

# Japanese National Innovation Survey 2003

**J-NIS 2003**

## Questionnaire

National Institute of Science and Technology Policy

Ministry of Education, Culture, Sports, Science and Technology

*This survey is carried out with approval by the Minister for Public Management, Home Affairs, Posts and Telecommunications in conformity with the Statistical Reports Coordination Law (Law No. 148 of 1952). The questionnaires will be used solely for the statistical purpose and will never be used for other purposes such as taxation. Please fill in this questionnaire with accurate information.*

Postal code of your enterprise

Address of your enterprise

Name of your enterprise

This survey collects information on new or significantly improved products (goods and services) or processes and related activities in the manufacturing and service industries **during the period from 1 January 1999 to 31 December 2001**. For the sake of comparison of enterprises with and without innovation activities, please respond to all the questions unless otherwise specified.

Please place a check mark (✓) in a box ☐ beside an appropriate answer. For the questions asking you to state in figures, please fill in one number for each box right-aligned.

Please submit the filled-out questionnaire by mail by **20 February**.

Respondent Division name

Title

Name

Telephone

Fax

E-mail

Area code Local code Office number Extension number

— — ( )

Area code Local code Office number Extension number

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Destination address for submission and questions

National Innovation Survey, National Institute of Science and Technology Policy

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### General information on your enterprise

In this survey, an enterprise is defined as a corporate body such as a stock company limited or limited liability company that is an organizational unit producing goods or services. In the following questions, please answer regarding the enterprise specified in the front page of this questionnaire. Only corporation located within Japan should be included.

0.1. Is your enterprise a member of an enterprise group<sup>\*1</sup>?

Yes..... ☐ → In which country is the head office of this enterprise group located?

Japan ..... ☐

Other ..... ☐ → Please specify the country. \_\_\_\_\_

No ..... ☐

\*1 In this survey, the term “enterprise group” refers to a group consisted of your enterprise, your parent company (i.e. a company investing in excess of 50% of total number of all-issued stocks, equity capital, or foundation funds of your enterprise), and your subsidiaries (i.e. companies in which your enterprise invests in excess of 50% of their total number of issued stocks, common stocks, equity capital, or foundation funds). The enterprise group to which your enterprise belongs is called “your enterprise group” hereinafter.

0.2. Did any of the following significant changes occur to your enterprise during the period 1999–2001?

|                                                                                                                      | Yes                      | No                       |
|----------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|
| Your enterprise was established .....                                                                                | <input type="checkbox"/> | <input type="checkbox"/> |
| Turnover increased by 10% or more due to merger with another enterprise or part of it, or acquisition of asset ..... | <input type="checkbox"/> | <input type="checkbox"/> |
| Turnover decreased by 10% or more due to sale, division or closure of part of your enterprise.....                   | <input type="checkbox"/> | <input type="checkbox"/> |

0.3. How long is the average lifetime of your enterprise's most important product (good or service) until it is replaced with newer product?

Less than 1 year      1–3 years      4–6 years      7–9 years      10 years and more

☐                      ☐                      ☐                      ☐                      ☐

0.4. In which of the following areas is your enterprise's most significant market? Please place a check mark in the most appropriate alternative.

Local/regional (within a distance of around 50 km from any location(s) of your enterprise) within Japan ..... ☐

National (broader area than “Local/regional within Japan” in Japan) ..... ☐

International (area including foreign countries) ..... ☐

### Basic economic information on your enterprise

Only corporation located within Japan should be included. This survey is undertaken in unit of corporation. Therefore, even for enterprises adopting consolidated accounting, please fill in information only about your enterprise. For enterprises that conducted a merger with your enterprise as a surviving corporation during the period 1999–2001, please include the information on the merged corporations. In this case, please specify the date of the merger, the original name and the location of the merged company in the remarks column.

0.5. Total turnover<sup>\*2</sup>, market sales of goods and services (including export value except for consumption tax)

Year 1999

trillion      billion      million yen  
, ,  , million yen

Year 2001

trillion      billion      million yen  
, ,  , million yen

\*2 For financial institutions: interest income and any other ordinary income; for insurance services: total face value of insurance fee

0.6. Exports of goods and services

Year 1999

trillion      billion      million yen  
, ,  , million yen

Year 2001

trillion      billion      million yen  
, ,  , million yen

0.7. Purchase of tangible fixed assets<sup>\*3</sup>

Year 1999

trillion billion million yen  
□, □□□, □□□, million yen

Year 2001

trillion billion million yen  
□, □□□, □□□, million yen

\*3 Purchase of machinery, equipment, building and land

0.8. Number of persons engaged<sup>\*4, \*5</sup>

## 0.8.1. Total number of persons engaged (annual average or number of persons engaged at the end of the calendar year)

Year 1999

thousand persons  
□□□, □□□

Year 2001

thousand persons  
□□□, □□□

Changes in year 2002

Unchanged..... □

Decreased..... □ →

□□ %

Increased ..... □ →

□□ %

0.8.2. Of which: Number of persons engaged with tertiary education<sup>\*6</sup>

Year 2001

thousand persons  
□□□, □□□

Changes in year 2002

Unchanged..... □

Decreased..... □ →

□□ %

Increased ..... □ →

□□ %

## 0.8.3. Of which: Number of female persons engaged

Year 2001

thousand persons  
□□□, □□□

\*4 Annual average is preferable. If not available, you may fill in the number of persons engaged at the end of each calendar year.

\*5 The term "persons engaged" here refers to all people who belong to and work for your enterprise as defined in the *Establishment and Enterprise Census*. Therefore those dispatched to other companies and subcontractors should also be included. However, those who are not supplied with wages or payment (including material compensation) by your enterprise, such as those dispatched from other companies or subcontractors, shall not be included in the number of your enterprise's persons engaged even if they work in your enterprise.

\*6 The term "persons engaged with tertiary education" refers to those who hold any of the following degrees or titles or equivalent degrees or titles acquired in foreign countries: Doctor's Degree (completion of a doctoral course in a graduate school), Master's Degree (completion of a master's course in a graduate school), Bachelor's Degree (graduation from an university), Associate (graduation from a junior college), or Technical Associate (graduation from a post-secondary course in a specialized training college).

## 0.9. Category, location and range of your enterprise's activities

In which area is the location (e.g. office or establishment) for activities such as research and development, or product manufacture of your enterprise or enterprise group? In which area are goods and services produced by your enterprise sold and provided? Place check marks for all appropriate alternatives.

## Category of activities

|                                                               | Japan                    | Korea                    | China<br>(excluding<br>Taiwan) | Taiwan                   | ASEAN*                   | U.S.†                    | EU**/<br>EFTA***         | Other                    | None                     |
|---------------------------------------------------------------|--------------------------|--------------------------|--------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Location for research and development.....                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Location for goods production.....                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Area in which goods are sold<br>or services are provided..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

\* ASEAN (Association of Southeast Asian Nations): Brunei Darussalam, Cambodia, Laos, Indonesia, Malaysia, Myanmar, Philippine, Singapore, Thai, and Vietnam

\*\* EU (European Union): Belgium, Denmark, German, Greece, Spain, France, Ireland, Italy, Luxemburg, Netherlands, Austria, Portugal, Finland, Sweden, and United Kingdom

\*\*\* EFTA (European Free Trade Area): Iceland, Liechtenstein, Norway, and Switzerland

† U.S.: United States

## Innovation

Innovation refers to, in this survey, new or significantly improved products (goods or services) introduced to the market, as well as new or significantly improved process adopted in your enterprise. Innovation takes place as a result of new technological development, new combination of existing technologies, or utilization of other knowledge acquired by your enterprise.

### 1. Product innovation

Product innovation means new or significantly improved goods or services with respect to its basic features, technological specifications, incorporated software, other immaterial components, intended uses, or user friendliness.

Product innovation in this survey is defined as something new to your enterprise; It does not have to be new to the market. It does not matter whether your enterprise or other companies developed the product innovation. Changes in simple aesthetic characteristics or mere sales of product innovations developed and produced by other enterprises, shall not be included. For services, product innovation indicates a service itself your enterprise provides is new.

For examples of product innovation, see Appendix 1: *Examples of innovation*.

1.1. During the period 1999–2001 (calendar year; the same applies to those that follow), did your enterprise bring any new or significantly improved products into the market?

Yes..... ☐ → Who developed these products?

*Please place a check mark for the most appropriate alternative.*

Mainly your enterprise or enterprise group..... ☐

Your enterprise in cooperation with other enterprises or institutions..... ☐

Mainly other enterprises or institutions..... ☐

No ..... ☐ → Go to question 2.

1.2. During the period 1999–2001, what was the most important<sup>\*7</sup> product innovation for your enterprise? Select one and describe it briefly.

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\*7 In this survey, it means the most important innovation for your enterprise from the economical and managerial points of view.

1.3. Which industry is closest to your most important product innovation described in question 1.2.? Select a three-digit code from Appendix 2: *Classification list based on the Japan Standard Industrial Classification, Rev. 11 that corresponds with the industry, and fill in the code below.*

1.4. Please describe briefly what was new or significantly improved about your enterprise's most important product innovation specified in question 1.2.

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1.5. Please estimate how your enterprise's sale<sup>2</sup> in 2001 was distributed between the following items. Approximate values are sufficient.

- New or significantly improved products introduced during the period 1999–2001 .....    %
- Unchanged or only marginally modified products during the period 1999–2001<sup>\*8</sup> .....    %
- Total turnover in 2001** ..... Total    %

\*2 For financial institutions: interest income and any other ordinary income; for insurance services: total face value of insurance fee (reprint)

\*8 Products wholly developed and produced by others, and sold by your enterprise shall be included here.

1.6. During the period 1999–2001, did your enterprise introduce any new or significantly improved product to your enterprise's market (i.e. no other enterprises had introduced to the market)?

- Yes..... ☐ → Please estimate the approximate proportion of these products in total turnover<sup>2</sup> in 2001. ....    %
- No ..... ☐

## 2. Process innovation

Process innovation means a new or significantly improved production technology, as well as new or significantly improved methods of providing services and of delivering products. The result of this innovation should influence significantly the level of production output, quality of products, or costs of production and distribution.

