Questionnaire
J-NIS 2003

### **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  $(\sqrt{})$  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

Destination address for submission and questions

National Innovation Survey, National Institute of Science and Technology Policy

Area code

Area code

Local code

Local code

Office number

Office number

(a)

Extension number

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Title

Name

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Telephone

#### 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 12?
Yes	
	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
	enterprise was established
	over increased by 10% or more due to merger with another enterprise or part of it, or acquisition of asset
Turno	over decreased by 10% or more due to sale, division or closure of part of your enterprise
0.3. repla	How long is the average lifetime of your enterprise's most important product (good or service) until it is ced 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
	ost appropriate alternative.
	/regional (within a distance of around 50 km from any location(s) of your enterprise) within Japan
	nal (broader area than "Local/regional within Japan" in Japan)
	national (area including foreign countries)
D	
	c economic information on your enterprise
•	corporation located within Japan should be included. This survey is undertaken in unit of corporation. Therefore
	for enterprises adopting consolidated accounting, please fill in information only about your enterprise. For enterprises
	onducted a merger with your enterprise as a surviving corporation during the period 1999–2001, please include the
	nation on the merged corporations. In this case, please specify the date of the merger, the original name and the loca-
tion o	f 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)
0.5.	Year 1999 Year 2001
	trillion billion million yen trillion billion million yen
*2	For financial institutions: interest income and any other ordinary income; for insurance services: total face value of insurance fee
_	To a maneral mondations. Interest meetic and any order ordinary meetic, for insurance services, total race value or insurance fee
0.6.	Exports of goods and services
	Year 1999 Year 2001
	trillion billion million yen trillion billion million yen
	,        ,      , million yen    ,        ,      , million yen

0.7.	Purchase of tangible fixed asse	ts <sup>*3</sup>								
	Year 1999			Yea	ır 2001					
	trillion billion million y	milli	on y	en _		billion 5		illion yen, n	nillion	yen
*3	Purchase of machinery, equipment, buildi	ng and land	i							
0.8.	Number of persons engaged <sup>'4,'5</sup>									
0.8.1	Total number of persons engage			ge or num	ber of pe				of the calend	dar year)
	Year 1999 thousand persons	Year 20	thousand		persons	Chang	es in <b>ye</b> a	ar 2002		
						Uncha	nged			
			,		_	Decrea	ased	$\longrightarrow$	· [][	
0.8.2	Of which: Number of persons er	ngaged v	with tert	iary edu	cation*6	Increas	sed		·	
		Year 20	001 thousand			Chang	es in <b>ye</b> a	ar 2002		
			diousand		persons	Uncha	nged			
			JL			Decrea	ased			%
						Increa	sed	$\qquad \rightarrow \qquad$		
0.8.3	Of which: Number of female per	sons en Year 20								
		rear 20	thousand		persons					
			,	<u> </u>						
*4 *5 *6	*5 The term "persons engaged" here refers to all people who belong to and work for your enterprise as defined in the <i>Establishment and Enterprise Census</i> . 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.									
0.9.	Category, location and range of	your en	terprise	's activit	ies					
In wh	ich area is the location (e.g. offic					s such	as resea	arch and	d developn	nent, or
produ	uct manufacture of your enterpris	se or ent	erprise	group?	In whic	h area a	are good	ds and s	ervices <u>pr</u>	<u>oduced</u>
by yo	ur enterprise sold and provided?	Place c	heck mai	rks for al	l appropi	riate alte	rnatives.			
Categ	ory of activities	Japan	Korea	China	Taiwan	$\mathbf{ASEAN}^*$	<b>U.S.</b> <sup>‡</sup>	EU**/	Other	None
				(excluding Taiwan)				EFTA***		
	ion for research and development ion for goods production									
		· 🗀								
	n which goods are sold									
or	services are provided	. 🗀								
*	ASEAN (Association of Southeast Asian N Thai, and Vietnam	ations): Bru	inei Darus	salam, Can	ibodia, Lao	s, Indonesi	a, Malaysi	a, Myanma	ar, Philippine,	Singapore,
**	EU (European Union): Belgium, Denmark,	German, C	Breece, Spa	nin, France	Ireland, It	aly, Luxem	burg, Netl	nerlands, A	ustria, Portuga	ıl, Finland,
***	Sweden, and United Kingdom EFTA (European Free Trade Area): Iceland,	Liechtenste	ein Norwo	v and Swit	zerland					

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.

