# 2. Intellectual Capital



# A technology platform for creating value by converting information into knowledge

## Fujitsu's Intellectual Capital

The Fujitsu Group aspires to shape a world where people are able to create innovation to achieve their full potential, thereby driving the sustainable growth of society. At Fujitsu, we refer to such a world as a Human Centric Intelligent Society. Realizing this vision involves converting the information generated by ICT into knowledge and harnessing that knowledge in sophisticated ways.

The Fujitsu Group is driving development of cutting-edge technologies and the creation of business models that are essential for realizing a Human Centric Intelligent Society. Through this entire range of activity, we are working to upgrade and expand our intellectual capital, which includes the knowledge and expertise that underpin our business activities. We believe that the intellectual capital base we have built up will help to boost the Fujitsu Group's international competitiveness, along with helping to realize a more secure and affluent society.

## Integration of R&D, Business, and Intellectual Property Strategies

Working to Obtain Patents as a Key Corporate Asset
The Fujitsu Group must execute its R&D, business, and intellectual property (IP) strategies in a coherent manner in order to
form, enhance, and expand its intellectual capital base. We are
pushing ahead with cutting-edge R&D from a medium- to longterm perspective based on our insight into future market and
industry conditions, while advancing technology development in
step with the medium-term business strategies of our business
units. Moreover, we recognize that the IP generated in the course
of our R&D activities constitutes a source of long-term business
competitiveness and is a key corporate asset. Therefore, we are
conducting strategic IP development activities that take our
future business portfolio into consideration.

## Building an R&D Framework Centered on Fujitsu Laboratories

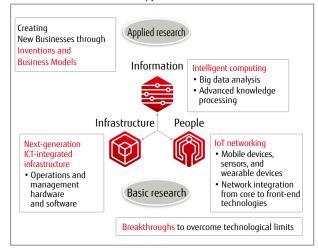
The Fujitsu Group has built an R&D framework centered on Fujitsu Laboratories, which has a total of nine R&D bases in four regions around the world, specifically Japan, the US, China, and Europe. It fulfills a pivotal role in the development of IP by the Fujitsu Group.

### R&D Strategy

Today, digital businesses are expanding rapidly as society evolves

into a hyper-connected world where all manner of things are connected over networks. The Fujitsu Group is conducting research and applied development related to digital businesses, led by Fujitsu Laboratories. Notably, Fujitsu Laboratories approaches R&D from the three aspects of people, information, and infrastructure. It is guided by the technical concept of a hyper-connected cloud that integrates a full spectrum of technology, ranging from backend ICT infrastructure to front-end mobile terminals and devices.

## Research to Achieve a Hyper-Connected Cloud



In terms of people, we are pursuing R&D on mobile devices, sensors, and wearable devices, as well as high-speed, high-capacity networks to connect those devices. With regard to information, we are conducting R&D on intelligent computing, which will provide new knowledge through big data analyses integrated with media data, in conjunction with advanced knowledge processing. In terms of infrastructure, our R&D is focused on next-generation ICT-integrated infrastructure and related operations and management technologies.

Apart from this, we are also working on breakthroughs to overcome current technological limits. We have embraced the challenge of acquiring new knowledge and technologies by making new discoveries in science and technology. Moreover, since innovation is generated by capturing synergies between inventions and business models, we are also working to create new businesses by actively talking to our stakeholders inside and outside the Company.

### R&D Framework

Fujitsu and Fujitsu Laboratories have set up a Technology Strategy

## Part 2 Leveraging the "Six Types of Capital"

Committee to execute strategic decision-making from both R&D and business perspectives. A Technology Strategy Task Force has also been set up under this committee, where managers of business units and research divisions work to unify business and research plans and to solve issues in the process of commercialization.

By having research and business divisions share knowledge and an awareness of issues, this framework has generated dynamic new insights and helped to sharpen Fujitsu's business decision-making capabilities as a technology company.

#### Open Innovation

Today's ICT market is crowded with players, including companies that had formerly been ICT consumers but are just breaking into the market, providing products and services. The Fujitsu Group covers an expansive range of technology domains from semiconductors to business applications. However, the increasing advancement and complexity of ICT means that no single company can supply all of the required technologies and products. Therefore, companies must focus on strengthening their own strategic domains within a technology and product ecosystem. Through discussions and joint research with research institutions and client companies, the Fujitsu Group is actively acquiring and making effective use of external technologies and expertise to create new markets. Through these activities, we aim to expand our intellectual capital and bolster our competitiveness.

