

# **Survey of the Bio Industry 2005**

**(Summary)**

# Survey of the Bio Industry 2005

March 2006

In order to collect fundamental data on the biotechnology industry, or bio industry, in Japan, the Japanese government conducted an industry survey during fiscal 2004. (April 1, 2004 – March 31, 2005)

## 1 . Survey outline

This survey was implemented in order to ascertain conditions in the bio industry. It was sanctioned under the Statistical Reports Coordination Law and conducted jointly by Ministry of Education, Culture, Sports, Science and Technology; Ministry of Health, Labour and Welfare; Ministry of Agriculture, Forestry and Fisheries; Ministry of Economy, Trade and industry.

1 ) Period covered by survey : Fiscal 2004 (April 1, 2004 – March 31, 2005)

2 ) Survey method : Postal mail

3 ) Companies surveyed :

Selected companies from the following: Basic Survey of Japanese Business Structure and Activities register; Japan Bioindustry Association (JBA) membership list; Japan Biological Informatics Consortium membership list; Society for Techno-innovation of Agriculture, Forestry and Fisheries membership list; JBA Bioventure Companies Report.

4 ) Surveyed items:

- Basic company data (capital, number of employees, number of years in operation, industrial classification, geographic location)
- Value of shipments for FY 2004
- Five-year (FY 2009) forecast of bio industry trends
- Forecast of overseas production

5 ) Response rate:

Number of companies that received survey: 1835

Valid responses: 1057

Response rate: 57.6%

## 2. Survey Results

### 2.1. Company attribute

#### 2.1.1 Capitalization

Figure 1: Capitalization

Capital (million yen)	Number of companies	% of total
~30	193	18.3%
30~50	116	11.0%
50~100	179	16.9%
100~500	195	18.4%
500~1,000	52	4.9%
1,000~5,000	103	9.7%
5,000~10,000	53	5.0%
10,000~	162	15.3%
No response	4	0.4%
Total	1,057	100.0%

### 2.1.2 Number of employees

Figure 2: Number of employees

Number of employees	Number of companies	% of total
~50	338	32.0%
51~100	135	12.8%
101~300	209	19.8%
301~1,000	182	17.2%
1,001~5,000	147	13.9%
5,001~	45	4.3%
NR	1	0.1%
Total	1,057	100.0%

### 2.1.3 Years in operation

Figure 3: Years in operation

Years in operation	Number of companies	% of total
~1	20	1.9%
1~3	80	7.6%
3~5	64	6.1%
5~10	79	7.5%
10~20	92	8.7%
20~	722	68.3%
Total	1,057	100.0%

#### 2.1.4 Industrial classification

Figure 4: Industrial classification

Industrial classification		Number of companies	% of total
Agriculture		21	2.0%
Forestry		1	0.1%
Fisheries		0	0.0%
Mining		0	0.0%
Construction		19	1.8%
M a n u f a c t u r i n g	Manufacture of food, beverages, tobacco and feed	224	21.2%
	Manufacture of textile mill products, pulp, paper and paper products	21	2.0%
	Manufacture of chemicals and relatd products, except drugs and medicines	119	11.3%
	Manufacture of drugs and medicines	125	11.8%
	Manufacture of petroleum and coal products	9	0.9%
	Manufacture of iron, steel and non-ferrous metals	5	0.5%
	Manufacture of general machinery	59	5.6%
	Manufacture of electrical machinery, equipment and supplies, information and communication electronics equipment, electronic parts and devices	45	4.3%
	Manufacture of precision instruments and machinery	35	3.3%
	Miscellaneous manufacturing industries	103	9.7%
Electricity, gas, heating and water supply		2	0.2%
Information and communications		17	1.6%
Transport		0	0.0%
Wholesale and retail trade		104	9.8%
Finance and insurance		2	0.2%
Real estate		2	0.2%
Eating and drinking places, accommodations		0	0.0%
Medical, health care and welfare		17	1.6%
Education, learning support		1	0.1%
General services		4	0.4%
Services, not elsewhere classified		83	7.9%
Other		39	3.7%
No response		0	0.0%
Total		1,057	100.0%

