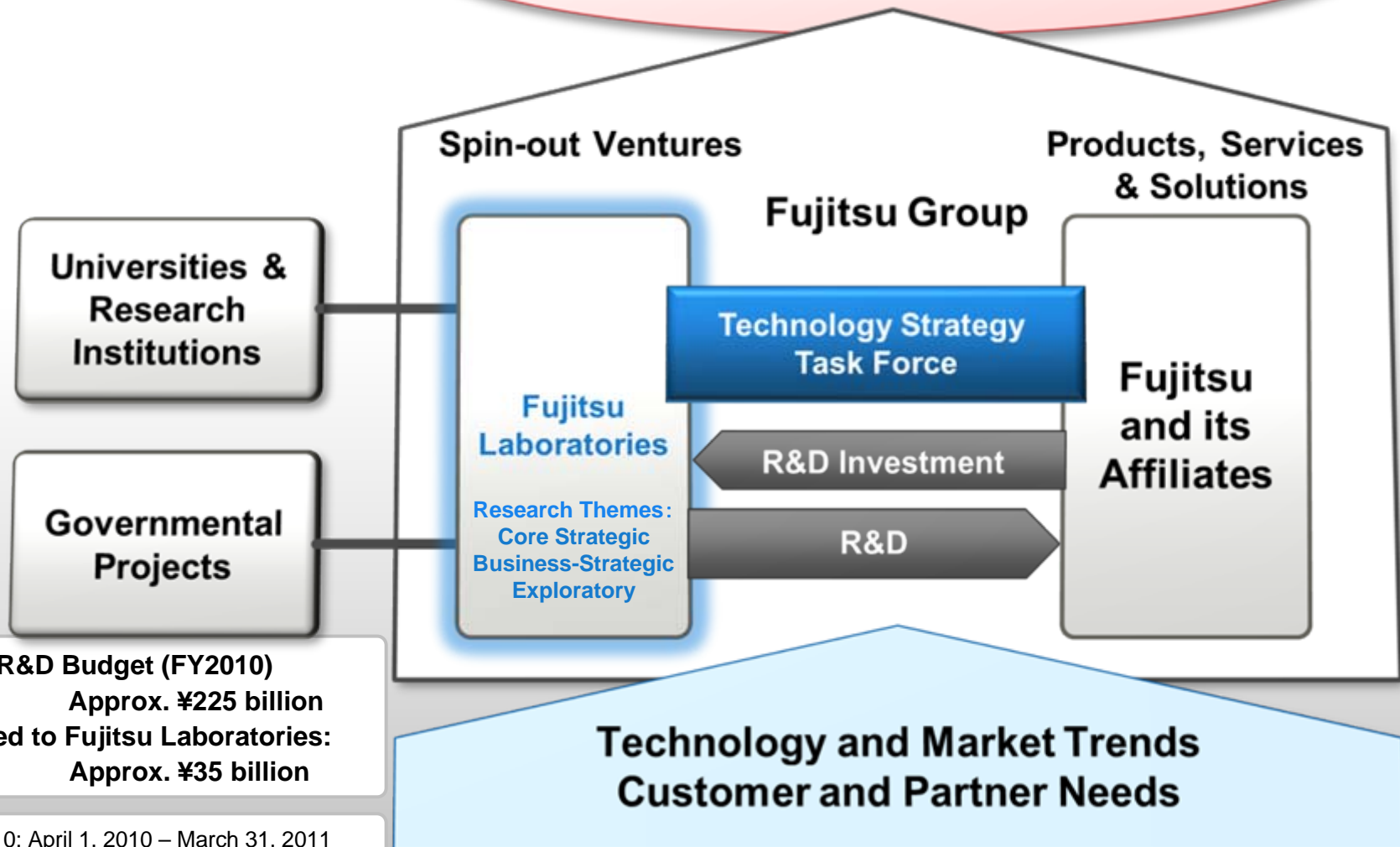


Enabling a Human-Centric Intelligent Society



R&D Scheme of the Fujitsu Group

Creating value and pioneering new markets
Contributing to Fujitsu's core businesses



R&D Budget (FY2010)

