

Survey of the Bio Industry 2006

(Summary)

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March 2007

In order to collect fundamental data on the biotechnology industry, or bio industry, in Japan, the Japanese government conducted an industry survey during fiscal 2005. (April 1, 2005 – March 31, 2006)

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 2005 (April 1, 2005 – March 31, 2006)

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 2005
- Five-year (FY 2010) forecast of bio industry trends
- Forecast of overseas production

5) Response rate:

Number of companies that received survey: 1827

Valid responses: 1006

Response rate: 55.1%

2. Survey Results

2.1. Company attribute

2.1.1 Capitalization

Figure 1: Capitalization

Capital (million yen)	Number of companies	% of total
~30	166	16.5%
30~50	107	10.6%
50~100	164	16.3%
100~500	181	18.0%
500~1,000	56	5.6%
1,000~5,000	111	11.0%
5,000~10,000	55	5.5%
10,000~	153	15.2%
No response	14	1.4%
Total	1,007	100.0%

2.1.2 Number of employees

Figure 2: Number of employees

Number of employees	Number of companies	% of total
~50	320	31.8%
51~100	126	12.5%
101~300	183	18.2%
301~1,000	167	16.6%
1,001~5,000	150	14.9%
5,001~	47	4.7%
No response	14	1.4%
Total	1,007	100.0%

2.1.3 Years in operation

Figure 3: Years in operation

Years in operation	Number of companies	% of total
~1	13	1.3%
1~3	47	4.7%
3~5	65	6.5%
5~10	89	8.8%
10~20	78	7.7%
20~	703	69.8%
No response	12	1.2%
Total	1,007	100.0%

2.1.4 Industrial classification

Figure 4: Industrial classification

Industrial classification		Number of companies	% of total
Agriculture		19	1.9%
Forestry		0	0.0%
Fisheries		3	0.3%
Mining		0	0.0%
Construction		21	2.1%
M a n u f a c t u r i n g	Manufacture of food, beverages, tobacco and feed	221	21.9%
	Manufacture of textile mill products, pulp, paper and paper products	27	2.7%
	Manufacture of chemicals and relatd products, except drugs and medicines	119	11.8%
	Manufacture of drugs and medicines	121	12.0%
	Manufacture of petroleum and coal products	12	1.2%
	Manufacture of iron, steel and non-ferrous metals	4	0.4%
	Manufacture of general machinery	55	5.5%
	Manufacture of electrical machinery, equipment and supplies, information and communication electronics equipment, electronic parts and devices	34	3.4%
	Manufacture of precision instruments and machinery	39	3.9%
	Miscellaneous manufacturing industries	86	8.5%
Electricity, gas, heating and water supply		2	0.2%
Information and communications		9	0.9%
Transport		0	0.0%
Wholesale and retail trade		95	9.4%
Finance and insurance		2	0.2%
Real estate		2	0.2%
Eating and drinking places, accommodations		0	0.0%
Medical, health care and welfare		10	1.0%
Education, learning support		1	0.1%
General services		4	0.4%
Services, not elsewhere classified		55	5.5%
Other		40	4.0%
No response		26	2.6%
Total		1,007	100.0%

2.1.5 Geographic location

Figure 5: Geographic location

Prefecture		Number of companies	% of total
Hokkaido	Hokkaido	57	5.7%
Tohoku	Aomori	2	0.2%
	Iwate	6	0.6%
	Miyagi	16	1.6%
	Akita	2	0.2%
	Yamagata	8	0.8%
	Fukushima	8	0.8%
Kanto	Ibaraki	18	1.8%
	Tochigi	6	0.6%
	Gunma	8	0.8%
	Saitama	12	1.2%
	Chiba	27	2.7%
	Tokyo	326	32.4%
	Kanagawa	49	4.9%
Chubu	Niigata	6	0.6%
	Toyama	10	1.0%
	Ishikawa	6	0.6%
	Fukui	2	0.2%
	Yamanashi	1	0.1%
	Nagano	18	1.8%
	Gifu	12	1.2%
	Shizuoka	20	2.0%
	Aichi	59	5.9%
	Mie	6	0.6%
Total		1,007	100.0%