#### **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 in-<u>cluded</u>. 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
1.2. During the period 1999–2001, what was the most important product innovation for your enterprise?
Select one and describe it briefly.
*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.

1.5. Please estimate how your enterprise's sale 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*8
*2 Total turnover in 2001
*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 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 enter-
prises. 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 process-
es including methods of providing services and of delivering products?
co including methods of providing convicing 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
No
2.2. During the period 1999-2001, what was the most important process innovation for your enterprise? Select one and describe it briefly.

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.
3. Uncompleted or abandoned innovation activities
3. Uncompleted or abandoned innovation activities
3.1. As of the end of 2001, did your enterprise have any <u>uncompleted</u> , ongoing activities to develop or introduce new or significantly improved products or processes, including research and development activities?
Yes
3.2. During the period 1999–2001, did your enterprise <u>abandon</u> any activities to develop or introduce new or significantly improved products or processes, including research and development activities?
Yes No
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*9 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.

\*9 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 c	levelopment expenditure		_			
Intramural	All creative works implemented				$\rightarrow$	"Intramural R&D expenditures"
research and	within your enterprise for the purpose					related to innovaiton activities
development	of increasing the accumulation of					Please fill in the amount in 2001.
_	knowledge, and the usage of the ac-					The R&D expenditures in this survey should include personnel
	cumulated knowledge to invent new					expenditures, materials costs, tangible fixed assets acquisition costs,
	applications					lease payments, and other expenses necessary for research and development.
	(New applications refer to new or				1	billion million ten thousand yen
	improved products and processes)				%	
Acquisition of	Same activities as above but carried				$\rightarrow$	"R&D expenditures disbursed outside"
research and	out by other companies (including					related to innovaiton activities
development	other enterprises within your enter-					Please fill in the amount in 2001.
(extramural	prise group), other public or private					
research and	research institutes or universities or				1	billion million ten thousand yen
development)	higher educational institutions				%	
ac velopinent)	ingrer educational institutions				] /0	
Expenditures fo	or other activities than research and o	deve	elop	me	nt	Research and development (R&D) in this survey include activities
Acqusition of	Advanced machinery or computer		- 1			regarding product development, modification of existing products,
machinery and	hardware specifically purchased for im-			<b>A</b>		and development and modification of processes of production and manufacture. However, activities for purposes of trade or manage-
equipment	plementation of new or significantly					ment should not fall under the category of "research and develop-
- 1 <b>F</b>	improved products and/or processes				%	ment" stated in this survey, even if they are called "research" or "de- velopment" within your enterprise. Also, routine activities should
	and the same to be a second				'	not be included in research and development here.
Acqusition of	Purchase of rights to use patents and	•				Examples of R&D related to innovation activities
other external	non-patented inventions, licenses,					Research and development of fundamental technology for in-
knowledge	know-how, trademarks, software, and					novations  • Development of new products
Miowieuge	other types of knowledge from others					Significant improvement of existing products (Mere enhance-
	for use in your enterprise's innova-					ment and improvements or defect correction unaccompanied by
	tions				%	essential functional changes should not be included.)  • Experiment and research to reveal characteristic features of
	tions				1 10	products for innovations
Training	Internal or external training for your			`		Development of new methods for manufacturing and processing
11 anning	employees directly aimed at develop-				7	Inquiry and development of new material
	ment and/or introduction of innova-					Examples other than R&D related to innovation activities  • Academic quest for truth
					%	Application of existing products to user specifications without
	tions				] //	major change  • Adaptation of existing products to variant environments (e.g.
Market	Internal or external marketing activi-					operating systems, hardware, etc.) without major modifications
introduction of	ties directly aimed at the market in-					Detection and elimination of defects in existing systems
innovations	troduction of new or significantly im-					<ul><li>System operation</li><li>Creation of user documents</li></ul>
iiiiovations	_					User support
	proved products (including prelimi-					Production of contents apparently separated from software (e.g.
	nary market research, market tests,					data for databases)  • Survey and analysis for the purpose of trade activities including
	and launch advertisement, but exclud-					marketing researches and consumer questionnaires (Depending
	ing establishment of distribution net-					on the subject of activity, some might fall under category "Market
	works to market innovations	Ш			]%	introduction of innovations")  • Survey and analysis for the purpose of business management
D:-	Dunga dyman and to the in-1					including financial analysis and inventory management
Design	Procedures and technical preparations					<ul> <li>Survey and analysis for the purpose of process management including QC operation, ISO9001 (quality management),</li> </ul>
and other	to deliver the actual implementation					ISO14001 (environmental management)
preparations	of products and process innovations					
for production/	that are not covered elsewhere				]%	
deliveries	Total innovation expenditure					billion million ten thousand yen
	_	1	0	0		
	in 2001		U	U	] %	