Process innovation is defined in this survey as something new to your enterprise; your enterprise has not to be the first one to introduce this process. It does not matter whether the innovation was developed by your enterprise or by other enterprises. Mere organizational or managerial changes shall not be included.

Especially for services, the process innovation indicates that the method of providing services has become efficient or has reduced costs significantly, whether the service your enterprise provide is new or not.

For examples of process innovation, see Appendix 1: *Examples of innovation*.

2.1. During the period 1999–2001, did your enterprise introduce any new or significantly improved processes including methods of providing services and of delivering products?

- Yes..... ☐ → Who developed these processes?
- Place a check mark for the most appropriate alternative.*
- Mainly your enterprise or enterprise group ..... ☐
- Your enterprise in cooperation with other enterprises or institutions ..... ☐
- Mainly other enterprises or institutions ..... ☐
- No ..... ☐ → Go to question 3.

2.2. During the period 1999–2001, what was the most important<sup>7</sup> process innovation for your enterprise? Select one and describe it briefly.

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2.3. Which industry is closest to your most important process innovation described in question 2.2.? *Select a three-digit code from Appendix 2: Classification list based on the Japan Standard Industrial Classification, Rev. 11 that corresponds with the industry, and fill in the code below.*

  

2.4. Please describe briefly what was new or significantly improved about your enterprise's most important process innovation specified in question 2.2.

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### 3. Uncompleted or abandoned innovation activities

3.1. As of the end of 2001, did your enterprise have any uncompleted, ongoing activities to develop or introduce new or significantly improved products or processes, including research and development activities?

Yes..... ☐

No ..... ☐

3.2. During the period 1999–2001, did your enterprise abandon any activities to develop or introduce new or significantly improved products or processes, including research and development activities?

Yes..... ☐

No ..... ☐ → Please read the following.

Enterprises with no recent innovation activity (i.e. answered “No” to each of questions 1.1., 2.1., 3.1., and 3.2.) should now go to question 10.1b.

### 4. Innovation activity and expenditure in 2001

How much amount of money did your enterprise spend for the following innovation activities in 2001?

Expenditure for innovation activities referred in this survey is composed of the items listed below. Please estimate the expenditure for innovation activities and the composition ratio for each activity<sup>\*9</sup> of your enterprise in 2001. Please include personnel and investment expenditures (not depreciation) related to innovation activities. Please include uncompleted or abandoned innovation activities as well. For activities not undertaken in 2001, fill in 0% for its composition ratio of the expenditure.

<sup>\*9</sup> Few enterprises may categorize their expenditures in the way specified in this survey except for “research and development expenditure” as used in accounting and tax accounting. Please refer to the following definitions for each item, and estimate approximate amount and composition of your enterprise's expenditures with your existing data, by calculating and allocating it as necessary.

## Composition Ratio

## Research and development expenditure

**Intramural research and development** All creative works implemented within your enterprise for the purpose of increasing the accumulation of knowledge, and the usage of the accumulated knowledge to invent new applications

(New applications refer to new or improved products and processes) .....    %

→ “Intramural R&D expenditures”

related to innovation activities

Please fill in the amount in 2001.

The **R&D expenditures** in this survey should include personnel expenditures, materials costs, tangible fixed assets acquisition costs, lease payments, and other expenses necessary for research and development.

billion,    million,    ten thousand yen 0,000

**Acquisition of research and development (extramural research and development)** Same activities as above but carried out by other companies (including other enterprises within your enterprise group), other public or private research institutes or universities or higher educational institutions .....

%

→ “R&D expenditures disbursed outside”

related to innovation activities

Please fill in the amount in 2001.

billion,    million,    ten thousand yen 0,000

## Expenditures for other activities than research and development

**Acquisition of machinery and equipment** Advanced machinery or computer hardware specifically purchased for implementation of new or significantly improved products and/or processes .....

%

**Acquisition of other external knowledge** Purchase of rights to use patents and non-patented inventions, licenses, know-how, trademarks, software, and other types of knowledge from others for use in your enterprise's innovations .....

%

**Training** Internal or external training for your employees directly aimed at development and/or introduction of innovations .....

%

**Market introduction of innovations** Internal or external marketing activities directly aimed at the market introduction of new or significantly improved products (including preliminary market research, market tests, and launch advertisement, but excluding establishment of distribution networks to market innovations) .....

%

**Design and other preparations for production/deliveries** Procedures and technical preparations to deliver the actual implementation of products and process innovations that are not covered elsewhere .....

%

**Research and development (R&D)** in this survey include activities regarding product development, modification of existing products, and development and modification of processes of production and manufacture. However, activities for purposes of trade or management should not fall under the category of “research and development” stated in this survey, even if they are called “research” or “development” within your enterprise. Also, routine activities should not be included in research and development here.

Examples of R&D related to innovation activities

- Research and development of fundamental technology for innovations
- Development of new products
- Significant improvement of existing products (Mere enhancement and improvements or defect correction unaccompanied by essential functional changes should not be included.)
- Experiment and research to reveal characteristic features of products for innovations
- Development of new methods for manufacturing and processing
- Inquiry and development of new material

Examples other than R&D related to innovation activities

- Academic quest for truth
- Application of existing products to user specifications without major change
- Adaptation of existing products to variant environments (e.g. operating systems, hardware, etc.) without major modifications
- Detection and elimination of defects in existing systems
- System operation
- Creation of user documents
- User support
- Production of contents apparently separated from software (e.g. data for databases)
- Survey and analysis for the purpose of trade activities including marketing researches and consumer questionnaires (Depending on the subject of activity, some might fall under category “Market introduction of innovations”)
- Survey and analysis for the purpose of business management including financial analysis and inventory management
- Survey and analysis for the purpose of process management including QC operation, ISO9001 (quality management), ISO14001 (environmental management)

**Total innovation expenditure**

**in 2001.....**

billion,    million,    ten thousand yen 0,000



## 5. Intramural research and development

5.1. During the period 1999–2001, how did your enterprise carry out research and development (R&D) ?

Carried out continuously ..... ☐

Carried out non-continuously<sup>\*10</sup> ..... ☐

Did not carry out any R&D ..... ☐

<sup>\*10</sup> The term “non-continuously” here means that R&D have been carried out for a certain period during 1999–2001. An example is a case where R&D were carried out in a certain year, but not carried out in the following year.

5.2. How many persons in full-time equivalents were involved in intramural R&D activities within your enterprise in 2001? Please include both persons within your enterprise’s R&D department and persons outside the department who engaged in intramural R&D activities. *Number of persons in full-time equivalents refers to the number of persons engaged in innovation activities, which can be derived from adding a. and b. below:*

a. Actual number of persons who mainly engaged in R&D practices”

b. Value (number of persons) derived from multiplying the number of persons whose business was not mainly occupied with R&D practices” but engaged in R&D practices, by the percentage of time the person engaged in R&D practices out of all his/her business time

thousand,    persons

## 6. Effects of innovation during 1999–2001

The results of innovation activities may have different effects depending on enterprises. For each item below, please indicate the degree of impact at the end of 2001 by innovation activities carried out by your enterprise during the period 1999–2001. If your enterprise has more than one business domain, you may answer regarding the business domain in which your enterprise’s most important product innovation activities, specified in question 1.2., are undertaken.

|                                                                 | Degree of impact:        |                          |                          | Not relevant             |
|-----------------------------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|                                                                 | High                     | Medium                   | Low                      |                          |
| <b>Effects regarding products</b>                               |                          |                          |                          |                          |
| Increased the range of goods or services .....                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Expanded the market or increased market share .....             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Improved quality in goods or services .....                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Effects regarding process</b>                                |                          |                          |                          |                          |
| Improved production flexibility .....                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Increased production capacity .....                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Reduced labor costs per production unit.....                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Reduced materials and energy usage per production unit .....    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Other effects</b>                                            |                          |                          |                          |                          |
| Improved environmental impact or health and safety aspects..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Satisfied regulations or standards .....                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



**7. Public funding for innovation**

Public funding includes financial support including subsidies and loans and credit guarantees (Tax deduction should not be included). Ordinary payments for procurement of public institutions shall not be included.

During the period 1999–2001, did your enterprise receive any public financial support for innovation activities?

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Yes                      |                             | No                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------------------|--------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Grant or<br>subsidy      | Loan or<br>credit guarantee |                          |
| From local or regional public authorities (prefectural and municipal authorities or institutions working on behalf of these authorities) .....                                                                                                                                                                                                                                                                                                                                                                                                 | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> |
| From central government (ministries and agencies, as well as institutions working on behalf of central government including special public corporations or special authorized corporations, such as Japan Science and Technology Corporation (JST), New Energy and Industrial Technology Development Organization (NEDO), Development Bank of Japan (DBJ), Japan Small and Medium Enterprise Corporation (JASMEC), Japan Finance Corporation for Small Business (JFS), Telecommunications Advancement Organization of Japan (TAO), etc.) ..... | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> |

**8. Cooperation for innovation during 1999–2001**

Cooperation for innovation means active participation in collaborative R&D with other organizations (other enterprises or nonprofit institutions) and other innovation projects. It does not imply that both partners derive commercial benefit from the collaborative project immediately. Mere contract agreement unaccompanied by substantial collaborative work shall not be included.

8.1. During the period 1999–2001, did your enterprise have any cooperation agreement regarding innovation activities?

Yes..... ☐  
 No ..... ☐ → Go to question 9.

