

# **Status of Intellectual Property Activities in Japan**

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## **Part 3**

## Chapter 1

# Intellectual Property Strategy and Industrial Competitiveness

## 1. Intellectual Property Activities Shown in Statistics

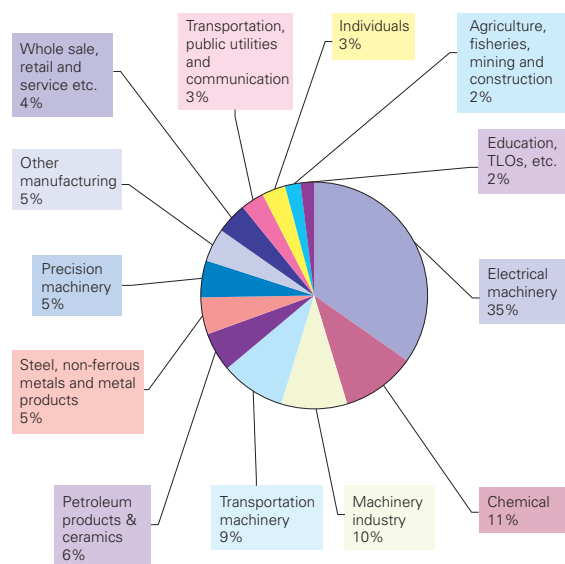
It is important to understand actual status of intellectual property activities in enterprises, etc. upon planning Intellectual Property Policy. The Survey of Intellectual Property-Related Activities<sup>9</sup> is the unique full-scale statistical survey related to intellectual property in Japan in order to investigate the actual status of intellectual property activities in enterprises, etc. and to obtain fundamental information that would enable prompt and precise measures for various intellectual property activities to be taken.

### (1) Status of Domestic and Foreign Patent Applications<sup>10</sup>

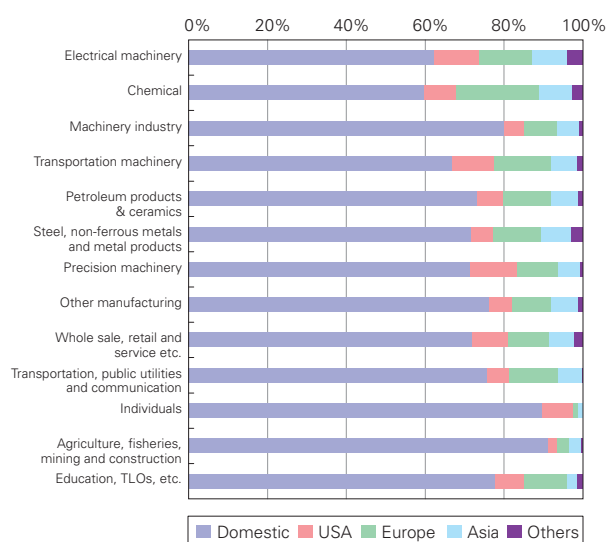
According to the results of the Survey of Intellectual Property-Related Activities, the number of domestic patent applications by industry in 2002 shows that the electric machinery industry filed about 134,000 at the largest, which accounts for 35% of all domestic filings of Japanese industries (approximately 387,000 filings). The chemical industry (including the medical/pharmaceutical industry) is ranked next at 11% of the total, followed by the machinery industry at 10%, the transportation machinery industry at 9%.

As for the foreign patent applications by industry, the electric machinery industry filed 81,000 at the largest. The ratio of foreign to domestic filings (foreign filing rate) shows that the rate of the chemical industry (including the medical/pharmaceutical industry) is the highest and the chemical industry filed foreign patent applications to the extent of about 70% of the domestic applications.