## Development and Accumulation of IP

With a view to its future business portfolio, the Fujitsu Group is working to strengthen its IP portfolio, which forms the backbone of its intellectual capital, through such means as acquiring third-party technologies via M&As.

Among Fujitsu's intellectual assets, patents generated by R&D activities are crucial to enhancing the Group's technological edge

## Granted Patents in Japan in 2014

uia	nteu ratents in Japan i	11 2014
1	Canon Inc.	5,404
2	Mitsubishi Electric	5,365
	Corporation	
3	Panasonic Corporation	5,336
4	TOYOTA MOTOR CORPORATION	4,454
5	TOSHIBA CORPORATION	4,102
6	Ricoh Company, Ltd.	3,643
7	FUJITSU LIMITED	3,266
8	Honda Motor Co., Ltd.	3,133
9	DENSO CORPORATION	3,120
10	NEC Corporation	3,018
11	FUJIFILM Corporation	3,007
12	Seiko Epson Corporation	2,534
13	Hitachi, Ltd.	2,445
14	Nippon Telegraph and Telephone Corporation	2,096
15	Sony Corporation	1,908
16	Sharp Corporation	1,696
17	Fuji Xerox Co., Ltd.	1,595
18	Dai Nippon Printing Co., Ltd.	1,570
19	KYOCERA Corporation	1,508
20	NISSAN MOTOR CO.,LTD.	1,446
Paca	d on natont publication data	total

# Based on patent publication date, total count of all applicants (excluding group companies of each company) Fujitsu survey based on Japan Patent Office data (number of issued patents)

## Granted Patents in the US in 2014

ula	illed Paterits III the US II	12014
1	IBM Corporation	7,534
2	Samsung Electronics Co., Ltd.	4,952
3	Canon Inc.	4,055
4	Sony Corporation	3,224
5	Microsoft Corporation	2,829
6	TOSHIBA CORPORATION	2,608
7	QUALCOMM Incorporated	2,590
8	Google Inc.	2,566
9	LG Electronics, Inc.	2,122
10	Panasonic Corporation	2,095
11	Apple Inc.	2,003
12	General Electric Company	1,860
13	FUJITSU LIMITED	1,820
14	Seiko Epson Corporation	1,662
15	Ricoh Company, Ltd.	1,634
16	Intel Corporation	1,578
17	Hewlett-Packard Development Company, L.P.	1,474
18	Telefonaktiebolaget LM Ericsson	1,537
19	Hon Hai Precision Industry Co., Ltd.	1,537
20	Samsung Display Co., Ltd.	1,511
n	d on patent publication date, to	a ka l

20 Samsung Display Co., Ltd. 1,5 Based on patent publication date, total count of all applicants (excluding group companies of each company) Source: IFI CLAIMS Patent Services data and business competitiveness. To strengthen our patent portfolio, we are taking a long-term view, selecting priority technology fields and making efforts such as moving forward on patent applications, and promoting a shift to a portfolio aligned with our vision of future business. Moreover, we are accumulating patent rights from a global perspective, taking into account regions where we conduct business or where patent rights could be expected to be utilized to target other companies.

## Utilization of IP

The Fujitsu Group strategically utilizes its collective IP portfolio for the purposes outlined in the diagram below.

### **IP Utilization**



In the course of utilizing IP, Fujitsu uses concealment and other methods to protect its technologies as it seeks to ensure the competitive advantage of its businesses and also to create new markets together with other companies. For example, we utilize IP in order to stimulate co-creation with third parties for the purpose of acquiring new knowledge and expertise to drive future business growth.

Furthermore, when business domains overlap with other companies, the Fujitsu Group works to ensure latitude in business by concluding cross-licensing agreements that take full advantage of the Group's patent portfolio. To date, we have entered into cross-licensing agreements with partners such as Intel, IBM, and Texas Instruments.

In addition, we are expanding the use of the Fujitsu Group's IP in building ecosystems with partner companies. We are also proactively conducting activities with international standardization organizations such as oneM2M, the World Wide Web Consortium (W3C), and the Industrial Internet Consortium (IIC) in the IoT field. Through these activities, we are contributing to the global uptake of leading technologies.

On the other hand, we also take steps to publicize IP that we no longer use for Group business strategies, and license this IP to other companies. These activities will be continued as part of our corporate social responsibility (CSR) initiatives.

In this way, the Fujitsu Group strives to enhance its corporate assets by upgrading and expanding its IP portfolio, including knowledge and expertise, that supports its business activities. At the same time, we strategically utilize IP in order to drive penetration of our advanced technologies across a broad range of markets.