

Inventor Survey on Innovation (US–Japan Comparative Tables, by Organization)
イノベーションに関する発明者調査(日米比較表、組織類型別)

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Explanation:

The following tables provide comparisons of the results of the inventor survey in Japan and the US by organizational affiliation of inventors. The survey in Japan was conducted by RIETI (Research Institute of Economy, Trade and Industry) between January and May in 2007. It collected information on 3,658 triadic patents, with priority years from 1995 to 2001. The survey in the US was conducted by the Georgia Institute of Technology between June and November 2007, in collaboration with RIETI, and collected information on 1,919 patents, with 2000–2003 priority years. Interested persons are invited to refer to RIETI discussion papers for the analysis of the innovation process based on the survey results. For details on the survey methodology, please refer to Appendix 1 of the discussion papers, “The R&D process in the US and Japan: Major findings from the RIETI–Georgia Tech inventor survey” or “Commercialization and other use of patents in Japan and the US: Major findings from the RIETI–Georgia Tech inventor survey”.

Contents:

There are 6 sections: A: DEMOGRAPHY, B: EDUCATION, C: EMPLOYMENT AND MOBILITY, D: PURPOSE & PROCESS OF THE INVENTION, E: INVENTORS’ MOTIVATIONS and F: USE OF THE INVENTION AND PATENTING REASONS.

Contributors

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Notes on the tables:

1. The Japanese data is on the left-hand side and the US data is on the right-hand side for most equivalent questions. The corresponding question number in the Japanese questionnaire or in the US questionnaire is indicated on each page.

2. Organizations are categorized into seven categories, based on the respondent's answer to the question "Which of the following best describes the type of the organization where you worked when you invented this patent?" The seven categories of the organization are as follows:

- 1) Large firm (cut point: 500 employees)
- 2) Medium firm (cut points: 250 employees and 500 employees)
- 3) Small firm (cut points: 100 employees and 250 employees)
- 4) Very small firm (cut point: 100 employees)
- 5) University or college
- 6) Other (including national, state/prefecture or local government research institute, hospital (including university hospitals), non-profit research institute, etc.)
- 7) Unknown/missing (the respondent did not answer the question)

There are slight differences in the three cut points for firm size in the two countries: very small firm: (JP: 100 or less; US: less than 100), small firm: (JP: 101–250; US: 100–250), medium firm (JP: 251–500; US: 250–500), and large firm: (JP: 501 or more; US: 501 or more).

3. In general, we report cell counts for all the answer categories for each question, including missing/no-response, and don't know, except for skipped (for questions with skip logic). We also report percent distributions across answer categories. These percentages are calculated on valid responses, excluding missing/no-response, don't know, and skipped from the denominator.

4. In addition to cell counts, for interval variables, we report means, standard deviations (s.d.), median (the middle value), p90 (the 90th percentile value, i.e., the value for which 90% of respondents have a lower score), and the inter-quartile range (the difference between the value of the 75th percentile and the 25th percentile).

5. In order to protect respondent confidentiality, we report only aggregated figures. For some questions, the number of valid responses in the US was so few (less than four) that disclosing the answers would violate this confidentiality. This is especially likely when dividing the answers by organization type and when there are skip logics. Therefore, in cases where there were fewer than four answers in any row of a table, we masked all the answers with "XX". Because the rows sum to the All totals, we always masked at least two rows. If only one row had insufficient responses, we chose Unknown/missing, or Others (if Unknown was the sparse row), as the second row to mask. Fortunately, for the Japanese data, due to the larger sample size, there were no cases of rows with less than 4 respondents.

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p20 JP (日本)

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p24 JP (日本)

p25 US (米国)

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p26 JP (日本)

Question 3-7(2) If “Yes”, how did your experience in the most relevant other organization contribute to your invention? You can check all relevant boxes. (「はい」の場合の理由、重複回答あり)

p28 JP (日本)

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p30 JP (日本)

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p32 JP (日本)

p33 US (米国)

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p34 JP (日本)

p35 US (米国)

Question 4-1 (2) What would best describe the type of the innovation your research was expected to realize? (それは、どの種類の技術革新であったか)

P36 JP (日本)

p37 US (米国)

Question 4-2 What is the scope of your research leading to the invention? You can check all relevant boxes. (当該発明につながった研究の範囲(重複回答あり))

p38 JP (日本)

Question 4-3 What was the main motivation of your research leading to the invention? You can check all relevant boxes. (当該発明につながる研究の主たる動機(重複回答あり))

p40 JP (日本)

Question 4-4 How many months of the research led up to this patent application? (研究開始から特許出願までに経過した時間)

p42 JP (日本)

p43 US (米国)

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p44 JP (日本)

p45 US (米国)

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p46 JP (日本)

p47 US (米国)

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p48 JP (日本)

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p50 JP (日本)

Question 4-9 Please indicate whether the co-inventor exists, according to the type of the following organizations. You can check all relevant boxes. (当該発明の共同発明者の類型(複数回答あり))

p52 JP (日本)

p53 US (米国)