[The Share of Domestic Patent Filing by Industry (2002)]



[The Ratio of Domestic and Foreign Patent Filing by Industry (2002)]



<sup>9</sup>The Survey of Intellectual Property-Related Activities is an approved statistical survey as stipulated in the Statistical Reports Coordination Law and the survey started in 2002. The survey in 2003 was conducted to compile Approved Statistics No. 23466 from September 1 through 30. The subjects were the following corporations, individuals and public institutes in Japan that have filed applications in 2001: i) 14,137 applicants who filed more than 3 patent applications, more than 2 applications for utility model registration, more than 4 applications for design application, or more than 3 application for trademark; ii) 3,213 applicants who filed applications in 2001 except the aforementioned applicants (sampling rate: 1/15). The number of the questionnaire dispatched was 16,931, and 6,743 were returned with the response rate of 39.8%.

<sup>10</sup>The status of patent applications is estimated on a basis of the responses in the Survey of Intellectual Property-Related Activities and the estimated results show the error of +4.7% from the actual domestic figure of application in 2002.

## (2) Status of Exploitation of the Domestic Patent Right

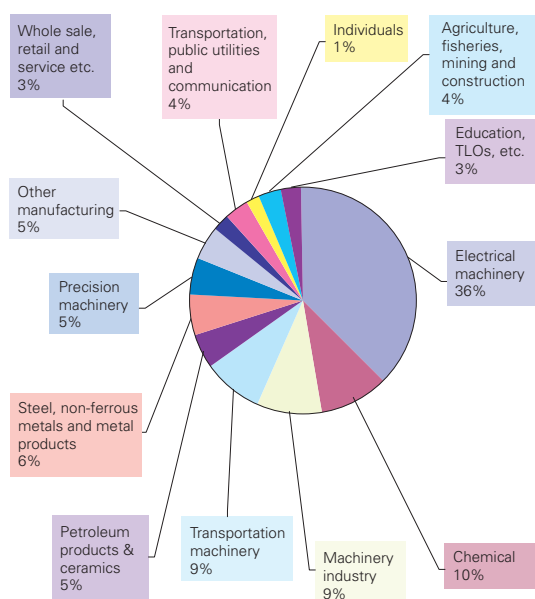
### (i) Status of Exploitation of the Domestic Patent Right by Industry

The number of the domestic patents in the electric machinery industry is the largest in FY2002 and accounts for about 36% of all patents. The electric machinery industry is followed by the chemical, machinery and transportation machinery industries with 9 to 10% in the share. The above 4 industries possessed over 60% of the domestic patents.

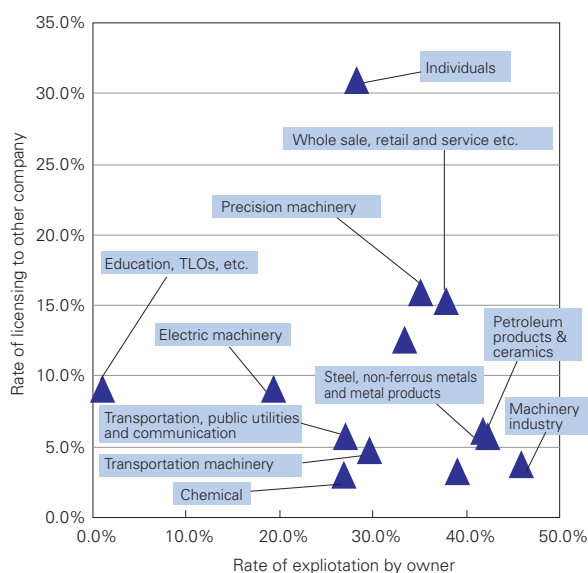
In terms of the status of exploitation of patent right in these industries, the exploitation rate by owner (number of exploitation/ number of possession) in the machinery industry is high at about 46%. On the other hand, exploitation rates by owner in the electric machinery, chemical and transportation machinery industries are at the 20 to 30% level.

The rates of the number of licensing to other companies to the number of possession (rate of licensing to other companies: number of licensing/ number of possession) are about 31% in individuals, about 15% in the precision machinery and whole sale, retail and service industries and rates of the others are not significant.