8.2. Please indicate the type and location of the organization. Please place check marks for all appropriate items.

| Type of partner                                                                         | Prefecture in which any office of<br>your enterprise is located # | Location other than<br>the left # in Japan | Korea                    | China<br>(excluding<br>Taiwan) | Taiwan                   | ASEAN*                   | U.S.                     | EU**/<br>EFTA***         | Other                    |
|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------|--------------------------------------------|--------------------------|--------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Other enterprises                                                                       |                                                                   |                                            |                          |                                |                          |                          |                          |                          |                          |
| within your enterprise group .....                                                      | <input type="checkbox"/>                                          | <input type="checkbox"/>                   | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (The following are about enterprises outside of your enterprise group)                  |                                                                   |                                            |                          |                                |                          |                          |                          |                          |                          |
| Suppliers of equipment, materials,<br>parts (components), or software .....             | <input type="checkbox"/>                                          | <input type="checkbox"/>                   | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Clients (including distributors outside<br>of your enterprise group) or customers ..... | <input type="checkbox"/>                                          | <input type="checkbox"/>                   | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Competitors and other enterprises<br>from the same industry .....                       | <input type="checkbox"/>                                          | <input type="checkbox"/>                   | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Consultants .....                                                                       | <input type="checkbox"/>                                          | <input type="checkbox"/>                   | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Commercial laboratories / R&D enterprises<br>/ suppliers of R&D support service .....   | <input type="checkbox"/>                                          | <input type="checkbox"/>                   | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Universities or<br>other higher education institutes .....                              | <input type="checkbox"/>                                          | <input type="checkbox"/>                   | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Government or<br>private non-profit research institutes .....                           | <input type="checkbox"/>                                          | <input type="checkbox"/>                   | <input type="checkbox"/> | <input type="checkbox"/>       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

\* ASEAN (Association of Southeast Asian Nations): Brunei Darussalam, Cambodia, Laos, Indonesia, Malaysia, Myanmar, Philippine, Singapore, Thai, and Vietnam

\*\* EU (European Union): Belgium, Denmark, German, Greece, Spain, France, Ireland, Italy, Luxemburg, Netherlands, Austria, Portugal, Finland, Sweden, and United Kingdom

\*\*\* EFTA (European Free Trade Area): Iceland, Liechtenstein, Norway, and Switzerland

8.3. Please indicate the importance of your partners in the cooperation for innovations.

| Type of organization partner                                                         | Partners                 |                          |                          | No partner               |
|--------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|                                                                                      | Degree of importance:    |                          |                          |                          |
|                                                                                      | High                     | Medium                   | Low                      |                          |
| Other enterprises within your enterprise group .....                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (The following are about enterprises outside of your enterprise group)               |                          |                          |                          |                          |
| Suppliers of equipment, materials, parts (components), or software .....             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Clients (including distributors outside of your enterprise group) or customers ..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Competitors and other enterprises from the same industry .....                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Consultants .....                                                                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Commercial laboratories / R&D enterprises / suppliers of R&D support service .....   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Universities or other higher education institutes .....                              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Government or private non-profit research institutes .....                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**9. Information sources for innovations during 1999–2001**

This section asks you about the main sources of information needed for suggesting new innovation projects and contributing to the implementation of existing projects. *Did your enterprise utilize the information sources listed below? If utilized, please indicate the degree of importance.* If your enterprise has more than one business domain, you may answer regarding the business domain in which your enterprise's most important product innovation activities, specified in question 1.2., are undertaken.

| Information sources                                                                   | <i>Suggestion<br/>of new innovation project</i> |                          |                          |                          | <i>Contribution to the implementation<br/>of existing innovation projects</i> |                          |                          |                          |  |  |
|---------------------------------------------------------------------------------------|-------------------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|--|--|
|                                                                                       | Utilized                                        |                          |                          |                          | Utilized                                                                      |                          |                          |                          |  |  |
|                                                                                       | Degree of importance:                           |                          |                          |                          | Degree of importance:                                                         |                          |                          |                          |  |  |
|                                                                                       | High                                            | Medium                   | Low                      | Not utilized             | High                                                                          | Medium                   | Low                      | Not utilized             |  |  |
| <b>Within your enterprise group</b>                                                   |                                                 |                          |                          |                          |                                                                               |                          |                          |                          |  |  |
| R&D department within your enterprise.....                                            | <input type="checkbox"/>                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |
| Production, manufacture, or maintenance<br>department within your enterprise .....    | <input type="checkbox"/>                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |
| Marketing department within your enterprise...                                        | <input type="checkbox"/>                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |
| Other departments within your enterprise.....                                         | <input type="checkbox"/>                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |
| Other enterprises<br>within your enterprise group.....                                | <input type="checkbox"/>                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |
| <b>Market (outside your enterprise group)</b>                                         |                                                 |                          |                          |                          |                                                                               |                          |                          |                          |  |  |
| Suppliers of equipment, materials,<br>parts (components), or software .....           | <input type="checkbox"/>                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |
| Clients (including distributors) or customers....                                     | <input type="checkbox"/>                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |
| Competitors and other enterprises<br>from the same industry.....                      | <input type="checkbox"/>                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |
| Consultants .....                                                                     | <input type="checkbox"/>                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |
| Commercial laboratories / R&D enterprises<br>/ suppliers of R&D support service ..... | <input type="checkbox"/>                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |
| <b>Institution</b>                                                                    |                                                 |                          |                          |                          |                                                                               |                          |                          |                          |  |  |
| Universities or<br>other higher education institutes .....                            | <input type="checkbox"/>                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |
| Government or<br>private non-profit research institutes .....                         | <input type="checkbox"/>                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |
| <b>Others</b>                                                                         |                                                 |                          |                          |                          |                                                                               |                          |                          |                          |  |  |
| Professional conferences or meetings .....                                            | <input type="checkbox"/>                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |
| Professional journals or academic journals.....                                       | <input type="checkbox"/>                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |
| Trade fairs or exhibitions.....                                                       | <input type="checkbox"/>                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |  |  |

## 10. Disincentives to innovation

10.1a. (This question is asked to enterprises which carried out any innovation activity during the period 1999–2001.)  
During the period 1999–2001, did any of the following occur to your enterprise's innovation activities?

|                                                                      | Yes                      | No                       |
|----------------------------------------------------------------------|--------------------------|--------------------------|
| → Seriously delayed.....                                             | <input type="checkbox"/> | <input type="checkbox"/> |
| → Prevented from starting .....                                      | <input type="checkbox"/> | <input type="checkbox"/> |
| → Went through hard times burdened with other serious problems ..... | <input type="checkbox"/> | <input type="checkbox"/> |

Go to question 10.2.

10.1b. (This question is asked to enterprises without any innovation activity during the period 1999–2001.)  
During the period 1999–2001, did any of the following reasons apply to your enterprise for not having carried out innovation at all?

|                                                  | Yes                      | No                       |
|--------------------------------------------------|--------------------------|--------------------------|
| → Not necessary due to prior innovations.....    | <input type="checkbox"/> | <input type="checkbox"/> |
| → Not necessary due to market conditions .....   | <input type="checkbox"/> | <input type="checkbox"/> |
| → Presence of factors impeding innovations ..... | <input type="checkbox"/> | <input type="checkbox"/> |

Go to question 10.2.

10.2. If your enterprise experienced any disincentives during the period 1999–2001, please indicate the importance (degree of magnitude of the influence) of the relevant factors. If your enterprise carried out innovations and has more than one business domain, you may answer regarding the business domain in which your enterprise's most important product innovation activities, specified in question 1.2., are undertaken.

| Disincentives                                                 | Degree of importance:    |                          |                          | Not relevant             |
|---------------------------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|                                                               | High                     | Medium                   | Low                      |                          |
| Economic factors                                              |                          |                          |                          |                          |
| Excessive economic risks.....                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Too high innovation costs.....                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Lack of appropriate financial sources .....                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Internal factors                                              |                          |                          |                          |                          |
| Organizational rigidity within your enterprise.....           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Lack of qualified personnel .....                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Lack of information on technology .....                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Lack of information on markets .....                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other factors                                                 |                          |                          |                          |                          |
| Insufficient flexibility of regulations or standards .....    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Lack of customer responsiveness to new goods or services..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**11. Patents and other protection methods**

11.1. During the period 1999–2001, did your enterprise or enterprise group apply for at least one patent to protect inventions developed by your enterprise?

Yes..... ☐ → Please indicate the number of patent applications<sup>\*11,\*12</sup> for protecting innovations.

| Total<br>(goods/services/processes)                                                   | Of which:<br>Goods/Services                                                           | Processes                                                                             |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <input type="text"/> , <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> , <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> , <input type="text"/> <input type="text"/> <input type="text"/> |

No ..... ☐ → Go to question 11.4.

\*11 Patent applications / patents for the same invention to different patent offices shall only be counted as one patent application / patent.

\*12 Because an invention may involve in both the goods/services and processes, the sum of the number of patents for protecting goods/services and processes does not have to be the total number of all the patents.

11.2. Did your enterprise or enterprise group have any valid patents at the end of 2001 protecting inventions or innovations developed by your enterprise?

Yes..... ☐ → Please indicate the number of valid patents<sup>\*11,\*12</sup> protecting innovations.

| Total<br>(goods/services/processes)                                                                        | Of which:<br>Goods/Services                                                                                | Processes                                                                                                  |
|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| <input type="text"/> <input type="text"/> , <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> , <input type="text"/> <input type="text"/> <input type="text"/> | <input type="text"/> <input type="text"/> , <input type="text"/> <input type="text"/> <input type="text"/> |

No ..... ☐

11.3. What percentage of your turnover in 2001 was covered by patent applications or patents valid at the end of 2001 owned by your enterprise or enterprise group?

Share of turnover in 2001 .....  %

11.4. During the period 1999–2001, did your enterprise or enterprise group use any of the following methods other than patents to protect inventions or innovations developed in your enterprise?

|                                                            | Yes                      | No                       |
|------------------------------------------------------------|--------------------------|--------------------------|
| <b>Institutional methods</b>                               |                          |                          |
| Design registration.....                                   | <input type="checkbox"/> | <input type="checkbox"/> |
| Trademarks .....                                           | <input type="checkbox"/> | <input type="checkbox"/> |
| Copyright .....                                            | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Strategic methods</b>                                   |                          |                          |
| Trade secrets .....                                        | <input type="checkbox"/> | <input type="checkbox"/> |
| Complexity of design .....                                 | <input type="checkbox"/> | <input type="checkbox"/> |
| Advantage in lead time <sup>*13</sup> on competitors ..... | <input type="checkbox"/> | <input type="checkbox"/> |

\*13 Lead time means time needed for achievement of a goal such as product development or procurement from launching to completion.