#### 5. Intramural research and development

Carrie	During the period 1999–2001, how did your enterprise carry out researced out continuously	rch and	d devel	opment	(R&D) ?
*10	The term "non-continuously" here means that R&D have been carried out for a certain period de R&D were carried out in a certain year, but not carried out in the following year.	aring 199	9–2001.	An exampl	e is a case where
who e	How many persons in full-time equivalents were involved in intramura in 2001? Please include both persons within your enterprise's R&D department engaged in intramural R&D activities. Number of persons in full-time equivalent intramural R&D activities. Number of persons in full-time equivalent intramural R&D 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 with R&D practices' but engaged in R&D practices, by the persons in R&D practices out of all his/her business time	nt and plents re	persons fers to whose b	outside the numb	he department per of persons was not mainly
_					
6.	Effects of innovation during 1999–2001				
durin busin	the indicate the degree of impact at the end of 2001 by innovation activity of the period 1999–2001. If your enterprise has more than one business do ess domain in which your enterprise's most important product innovation act taken.	main, y	ou may	y answer	regarding the
		High	Mediun	Low	Not relevant
Effec	ts regarding products	_			
	Increased the range of goods or services	🔲			
	Expanded the market or increased market share	🗌			
	Improved quality in goods or services	🔲			
Effec	ts regarding process				
Linee	Improved production flexibility				
	Increased production capacity	🔲			
	Reduced labor costs per production unit	🗌			
	Reduced materials and energy usage per production unit	🗌			
Other	r effects				
	Improved environmental impact or health and safety aspects	🔲			
	Satisfied regulations or standards				

#### 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?

	Y	/es	No
	Grant or	Loan or	
	subsidy	credit guarantee	
From local or regional public authorities (prefectural and municipal authorities or institutions working on behalf of these authorities)			
From central government (ministries and agencies, as well as institutions work-			
ing 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 Corpora-			
tion for Small Business (JFS), Telecommunications Advancement Organi-			
zation of Japan (TAO), etc.)			

#### 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	$\rightarrow$	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 your enterprise is located #		Korea	China (excluding Taiwan)	Taiwan	ASEAN*	U.S.	EU**/ EFTA***	Other
Other enterprises within your enterprises	se group								
(The following are ab outside of your enterp	*								
Suppliers of equipments parts (components	nt, materials, ), or software								
Clients (including dist of your enterprise	cributors outside group) or customers								
Competitors and other from the same ind	r enterprises								
Consultants									
Commercial laborator / suppliers of R&I	ies / R&D enterprises  O support service								
Universities or other higher educa	ation institutes								
Government or private non-profit	research institutes								
Thai, and Vietnam  ** EU (European Un  Sweden, and Unit	ion): Belgium, Denmark, German, G	reece, Spain, F	France, Irel	and, Italy,					
8.3. Please indica	te the importance of your p	partners in	the coo	oeration	for inno	vations			
Type of organization	partner					rtners gree of in	nportanc	No par	rtner
					Hig	_	ım Low		
Other enterprises with	in your enterprise group								
(The following are ab	out enterprises outside of your	enterprise g	group)						
Suppliers of equipmen	nt, materials, parts (component	ts), or softw	are						
Clients (including dist	tributors outside of your enterp	orise group)	or custo	mers					
Competitors and other	r enterprises from the same inc	dustry							
Consultants									
Commercial laborator	ies / R&D enterprises / supplie	ers of R&D	support	service					
Universities or other h	nigher education institutes								
Government or private	e non-profit research institutes								