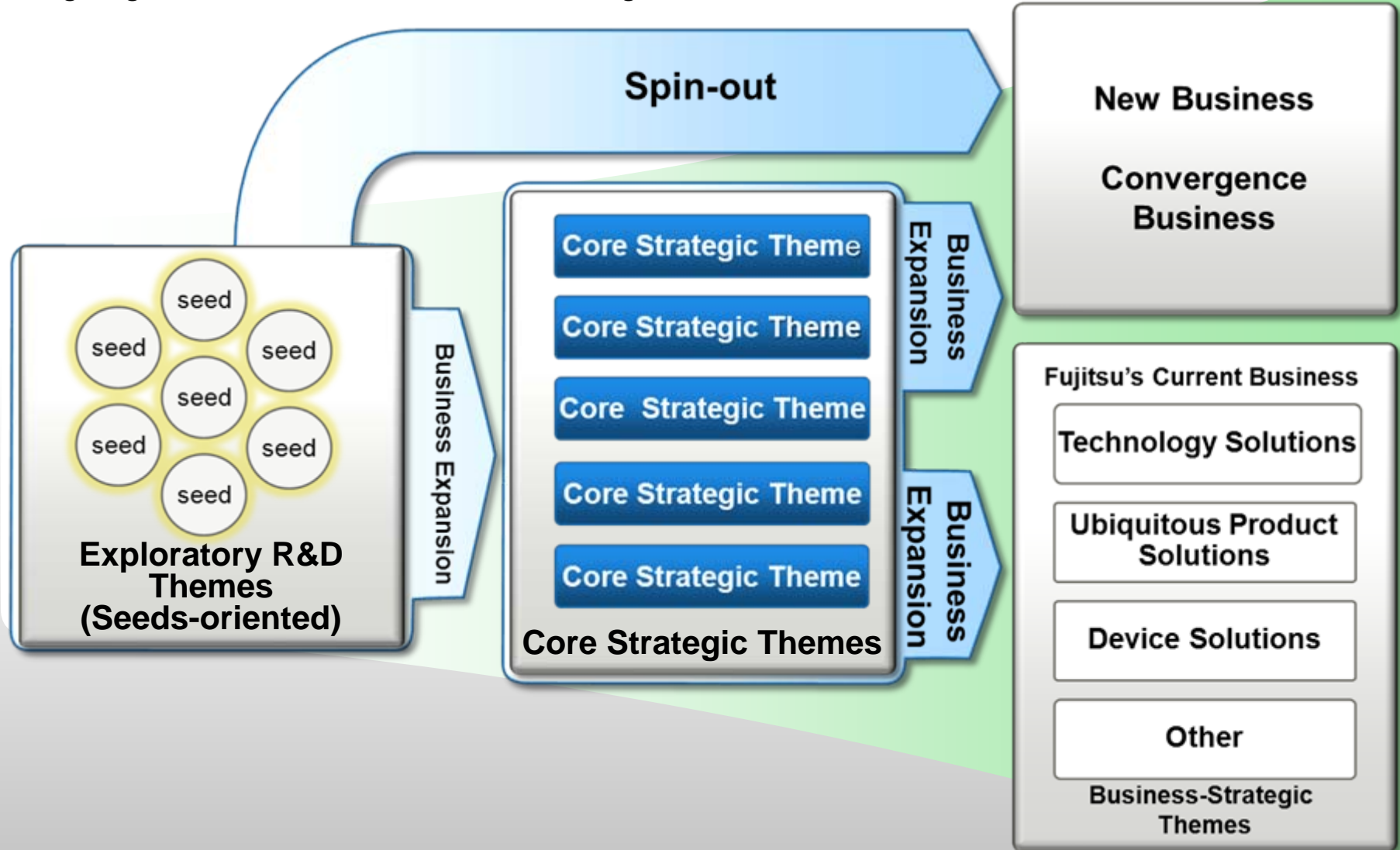
Fujitsu: Approx. ¥225 billion
Allocated to Fujitsu Laboratories:
Approx. ¥35 billion

FY2010: April 1, 2010 – March 31, 2011

Strategic Research Themes

- Sustainable contribution to strengthening Fujitsu's business -

Clarifying the positioning of research themes to support the future of the Fujitsu Group
Aligning businesses and research, strategic allocation of research resources