For enterprises carrying out innovation activities, go to question 11.5.

Enterprises with no recent innovation activity (i.e. answered “No” to each of questions 1.1., 2.1., 3.1., and 3.2.) should now go to question 12.

11.5. In the questions from 11.5.1. through 11.5.5. below, you are asked about your enterprise's most important product innovation specified in question 1.2. and about your enterprise's most important process innovation specified in question 2.2.

11.5.1. During the period 1999–2001, how much effect did the following methods have for your enterprise to ensure a profit from innovation activities in your enterprise? *Please indicate the degree of the effect for each item.*

|                                                                                                | <i>Your most important product innovation</i> |                          |                          |                          | <i>Your most important process innovation</i> |                          |                          |                          |
|------------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------|--------------------------|--------------------------|-----------------------------------------------|--------------------------|--------------------------|--------------------------|
|                                                                                                | Degree of effect:                             |                          |                          |                          | Degree of effect:                             |                          |                          |                          |
|                                                                                                | High                                          | Medium                   | Low                      | Not relevant             | High                                          | Medium                   | Low                      | Not relevant             |
| <b>Institutional methods</b>                                                                   |                                               |                          |                          |                          |                                               |                          |                          |                          |
| Protection by patents .....                                                                    | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Protection by design registration.....                                                         | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Protection by trademarks.....                                                                  | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Protection by copyrights.....                                                                  | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Strategic methods</b>                                                                       |                                               |                          |                          |                          |                                               |                          |                          |                          |
| Trade secrets .....                                                                            | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Complexity of design .....                                                                     | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Advantage of lead time on competitors .....                                                    | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Retention and management of production equipment and manufacturing know-how for products ..... | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Retention and management of delivery system and distribution network for products .....        | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

11.5.2. (For enterprises who replied “Yes” in question 11.1, please answer.) During the period 1999–2001, does each of the following apply as the motivation for your patent application?

|                                                                                                     | <i>Your most important product innovation</i> |                          | <i>Your most important process innovation</i> |                          |
|-----------------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------|-----------------------------------------------|--------------------------|
|                                                                                                     | Yes                                           | No                       | Yes                                           | No                       |
| To evaluate the achievements by researchers or engineers .....                                      | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> |
| To earn revenue from licensing .....                                                                | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> |
| To gain advantage on other enterprises by cross-license contracts .....                             | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> |
| To prevent lawsuits over infringement of patents against your enterprise .....                      | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> |
| To prevent imitation of innovations by other enterprises.....                                       | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> |
| To prevent issuance of patents for related technology developed by other enterprises .....          | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> |
| To enhance the valuation of your enterprise or of researchers or engineers of your enterprise ..... | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> |

11.5.3. During the period 1999–2001, did your enterprise make decision not to apply for patents on any invention?

|                                                     | <i>Your most important product innovation</i> |                          | <i>Your most important process innovation</i> |                          |
|-----------------------------------------------------|-----------------------------------------------|--------------------------|-----------------------------------------------|--------------------------|
|                                                     | Yes                                           | No                       | Yes                                           | No                       |
| Made decision <u>not</u> to apply for patents ..... | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> |

If you placed checkmark on “Yes” for either questions above, please answer for each of the following whether it corresponds to your reason why your enterprise made a decision not to apply for patents.

|                                                                                         | <i>Your most important product innovation</i> |                          | <i>Your most important process innovation</i> |                          |
|-----------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------|-----------------------------------------------|--------------------------|
|                                                                                         | Yes                                           | No                       | Yes                                           | No                       |
| Difficulty in presenting the novelty of innovations .....                               | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> |
| Disclosure of important information of your enterprise through patent application ..... | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> |
| Too high costs of patent application .....                                              | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> |
| Costs of protecting your enterprise’s patent in courts .....                            | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> |
| Legitimate detour inventions by others .....                                            | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> |
| Effective appropriation of invented technology by other methods than patents .....      | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> |

11.5.4. How long do you think it will take for other enterprises to accomplish alternative innovations without infringing on your enterprise’s patent?

| <i>Your most important product innovation</i> |                          |                          |                          |                          |                          | <i>Your most important process innovation</i> |                          |                          |                          |                          |                          |
|-----------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-----------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| less than half year                           | half to 1 year           | 1–3 years                | 4–6 years                | 7–9 years                | 10 years and more        | less than half year                           | half to 1 year           | 1–3 years                | 4–6 years                | 7–9 years                | 10 years and more        |
| <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

11.5.5. (For enterprises who answered “Yes” in any of question 11.5.3., please answer.) How long do you think it would take for other enterprises to accomplish alternative innovations for innovations your enterprise has not applied patents?

| <i>Your most important product innovation</i> |                          |                          |                          |                          |                          | <i>Your most important process innovation</i> |                          |                          |                          |                          |                          |
|-----------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-----------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| less than half year                           | half to 1 year           | 1–3 years                | 4–6 years                | 7–9 years                | 10 years and more        | less than half year                           | half to 1 year           | 1–3 years                | 4–6 years                | 7–9 years                | 10 years and more        |
| <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



## 12. Important strategic and organizational changes in your enterprise

So far, this survey has only dealt with new or significantly improved products and processes. This final question asks you about non-technological creative improvements including changes in strategy, management, and organization.

During the period 1999–2001, did your enterprise undertake any of the following activities? For each of the following, please place a checkmark for the appropriate answer.

|                                                                                                                                                                                             | Yes                      | No                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|
| <b>Strategy</b>                                                                                                                                                                             |                          |                          |
| Implemented strategies for providing your enterprise's original products different from other enterprises .....                                                                             | <input type="checkbox"/> | <input type="checkbox"/> |
| Implemented strategies to cultivate new markets by expanding your products to other business domain than where you used to provide them.....                                                | <input type="checkbox"/> | <input type="checkbox"/> |
| Implemented strategies to expand the market or market share in the range of specific products of your enterprise.....                                                                       | <input type="checkbox"/> | <input type="checkbox"/> |
| Implemented strategies for reducing costs related to your enterprise's products .....                                                                                                       | <input type="checkbox"/> | <input type="checkbox"/> |
| Implemented strategies for constructing your enterprise's internal resources, which would serve as the core for competition .....                                                           | <input type="checkbox"/> | <input type="checkbox"/> |
| Implemented strategies for other purposes than stated above.....                                                                                                                            | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Management</b>                                                                                                                                                                           |                          |                          |
| Implemented documented policies related to knowledge management (systematic activities related to acquisition and sharing of knowledge within an organization) within your enterprise ..... | <input type="checkbox"/> | <input type="checkbox"/> |
| Had a values system or corporate culture intended to promote sharing of knowledge within your enterprise.....                                                                               | <input type="checkbox"/> | <input type="checkbox"/> |
| Implemented policies or programs intended to improve retention of employees within your enterprise .....                                                                                    | <input type="checkbox"/> | <input type="checkbox"/> |
| Implemented partnerships or strategic alliance with other enterprises for the purpose of acquiring knowledge.....                                                                           | <input type="checkbox"/> | <input type="checkbox"/> |
| Implemented other management techniques new to your enterprise than stated above within your enterprise, e.g. supply chain management (SCM), Six Sigma (6σ).....                            | <input type="checkbox"/> | <input type="checkbox"/> |

**No**

## Organization

Implemented reorganization of business process for efficiency..... ☐ ☐

Implemented internalization of new functional departments or functions,  
i.e. introduction of new organizations or personnel with functions  
that had not been carried out within your enterprise..... ☐ ☐

Implemented externalization of specific functional departments or functions,  
i.e. procurement of organizations or personnel outside your enterprise  
that carry out functions used to be carried out within your enterprise ..... ☐ ☐

Implemented other changes in organizational structure than stated above..... ☐ ☐

## Marketing

Implemented significant changes  
in your enterprise's marketing concept/strategy,  
such as newly implementation of data mining..... ☐ ☐

**Aesthetic change (or other subjective changes)**

Made significant changes in aesthetic appearance or design,  
or other subjective changes that users can tell  
in at least one of your enterprise's products..... ☒ ☐

Remarks (modification of names, locations, or businesses, and other related special notes)



## A stylized illustration of the Japanese characters '見' (see) and '木' (tree) in a light purple color. The character '見' is positioned in the lower-left, and '木' is positioned in the upper-right. The background consists of horizontal blue lines on a white surface.

**Japanese National Innovation Survey 2003****J-NIS 2003****Questionnaire Appendix 2****Classification List Based on the Japan Standard Industrial Classification, Rev. 11** (revised on March 2002)

As for questions 1.3. and 2.3., please find from this Classification List and fill in the three-digit code which corresponds with the industry that is the most closest to what was new or significantly improved about the most important product innovation and about the most important process innovation for your enterprise, respectively.