## 2.1.5 Geographic location

Figure 5: Geographic location

Prefecture		Number of companies	% of total
Hokkaido	Hokkaido	54	6.8%
Tohoku	Aomori	5	0.6%
	Iwate	9	1.1%
	Miyagi	17	2.2%
	Akita	6	0.8%
	Yamagata	7	0.9%
	Fukushima	19	2.4%
Kanto	Ibaraki	32	4.1%
	Tochigi	13	1.6%
	Gunma	12	1.5%
	Saitama	28	3.5%
	Chiba	45	5.7%
	Tokyo	100	12.7%
	Kanagawa	55	7.0%
Chubu	Niigata	8	1.0%
	Toyama	11	1.4%
	Ishikawa	3	0.4%
	Fukui	6	0.8%
	Yamanashi	5	0.6%
	Nagano	16	2.0%
	Gifu	11	1.4%
	Shizuoka	27	3.4%
	Aichi	45	5.7%
	Mie	12	1.5%
Prefecture		Number of companies	% of total
Kinki	Shiga	12	1.5%
	Kyoto	29	3.7%
	Osaka	46	5.8%
	Hyogo	45	5.7%
	Nara	6	0.8%
	Wakayama	3	0.4%
Chugoku	Tottori	2	0.3%
	Shimane	2	0.3%
	Okayama	10	1.3%
	Hiroshima	16	2.0%
	Yamaguchi	5	0.6%
Shikoku	Tokushima	2	0.3%
	Kagawa	1	0.1%
	Ehime	6	0.8%
	Kochi	1	0.1%
Kyushu	Fukuoka	23	2.9%
	Saga	4	0.5%
	Nagasaki	1	0.1%
	Kumamoto	13	1.6%
	Oita	7	0.9%
	Miyazaki	2	0.3%
	Kagoshima	3	0.4%
	Okinawa	4	0.5%
Total		789	100.0%

## 2.2. Value of shipments of biotechnology products

### 2.2.1 Value of shipments, by product classification

Figure 6: Shipment values, by product classification  
(million yen)

	Number of companies	Shipment value	% of total
Food	167	4,690,027	61.0%
Food material	130	376,323	4.9%
Agriculture	79	49,132	0.6%
Livestock and seafood	52	33,536	0.4%
Drugs and diagnostic agents	152	1,384,353	18.0%
Reagents	107	24,495	0.3%
Textiles	11	1,577	0.0%
Chemical products	92	439,599	5.7%
Bioelectronics	16	35,558	0.5%
Bioremediation	88	250,001	3.3%
Equipment for research and production	79	80,104	1.0%
Miscellaneous products	19	91,235	1.2%
Computers and information services	35	21,801	0.3%
Miscellaneous services	106	204,159	2.7%
No response	126	9,619	0.1%
Total	1,259	7,691,519	100.0%

## 2.2.2 Five-year (Fiscal 2009) forecast of bio industry trends

Figure 7: Fiscal 2009 forecast

	Increase		Modest increase		Remain flat		Modest decrease		Decrease		Total	
	Number of companies	% of total	Number of companies	% of total	Number of companies	% of total	Number of companies	% of total	Number of companies	% of total	Number of companies	% of total
Food	18	8.1%	55	24.7%	97	43.5%	50	22.4%	3	1.3%	223	100.0%
Food material	45	28.1%	51	31.9%	46	28.8%	12	7.5%	6	3.8%	160	100.0%
Agriculture	28	33.3%	28	33.3%	18	21.4%	7	8.3%	3	3.6%	84	100.0%
Livestock and seafood	16	27.1%	13	22.0%	18	30.5%	7	11.9%	5	8.5%	59	100.0%
Drugs and diagnostic agents	38	19.9%	52	27.2%	54	28.3%	27	14.1%	20	10.5%	191	100.0%
Reagents	47	41.2%	33	28.9%	23	20.2%	5	4.4%	6	5.3%	114	100.0%
Textiles	2	16.7%	1	8.3%	7	58.3%	1	8.3%	1	8.3%	12	100.0%
Chemical products	30	28.0%	33	30.8%	27	25.2%	7	6.5%	10	9.3%	107	100.0%
Bioelectronics	10	52.6%	7	36.8%	1	5.3%	1	5.3%	0	0.0%	19	100.0%
Bioremediation	20	18.5%	36	33.3%	34	31.5%	15	13.9%	3	2.8%	108	100.0%
Equipment for research and production	32	36.4%	32	36.4%	16	18.2%	6	6.8%	2	2.3%	88	100.0%
Miscellaneous products	13	68.4%	4	21.1%	2	10.5%	0	0.0%	0	0.0%	19	100.0%
Computers and information services	17	34.7%	15	30.6%	9	18.4%	5	10.2%	3	6.1%	49	100.0%
Miscellaneous services	52	43.7%	36	30.3%	18	15.1%	7	5.9%	6	5.0%	119	100.0%
No response	4	23.5%	3	17.6%	6	35.3%	3	17.6%	1	5.9%	17	100.0%
Total	372	27.2%	399	29.1%	376	27.5%	153	11.2%	69	5.0%	1,369	100.0%