**[The Share of Domestic Patent Filing by Industry (2002)]**



**[Status of Exploitation of the Domestic Patent Rights by Industry (FY2002)]**



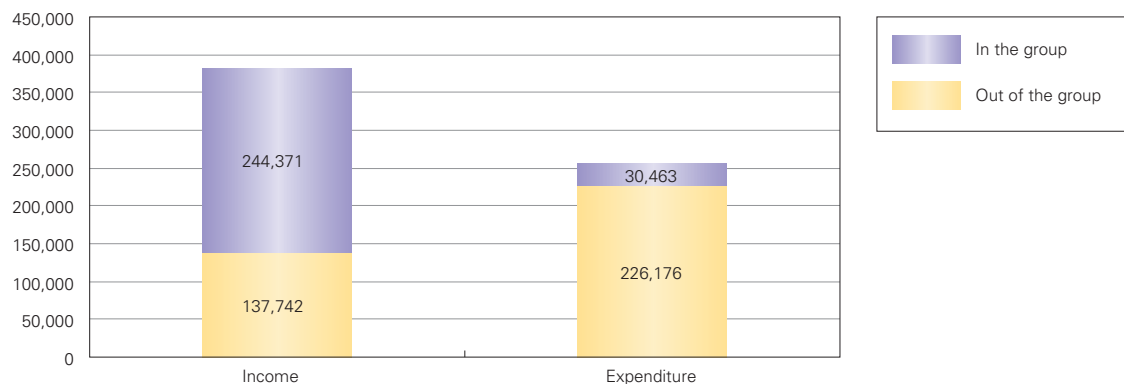
(Note) Other manufacturing industries are comprised of the industries other than chemicals, petroleum products, coal product, plastics product, rubber product, ceramics, steel, non-ferrous metals, metal product, machinery, electric machinery, transportation machinery, precision machinery industries.

## (3) Licensing Balance

### (i) Licensing Balance related to Industrial Property Right

The licensing balance related to industrial property right with foreign countries in FY2002 indicates the income of ¥382.1 billion and expenditure of ¥256.6 billion, and the income exceeds the expenditure by ¥125.5 billion. However, about 64% of licensing income is from transactions with group companies including overseas subsidiaries or affiliated companies while about 88% of licensing expenditure is from transactions with companies out of the group companies. Therefore, if the transactions with group companies are excluded, licensing income amounts to ¥137.7 billion, expenditure ¥226.2 billion and the expenditure exceeds the income by ¥88.5 billion.

**[Licensing Balance Related to Industrial Property Rights (FY2002)]**



The breakdown of the licensing balance by category of industrial property right shows the surplus for patent right with the income of around ¥343.2 billion and the expenditure of about ¥210.7 billion, the surplus for utility model right with the income of approximately ¥200 million and the expenditure of almost ¥0, the surplus for design right with the income of about ¥600 million and the expenditure of under ¥100 million and the deficit for the trademark right with the income of approximately ¥33.2 billion and the expenditure of about ¥45.9 billion.

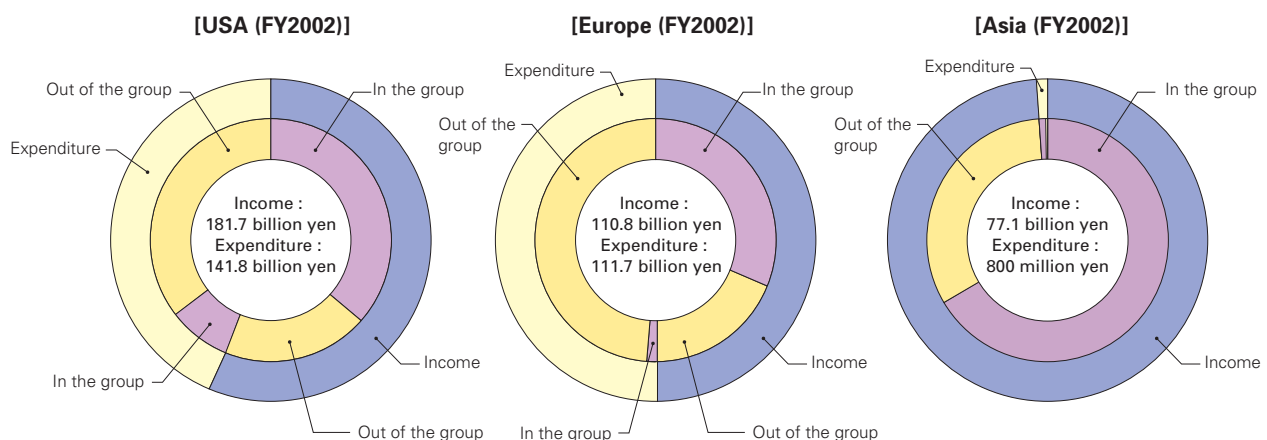
**[Licensing Balance by Category of Industrial Property Rights: Overseas (FY 2002)]**