*Please notice that the three-digit classification codes of this Classification List are based on but partly different from those of the Japan Standard Industrial Classification, Rev. 11.*

**Divisions [and Table of Contents]**

|   |                                                 |    |
|---|-------------------------------------------------|----|
| A | Agriculture .....                               | 2  |
| B | Forestry.....                                   | 2  |
| C | Fisheries .....                                 | 2  |
| D | Mining .....                                    | 2  |
| E | Construction .....                              | 3  |
| F | Manufacturing.....                              | 3  |
| G | Electricity, Gas, Heat Supply and Water .....   | 7  |
| H | Information and Communications.....             | 8  |
| I | Transport .....                                 | 8  |
| J | Wholesale and Retail Trade .....                | 9  |
| K | Finance and Insurance.....                      | 10 |
| L | Real Estate.....                                | 11 |
| M | Eating and Drinking Places, Accomodations ..... | 11 |
| N | Medical, Health Care and Welfare.....           | 12 |
| O | Education, Learning Support .....               | 12 |
| P | Compound Services .....                         | 13 |
| Q | Services, n.e.c.....                            | 13 |
| R | Government, n.e.c. ....                         | 15 |
| S | Industries Unable to Classify .....             | 15 |

**DIVISION A – AGRICULTURE**

**01 AGRICULTURE**

- 011 Crop Farming
- 012 Livestock Farming
- 013 Agricultural Services, except Gardening Services
- 014 Gardening Services

**DIVISION C – FISHERIES**

**03 FISHERIES**

- 031 Marine Fisheries
- 032 Inland Water Fisheries

**04 AQUACULTURE**

- 041 Marine Aquaculture
- 042 Inland Water Aquaculture

**DIVISION B – FORESTRY**

**02 FORESTRY**

- 021 Timber Tracts
- 022 Logging
- 023 Special Forest Product Production, except Growing of Mushrooms
- 024 Forestry Services
- 029 Miscellaneous Forestry

**DIVISION D – MINING**

**05 MINING**

- 051 Metal Mining
- 052 Coal and Lignite Mining
- 053 Crude Petroleum and Natural Gas Production
- 054 Stone Quarrying, Sand and Gravel Pits
- 055 Ceramic Mineral Mining (Minerals Only for Refractory, Pottery and Porcelain, Glass and Cement Materials)
- 059 Miscellaneous Mineral Mining

**DIVISION E – CONSTRUCTION****06 CONSTRUCTION WORK, GENERAL, INCLUDING PUBLIC AND PRIVATE CONSTRUCTION WORK**

- 061 General Civil Engineering Work and Building Work
- 062 Civil Engineering Work, except Paving Work; Gardening Work, Dredging Work
- 063 Paving Work
- 064 Building Work, except Wooden Building Work
- 065 Wooden Building Work
- 066 Building Reform Work

**07 CONSTRUCTION WORK BY SPECIALIST CONTRACTOR, EXCEPT EQUIPMENT INSTALLATION WORK**

- 071 Carpentry Work
- 072 Scaffolding Work, Earth Work and Concrete Work
- 073 Steel-Frame and Steel Reinforcement Work
- 074 Stone, Brick, Tile and Concrete Block Work
- 075 Plaster Work
- 076 Sheet-Metal Work and Hardware Work
- 077 Painting Work; Traffic Signs and Pavement Marking Work
- 078 Flooring and Interior Finishing Work
- 079 Miscellaneous Construction Work by Specialist Contractor (e.g. Glass glazing work; Metal furnishing work; Wood furnishing work; Roofing work, except metal roofing work; Water-proofing work; Wrecking and demolition work; Construction work by specialist contractor, n.e.c.)

**08 EQUIPMENT INSTALLATION WORK**

- 081 Electric Work
- 082 Telecommunication Work and Signal System Work; including Cable TV broadcasting equipment installation work
- 083 Piping Work, except Water-Well Drilling Work; including Air conditioning and heating equipment installation work, Water supply and drainage work and sanitary equipment installation work
- 084 Machine and Equipment Installation Work; Lifting-Carrier Equipment Work
- 089 Miscellaneous Equipment Installation Work (e.g. Furnace construction work; Heat insulation work; Traffic sign installation work; Water-well drilling work)

**DIVISION F – MANUFACTURING****09 MANUFACTURE OF FOOD**

- 091 Livestock Products
- 092 Seafood Products
- 093 Canned and Preserved Fruit and Vegetable Products; Vegetables Pickled or In Brine, except In Air-tight Containers
- 094 Seasonings
- 095 Sugar Processing
- 096 Flour and Grain Mill Products
- 097 Bakery and Confectionery Products
- 098 Animal and Vegetable Oils and Fats; Edible Oils and Fats
- 099 Miscellaneous Foods and Related Products (e.g. Starch; Noodles, macaroni and spaghetti; “Tofu” bean curd and “Aburage” fried bean curd; “Anko” sweet bean paste and other related products; Precooked frozen packed foods; “Soza” side-dish foods)

**10 MANUFACTURE OF BEVERAGES, TOBACCO AND FEED**

- 101 Soft Drinks and Carbonated Water
- 102 Alcoholic Beverages
- 103 Tea and Coffee
- 104 Manufactured Ice
- 105 Tobacco Manufactures
- 106 Prepared Animal Foods and Organic Fertilizers

**11 MANUFACTURE OF TEXTILE MILL PRODUCTS, EXCEPT APPAREL AND OTHER FINISHED PRODUCTS MADE FROM FABRICS AND SIMILAR MATERIALS**

- 111 Silk Reeling Plants
- 112 Spinning Mills
- 113 Twisting and Bulky Yarns; Bulky Yarns
- 114 Woven Fabric Mills
- 115 Knit Fabrics Mills
- 116 Dyed and Finished Textiles
- 117 Rope and Netting
- 118 Lace and Other Textile Goods
- 119 Miscellaneous Textile Mill Products (e.g. Scouring and combing plants; Wadding; Felt and bonded fabrics; Carpets and other textile mats; Coated, water-proof fabrics; Textile-made sanitary materials; Textile mill products, n.e.c.)

## 12 MANUFACTURE OF APPAREL AND OTHER FINISHED PRODUCTS MADE FROM FABRICS AND SIMILAR MATERIALS

- 121 Textile Outer Garments and Shirts, including Bonded Fabrics and Lace, except Japanese Style
- 122 Knitted Garments and Shirts
- 123 Underwear
- 124 Japanese Style Apparel and “*Tabi*”-Sock
- 125 Other Textile Apparel and Accessories
- 129 Miscellaneous Fabricated Textile Products (e.g. Bedding; Blankets; Canvas products; Textile bags; Embroidery; Towels)

## 13 MANUFACTURE OF LUMBER AND WOOD PRODUCTS, EXCEPT FURNITURE

- 131 Sawing, Planing Mills and Wood Products
- 132 Millwork, Plywood and Prefabricated Structural Wood Products
- 133 Wooden, Bamboo and Rattan Containers
- 139 Miscellaneous Manufacture of Wood Products, Including Bamboo and Rattan (e.g. Wood preserving plants; Lasts and related products; Cork fabricated basic materials and cork goods)

## 14 MANUFACTURE OF FURNITURE AND FIXTURES

- 141 Furniture
- 142 Furniture for Religious Purposes
- 143 Sliding Doors and Screens
- 149 Miscellaneous Furniture and Fixtures (e.g. Office and store fixtures; Window and door screens and shades; Japanese “*byōbu*”-screens; Mirror frames and picture frames)

## 15 MANUFACTURE OF PULP, PAPER AND PAPER PRODUCTS

- 151 Pulp
- 152 Paper
- 153 Coated and Glazed Paper
- 154 Paper Products
- 155 Paper Containers
- 159 Miscellaneous Pulp, Paper and Paper Worked Products (e.g. Cellophane; Fiberboard; Paper-made sanitary materials)

## 16 PRINTING AND ALLIED INDUSTRIES

- 161 Printing
- 162 Plate Making for Printing
- 163 Bookbinding and Printed Matter
- 169 Service Industries Related to Printing Trade

## 17 MANUFACTURE OF CHEMICAL AND ALLIED PRODUCTS

- 171 Chemical Fertilizers
- 172 Industrial Inorganic Chemicals
- 173 Industrial Organic Chemicals
- 174 Chemical Fibers
- 175 Oil and Fat Products, Soaps, Synthetic Detergents, Surface-Active Agents and Paints
- 176 Drugs and Medicines
- 177 Cosmetics, toothpaste and toilet Preparations
- 179 Miscellaneous Chemical and Allied Products (e.g. Explosives; Agricultural chemicals; Perfumes and fragrances; Gelatin and adhesives; Photosensitive materials; Natural resin and wood chemical products; Reagents)

## 18 MANUFACTURE OF PETROLEUM AND COAL PRODUCTS

- 181 Petroleum Refining
- 182 Lubricating Oils and Greases (Not Made in Petroleum Refineries)
- 183 Coke
- 184 Paving Materials
- 189 Miscellaneous Petroleum and Coal Products

## 19 MANUFACTURE OF PLASTIC PRODUCTS, EXCEPT OTHERWISE CLASSIFIED

- 191 Plastic Plates, Bars and Rods, Pipes and Tubes, Pipe Fittings and Profile Extrusions
- 192 Plastic Films, Sheets, Floor Coverings and Synthetic Leather
- 193 Industrial Plastic Products
- 194 Foamed and Reinforced Plastic Products
- 195 Compounding Plastic Materials, including Reclaimed Plastics
- 199 Miscellaneous Plastic Products (e.g. Plastic tableware, kitchenware and other household articles; Plastic containers)

## 20 MANUFACTURE OF RUBBER PRODUCTS

- 201 Tires and Inner Tubes
- 202 Rubber and Plastic Footwear and its Findings
- 203 Rubber Belts and Hoses and Mechanical Rubber Goods Products
- 209 Miscellaneous Rubber Products (e.g. Rubber coated fabric and its products; Medical and sanitary rubber products; Rubber sheet (repairsheet); Retreaded tires; Reclaimed rubber)

**21 MANUFACTURE OF LEATHER TANNING, LEATHER PRODUCTS AND FUR SKINS**

- 211 Leather Tanning and Finishing
- 212 Mechanical Leather Products, except Gloves and Mittens
- 213 Cut Stock and Findings for Boots and Shoes
- 214 Leather Footwear
- 215 Leather Gloves and Mittens
- 216 Baggage
- 217 Handbags and Small Leather Cases
- 218 Fur Skins
- 219 Miscellaneous Leather Products

**22 MANUFACTURE OF CERAMIC, STONE AND CLAY PRODUCTS**

- 221 Glass and its Products
- 222 Cement and its Products
- 223 Structural Clay Products, except Those of Pottery
- 224 Pottery and Related Products
- 225 Clay Refractories
- 226 Carbon and Graphite Products
- 227 Abrasive Products
- 228 Aggregate and Stone Products; Diatomaceous Earth and its Products; Minerals and Stones Crushed or Otherwise Treated
- 229 Miscellaneous Ceramic, Stone and Clay Products (e.g. Enameled iron ware; Cloisonne; Artificial jewels; Rock wool, slag wool and its products; Asbestos products; Gypsum products; Lime products; Molds, including cores)