#### 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.

	Sugge of new		tion project	,	Contribution to the implementation of existing innovation projects				
Information sources	Utiliz	zed		Not utilized	Utilized			Not utilized	
	Degr High	ee of in Mediur	nportance n Low	:	Degr High	ee of in Mediu	n <b>portance</b> n Low	:	
Within your enterprise group									
R&D department within your enterprise									
Production, manufacture, or maintenance department within your enterprise	🔲								
Marketing department within your enterprise.									
Other departments within your enterprise	🔲								
Other enterprises within your enterprise group	🔲				6				
Market (outside your enterprise group)									
Suppliers of equipment, materials, parts (components), or software									
Clients (including distributors) or customers									
Competitors and other enterprises from the same industry	🗖								
Consultants	🔲								
Commercial laboratories / R&D enterprises / suppliers of R&D support service	🔲								
Institutution									
Universities or other higher education institutes	🔲								
Government or private non-profit research institutes	🔲								
Others									
Professional conferences or meetings	🔲								
Professional journals or academic journals	🗌								
Trade fairs or exhibitions	🔲								

40	D:-:	and the second second		
10.	LUSINCE	ntives to	Innov	ation

10.1a	. (This question is asked to enterprises which <u>carried out</u> any innovation activ	ity du	ring the	e period 1	999–2001.)
Durin	g the period 1999–2001, did any of the following occur to your enterprise	's inno	vation	activitie	s?
		Yes		No	
<b>→</b>	Seriously delayed  Prevented from starting				
<b>→</b>	Went through hard times burdened with other serious problems				
	Wellt tillough hard tillies ourdened with other serious problems				
Go to	question 10.2.				
10.1b	o. (This question is asked to enterprises without any innovation activity dur	ring th	e peric	od 1999–	2001.)
	g the period 1999–2001, did any of the following reasons apply to your	enterp	rise fo	r not hav	ing carried
out in	novation at all?	Yes		No	
<b>→</b>	Not necessary due to prior innovations				
<b>-&gt;</b>	Not necessary due to market conditions				
<b>-&gt;</b>	Presence of factors impeding innovations				
Go to	question 10.2.				
10.2.	If your enterprise experienced any disincentives during the period 199	9–200	1, plea	ase indic	ate the im-
porta	nce (degree of magnitude of the influence) of the relevant factors. If you	ır ente	rprise c	arried out	innovations
	as more than one business domain, you may answer regarding the business dom	ain in	which :	your enter	rprise's most
impor	tant product innovation activities, specified in question 1.2., are undertaken.				
		Degree	of imp	ortance:	
Disino		_	Medium		Not relevant
Econo	omic factors				
	Excessive economic risks				
	Too high innovation costs				
	Lack of appropriate financial sources				
Interi	nal factors				
	Organizational rigidity within your enterprise				
	Lack of qualified personnel				
	Lack of information on technology		$\Box$		
	Lack of information on markets				
041				_	
Otner	factors				
	Insufficient flexibility of regulations or standards				
	Lack of customer responsiveness to new goods or services				

11.1. During the period 1999–2001, did your enterprise of	r enterprise group app	
protect inventions <u>developed by your enterprise</u> ?	2 2 7 3 3 3 4 4 4 4	ly for at least one patent to
Yes → Please indicate the number of pat	ent applications*11,*12 fc	or protecting innovations.
Total	Of which:	
(goods/services/processes)	Goods/Services	Processes
	_,	
No Go to question 11.4.		
*11 Patent applications / patents for the same invention to different patent offic *12 Because an invention may involve in both the goods/services and process processes does not have to be the total number of all the patents.	•	
11.2. Did your enterprise or enterprise group have any vali or innovations <u>developed by your enterprise</u> ?	d patents at the end c	of 2001 protecting inventions
Yes → Please indicate the number of val	d patents*11,*12 protecti	ng innovations.
Total	Of which:	
(goods/services/processes)	Goods/Services	Processes
No		
11.3. What percentage of your turnover in 2001 was covered of 2001 owned by your enterprise or enterprise group?	ered by patent applica	tions or patents valid at the
Share of turnover in 2001	%	
11.4. During the period 1999–2001, did your enterprise or	enterprise group use a	any of the following methods
11.4. During the period 1999–2001, did your enterprise or other than patents to protect inventions or innovations deve		
	loped in your enterpris	e?
other than patents to protect inventions or innovations deve	loped in your enterpris	e?
other than patents to protect inventions or innovations development of the control of the contro	loped in your enterpris	e?
other than patents to protect inventions or innovations development of the control of the contro	Ves	e?
other than patents to protect inventions or innovations development of the control of the contro	Ves	e?
other than patents to protect inventions or innovations devel  Institutional methods  Design registration	Yes	e?
Other than patents to protect inventions or innovations development of the control of the contro	Yes	e?
Institutional methods Design registration	Yes	e?