	[million yen]		
	Income	Expenditure	Balance
Patent	343,184	210,652	132,532
Utility model	194	0	194
Design	5,510	47	5,463
Trademark	33,225	45,940	-12,715
<b>Total</b>	<b>382,112</b>	<b>256,639</b>	<b>125,474</b>

## (ii) Licensing Balance by Country

The licensing balance related to the industrial property right in FY2002 by country shows the surplus with the US of about ¥39.9 billion with the income of ¥181.7 billion and the expenditure of ¥141.8 billion, the deficit with Europe of about ¥900 million with the income of ¥110.8 billion and the expenditure of ¥111.7 billion, and the surplus with Asia of about ¥76.3 billion with the income of ¥77.1 billion and the expenditure of ¥800 million.

As for any transaction between Japan and the US, Europe and Asia, the income from intra-group transaction is the larger while the expenditure in inter-group is the larger.



## (iii) Licensing Balance by Industry

The licensing balance related to industrial property right with foreign countries in FY2002 by industry shows that the chemical industry earns the largest licensing income of ¥176.1 billion, resulting in the surplus of ¥132.4 billion. The electric machinery industry in the second place earns approximately ¥77.2 billion as licensing income, but its expenditure amounts to about ¥107.7 billion, resulting in the negative balance of about ¥30.4 billion.

As for the other industries, the licensing incomes in transportation machinery, other manufacturing, machinery and petroleum products and ceramics industries exceed the expenditures to the extent of over ¥10 billion. On the other hand, the expenditure exceeds the income in the whole sale, retail and service industry and precision machinery industry.

## [Comparison of Licensing Balance by Principal Industry: Overseas (FY 2002)]

[million yen]

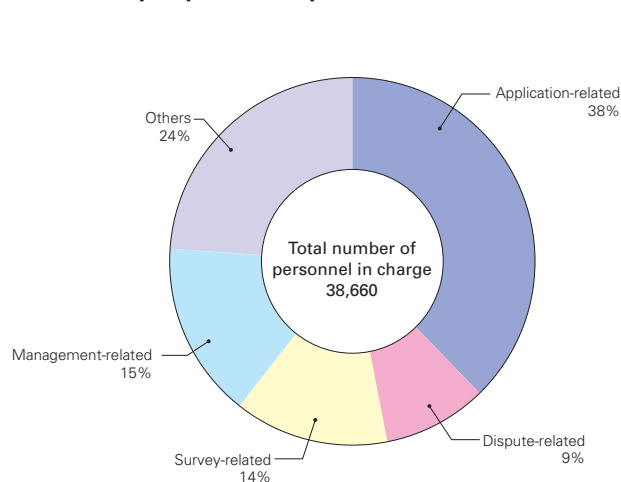
Industry	Income	Expenditure	Balance
Chemical	176,135	43,732	132,403
Electric machinery	77,237	107,677	-30,440
Transportation machinery	34,245	12,660	21,585
Other manufacturing industries	32,063	5,707	26,356
Machinery industry	23,339	6,884	16,455
Petroleum Products and ceramics	20,665	3,212	17,453
Steel, non-ferrous metals and metal products	5,912	3,183	2,729
Precision machinery	4,490	28,557	-24,067
Whole sale, retail and service, etc.	4,361	41,276	-36,915
Agriculture & fisheries, mining and construc	2,437	1,955	482
Transportation utilities and communication	913	1,766	-853
Education, TLOs, etc.	247	-	247
Individuals	70	30	40