**23 MANUFACTURE OF IRON AND STEEL**

- 231 Iron Industries
- 232 Steel, with Rolling Facilities
- 233 Steel Materials, except Made by Smelting Furnaces and Steel Works with Rolling Facilities, except Coated Steel
- 234 Coated Steel
- 235 Ferrous Metal Machine Parts and Tooling Products (e.g. Iron castings, except cast iron pipes and malleable iron castings; Malleable iron castings; Steel castings; Secondary forgings; Steel forgings)
- 239 Miscellaneous Iron and Steel (e.g. Iron and steel shearing and slitting; Iron and steel scrap preparation for smelting; Cast iron pipe)

**24 MANUFACTURE OF NON-FERROUS METALS AND PRODUCTS**

- 241 Primary Smelting and Refining of Non-Ferrous Metals
- 242 Secondary Smelting and Refining of Non-Ferrous Metals, including Non-Ferrous Alloys
- 243 Rolling of Non-Ferrous Metals and Alloys, including Drawing and Extruding
- 244 Electric Wire and Cable; Optical Fiber Cables, including Telecommunication Composite Cables
- 245 Non-Ferrous Metal Machine Parts and Tooling Products
- 249 Miscellaneous Non-Ferrous Metal Products (e.g. Nuclear fuel)

**25 MANUFACTURE OF FABRICATED METAL PRODUCTS**

- 251 Tin Cans and Other Plated Sheet Products
- 252 Tableware (Occidental Type), Cutlery, Hand Tools and Hardware
- 253 Heating Apparatus and Plumbing Supplies
- 254 Fabricated Constructional and Architectural Metal Products, including Fabricated Plate Work and Sheet Metal Work
- 255 Metal Machine Parts and Tooling Products
- 256 Metal Coating, Engraving and Heat Treating, except Enameled Ironware
- 257 Fabricated Wire Products; Nails
- 258 Bolts, Nuts, Rivets, Machine Screws and Wood Screws
- 259 Miscellaneous Fabricated Metal Products (e.g. Safes; Metallic springs)



## 26 MANUFACTURE OF GENERAL MACHINERY

- 261 Boilers, Engines and Turbines
- 262 Agricultural Machinery and Equipment
- 263 Machinery and Equipment for Construction and Mining
- 264 Metal Working Machinery; Metal Working Machinery; Parts and Accessories for Metal Working Machines and Machine Tools; Machinists' Precision Tools, except Powder Metallurgy Products
- 265 Textile Machinery
- 266 Special Industry Machinery (e.g. Food processing machinery and equipment; Woodworking machinery; Pulp and paper industry machinery; Printing, bookbinding and paper converting machinery; Foundry equipment; Plastic working machinery and accessories; Semiconductor manufacturing equipment; Vacuum equipment and vacuum component manufacture)
- 267 General Industry Machinery and Equipment (e.g. Pumps and pumping equipment; Air compressors, gas compressors and blowers; Elevators and escalators; Conveyors and conveying equipment; Mechanical power transmission equipment, except ball and roller bearings; Industrial furnaces and ovens; Oil hydraulic and pneumatic equipment; Chemical machinery and its equipment)
- 268 Office, Service Industry and Household Machines; including Office machines, Refrigerating machines and air conditioning apparatus, Amusement machines manufacture, Vending machines manufacture
- 269 Miscellaneous Machinery and Machine Parts (e.g. Fire extinguishing equipment and its apparatus; Valves and fittings; Fabricated pipe and fittings; Ball and roller bearings; Piston rings; Molds and dies, parts and accessories; Packing machines; Industrial robots; Machine shops (jobbing and repair))

## 27 MANUFACTURE OF ELECTRICAL MACHINERY, EQUIPMENT AND SUPPLIES

- 271 Electrical Generating, Transmission, Distribution and Industrial Apparatus
- 272 Household Electric Appliances
- 273 Electric Bulbs and Lighting Fixtures
- 274 Electronic Equipment (e.g. X-ray equipment; Video recording and duplicating equipment; Medical instruments electronic equipment)
- 275 Electric Measuring Instruments; Industrial Process Controlling Instruments; Medical Measuring Instruments
- 279 Miscellaneous Electrical Machinery Equipment and Supplies (e.g. Storage batteries; Primary batteries (dry and wet); Magnetic tapes and discs)

## 28 MANUFACTURE OF INFORMATION AND COMMUNICATION ELECTRONICS EQUIPMENT

- 281 Communication Equipment and Related Products
- 282 Electronic Data Processing Machines, Digital and Analog Computer, Equipment and Accessories; including Personal computer, Storage, Printer

## 29 ELECTRONIC PARTS AND DEVICES

- 291 Electron Tubes
- 292 Semiconductor Devices
- 293 Integrated Circuits
- 294 Resistors, Capacitors, Transformers and Composite Parts
- 295 Electro Acoustic Transducers, Magnetic Heads and Small Motors
- 296 Connectors, Switches and Relays
- 297 Switching Power Supplies High-Frequency Assemblies and Remote Controls
- 298 Printed Circuit
- 299 Miscellaneous Electronic Parts

## 30 MANUFACTURE OF TRANSPORTATION EQUIPMENT

- 301 Motor Vehicles, Parts and Accessories
- 302 Railroad Equipment and Parts
- 303 Shipbuilding and Repairing, and Marine Engines
- 304 Aircraft and Parts; including Aircraft engines, Miscellaneous aircraft parts and auxiliary equipment
- 305 Industrial Trucks and Parts and Accessories
- 309 Miscellaneous Transportation Equipment (e.g. Bicycles and parts)

## 31 MANUFACTURE OF PRECISION INSTRUMENTS AND MACHINERY

- 311 Measuring Instruments, Analytical Instruments and Testing Machines
- 312 Surveying Instruments
- 313 Medical Instruments and Apparatus
- 314 Physical and Chemical Instruments
- 315 Optical Instruments and Lenses
- 316 Ophthalmic Goods, including Frames
- 317 Watches, Clocks, Clockwork-Operated Devices and Parts; Watchcases

**DIVISION G – ELECTRICITY, GAS, HEAT SUPPLY AND WATER****32 MISCELLANEOUS MANUFACTURING INDUSTRIES**

- 321 Precious Metal Products; Precious Stone Products, including Jewel; Jewelry Products of Precious Metal and Precious Stone; Findings and Materials of Jewelry
- 322 Musical Instruments
- 323 Toys and Sporting Goods
- 324 Pens, Lead Pencils, Painting Materials and Stationery
- 325 Costume Jewelry, Costume Accessories, Buttons and Related Products, Except Precious Metals and Jewelry
- 326 Lacquer Ware
- 327 Sundry Goods of Straw, “*Tatami*” Mats, Umbrellas and Other Daily Commodities (e.g. Straw, panama hats and straw goods, “*Tatami*” mats (straw-mats); Fans and lanterns (Japanese style); Brooms and brushes; Umbrellas, parasols and parts, of wood and paper; Matches; Smoking accessories and supplies, except precious metals and jewelry; Thermos bottles)
- 328 Manufacture of Ordnance and Accessories
- 329 Manufacturing Industries, n.e.c. (e.g. Fireworks; Signboards and signs; Pallets; Models and patterns, except of paper; Pattern manufactured of industrial use; Information recording materials, except newspapers, books, other printed products, etc.)

**33 PRODUCTION, TRANSMISSION AND DISTRIBUTION OF ELECTRICITY**

- 331 Production, Transmission and Distribution of Electricity; including Power stations, Power substations, Electricity establishments (main office, office)

**34 MANUFACTURE OF GAS**

- 341 Manufacture of Gas; including Gasworks, Gas distribution, Gas establishments (main office, office)

**35 HEAT SUPPLY**

- 351 Heat Supply

**36 COLLECTION, PURIFICATION AND DISTRIBUTION OF WATER, AND SEWAGE COLLECTION, PROCESSING AND DISPOSAL**

- 361 Water for End Users, except Industrial Users
- 362 Water for Industrial Users
- 363 Sewerage; including Sewerage treatment, Sewer maintenance, Sewerage management

**DIVISION H – INFORMATION AND COMMUNICATIONS****37 COMMUNICATIONS**

- 371 Transmission of Correspondence
- 372 Fixed Telecommunications
- 373 Mobile Telecommunications
- 374 Services Incidental to Telecommunications

**38 BROADCASTING**

- 381 Public Broadcasting, except Cablecasting
- 382 Private-Sector Broadcasting, except Cablecasting
- 383 Cablecasting

**39 INFORMATION SERVICES**

- 393 Custom Software Services
- 394 Package Software Services
- 395 Data Processing Services
- 396 Research and Information Services, except Marketing or Opinion Research Services
- 399 Miscellaneous Data Processing and Information Services

**40 INTERNET BASED SERVICES**

- 401 Internet Based Services

**41 VIDEO PICTURE, SOUND INFORMATION, CHARACTER INFORMATION PRODUCTION AND DISTRIBUTION**

- 411 Video Picture Information Production and Distribution; including Motion picture and video production, except television program production, Television program production (Teleproduction), Motion picture, video and television program distribution
- 412 Sound Information Production; including Recording and disk production, Radio program production
- 413 Newspaper Publishers
- 414 Publishers, Except Newspapers
- 415 Services Incidental to Video Picture, Sound Information, Character Information Production and Distribution; including News syndicates (News suppliers)

**DIVISION I – TRANSPORT****42 RAILWAY TRANSPORT**

- 421 Railway Transport

**43 ROAD PASSENGER TRANSPORT**

- 431 Common Omnibus Operators
- 432 Common Taxicab Operators
- 433 Contracted Omnibus Operators
- 439 Miscellaneous Road Passenger Transport; including Motor passenger transport (particularly-contracted)

**44 ROAD FREIGHT TRANSPORT**

- 441 Common Motor Trucking; Special Groupcargo Motor Trucking
- 442 Motor Trucking (Particularly-Contracted)
- 443 Mini-Sized Vehicle Freight Transport
- 444 Collect-and-Deliver Freight Transport
- 449 Miscellaneous Road Freight Transport