Prefecture		Number of companies	% of total
Kinki	Shiga	3	0.3%
	Kyoto	32	3.2%
	Osaka	96	9.5%
	Hyogo	47	4.7%
	Nara	5	0.5%
	Wakayama	1	0.1%
Chugoku	Tottori	2	0.2%
	Shimane	2	0.2%
	Okayama	17	1.7%
	Hiroshima	27	2.7%
	Yamaguchi	6	0.6%
Shikoku	Tokushima	3	0.3%
	Kagawa	9	0.9%
	Ehime	3	0.3%
	Kochi	2	0.2%
Kyushu	Fukuoka	22	2.2%
	Saga	3	0.3%
	Nagasaki	2	0.2%
	Kumamoto	14	1.4%
	Oita	4	0.4%
	Miyazaki	3	0.3%
	Kagoshima	12	1.2%
	Okinawa	7	0.7%
Total		1,007	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	180	4,566,694	59.7%
Food material	132	414,615	5.4%
Agriculture	80	49,726	0.7%
Livestock and seafood	54	38,087	0.5%
Drugs and diagnostic agents	156	1,579,392	20.6%
Reagents	105	21,000	0.3%
Textiles	9	12,345	0.2%
Chemical products	103	385,550	5.0%
Bioelectronics	14	37,312	0.5%
Bioremediation	93	201,967	2.6%
Equipment for research and production	87	97,997	1.3%
Miscellaneous products	23	93,536	1.2%
Computers and information services	39	16,300	0.2%
Miscellaneous services	130	134,555	1.8%
No response	12	721	0.0%
Total	1,217	7,649,795	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	23	6.8%	69	20.3%	185	54.4%	61	17.9%	2	0.6%	340	100.0%
Food material	45	22.2%	73	36.0%	55	27.1%	18	8.9%	12	5.9%	203	100.0%
Agriculture	24	26.1%	39	42.4%	17	18.5%	6	6.5%	6	6.5%	92	100.0%
Livestock and seafood	14	22.6%	21	33.9%	14	22.6%	7	11.3%	6	9.7%	62	100.0%
Drugs and diagnostic agents	46	15.0%	77	25.2%	104	34.0%	55	18.0%	24	7.8%	306	100.0%
Reagents	52	37.1%	46	32.9%	33	23.6%	6	4.3%	3	2.1%	140	100.0%
Textiles	1	10.0%	2	20.0%	4	40.0%	2	20.0%	1	10.0%	10	100.0%
Chemical products	44	31.2%	39	27.7%	36	25.5%	13	9.2%	9	6.4%	141	100.0%
Bioelectronics	9	60.0%	3	20.0%	1	6.7%	2	13.3%	0	0.0%	15	100.0%
Bioremediation	36	18.8%	52	27.2%	72	37.7%	26	13.6%	5	2.6%	191	100.0%
Equipment for research and production	41	31.8%	45	34.9%	32	24.8%	5	3.9%	6	4.7%	129	100.0%
Miscellaneous products	11	47.8%	6	26.1%	4	17.4%	0	0.0%	2	8.7%	23	100.0%
Computers and information services	31	36.5%	28	32.9%	14	16.5%	11	12.9%	1	1.2%	85	100.0%
Miscellaneous services	70	43.2%	54	33.3%	22	13.6%	11	6.8%	5	3.1%	162	100.0%
No response	3	33.3%	2	22.2%	2	22.2%	1	11.1%	1	11.1%	9	100.0%
Total	450	23.6%	556	29.1%	595	31.2%	224	11.7%	83	4.4%	1,908	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	8,030	28.0%	11	0.3%	1,861	11.3%	19,699	23.3%	1,902	5.8%	350,303	57.0%
Food material	20,100	70.2%	185	5.0%	23	0.1%	1,457	1.7%	9,631	29.4%	95,378	15.5%
Agriculture	0	0.0%	1,990	53.7%	71	0.4%	8	0.0%	194	0.6%	2,195	0.4%
Livestock and seafood	0	0.0%	16	0.4%	9	0.1%	511	0.6%	470	1.4%	13,028	2.1%
Drugs and diagnostic agents	301	1.1%	697	18.8%	552	3.4%	55,758	66.0%	5,702	17.4%	44,334	7.2%
Reagents	168	0.6%	112	3.0%	1,507	9.2%	1,027	1.2%	1,949	6.0%	4,703	0.8%
Textiles	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	666	0.1%
Chemical products	0	0.0%	176	4.7%	2,886	17.6%	105	0.1%	7	0.0%	35,934	5.8%
Bioelectronics	0	0.0%	0	0.0%	10	0.1%	558	0.7%	25	0.1%	1,636	0.3%
Bioremediation	36	0.1%	10	0.3%	115	0.7%	302	0.4%	634	1.9%	23,812	3.9%