Question 4-9 (2) # of inventors, sole-invention, any external co-invention and multiple-assignee (発明者数、単独発明、外部共同発明、共同出願)

p54 JP (日本)

p55 US (米国)

Question 4-10 Was there any (formal or informal) collaboration between your employer and other partners (excluding co-inventors)? You can check all relevant boxes. (当該発明につながる研究の外部組織との協力がある場合(但し共同発明者を除く)、協力相手の類型、重複回答あり)

p56 JP (日本)

p57 US (米国)

Question 4-11 Were the interactions (discussions, meetings, sources of ideas, etc.) with the following types of people (apart from co-inventors) important during the research that led to the patented invention? (1 = not important, 5 = very important)(交流先重要性の評価)

p58,60 JP (日本)

Question 4-12 Excluding co-inventors, how important were the following sources of knowledge for suggesting the research that led to the patented invention? (1 = not important, 5 = very important) (研究の着想に有用であった知識源の重要度)

p62,64,66,68,70,72,74,76 JP (日本)

p63,65,67,69,71,73,75,77 US (米国)

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p78,80,82,84,86,88,90,92 JP (日本)

p79,81,83,85,87,89,91,93 US (米国)

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p94,96,98,100,102,104,106 JP (日本)

Question 4-15 Including this patent, how many domestic patent grants do you expect your research would generate directly for your firm, including those with joint ownership? (当該研究は何件の国内特許登録をもたらしますか?)

p108 JP (日本)

Question 4-16 How many man-months did the research leading to the patent require, including those of co-inventors? (当該発明の研究の開始から特許出願までの研究期間)

p110 JP (日本)

p111 US (米国)

Question 4-17 Funding sources (Incidence and % in shares) You can check all relevant boxes. (当該研究のための費用の資金源(重複回答あり))

p112 JP (日本)

p113 US (米国)

Question 4-18 Did the availability of funds constrain the research leading to the invention? You can check all relevant boxes. (リスク資金の利用可能性が制約となったか(重複回答あり))

p114 JP (日本)

SECTION E: INVENTORS' MOTIVATIONS

Question 5-1 How important were the following motivations for your invention? (1 = not important, 5 = very important) (当該特許につながる発明への動機の重要度)

p116,118,120,122,124,126,128 JP (日本)

p117,119,121,123,125,127,129 US (米国)

SECTION F: USE OF THE INVENTION AND PATENTING REASONS

Question 6-1 Economic value of the patent(当該発明の経済的価値の同時期の技術開発成果全体における地位)

p130 JP (日本)

p131,133 US (米国)

Question6-2 How important were the following reasons for patenting this invention? (1 = not important, 5 = very important)?(特許化の理由としての重要度)

p134,136,138,140,142,144 JP (日本)

p135,137,139,141,145 US (米国)

Question6-3 Internal commercialization. Has the applicant/owner ever used this patent for its product or for its production?(当該発明は出願者によって製品などに利用されたか)

p146 JP (日本)

p147 US (米国)

Reference:While many innovations involve a combination of products, processes, and services, would you characterize the commercial application of the focal patent as primarily involving a new product, process, or service?(参考:当該特許の応用先は新製品、新生産過程あるいはサービスの中のどれか)

p149 US (米国)

Question 6-4. How long did it take from the application to the use of the invention? (出願から利用開始までの時間)

p150 JP (日本)

Question 6-5 How many domestic patents (including the other firms' patents) are jointly used in the commercial application of the invention? (当該特許の商業的利用において約何件の特許が利用されたか)

p152 JP (日本)

p153 US (米国)

Question 6-6 Has this patent been licensed by (one of) the patent-holder(s)? (当該特許は、特許保有者によってライセンスされたか)

p154 JP (日本)

p155 US (米国)

Question 6-6(2) If Yes, does it include cross-license? (それはクロスライセンスを含むか)

p156 JP (日本)

p157 US (米国)

Question 6-6(3) How many licensees have got the license? (また、それは複数の企業にライセンスされたか)

p158 JP (日本)

p159 US (米国)

Reference: Did the licensing contracts include exclusivity clauses?(参考:ライセンス契約に排他条項があるか)

p161 US (米国)

Question 6-7 Has this patent been exploited commercially by yourself or any of your co-inventors for starting a new company?(発明者は新会社設立によって当該特許を利用したか)

p162 JP (日本)

p163 US (米国)

Question 6-3,6,7 Summary (1)

Any commercialization either through internal (or in-house) use, license or startup (発明は商用化、ライセンス、新会社の設立などで利用されたか)

p164 JP (日本)

p165 US (米国)

Question 6-3,6,7 Summary (2)

Pure in house or not (発明は自社のみ使用かどうか)

p166 JP (日本)

p167 US (米国)