**45 WATER TRANSPORT**

- 451 Oceangoing Transport
- 452 Coastwise Transport
- 453 Inland Water Transport
- 454 Vessel and Ship Rental and Leasing, Coastwise Ship Leasing

**46 AIR TRANSPORT**

- 461 Air Transport
- 462 Aircraft Service, except Air Transport

**47 WAREHOUSING**

- 471 Ordinary Warehousing, except Refrigerated Warehousing
- 472 Refrigerated Warehousing

**48 SERVICES INCIDENTAL TO TRANSPORT**

- 481 Port Transport
- 482 Freight forwarding, except Collect-and-Deliver Freight Transport
- 483 Transport Agencies
- 484 Packing and Crating
- 485 Transport Facilities Services (e.g. Railway facilities services; Fixed facilities for road transport; Terminal facilities for motor vehicles; Terminal facilities for handling freight; Piers and docks; Airports and air fields heliports)
- 489 Miscellaneous Services Incidental to Transport (e.g. Shipping brokers)

**DIVISION J – WHOLESALE AND RETAIL TRADE****49 WHOLESALE TRADE, GENERAL MERCHANDISE**

491 Wholesale Trade, General Merchandise

**50 WHOLESALE TRADE (TEXTILE AND APPAREL)**

501 Textile Products, except Apparel, Apparel Accessories and Notions

502 Apparel, Apparel Accessories and Notions

**51 WHOLESALE TRADE (FOOD AND BEVERAGES)**

511 Agricultural, Animal and Poultry Farm and Aquatic Products

512 Food and Beverages

**52 WHOLESALE TRADE (BUILDING MATERIALS, MINERALS AND METALS, etc.)**

521 Building Materials

522 Chemicals and Related Products

523 Minerals and Metals

524 Recycled Material

**53 WHOLESALE TRADE (MACHINERY AND EQUIPMENT)**

531 General Machinery and Equipment; including Machinery and equipment for agriculture use, Machinery and equipment for construction and mining, Metalworking machinery and equipment, Office machines equipment

532 Motor Vehicles; Motor Vehicle Parts and Accessories; Automotive Used Parts

533 Electrical Machinery, Equipment and Supplies

539 Miscellaneous Machinery and Equipment (e.g. Transportation equipment, except motor vehicles; Precision instruments; Medical instruments and apparatus, including dental instruments and apparatus)

**54 MISCELLANEOUS WHOLESALE TRADE**

541 Furniture, Fixtures and House Furnishings

542 Drugs and Toiletries; including Surgical goods, Synthetic detergent

549 Other Products, n.e.c. (e.g. Paper and paper products; Hardware; Fertilizers and feeds; Sporting goods, amusement goods and toys; Tobacco products; Jewelry; Agents and brokers)

**55 RETAIL TRADE, GENERAL MERCHANDISE**

551 Department Stores and General Merchandise Supermarkets

559 Miscellaneous Retail Trade, General Merchandise (with less than 50 Employees)

**56 RETAIL TRADE (DRY GOODS, APPAREL AND APPAREL ACCESSORIES)**

561 Dry Goods, Cloth and Bedding Stores

562 Men's Clothing Stores

563 Ladies' and Children's Clothing

564 Footwear Stores

569 Miscellaneous Dry Goods, Apparel and Apparel Accessories Stores (e.g. Bags and "fukuromono" (small cases stores); Haberdashery, accessory and notions stores)

**57 RETAIL TRADE (FOOD AND BEVERAGES)**

571 Grocery Stores

572 Liquor Stores

573 Meat and Poultry Stores

574 Fresh Fish Stores

575 Vegetable and Fruit Stores

576 Confectioneries and Bakeries

577 Rice, Barley and Other Cereals Stores

579 Miscellaneous Food and Beverage Stores (e.g. Convenience stores, primarily for sale of staple food and beverages; Milk stores; Beverage stores, except otherwise classified; Tea stores; Delicatessen stores; Processed food, "tofu", "kamaboko" etc.; Cured food stores)

**58 RETAIL TRADE (MOTOR VEHICLES AND BICYCLES)**

581 Retail Trade (Motor Vehicles)

582 Retail Trade (Bicycles)

**59 RETAIL TRADE (FURNITURE, HOUSEHOLD UTENSIL AND HOUSEHOLD APPLIANCE)**

591 Furniture, Fixture and "Tatami" Mat Stores; Furniture for religious purposes stores

592 Appliance Stores; including Electrical appliance stores, Office machinery of electric appliance stores

599 Miscellaneous Household Utensil Stores (e.g. Hardware stores; "Aramono" (kitchenware) stores; Chinaware and glassware stores)

## DIVISION K – FINANCE AND INSURANCE

### 60 MISCELLANEOUS RETAIL TRADE

- 601 Drug and Toiletry Stores; Pharmacy
- 602 Farming and Gardening Supply Stores; including Agricultural machine and implement stores, Seedling and seed stores, Fertilizer and feed stores
- 603 Fuel Stores; Petrol stations (Gasoline service stations)
- 604 Book, Paper and Stationery Stores; Newspaper Stores
- 605 Sporting Goods, Toy, Amusement Goods and Musical Instrument Stores
- 606 Camera and Photographic Supply Stores
- 607 Watch, Spectacles and Optical Instruments Stores
- 609 Stores, n.e.c. (e.g. Tobacco and smoking article specialty stores; Flowers and other florists stores; Building materials stores; Jewelry stores; Pet stores; Antique stores; Secondhand stores, except antique)

### 61 BANKING

- 611 Central Bank
- 612 Banks, except Central Bank; including Ordinary banks (Commercial banks), Trust banks, Long-term credit banks, Foreign banks in Japan

### 62 FINANCIAL INSTITUTIONS FOR COOPERATIVE ORGANIZATIONS

- 621 Financial Institutions for Small Businesses; including Credit associations and related, Credit cooperatives and related, Banks for commercial and industrial cooperatives (*Shoko chukin* bank), Labor credit associations and related (*Rokin* bank, *Rokinren* bank)
- 622 Financial Institutions for Agriculture, Forestry and Fisheries Finances; including Bank for agriculture, forestry and fisheries (The *Norinchukin* bank), Prefectural credit federations of agricultural cooperatives, Federations of fisheries and fishery processing cooperatives associations, Agricultural cooperatives, Fishery and fishery processing cooperatives

### 63 INSTITUTIONS DEALING WITH POSTAL SAVINGS, GOVERNMENT-RELATED FINANCIAL

- 631 Institutions Dealing with Postal Savings, Money Orders and Giro Services
- 632 Government-Related Financial Institutions; including Government-related financial institutions for overseas loans and investment, Government-related financial institutions for development, Government-related financial institutions for municipal-enterprises conducting utilities, Government-related financial institutions for small businesses, Government-related financial institutions for household, Government-related financial institutions for agriculture, forestry and fisheries, Government-related financial institutions for housing

### 64 NON-DEPOSIT MONEY CORPORATIONS ENGAGED IN THE PROVISION OF FINANCE, CREDIT AND INVESTMENT

- 641 Credit and Finance Businesses; including Consumer credit and finance businesses, Corporate credit and finance businesses
- 642 Pawnbrokers
- 643 Credit Card and Installment Finance Businesses
- 649 Miscellaneous Non-Deposit Money Corporations Engaged in the Provision of Finance, Credit (e.g. Investment businesses; Housing loan businesses; Securities finance businesses)

**DIVISION L – REAL ESTATE****65 SECURITIES AND FUTURES COMMODITY DEALING ACTIVITIES**

- 651 Securities Brokers and Dealers; Investment Trust and Management Businesses; Auxiliaries for Securities Brokers and Dealers
- 652 Brokers and Dealers of Other Securities, and Related Businesses; including Mortgage securities companies, Investment advisory businesses
- 653 Futures Commodity Transaction Dealers and Commodity Investors

**66 FINANCIAL AUXILIARIES**

- 661 Financial Auxiliaries; including Call loan and discount companies, Bill and check clearing houses, Currency exchangers, Credit guarantee institutions, Credit guarantee reinsurance institutions, Deposit insurance institutions, Securities exchanges, Commodity exchanges

**67 INSURANCE INSTITUTIONS, INCLUDING INSURANCE AGENTS, BROKERS AND SERVICES**

- 671 Life Insurance Institutions; Life Reinsurance Companies; Postal Life Insurance Agencies
- 672 Non-Life Insurance Institutions; Non-life Reinsurance Companies
- 673 Mutual Aid Organizations
- 674 Insurance Agents and Brokers; including Life insurance agents and brokers, Non-life insurance agents and brokers, Mutual aid agents and brokers
- 675 Insurance Service Institutions; including Rate-making services, Appraisers

**68 REAL ESTATE AGENCIES**

- 681 Sales Agents of Buildings and Houses and Land Subdividers and Developers
- 682 Real Estate Agents and Brokers

**69 REAL ESTATE LESSORS AND MANAGERS**

- 691 Real Estate Lessors, except House and Room Lessors; including Office lessors, Land lessors
- 692 House and Room Lessors
- 693 Automobile Parking
- 694 Real Estate Managers

**DIVISION M – EATING AND DRINKING PLACES, ACCOMMODATIONS****70 GENERAL EATING AND DRINKING PLACES**

- 701 Eating Places; including Japanese restaurants, Western restaurants, Chinese restaurants
- 702 “Soba” and “Udon” (Japanese Noodles) Restaurants
- 703 “Sushi” Bars
- 704 Coffee Shops
- 709 Miscellaneous General Eating and Drinking Places

**71 SPREE EATING AND DRINKING PLACES**

- 711 “Ryotei” (Special Japanese Restaurants)
- 712 Bars, Cabarets and Night Clubs
- 713 Drinking Houses and Beer Hall

**72 ACCOMMODATIONS**

- 721 Hotels
- 722 Common Lodging Houses
- 723 Boarding Houses
- 729 Miscellaneous Lodging Places (e.g. Lodging facilities of companies and associations; Resort clubs)