■ Forward-looking Strategic R&D

- Alignment of R&D strategy with business segment groups' business strategies
 - “Company-wide Technology Strategy Task Force”
- Shifting resources in response to business portfolio changes
 - “Core Strategic Themes”

■ Expansion of Core Strategic Themes

- In FY2011, expand from developing basic technologies to concept verification and testing phases
- Establishing “Manufacturing Innovation” as a new core strategic theme

■ Pioneering World-Class Research (Unexplored Areas)

- By pioneering distinctive technological innovations and new businesses through the continuous accumulation of basic technologies, Fujitsu aims to leverage unique ideas to produce world-class research results

■ Developing New Global Businesses

FY2011 Core Strategic Themes

HCIS
Human-Centric
Intelligent Society

2021

2016

2011

Human-Centric Computing

User-friendly timely services tailored for individuals:
"right now, right here, just for you"

Intelligent Society

Overall optimization of social infrastructures,
integrating individuals and systems

Cloud Fusion

Environments for flexible fusion of multiple
clouds

Green Datacenters

Green platforms for smart services

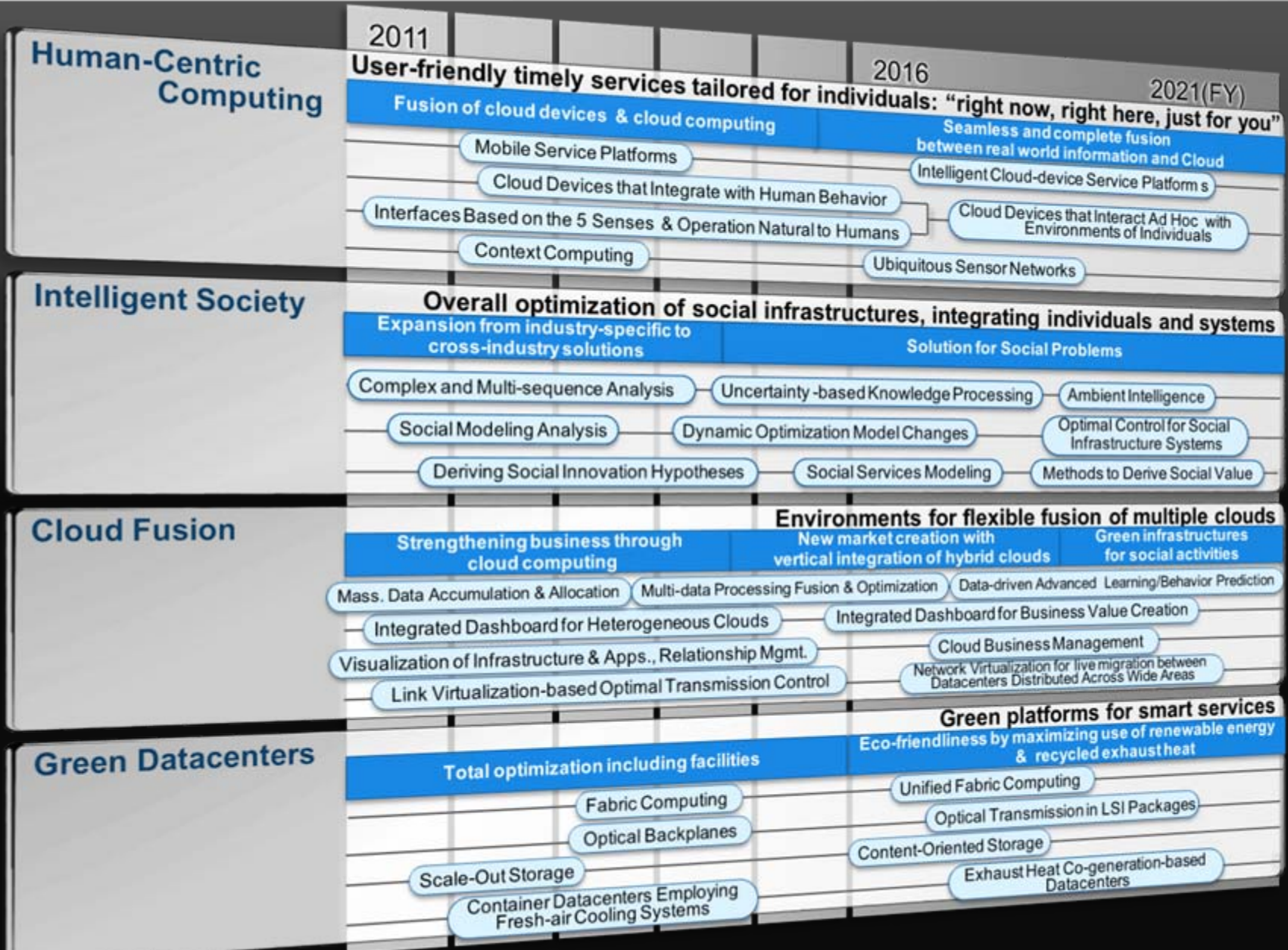
Manufacturing Innovation

Enhancing competitive strengths of
Fujitsu's products

FY2011: April 1, 2011 – March 31, 2012

R&D Roadmap FY2011

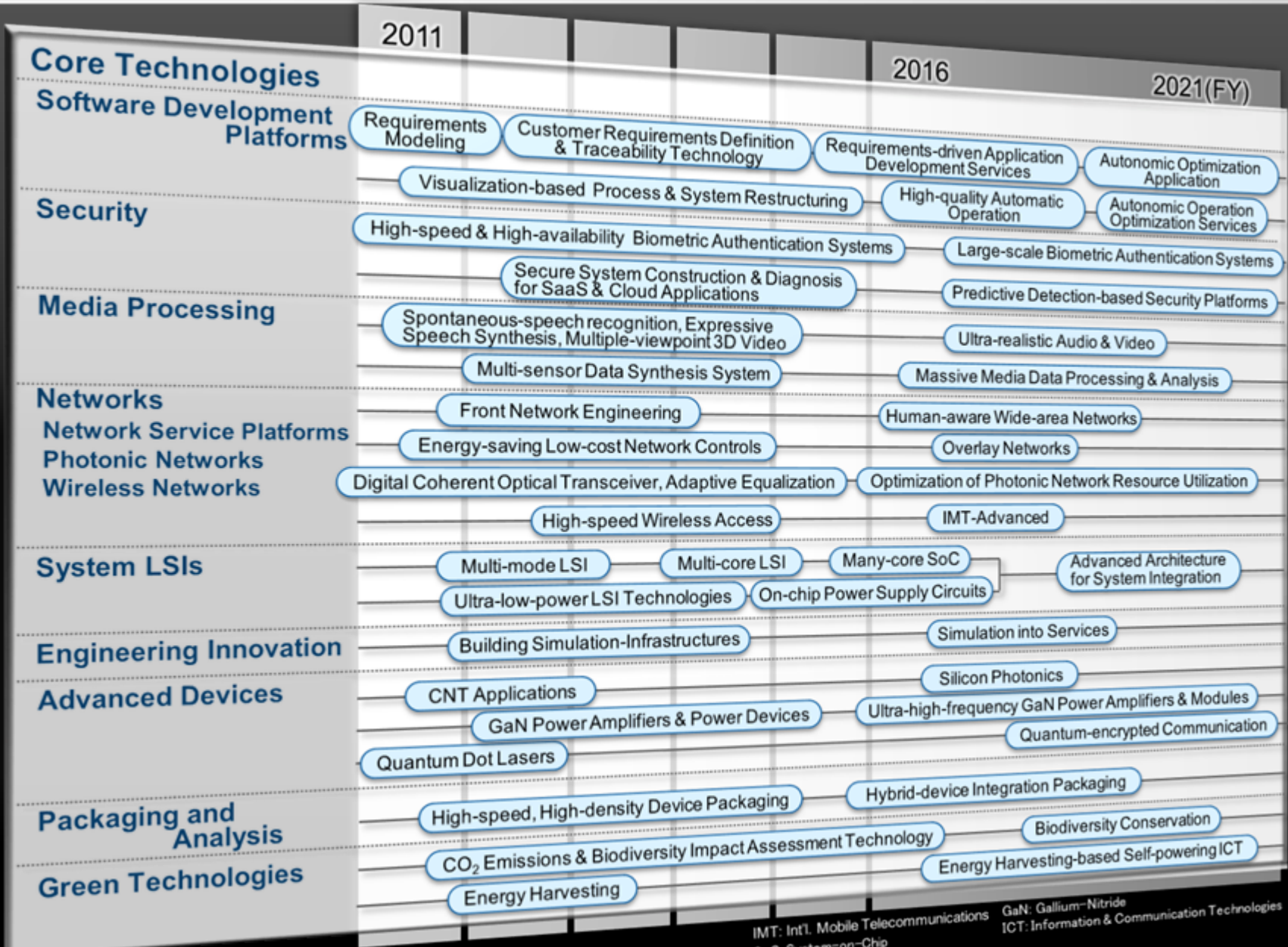
(FY2011: April 1, 2011 - March 31, 2012) **FUJITSU**