### 2.2.3 Value of shipments by small and medium-sized bio enterprises

This survey defines small and medium-sized bio enterprises as noted below, based on the definition contained in the Small and Medium Enterprise Basic Law.

Definition of small and medium-sized bio enterprises

Industries	Capital size(million yen)	Number of employees
Manufacturing and Others	300 or less	500 or less
Wholesale	10 or less	100 or less
Retail	50 or less	50 or less
Services		100 or less

Figure 8: Value of shipments by small and medium-sized bio enterprises, by years in operation

(values in millions of yen)

	Shipment value of small and medium bio-enterprise, by years in operation											
	～1year		1～3years		3～5years		5～10years		10～20years		20years～	
	Shipment value	% of total	Shipment value	% of total	Shipment value	% of total	Shipment value	% of total	Shipment value	% of total	Shipment value	% of total
Food	8,600	98.9%	4	0.0%	0	0.0%	18,626	60.6%	2,145	3.7%	362,086	61.6%
Food material	6	0.1%	68	0.2%	918	7.1%	2,659	8.7%	5,081	8.7%	83,417	14.2%
Agriculture	0	0.0%	2,013	5.8%	2	0.0%	7	0.0%	275	0.5%	3,858	0.7%
Livestock and seafood	0	0.0%	42	0.1%	0	0.0%	290	0.9%	516	0.9%	13,527	2.3%
Drugs and diagnostic agents	4	0.0%	23,372	67.6%	2,067	16.1%	1,277	4.2%	8,074	13.8%	38,063	6.5%
Reagents	0	0.0%	1,049	3.0%	2,716	21.1%	1,226	4.0%	2,855	4.9%	4,279	0.7%
Textiles	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	413	0.1%
Chemical products	5	0.1%	8	0.0%	4,006	31.2%	343	1.1%	30	0.1%	26,919	4.6%
Bioelectronics	0	0.0%	0	0.0%	0	0.0%	315	1.0%	0	0.0%	1,784	0.3%
Bioremediation	50	0.6%	107	0.3%	262	2.0%	340	1.1%	25,499	43.6%	27,749	4.7%
Equipment for research and production	0	0.0%	221	0.6%	213	1.7%	1,921	6.3%	5,829	10.0%	20,384	3.5%
Miscellaneous products	0	0.0%	70	0.2%	0	0.0%	19	0.1%	1,347	2.3%	238	0.0%
Computers and information services	15	0.2%	6,156	17.8%	227	1.8%	472	1.5%	1,116	1.9%	750	0.1%
Miscellaneous services	15	0.2%	1,485	4.3%	2,444	19.0%	3,224	10.5%	4,996	8.5%	4,182	0.7%
No response	0	0.0%	0	0.0%	0	0.0%	0	0.0%	711	1.2%	328	0.1%
Total	8,695	100.0%	34,595	100.0%	12,855	100.0%	30,718	100.0%	58,475	100.0%	587,977	100.0%

## 2.2.4 Value of shipments, according to the following technology classification

A : Conventional fermentation, conventional cultivation, mutagenesis

B : Cell fusion, cell culture, chromosomal modification, tissue culture, cloning

C : Genetic modification

D : New technology for regulating fermenter

E : Conventional bioremediation

F : Biomimicry, biosensors, analytical equipment, software

Figure 9: Value of shipments by technology classification (million yen)