Equipment for research and production	0	0.0%	50	1.3%	688	4.2%	1,858	2.2%	4,072	12.4%	35,945	5.8%
Miscellaneous products	0	0.0%	49	1.3%	0	0.0%	90	0.1%	1,613	4.9%	2,474	0.4%
Computers and information services	0	0.0%	92	2.5%	5,109	31.1%	341	0.4%	1,210	3.7%	629	0.1%
Miscellaneous services	2	0.0%	318	8.6%	3,605	21.9%	2,733	3.2%	5,111	15.6%	3,429	0.6%
No response	0	0.0%	0	0.0%	0	0.0%	40	0.0%	230	0.7%	291	0.0%
Total	28,637	100.0%	3,706	100.0%	16,435	100.0%	84,488	100.0%	32,749	100.0%	614,756	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	4,523,631	99.1%	75	0.0%	2,200	0.0%	39000	0.9%	0	0.0%	3	0.0%	1,785	0.0%	4,566,694	100.0%
Food material	383,707	92.5%	596	0.1%	0	0.0%	13813	3.3%	0	0.0%	226	0.1%	16,411	4.0%	414,753	100.0%
Agriculture	11,819	23.8%	37,467	75.3%	123	0.2%	52	0.1%	141	0.3%	62	0.1%	62	0.1%	49,726	100.0%
Livestock and seafood	27,250	71.5%	639	1.7%	549	1.4%	3115	8.2%	4,232	11.1%	156	0.4%	2,146	5.6%	38,087	100.0%
Drugs and diagnostic agents	591,098	36.5%	161,790	10.0%	555,784	34.3%	68754	4.2%	12,168	0.8%	113,464	7.0%	116,597	7.2%	1,619,655	100.0%
Reagents	4,518	18.5%	5,554	22.7%	5,080	20.8%	297	1.2%	0	0.0%	2,475	10.1%	6,543	26.7%	24,468	100.0%
Textiles	11,375	92.1%	0	0.0%	641	5.2%	280	2.3%	48	0.4%	0	0.0%	0	0.0%	12,345	100.0%
Chemical products	212,438	54.6%	78,274	20.1%	86,870	22.3%	10583	2.7%	159	0.0%	170	0.0%	315	0.1%	388,810	100.0%
Bioelectronics	0	0.0%	2	0.0%	0	0.0%	0	0.0%	0	0.0%	37,299	100.0%	10	0.0%	37,312	100.0%
Bioremediation	12,704	6.2%	0	0.0%	200	0.1%	11391	5.5%	161,170	78.3%	20,160	9.8%	106	0.1%	205,732	100.0%
Equipment for research and production	25,461	24.8%	19,096	18.6%	3,874	3.8%	2027	2.0%	286	0.3%	45,625	44.5%	6,199	6.0%	102,568	100.0%
Miscellaneous products	80,100	85.6%	1,405	1.5%	2,305	2.5%	50	0.1%	101	0.1%	9,170	9.8%	405	0.4%	93,536	100.0%
Computers and information services	0	0.0%	0	0.0%	0	0.0%	200	1.2%	0	0.0%	12,473	76.5%	3,626	22.2%	16,300	100.0%
Miscellaneous services	4,147	3.0%	10,261	7.4%	6,812	4.9%	454	0.3%	2,948	2.1%	111,328	79.9%	3,410	2.4%	139,360	100.0%
No response	171	23.7%	0	0.0%	0	0.0%	0	0.0%	160	22.2%	40	5.5%	350	48.6%	721	100.0%
Total	5,888,419	76.4%	315,160	4.1%	664,438	8.6%	150015	1.9%	181,413	2.4%	352,653	4.6%	157,966	2.0%	7,710,065	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	4,523,631	74.7%	41,278	2.9%	0.9%
Food material	383,569	6.3%	14,635	1.0%	3.7%
Agriculture	11,960	0.2%	37,704	2.6%	75.9%
Livestock and seafood	31,482	0.5%	4,459	0.3%	12.4%
Drugs and diagnostic agents	600,946	9.9%	861,849	60.0%	58.9%
Reagents	2,483	0.0%	11,974	0.8%	82.8%
Textiles	11,424	0.2%	921	0.1%	7.5%
Chemical products	209,349	3.5%	175,887	12.2%	45.7%
Bioelectronics	0	0.0%	37,302	2.6%	100.0%
Bioremediation	170,309	2.8%	31,551	2.2%	15.6%
Equipment for research and production	24,110	0.4%	67,688	4.7%	73.7%
Miscellaneous products	80,201	1.3%	12,930	0.9%	13.9%
Computers and information services	0	0.0%	12,673	0.9%	100.0%
Miscellaneous services	4,876	0.1%	126,269	8.8%	96.3%
No response	331	0.0%	40	0.0%	10.8%
Total	6,054,669	100.0%	1,437,160	100.0%	19.2%