Enabling a Human-Centric Intelligent Society

R&D Roadmap FY2011

(FY2011: April 1, 2011 - March 31, 2012) **FUJITSU**



Robust ICT base to enable a Human-Centric Intelligent Society

IMT: Int'l. Mobile Telecommunications
 SoC: System-on-Chip
 CNT: Carbon Nanotube
 GaN: Gallium-Nitride
 ICT: Information & Communication Technologies

Open Innovation & Global R&D Collaborations

Outsourcing
Relationship

Win-Win
Relationship

Strategic
Partnership



• Japan - Tsukuba Innovation Arena (TIA):

• Japan - QD Laser, Inc.:

• Singapore - A*STAR:

• Germany – Technical University Munich (TUM):

• Australian National University (ANU):

Development of ultra-low-power devices

Began shipping quantum dot lasers for communications

Development of artificial antibodies for diagnosing cancer and contagious diseases

Development of DNA-based bio-sensor technology

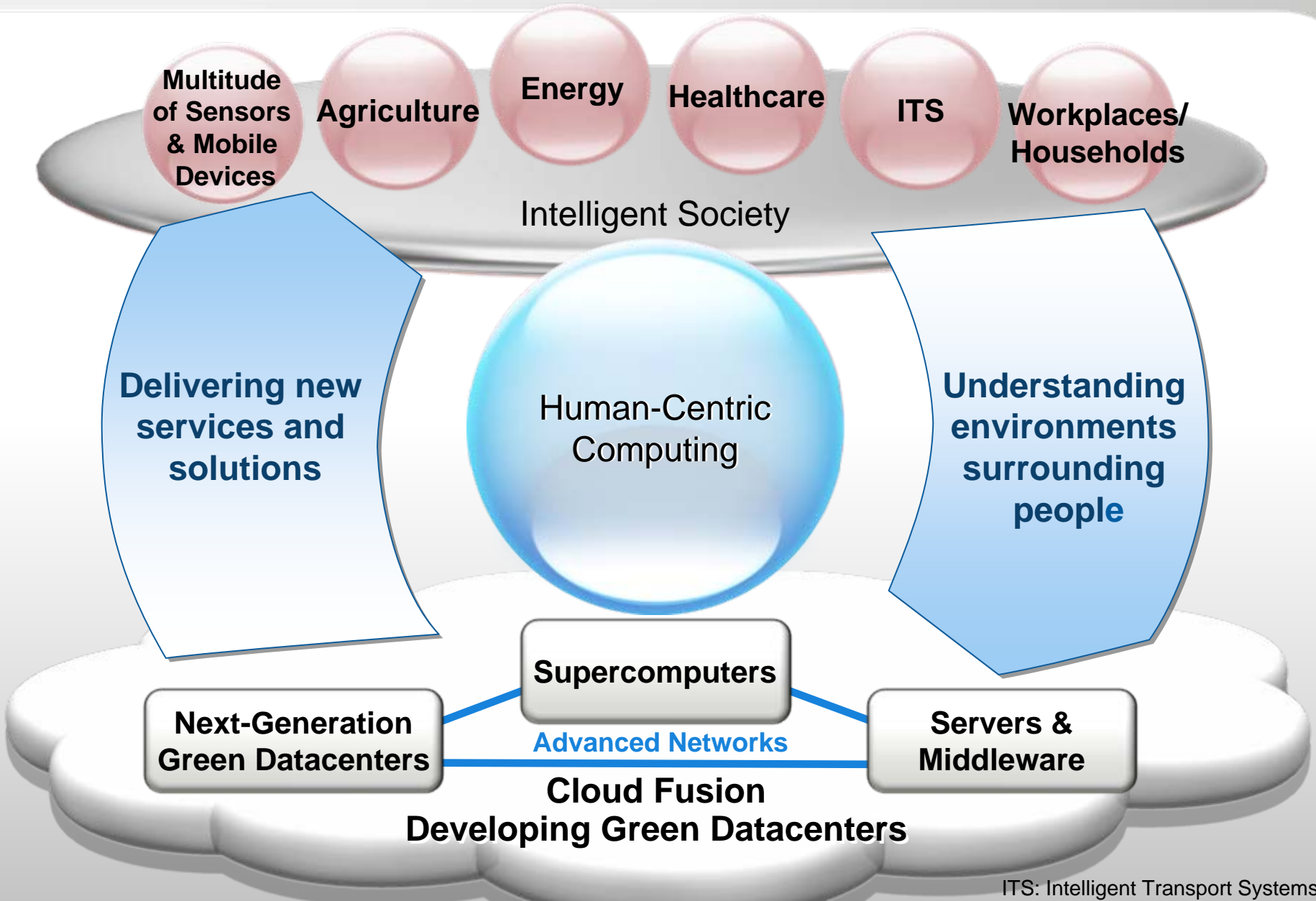
Development of supercomputer simulation software