## (4) System and Costs for Intellectual Property Activities

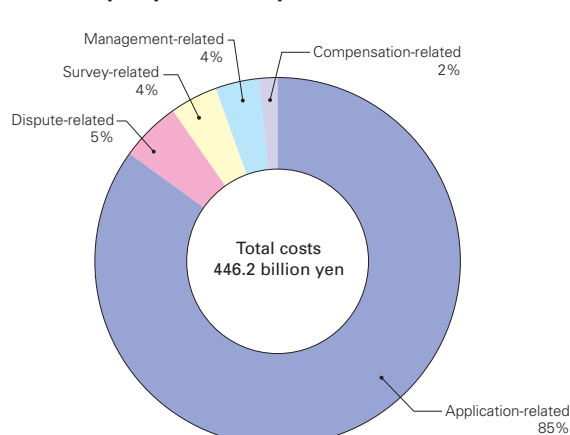
The total number of personnel in charge of intellectual property-related operations in the Japanese enterprises, etc. is around 40,000 in FY2002. The number of those engaged in the application-related operations is the largest, accounting for about one-third of the total.

The total costs related to intellectual property-related operations in Japanese enterprises, etc. in Japan and foreign countries are about ¥446.2 billion in FY2002 and 85% of the costs are spent on the application-related operations. On the other hand, Japanese enterprises, etc. do not spend so much on the dispute-related operations, survey-related operations, management-related operations and compensation-related operations.

[Structure of Personnel in Charge of Intellectual Property-Related Operations (FY 2002)]



[Structure of Costs Related to Intellectual Property-Related Operations (FY 2002)]



The contents of the operations are as follows;

Application-related Operations: Operations including discovery of inventions, assessment of invention reports, requests to prepare descriptions, preparation of descriptions, inspections of descriptions, application operations such as application procedures, requests for examinations, intermediate proceedings such as response to notice of reasons for rejection (preparation of written opinions, amendments), registration, opposition, trial proceedings, inquiries for necessity of title continuance, and procedures for annual payment.

Dispute-related Operations: Operations relating to litigation, licensing, appraisals, and contract management.

Survey-related Operations: Operations relating to the search of prior arts and disputes when an application is filed, examination is requested and registration is made, and operations relating to collection of data such as patent information systems for supporting corporate intellectual property activities.

Management-related Operations: Operations relating to supervision, planning, training, committee activities, support for related companies, education and training (intellectual property staff), external affairs.

Compensation-related Operations: Operations relating to preparation and determination of compensation standard.

## (5) Status of Infringement of Intellectual Property Right<sup>11</sup>

The number of the cases sued by American enterprises (41 cases) is the largest and accounts for about 60% of the total cases which Japanese enterprises are sued by foreign enterprises. 35 cases are related to patent right, accounting for 80% of the total cases sued by American enterprises.

The number of the cases which Japanese enterprises file lawsuits against Asian enterprises is the largest (87 cases), which is more than 70% of the number of the cases against foreign enterprises. According to the suing cases against Asia enterprises by category of industrial property right, 68 cases concerning trademark right are shown, accounting for 80% of the total.

When the suing cases against foreign enterprises are compared with the sued cases by foreign enterprises, the number of the sued cases is larger in the United States and the number of the suing is larger in Asia. The number of the sued cases is slightly larger in Europe.

[The Number of Lawsuits by Opponent's Nationality (FY2002)]

		Domestic enterprises	American enterprises	European enterprises	Asian enterprises	Total
Suing	Patent	74	13	12	13	112
	Utility Model	39	-	-	2	41
	Design	49	1	-	4	54
	Trademark	98	2	5	68	173
	Total	260	16	17	87	380
Sued	Patent	118	35	11	3	167
	Utility Model	13	-	-	-	13
	Design	15	2	-	-	17
	Trademark	62	4	8	2	76
	Total	208	41	19	5	273

<sup>11</sup>In the status of infringement of intellectual property right, 5891 responses which do not include partial refusal for answer are aggregated as a sample.