	A: •Conventional fermentation •Conventional cultivation •Mutagenesis		B: •Cell fusion •Cell culture •Chromosomal modification •Tissue culture •Cloning		C: •Genetic modification		D: •New technology for regulating fermenters		E: •Conventional bioremediation		F: •Biomimicry •Biosensors •Analytical equipment •Software		No response		Total	
	Shipment value	% of total	Shipment value	% of total	Shipment value	% of total	Shipment value	% of total	Shipment value	% of total	Shipment value	% of total	Shipment value	% of total	Shipment value	% of total
Food	4,680,660	99.8%	5,372	0.1%	2,229	0.0%	0	0.0%	0	0.0%	0	0.0%	1,765	0.0%	4,690,027	100.0%
Food material	312,503	83.0%	467	0.1%	15	0.0%	47834	12.7%	0	0.0%	242	0.1%	15,263	4.1%	376,323	100.0%
Agriculture	41,277	84.0%	7,552	15.4%	78	0.2%	57	0.1%	3	0.0%	164	0.3%	1	0.0%	49,132	100.0%
Livestock and seafood	21,340	63.6%	548	1.6%	1,129	3.4%	2011	6.0%	4,471	13.3%	199	0.6%	3,838	11.4%	33,536	100.0%
Drugs and diagnostic agents	618,273	43.4%	187,741	13.2%	423,057	29.7%	68488	4.8%	12,242	0.9%	107,721	7.6%	5,969	0.4%	1,423,492	100.0%
Reagents	3,001	11.6%	6,133	23.7%	5,973	23.1%	20	0.1%	0	0.0%	3,225	12.5%	7,492	29.0%	25,845	100.0%
Textiles	1,015	64.4%	0	0.0%	267	16.9%	260	16.5%	35	2.2%	0	0.0%	0	0.0%	1,577	100.0%
Chemical products	209,936	42.1%	134,872	27.1%	152,172	30.5%	206	0.0%	495	0.1%	72	0.0%	400	0.1%	498,153	100.0%
Bioelectronics	0	0.0%	2	0.0%	0	0.0%	0	0.0%	0	0.0%	35,556	100.0%	0	0.0%	35,558	100.0%
Bioremediation	8,385	3.3%	5	0.0%	0	0.0%	2061	0.8%	221,272	88.4%	17,964	7.2%	640	0.3%	250,327	100.0%
Equipment for research and production	11,517	14.0%	25,718	31.2%	2,098	2.5%	50	0.1%	146	0.2%	39,117	47.5%	3,705	4.5%	82,351	100.0%
Miscellaneous products	81,369	89.2%	1,300	1.4%	7	0.0%	0	0.0%	355	0.4%	8,203	9.0%	0	0.0%	91,235	100.0%
Computers and information services	0	0.0%	0	0.0%	0	0.0%	162	0.7%	0	0.0%	17,105	78.5%	4,534	20.8%	21,801	100.0%
Miscellaneous services	10,751	4.8%	18,840	8.4%	16,283	7.2%	832	0.4%	2,481	1.1%	135,771	60.4%	40,005	17.8%	224,962	100.0%
No response	9,056	94.1%	0	0.0%	0	0.0%	0	0.0%	163	1.7%	0	0.0%	401	4.2%	9,620	100.0%
Total	6,009,082	76.9%	388,550	5.0%	603,309	7.7%	121980	1.6%	241,663	3.1%	365,339	4.7%	84,013	1.1%	7,813,937	100.0%

## 2.2.5 Distribution of conventional technology vs. new technology

Figure 10: Value of conventional and new technology shipments by product category  
(million yen)