For enterprises carrying out innovation activities, go to question 11.5. Enterprises with no recent innovation activity (i.e. answered "No" to ea

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.

Patents and other protection methods

#### **J-NIS 2003**

- 11.5. In the questions from 11.5.1. through 11.5.5. below, you are asked about your enterprise's most important <u>product innovation</u> specified in question 1.2. and about your enterprise's most important <u>process innovation</u> specified in question 2.2.
- 11.5.1. During the period 1999–2001, how much effect did the following methods have for your enterprise <u>to ensure a profit</u> from innovation activities in your enterprise? *Please indicate the degree of the effect for each item*.

	Your most important product innovation Degree of effect:				Your most important process innovation Degree of effect:			
	High	Medium	Low	Not relevant	High	Medium	Low	Not relevant
Institutional methods								
Protection by patents								
Protection by design registration								
Protection by trademarks								
Protection by copyrights								
Strategic methods								
Trade secrets								
Complexity of design	. 🔲 🛮							
Advantage of lead time on competitors	. 🖪 🕽							
Retention and management of production equipmer and manufacturing know-how for products								
Retention and management of delivery system								
and distribution network for products								
does each of the following apply as the motivation	Your	your pa	portant	olication?	Your	most im		
	Yes	ici inno	No No		Yes	ss innov	No	
To evaluate the achievements	ICS		110		Tes		110	
by researchers or engineers								
To earn revenue from licensing								
To gain advantage on other enterprises								
by cross-license contracts								
To prevent lawsuits over infringement of								
patents against your enterprise								
To prevent imitation of innovations	_		_				_	
by other enterprises	. 🔲						Ш	
To prevent issuance of patents for related								
technology developed by other enterprises	. []							
To enhance the valuation of your enterprise or of researchers or engineers of your enterprise	. 🔲							

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

						Your most product in Yes	-	nt	p.	our most rocess inn es	important 10vation No	
	Made de	cision <u>no</u>	<u>t</u> to apply	for pater	nts	. 🔲						
	questions of the fo to your r	s above, pollowing reason w	ckmark on please ar whether hy your e	nswer fo it corres enterprise	r each sponds e made	<b>\</b>			•	,		
						Your most	_	ıt			important	
						product in			_	rocess ini		
						Yes	No		Y	es	No	
		_	enting the	-		. 🗆						
		_	ortant inf ough pater		of your tion	. 🗆						
	Too high	costs of	patent ap	plication.								
	in co	urts	g your en			. 🗆						
	_											
			iation of i er method		ech- tents							
11.5.4	l. How	lona do	you thir	nk it will	take for	other enter	prises to	accom	olish alt	ernative	innovatio	ns without
		_	rprise's p									
	Your mo	st import	ant produ	uct innov	ation		Your mo	st import	ant proc	ess innov	ation	
	less than	half to	1–3	4–6	7–9	10 years	less than	half to	1–3	4–6	7–9	10 years
	half year	1 year	years	years	years	and more	half year	1 year	years	years	years	and more
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 <u>not</u> applied patents?												
	Your mo	st import	ant prodi	uct innov	ation		Your mo	st import	ant proc	ess innov	ation	
	less than	-	1–3	4–6	7–9	10 years	less than	-	1–3	4–6	7–9	10 years
	half year	1 year	years	years	years	and more	half year	1 year	years	years	years	and more

#### 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
Strategy		
Implemented strategies for providing your enterprise's original products different from other enterprises		
Implemented strategies to cultivate new markets by expanding your products to other business domain than where you used to provide them		
Implemented strategies to expand the market or market share in the range of specific products of your enterprise		
Implemented strategies for reducing costs related to your enterprise's products		
Implemented strategies for constructing your enterprise's internal resources, which would serve as the core for competition		
Implemented strategies for other purposes than stated above		
Management		
Implemented documented policies related to knowledge management (systematic activities related to acquisition and sharing of knowledge within an organization) within your enterprise		
Had a values system or corporate culture intended to promote sharing of knowledge within your enterprise		
Implemented policies or programs intended to improve retention of employees within your enterprise		
Implemented partnerships or strategic alliance with other enterprises for the purpose of acquiring knowledge		
Implemented other management techniques new to your enterprise than stated above within your enterprise, e.g. supply chain management (SCM), Six Sigma (6σ)		