*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	4,425,114	96.2%	54,482	1.2%	93,939	2.0%	766	0.0%	2,301	0.1%	23,810	0.5%	4,600,412	100.0%
Food material	229,975	55.0%	93,857	22.5%	46,035	11.0%	3,816	0.9%	218	0.1%	43,935	10.5%	417,836	100.0%
Agriculture	41,783	83.9%	2,343	4.7%	1,790	3.6%	2,873	5.8%	367	0.7%	622	1.2%	49,778	100.0%
Livestock and seafood	24,114	63.3%	1,312	3.4%	5,248	13.8%	342	0.9%	6,959	18.3%	121	0.3%	38,096	100.0%
Drugs and diagnostic agents	669,423	41.7%	17,224	1.1%	338,086	21.0%	8,922	0.6%	306,926	19.1%	266,346	16.6%	1,606,927	100.0%
Reagents	6,178	28.5%	2,323	10.7%	3,057	14.1%	511	2.4%	7,383	34.0%	2,254	10.4%	21,705	100.0%
Textiles	850	6.9%	797	6.5%	10,057	81.5%	0	0.0%	0	0.0%	641	5.2%	12,345	100.0%
Chemical products	226,357	58.7%	45,654	11.8%	84,730	22.0%	170	0.0%	2,012	0.5%	26,628	6.9%	385,551	100.0%
Bioelectronics	390	1.0%	1,600	4.3%	34,676	92.9%	38	0.1%	405	1.1%	202	0.5%	37,312	100.0%
Bioremediation	44,910	22.2%	248	0.1%	5,493	2.7%	12,850	6.4%	136,064	67.4%	2,401	1.2%	201,967	100.0%
Equipment for research and production	13,627	13.9%	0	0.0%	403	0.4%	242	0.2%	70,892	72.3%	12,834	13.1%	97,997	100.0%
Miscellaneous products	80,218	85.8%	870	0.9%	5	0.0%	1,335	1.4%	10,868	11.6%	240	0.3%	93,536	100.0%
Computers and information services	403	2.5%	0	0.0%	70	0.4%	362	2.2%	9,458	58.0%	6,006	36.8%	16,300	100.0%
Miscellaneous services	73,930	54.9%	1,095	0.8%	899	0.7%	6,336	4.7%	50,040	37.2%	2,255	1.7%	134,555	100.0%
No response	0	0.0%	0	0.0%	160	22.2%	0	0.0%	0	0.0%	561	77.8%	721	100.0%
Total	5,837,273	75.7%	221,805	2.9%	624,647	8.1%	38,562	0.5%	603,893	7.8%	388,856	5.0%	7,715,036	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		
	FY2002	FY2003	FY2004	FY2005	FY2002	FY2003	FY2004	FY2005	'03/'02	'04/'03	'05/'02
Food	4,697,357	4,798,774	4,690,027	4,566,694	63.8%	62.6%	61.0%	59.7%	2.2%	-2.3%	-2.6%
Food material	160,641	227,496	376,323	414,615	2.2%	3.0%	4.9%	5.4%	41.6%	65.4%	10.2%
Agriculture	44,871	62,549	49,132	49,726	0.6%	0.8%	0.6%	0.7%	39.4%	-21.5%	1.2%
Livestock and seafood	33,517	32,378	33,536	38,087	0.5%	0.4%	0.4%	0.5%	-3.4%	3.6%	13.6%
Drugs and diagnostic agents	1,449,652	1,514,258	1,384,353	1,579,392	19.7%	19.8%	18.0%	20.6%	4.5%	-8.6%	14.1%
Reagents	17,502	28,736	24,495	21,000	0.2%	0.4%	0.3%	0.3%	64.2%	-14.8%	-14.3%
Textiles	2,711	2,642	1,577	12,345	0.0%	0.0%	0.0%	0.2%	-2.5%	-40.3%	682.6%
Chemical products	398,377	440,413	439,599	385,550	5.4%	5.7%	5.7%	5.0%	10.6%	-0.2%	-12.3%
Bioelectronics	32,221	35,066	35,558	37,312	0.4%	0.5%	0.5%	0.5%	8.8%	1.4%	4.9%
Bioremediation	127,609	208,425	250,001	201,967	1.7%	2.7%	3.3%	2.6%	63.3%	19.9%	-19.2%
Equipment for research and production	32,077	64,081	80,104	97,997	0.4%	0.8%	1.0%	1.3%	99.8%	25.0%	22.3%
Miscellaneous products	53,502	84,442	91,235	93,536	0.7%	1.1%	1.2%	1.2%	57.8%	8.0%	2.5%
Computers and information services	15,080	17,741	21,801	16,300	0.2%	0.2%	0.3%	0.2%	17.6%	22.9%	-25.2%
Miscellaneous services	115,166	147,172	204,159	134,555	1.6%	1.9%	2.7%	1.8%	27.8%	38.7%	-34.1%
No response	185,288	2,473	9,619	721	2.5%	0.0%	0.1%	0.0%	-	-	-
Total	7,365,571	7,666,646	7,691,519	7,649,795	100.0%	100.0%	100.0%	100.0%	4.1%	0.3%	-0.5%