	Conventional technology		New technology		Proportion of new technology
	Shipment value	% of total	Shipment value	% of total	
Food	4,680,660	75.8%	7,601	0.5%	0.2%
Food material	312,503	5.1%	48,557	3.4%	13.4%
Agriculture	41,280	0.7%	7,851	0.5%	16.0%
Livestock and seafood	25,811	0.4%	3,887	0.3%	13.1%
Drugs and diagnostic agents	628,233	10.2%	750,151	52.5%	54.4%
Reagents	2,362	0.0%	14,641	1.0%	86.1%
Textiles	1,050	0.0%	527	0.0%	33.4%
Chemical products	151,878	2.5%	287,321	20.1%	65.4%
Bioelectronics	0	0.0%	35,558	2.5%	100.0%
Bioremediation	229,331	3.7%	20,030	1.4%	8.0%
Equipment for research and production	10,606	0.2%	65,793	4.6%	86.1%
Miscellaneous products	81,725	1.3%	9,510	0.7%	10.4%
Computers and information services	0	0.0%	17,267	1.2%	100.0%
Miscellaneous services	3,866	0.1%	160,289	11.2%	97.6%
No response	9,218	0.1%	0	0.0%	0.0%
Total	6,178,523	100.0%	1,428,983	100.0%	18.8%

\*Conventional technology: technology classification A, E

New technology: technology classification B, C, D, F

Figure 11: Value of shipments by product category

(million yen)

	A: Finished products using self-developed biotechnology		B: Products incorporating self-developed biotechnology materials		C: Biotechnology process manufacturing		D: Outsourcing of the biotechnology process		E: Other		No response		Total	
	Shipment value	% of total	Shipment value	% of total	Shipment value	% of total	Shipment value	% of total	Shipment value	% of total	Shipment value	% of total	Shipment value	% of total
Food	4,271,461	90.6%	28,967	0.6%	78,110	1.7%	713	0.0%	14,561	0.3%	318,653	6.8%	4,712,465	100.0%
Food material	234,883	62.4%	77,867	20.7%	9,172	2.4%	615	0.2%	1,652	0.4%	52,134	13.9%	376,323	100.0%
Agriculture	42,490	86.5%	203	0.4%	248	0.5%	2,512	5.1%	1,233	2.5%	2,446	5.0%	49,132	100.0%
Livestock and seafood	18,789	56.0%	2,041	6.1%	256	0.8%	1,367	4.1%	8,796	26.2%	2,287	6.8%	33,536	100.0%
Drugs and diagnostic agents	600,220	42.5%	21,541	1.5%	216,307	15.3%	8,546	0.6%	29,637	2.1%	535,677	37.9%	1,411,928	100.0%
Reagents	2,867	11.4%	3,365	13.4%	1,093	4.3%	1,533	6.1%	11,521	45.8%	4,774	19.0%	25,153	100.0%
Textiles	863	54.7%	406	25.7%	41	2.6%	0	0.0%	0	0.0%	267	16.9%	1,577	100.0%
Chemical products	269,759	61.3%	47,176	10.7%	76,716	17.4%	20	0.0%	1,363	0.3%	45,065	10.2%	440,099	100.0%
Bioelectronics	135	0.4%	0	0.0%	33,008	92.8%	27	0.1%	1,775	5.0%	613	1.7%	35,558	100.0%
Bioremediation	4,768	1.7%	30	0.0%	30,189	11.0%	12,327	4.5%	194,564	70.8%	33,123	12.0%	275,001	100.0%
Equipment for research and production	11,668	14.6%	0	0.0%	1,002	1.3%	814	1.0%	46,710	58.3%	19,910	24.9%	80,104	100.0%
Miscellaneous products	81,450	89.3%	738	0.8%	10	0.0%	1,300	1.4%	7,465	8.2%	272	0.3%	91,235	100.0%
Computers and information services	150	0.7%	0	0.0%	90	0.4%	20	0.1%	12,826	58.8%	8,715	40.0%	21,801	100.0%
Miscellaneous services	72,689	35.6%	2,147	1.1%	168	0.1%	5,129	2.5%	64,459	31.6%	59,567	29.2%	204,159	100.0%
No response	8,692	48.7%	7,225	40.5%	0	0.0%	1,192	6.7%	0	0.0%	734	4.1%	17,843	100.0%
Total	5,620,884	72.3%	191,706	2.5%	446,410	5.7%	36,115	0.5%	396,562	5.1%	1,084,237	13.9%	7,775,914	100.0%