**DIVISION N – MEDICAL, HEALTH CARE AND WELFARE****73 MEDICAL AND OTHER HEALTH SERVICES**

- 731 Hospitals
- 732 Clinics of Medical Practitioners
- 733 Dental Clinics
- 734 Maternity Clinics and Nursing
- 735 Other Health Practitioners; including Offices of masseuses, chiropractors, acupuncturists, moxacauterists and judo-orthopaedists
- 736 Services incidental to Medical (e.g. Dental laboratories)

**74 PUBLIC HEALTH AND HYGIENE**

- 741 Public Health Centers
- 742 Health Consultation Offices
- 749 Other Public Health and Hygiene (e.g. Quarantine stations, except animal and plant quarantines; Inspection and testing services; Disinfecting services)

**75 SOCIAL INSURANCE AND SOCIAL WELFARE**

- 751 Social Insurance Organizations
- 752 Welfare Offices
- 753 Child Welfare Services; including Day nursery
- 754 Welfare Services for the Aged and Care Services, except Home Care Help Services; including Special nursing home for the elderly, Care and health services facilities for the aged, Day care short stay services for the aged, Group home for the aged with dementia, Fee charging home for the aged
- 755 Welfare Services for Disabled Persons
- 759 Miscellaneous Social Insurance, Social Welfare and Care Services (e.g. Offender rehabilitation services; Home care help services)

**DIVISION O – EDUCATION, LEARNING SUPPORT****76 SCHOOL EDUCATION**

- 761 Elementary Schools
- 762 Lower Secondary Schools
- 763 Upper Secondary Schools, Secondary Schools
- 764 Institution of Higher Education; including Universities, Junior colleges, Colleges of technology
- 765 Special Education Schools; including Schools for the blind, Schools for the deaf, Schools for the other disabled
- 766 Kindergartens
- 767 Specialized Training Colleges and Miscellaneous Schools

**77 MISCELLANEOUS EDUCATION, LEARNING SUPPORT**

- 771 Social Education; including Citizen's public halls, Libraries, Museums and art museums, Zoological gardens, botanical gardens and aquariums, Centers for children and youths, Correspondence social education
- 772 Vocational and Educational Support Facilities; including Employee training facilities and supporting facilities, Vocational guidance centers
- 773 Supplementary Tutorial Schools
- 774 Instruction Services for Arts, Culture and Technical Skills; including Music instructions, Calligraphy instructions, Flower, tea ceremony instructions, Abacus instructions, Foreign language instructions, Sports and health instructions, except fitness centers, Fitness centers
- 779 Educational and Learning Support Services, n.e.c.

**DIVISION P – COMPOUND SERVICES****78 POSTAL SERVICES, EXCEPT OTHERWISE CLASSIFIED**

- 781 Postal Services
- 782 Contracted Postal Services; including Postal agency

**79 COOPERATIVE ASSOCIATIONS, n.e.c.**

- 791 Agriculture, Forestry and Fisheries Cooperative Associations, n.e.c.
- 792 Business Cooperative Associations, n.e.c.

**DIVISION Q – SERVICES, n.e.c.****80 PROFESSIONAL SERVICES, n.e.c.**

- 800 Architectural Design Services
- 801 Lawyers' and Patent Attorneys' Offices
- 802 Notaries Public's and Judicial Scriveners' Offices
- 803 Certified Public Accountants' and Auditors' Offices
- 804 Veterinary Services
- 805 Surveying Services; Miscellaneous Engineering and Architectural Services, except Architectural Design Services
- 806 Design, Mechanical Services
- 807 Authors and Artists
- 808 Photographic Studios; Commercial Photography
- 809 Miscellaneous Professional Services (e.g. Detective agencies and credit bureaus; Certified social insurance and labor consultants' offices; Business consultants; Translation, except authors; Interpreter and guide-interpreter services; Commercial art and graphic design; Certified real estate appraisers; Administrative scriveners' offices)

**81 SCIENTIFIC AND DEVELOPMENT RESEARCH INSTITUTES**

- 813 Research Institutes for Physical Sciences
- 814 Research Institutes for Engineering
- 815 Research Institutes for Agriculture
- 816 Research Institutes for Medicine and Pharmacy
- 817 Research Institutes for Humanities
- 818 Research Institutes for Social Sciences

**82 LAUNDRY, BEAUTY AND BATH SERVICES**

- 821 Laundries; including General laundrie, Laundry agents, Linen supply
- 822 Barbershops
- 823 Hair-Dressing and Beauty Salon
- 824 Public Bathhouses
- 825 Special Bathhouses
- 829 Miscellaneous Laundry, Beauty and Bath Services (e.g. Fulling and dyeing plants; Aesthetic salon service)

**83 MISCELLANEOUS LIVING-RELATED AND PERSONAL SERVICES**

- 831 Travel Agency; Travel Sub-agency
- 832 Domestic Services
- 833 Garment Sewing Services and Repairs
- 834 Checkrooms, Safety Deposit Services
- 835 Crematories and Graveyard Custodians
- 836 Ceremonial Occasions; including Funeral services, Wedding ceremony halls, Ceremonial occasion mutual aid society
- 839 Living-Related and Personal Services, n.e.c. (e.g. Food processing services; Matrimonial agency and wedding ceremony hall brokers; Film developing and finishing)



## 84 SERVICES FOR AMUSEMENT AND HOBBIES

- 841 Cinemas
- 842 Performances, except Otherwise Classified; Theatrical Companies; including Legitimate theaters, Performances, Dramatic companies, Orchestra and dancing companies, Entertainment and sports companies
- 843 Bicycle, Horse, Motorcar and Motorboat Race Track Operations and Companies
- 844 Sports Facilities; including Sports facilities, except otherwise classified, Gymnasiums (sports hall), Golf courses, Golf driving range operations, Bowling alleys, Tennis clubs, Baseball and tennis batting range operations
- 845 Public Gardens and Amusement Parks; Theme Parks
- 846 Amusement and Recreation Facilities; including Billiard-rooms, "Go" and Japanese chess parlors, "Mah-jong" clubs, "Pachinko" parlors, Game centers
- 849 Miscellaneous Amusement and Recreation Services; including Dance halls, Marinas, Recreational fishing guide business, Geisha houses, "Karaoke" boxes, Services incidental to amusement and recreation

## 85 WASTE DISPOSAL BUSINESS

- 851 Domestic Waste Disposal Business; including Night soil collecting and transporting business, Night soil processing business, Treatment tank cleaning, Treatment tank maintenance, Waste collection transportation business, Waste disposal business, Public cleaning-related services offices
- 852 Industrial Waste Disposal Business; including Industrial waste transport business, Industrial waste disposal business, Special controlled industrial waste transport business, Special controlled industrial waste disposal business
- 859 Other Waste Disposal Business (e.g. Dead domestic animal disposal business)

## 86 AUTOMOBILE MAINTENANCE SERVICES

- 861 Automobile Maintenance Services; including General automobile maintenance services

## 87 MACHINE, etc. REPAIR SERVICES, EXCEPT OTHERWISE CLASSIFIED

- 871 Machine Repair Shops, except Electrical Machinery, Apparatus, Appliances and Supplies; including General machine repair shops, Construction and mining machinery repair shops
- 872 Electrical Machinery, Apparatus, Appliances and Supplies Repair Shop
- 873 Paper Hangers
- 879 Miscellaneous Repair Services (e.g. Upholstery and furniture repair shops; Watch and clock repair shops; Shoe repair shops; Blacksmith shops)

## 88 GOODS RENTAL AND LEASING

- 880 Office Machinery Rental, except Electronic Computers
- 881 General Goods Rental and Leasing
- 882 Industrial Equipment and Machinery Rental; Construction Machinery Rental
- 883 Electronic Computers and Related Apparatus Rental
- 884 Automobile Rental
- 885 Sports and Hobby Goods Rental
- 889 Miscellaneous Goods Rental and Leasing (e.g. Theatrical goods rental; Audio and visual recordings rental, except otherwise classified; Costume rental, except otherwise classified)

## 89 ADVERTISING

- 891 Advertising Agencies
- 899 Miscellaneous Advertising Services (e.g. Outdoor advertising services)

## 90 MISCELLANEOUS BUSINESS SERVICES

- 901 Stenographic, Entree Document and Copy Services
- 902 Commodity Inspection Services
- 903 Surveyor Certification; including General surveying certification, Environmental surveying certification
- 904 Building Maintenance Services; including Building maintenance services
- 905 Private Employment Services
- 906 Guard Services
- 909 Business Services, n.e.c. (e.g. Display services; Washing of industrial facilities; Non-destructive testing services; Sign painters; Worker dispatching services)

## 91 POLITICAL, BUSINESS AND CULTURAL ORGANIZATIONS

- 911 Business and Professional Associations; including Professional organizations
- 912 Labor Organizations
- 913 Non-Profit Cultural, Science and Art Organizations
- 914 Political Organizations
- 919 Non-Profit Organizations, n.e.c.

## 92 RELIGION

- 921 Shintoism; including "Shinto" shrines and "Shinto" churches, "Shinto" offices
- 922 Buddhism; including Temples and Buddhist churches, Buddhist offices
- 923 Christianity; including Churches and monasteries, Offices of Christian churches
- 929 Miscellaneous Religions (e.g. Churches of miscellaneous religions; Offices of miscellaneous religions)

**DIVISION R – GOVERNMENT, n.e.c.****93 MISCELLANEOUS SERVICES**

- 931 Meeting Halls
- 932 Slaughterhouses
- 939 Services, n.e.c.

**94 FOREIGN GOVERNMENTS AND INTERNATIONAL AGENCIES IN JAPAN**

- 941 Foreign Governments In Japan
- 949 International Agencies In Japan

**95 NATIONAL GOVERNMENT SERVICES**

- 951 Legislative Organs
- 952 Judicial Organs
- 953 Administrative Organs

**96 LOCAL GOVERNMENT SERVICES**

- 961 Prefectural Government Offices
- 962 City, Ward, Town and Village Offices

**DIVISION S – INDUSTRIES UNABLE TO CLASSIFY****99 INDUSTRIES UNABLE TO CLASSIFY**

- 999 Industries Unable to Classify