(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		
	FY2002	FY2003	FY2004	FY2005	FY2002	FY2003	FY2004	FY2005	'03/'02	'04/'03	'05/'04
Food	2,275	32,280	7,601	41,278	0.2%	2.4%	0.5%	2.9%	1318.9%	-76.5%	443.1%
Food material	58,780	65,641	48,557	14,635	4.4%	5.0%	3.4%	1.0%	11.7%	-26.0%	-69.9%
Agriculture	6,948	8,398	7,851	37,704	0.5%	0.6%	0.5%	2.6%	20.9%	-6.5%	380.2%
Livestock and seafood	10,382	9,858	3,887	4,459	0.8%	0.7%	0.3%	0.3%	-5.0%	-60.6%	14.7%
Drugs and diagnostic agents	757,483	741,325	750,151	861,849	57.0%	56.2%	52.5%	60.0%	-2.1%	1.2%	14.9%
Reagents	17,175	18,177	14,641	11,974	1.3%	1.4%	1.0%	0.8%	5.8%	-19.5%	-18.2%
Textiles	1,017	1,160	527	921	0.1%	0.1%	0.0%	0.1%	14.1%	-54.6%	74.7%
Chemical products	281,398	217,146	287,321	175,887	21.2%	16.5%	20.1%	12.2%	-22.8%	32.3%	-38.8%
Bioelectronics	32,162	35,060	35,558	37,302	2.4%	2.7%	2.5%	2.6%	9.0%	1.4%	4.9%
Bioremediation	20,924	21,471	20,030	31,551	1.6%	1.6%	1.4%	2.2%	2.6%	-6.7%	57.5%
Equipment for research and production	23,302	48,501	65,793	67,688	1.8%	3.7%	4.6%	4.7%	108.1%	35.7%	2.9%
Miscellaneous products	9,573	9,472	9,510	12,930	0.7%	0.7%	0.7%	0.9%	-1.1%	0.4%	36.0%
Computers and information services	12,668	12,772	17,267	12,673	1.0%	1.0%	1.2%	0.9%	0.8%	35.2%	-26.6%
Miscellaneous services	94,878	96,823	160,289	126,269	7.1%	7.3%	11.2%	8.8%	2.1%	65.5%	-21.2%
No response	24	0	0	40	0.0%	0.0%	0.0%	0.0%	-	-	-
Total	1,328,989	1,318,084	1,428,983	1,437,160	100.0%	100.0%	100.0%	100.0%	-0.8%	8.4%	0.6%