## 2.2.6 Annual changes in shipments (Fiscal 2001 – Fiscal 2004)

### (1) Classified by the products

Figure 12: Annual changes in shipment value, by product category

	Shipment value (million yen)				% of total				year-on-year percentage change		
	FY2001	FY2002	FY2003	FY2004	FY2001	FY2002	FY2003	FY2004	'02/'01	'03/'02	'04/'03
Food	4,542,945	4,697,357	4,798,774	4,690,027	64.2%	63.8%	62.6%	61.0%	3.4%	2.2%	-2.3%
Food material	130,918	160,641	227,496	376,323	1.9%	2.2%	3.0%	4.9%	22.7%	41.6%	65.4%
Agriculture	80,941	44,871	62,549	49,132	1.1%	0.6%	0.8%	0.6%	-44.6%	39.4%	-21.5%
Livestock and seafood	29,915	33,517	32,378	33,536	0.4%	0.5%	0.4%	0.4%	12.0%	-3.4%	3.6%
Drugs and diagnostic agents	1,380,522	1,449,652	1,514,258	1,384,353	19.5%	19.7%	19.8%	18.0%	5.0%	4.5%	-8.6%
Reagents	25,853	17,502	28,736	24,495	0.4%	0.2%	0.4%	0.3%	-32.3%	64.2%	-14.8%
Textiles	8,079	2,711	2,642	1,577	0.1%	0.0%	0.0%	0.0%	-66.4%	-2.5%	-40.3%
Chemical products	464,333	398,377	440,413	439,599	6.6%	5.4%	5.7%	5.7%	-14.2%	10.6%	-0.2%
Bioelectronics	30,929	32,221	35,066	35,558	0.4%	0.4%	0.5%	0.5%	4.2%	8.8%	1.4%
Bioremediation	182,107	127,609	208,425	250,001	2.6%	1.7%	2.7%	3.3%	-29.9%	63.3%	19.9%
Equipment for research and production	51,321	32,077	64,081	80,104	0.7%	0.4%	0.8%	1.0%	-37.5%	99.8%	25.0%
Miscellaneous products	63,897	53,502	84,442	91,235	0.9%	0.7%	1.1%	1.2%	-16.3%	57.8%	8.0%
Computers and information services	18,900	15,080	17,741	21,801	0.3%	0.2%	0.2%	0.3%	-20.2%	17.6%	22.9%
Miscellaneous services	61,644	115,166	147,172	204,159	0.9%	1.6%	1.9%	2.7%	86.8%	27.8%	38.7%
No response	3,864	185,288	2,473	9,619	0.1%	2.5%	0.0%	0.1%	-	-	-
Total	7,076,168	7,365,571	7,666,646	7,691,519	100.0%	100.0%	100.0%	100.0%	4.1%	4.1%	0.3%

### (2) For products incorporating “new technology”

Figure 13: Annual changes in shipment value for products incorporating “new technology”

	Shipment value (million yen)				% of total				year-on-year percentage change		
	FY2001	FY2002	FY2004	FY2004	FY2001	FY2002	FY2004	FY2004	'02/'01	'03/'02	'04/'03
Food	6,355	2,275	32,280	7,601	0.5%	0.2%	2.4%	0.5%	-64.2%	1318.9%	-76.5%
Food material	15,756	58,780	65,641	48,557	1.2%	4.4%	5.0%	3.4%	273.1%	11.7%	-26.0%
Agriculture	11,032	6,948	8,398	7,851	0.8%	0.5%	0.6%	0.5%	-37.0%	20.9%	-6.5%
Livestock and seafood	14,617	10,382	9,858	3,887	1.1%	0.8%	0.7%	0.3%	-29.0%	-5.0%	-60.6%
Drugs and diagnostic agents	794,657	757,483	741,325	750,151	60.5%	57.0%	56.2%	52.5%	-4.7%	-2.1%	1.2%
Reagents	18,706	17,175	18,177	14,641	1.4%	1.3%	1.4%	1.0%	-8.2%	5.8%	-19.5%
Textiles	280	1,017	1,160	527	0.0%	0.1%	0.1%	0.0%	263.2%	14.1%	-54.6%
Chemical products	300,061	281,398	217,146	287,321	22.8%	21.2%	16.5%	20.1%	-6.2%	-22.8%	32.3%
Bioelectronics	30,879	32,162	35,060	35,558	2.4%	2.4%	2.7%	2.5%	4.2%	9.0%	1.4%
Bioremediation	27,513	20,924	21,471	20,030	2.1%	1.6%	1.6%	1.4%	-23.9%	2.6%	-6.7%
Equipment for research and production	42,443	23,302	48,501	65,793	3.2%	1.8%	3.7%	4.6%	-45.1%	108.1%	35.7%
Miscellaneous products	9,453	9,573	9,472	9,510	0.7%	0.7%	0.7%	0.7%	1.3%	-1.1%	0.4%
Computers and information services	16,325	12,668	12,772	17,267	1.2%	1.0%	1.0%	1.2%	-22.4%	0.8%	35.2%
Miscellaneous services	25,296	94,878	96,823	160,289	1.9%	7.1%	7.3%	11.2%	275.1%	2.1%	65.5%
No response	51	24	0	0	0.0%	0.0%	0.0%	0.0%	-	-	-
Total	1,313,424	1,328,989	1,318,084	1,428,983	100.0%	100.0%	100.0%	100.0%	1.2%	-0.8%	8.4%