		Yes	No
Organization			
Implemented	reorganization of business process for efficiency		
i.e. introd	internalization of new functional departments or functions, uction of new organizations or personnel with functions not been carried out within your enterprise		
i.e. procur	externalization of specific functional departments or function rement of organizations or personnel outside your enterprise out functions used to be carried out within your enterprise		
Implemented	other changes in organizational structure than stated above.		
Marketing			
Implemented	significant changes		
=	nterprise's marketing concept/strategy,		
	ewly implementation of data mining		
Aesthetic change (o	or other subjective changes)		
Made signific	cant changes in aesthetic appearance or design,		
or other sul	bjective changes that users can tell		
in at least o	one of your enterprise's products		
Remarks (modificat	tion of names, locations, or businesses, and other related spe	ecial notes)	

J-NIS 2003
Free text comments

### 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 <u>from this Classification List</u> and fill in the <u>three-digit code</u> 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	
В	Forestry	2
C	Fisheries	2
D	Mining	2
E	Construction	3
F	Manufacturing	
G	Electricity, Gas, Heat Supply and Water	7
Н	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
- O54 Stone Quarrying, Sand and Gravel Pits
- O55 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
- O62 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 CONTRAC-TOR, 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
- O83 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
- O93 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
- ${\bf 098} \quad \ \, {\bf Animal \ and \ Vegetable \ Oils \ and \ Fats; Edible \ Oils \ and \ Fats}$
- 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 roods; "Sozai" 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, EX-CEPT APPAREL AND OTHER FINISHED PROD-UCTS 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 FIN-ISHED 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 PROD-UCTS, EXCEPT FOURNITURE

- 131 Sawing, Planning 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 "byobu"-screens; Mirror frames and picture frames)

#### 15 MANUFACTURE OF PULP, PAPER AND PAPER PROD-UCTS

- 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 PROD-UCTS

- 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 PROD-UCTS

- 181 Petroleum Refining
- 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 Miscellanous 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 PROD-UCTS

- 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 COMMU-NICAION ELECTRONICS EQUIPMET

- 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 TRASPORTATION EQUIPMENT

- 301 Motor Vehicles, Parts and Accessories
- 302 Railroad Equipment and Parts
- 303 Shipbuilding and Repairing, and Marine Engines
- Aircraft and Parts; inclding Aircraft engines, Miscellaneous aircraft parts and auxiliary equipment
- 305 Industrial Trucks and Parts and Accessories
- 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

#### 2 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 Preciious 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

DIVISION G - ELECTRICITY, GAS, HEAT SUPPLY AND WATER

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

#### 34 MANUFACTURE OF GAS

OF ELECTRICITY

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, CHARAC-TER INFORMATION PRODUCTION AND DIS-TRIBUTION

- 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, MIN-ERALS AND METALS, etc.)

- 521 Building Materials
- 522 Chemicals and Related Products
- 523 Minerals and Metals
- 524 Recycled Material

#### 53 WHOLESALE TRADE (MACHINERY AND EQUIP-MENT)

- 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 AP-PAREL 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 UTEN-SIL AND HOUSEHOLD APPLIANCE)

- 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

#### 52 FINANCIAL INSTITUTIONS FOR COOPEERATIVE 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
- 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)

#### 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 INSUR-ANCE 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
- 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

#### DIVISION L - REAL ESTATE

#### 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, ACCOMMO-DATIONS

#### 70 GENERAL EATING AND DRINKING PLACES

- 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 PUPLIC HEALTH AND HYGIENE

- 741 Public Health Centers
- 742 Health Consultation Offices
- 749 Other Puplic 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 SUP-PORT

- 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 CLASSI-FIED

- 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' Ofices
- 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 IN-STITUTES

- 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

- Linen supply

  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 PERSON-AL 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 Comranies; 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 Billiardrooms, "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 OTHER-WISE 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 ORGANIZA-TIONS

- 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 Halls932 Slaughterhouses939 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 Organs952 Judicial Organs953 Administrative Organs

#### 96 LOCAL GOVERNMENT SERVICES

961 Prefectural Government Offices962 City, Ward, Town and Village Offices

#### **DIVISION S - INDUSTRIES UNABLE TO CLASSIFY**

#### 99 INDUSTRIES UNABLE TO CLASSIFY

999 Industries Unable to Classify