* 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		2	100.0%	0	0.0%	0	0.0%	2	100.0%
Forestry		0	0.0%	0	0.0%	0	0.0%	0	0.0%
Fisheries		0	0.0%	0	0.0%	0	0.0%	0	0.0%
Mining		0	0.0%	0	0.0%	0	0.0%	0	0.0%
Construction		1	12.5%	7	87.5%	0	0.0%	8	100.0%
Manufacturing	Manufacture of food, beverages, tobacco and feed	19	26.8%	52	73.2%	0	0.0%	71	100.0%
	Manufacture of textile mill products, pulp, paper and paper products	2	33.3%	4	66.7%	0	0.0%	6	100.0%
	Manufacture of chemicals and related products, except drugs and medicines	13	25.5%	38	74.5%	0	0.0%	51	100.0%
	Manufacture of drugs and medicines	11	23.9%	34	73.9%	1	2.2%	46	100.0%
	Manufacture of petroleum and coal products	4	100.0%	0	0.0%	0	0.0%	4	100.0%
	Manufacture of iron, steel and non-ferrous metals	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Manufacture of general machinery	5	21.7%	17	73.9%	1	4.3%	23	100.0%
	Manufacture of electrical machinery, equipment and supplies, information and communication electronics equipment, electronic parts and devices	2	15.4%	11	84.6%	0	0.0%	13	100.0%
	Manufacture of precision instruments and machinery	1	6.7%	14	93.3%	0	0.0%	15	100.0%
Miscellaneous manufacturing industries		4	15.4%	22	84.6%	0	0.0%	26	100.0%
Electricity, gas, heating and water supply		0	0.0%	0	0.0%	0	0.0%	0	0.0%
Information and communications		1	12.5%	7	87.5%	0	0.0%	8	100.0%
Transport		0	0.0%	0	0.0%	0	0.0%	0	0.0%
Wholesale and retail trade		9	36.0%	16	64.0%	0	0.0%	25	100.0%
Finance and insurance		0	0.0%	0	0.0%	0	0.0%	0	0.0%
Real estate		0	0.0%	1	100.0%	0	0.0%	1	100.0%
Eating and drinking places, accommodations		0	0.0%	0	0.0%	0	0.0%	0	0.0%
Medical, health care and welfare		1	25.0%	3	75.0%	0	0.0%	4	100.0%
Education, learning support		0	0.0%	1	100.0%	0	0.0%	1	100.0%
General services		0	0.0%	2	100.0%	0	0.0%	2	100.0%
Services, not elsewhere classified		4	13.8%	25	86.2%	0	0.0%	29	100.0%
Other		1	11.1%	8	88.9%	0	0.0%	9	100.0%
No response		0	0.0%	2	100.0%	0	0.0%	2	100.0%
Total		80	23.1%	264	76.3%	2	0.6%	346	100.0%