\* New technology: technology classification B, C, D, F

2.2.7 Forecast change in overseas production for FY 2005 (April 1, 2005 – March 31, 2006)

Figure 14: Change in overseas production expected in FY 2005

Industrial classification		Increase		Remain flat		Decrease		Total	
		Number of companies	% of total	Number of companies	% of total	Number of companies	% of total	Number of companies	% of total
Agriculture		4	57.1%	2	28.6%	1	14.3%	7	100.0%
Forestry		0	–	0	–	0	–	0	–
Fisheries		0	–	0	–	0	–	0	–
Mining		0	–	0	–	0	–	0	–
Construction		1	20.0%	4	80.0%	0	0.0%	5	100.0%
Manufacturing	Manufacture of food, beverages, tobacco and feed	15	23.1%	49	75.4%	1	1.5%	65	100.0%
	Manufacture of textile mill products, pulp, paper and paper products	1	33.3%	2	66.7%	0	0.0%	3	100.0%
	Manufacture of chemicals and related products, except drugs and medicines	12	23.5%	39	76.5%	0	0.0%	51	100.0%
	Manufacture of drugs and medicines	8	18.2%	36	81.8%	0	0.0%	44	100.0%
	Manufacture of petroleum and coal products	2	66.7%	1	33.3%	0	0.0%	3	100.0%
	Manufacture of iron, steel and non-ferrous metals	1	33.3%	2	66.7%	0	0.0%	3	100.0%
	Manufacture of general machinery	4	23.5%	13	76.5%	0	0.0%	17	100.0%
	Manufacture of electrical machinery, equipment and supplies, information and communication electronics equipment, electronic parts and devices	3	25.0%	9	75.0%	0	0.0%	12	100.0%
	Manufacture of precision instruments and machinery	2	16.7%	10	83.3%	0	0.0%	12	100.0%
Miscellaneous manufacturing industries		5	26.3%	13	68.4%	1	5.3%	19	100.0%
Electricity, gas, heating and water supply		0	0.0%	1	100.0%	0	0.0%	1	100.0%
Information and communications		4	50.0%	4	50.0%	0	0.0%	8	100.0%
Transport		0	–	0	–	0	–	0	–
Wholesale and retail trade		8	30.8%	16	61.5%	2	7.7%	26	100.0%
Finance and insurance		0	–	0	–	0	–	0	–
Real estate		0	–	0	–	0	–	0	–
Eating and drinking places, accommodations		0	–	0	–	0	–	0	–
Medical, health care and welfare		1	16.7%	5	83.3%	0	0.0%	6	100.0%
Education, learning support		0	–	0	–	0	–	0	–
General services		0	0.0%	3	100.0%	0	0.0%	3	100.0%
Services, not elsewhere classified		4	16.0%	21	84.0%	0	0.0%	25	100.0%
Other		3	33.3%	6	66.7%	0	0.0%	9	100.0%
Total		78	24.5%	236	74.0%	5	1.6%	319	100.0%