FY2010 R&D Achievements: Core Strategic Themes

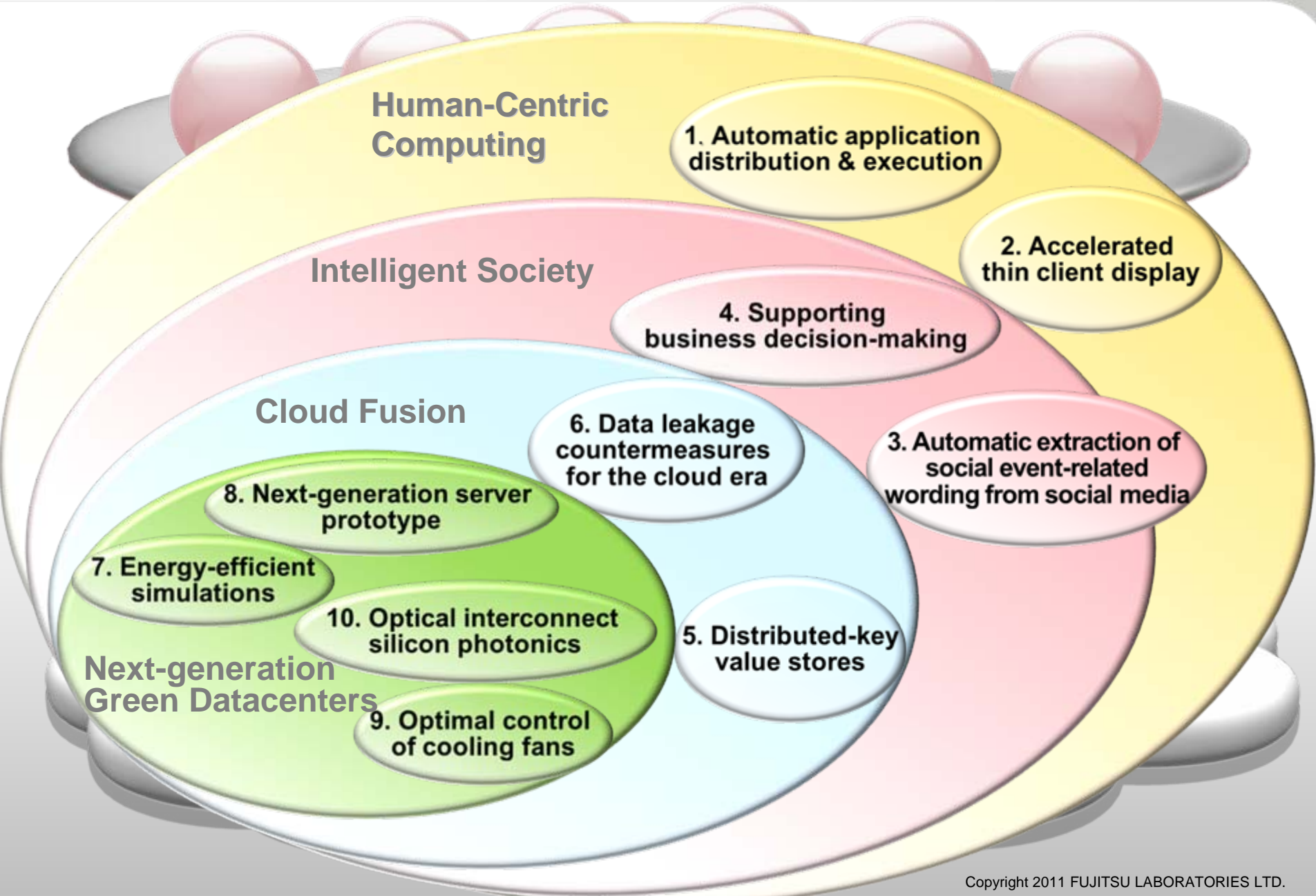


Field	R&D Theme	Announcement/ Exhibit
Human-Centric Computing	1. Automatic Execution/Closing of Applications & Data in Accordance with Time/Place/Occasion: Easy and Secure Use of Smartphones	Exhibit
	2. High-speed Display for Tablets and Smartphones: Compresses Thin Clients' Screen Data Transfer Volume to 1/10	Exhibit
Intelligent Society	3. Automatic Extraction of Social Event-related Wording from Social Media	Exhibit
	4. Supporting Business Decision-Making and Testing the Effects of Measures to Improve Customer Support in Advance	Press Release (Japanese only): September 14, 2011
Cloud Fusion	5. Efficient Processing of Large-Volume Range Queries with Distributed Key-Value Stores	Exhibit
	6. Technologies for New Countermeasures to Prevent Information Leakage for the Cloud-computing Era	Exhibit
Green Datacenters	7. World's First Real-Time Power-Saving Simulations with Comprehensive Datacenter Models	Press Release & Exhibit: October 13, 2011
	8. Prototype of World's First Next-generation Server that Simultaneously Delivers High Performance and Flexibility	Exhibit
	9. Optimal Control of Server Cooling Fans to Promote Energy-Efficiency	Press Release: May 10, 2011
	10. Compact Silicon Photonics Light Source for High-Bandwidth CPU Interconnects	Exhibit

Enabling a Human-Centric Intelligent Society




Enabling a Human-Centric Intelligent Society



FY2010 R&D Achievements: Core Technologies

Core Technology: Category	R&D Theme	Announcement/ Exhibit
Media Processing	Useful Information Provided Just by Speaking into Your Smartphone	Press Release & Exhibit: October 13, 2011
Security	World's First Palm Vein and Fingerprint Hybrid Biometric Authentication System - Enables personal authentication from a group of 5 million individuals within 2 seconds -	Exhibit
Photonic Networks	High-efficiency Optical Communication for Terabit-Ether Era	Exhibit
Advanced Devices	World's First 40 Gbps Optical Fiber Transmission Using Directly-Modulated Laser Without Need for Cooling	Exhibit
	World's First Gallium-Nitride (GaN) HEMT Wide-range Wireless Transmitter/Receiver Module Operating in 6-18 GHz Band	Press Release: June 6, 2011
Environment & Energy	Energy Harvesting from Surrounding Environment: Electricity-generating Flexible Sheet	Exhibit
HPC (Packaging Analysis Technology)	Highly-reliable Water Cooling Material Technology Supporting Fast and Energy-efficient Computing for the K Computer	Exhibit
HPC (Engineering Innovation)	Successful Verification Calculation of Highly-parallel Calculation based Large-scale Quantum Conductivity	Exhibit



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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.