Question 6-8 If this patent is used neither internally within the applicant firm, licensing nor for

starting a new company, what are the important reasons for that? You can check all relevant boxes. (自社内、ライセンス等によって利用されていない理由(重複回答あり))

p168 JP (日本)

p169 US (米国)

Question 6-9 Did you publish a scientific/technical paper describing this invention? (当該発明の内容を科学技術論文として公表したか)

p170 JP (日本)

Reference: In the three years prior to the focal patent, how many articles did you publish in scientific journals? (参考: 当該特許の前の三年間に何本の論文を公表したか)

p171 US (米国)

Question 6-10 In your opinion, how important are the following corporate strategies for the successful commercialization of this invention? (1 = not important, 5 = very important) (当該発明の商業的成功のための企業戦略としての重要度)

p172,174,176,178,180 JP (日本)

p173,175,177,179,181 US (米国)

Question 6-10 Summary

p182 JP (日本)

p183 US (米国)

Reference: From the commercial launch of your product/process/service, approximately how long was it until another firm introduced a competing alternative? (参考: 当該特許が商業化されてから、別の企業が競争的な代替手段(製品、生産過程あるいはサービス)を導入するのに要した時間)

p185 US (米国)

Japan

Question 1-1 Age at patent application(出願時の年齢)

	All	20-24 years old	25-29 years old	30-34 years old	35-39 years old	40-44 years old	45-49 years old	50-54 years old	55-59 years old	60-64 years old	65-69 years old	70-74 years old	75-79 years old	No response
All	3658	20	429	787	780	602	478	271	128	59	25	13	5	61
Large firm (> 500)	2932	18	370	704	694	496	358	164	55	19	3	1	2	48
Medium firm (251-500)	201	1	26	32	28	35	33	26	13	2	5	0	0	0
Small firm (101-250)	130	1	14	14	21	30	22	12	5	1	4	1	2	3
Very small firm (<101)	182	0	10	17	19	19	30	37	20	17	7	5	0	1
university	82	0	2	5	6	4	13	14	23	8	3	3	0	1
Other	42	0	2	9	6	7	5	4	3	1	2	1	1	1
unknown	89	0	5	6	6	11	17	14	9	11	1	2	0	7

	N	20-24 years old	25-29 years old	30-34 years old	35-39 years old	40-44 years old	45-49 years old	50-54 years old	55-59 years old	60-64 years old	65-69 years old	70-74 years old	75-79 years old	Total
All	3597	0.56	11.93	21.88	21.68	16.74	13.29	7.53	3.56	1.64	0.7	0.36	0.14	100
Large firm (> 500)	2884	0.62	12.83	24.41	24.06	17.2	12.41	5.69	1.91	0.66	0.1	0.03	0.07	100
Medium firm (251-500)	201	0.5	12.94	15.92	13.93	17.41	16.42	12.94	6.47	1	2.49	0	0	100
Small firm (101-250)	127	0.79	11.02	11.02	16.54	23.62	17.32	9.45	3.94	0.79	3.15	0.79	1.57	100
Very small firm (<101)	181	0	5.52	9.39	10.5	10.5	16.57	20.44	11.05	9.39	3.87	2.76	0	100
university	81	0	2.47	6.17	7.41	4.94	16.05	17.28	28.4	9.88	3.7	3.7	0	100
Other	41	0	4.88	21.95	14.63	17.07	12.2	9.76	7.32	2.44	4.88	2.44	2.44	100
unknown	82	0	6.1	7.32	7.32	13.41	20.73	17.07	10.98	13.41	1.22	2.44	0	100

	N	Mean	S.D	Median	P90	Iqr	No response
All	3597	39.45	9.09	38	52	13	61
Large firm (> 500)	2884	37.99	7.80	37	49	11	48
Medium firm (251-500)	201	41.67	10.16	42	54	16	0
Small firm (101-250)	127	42.24	10.70	41	57	13	3
Very small firm (<101)	181	47.95	11.27	49	63	16	1
university	81	51.46	10.52	52	64	11	1
Other	41	44.49	12.49	43	61	17	1
unknown	82	47.88	10.61	48	61	15	7

US

(1/2)

Question 1-1 Age at patent application(出願時の年齢)

D12 age	All	20-24 years old	25-29 years old	30-34 years old	35-39 years old	40-44 years old	45-49 years old	50-54 years old	55-59 years old	60-64 years old	65-69 years old	70-74 years old	75-81 years old	80 or older	Missing
All	1919	3	35	131	232	385	357	250	211	132	59	20	11	3	90
Large firm (> 500)	1389	2	29	106	175	315	264	189	145	80	32	10	7	0	35
Medium firm (250-500)	74	0	3	4	9	16	17	9	6	5	3	0	0	1	1
Small firm (100-250)	60	0	1	4	9	12	12	6	5	7	4	0	0	0	0
Very small firm (<100)	216	0	2	9	22	25	48	31	34	20	13	6	2	2	2
University	42	1	0	4	6	4	6	6	3	5	2	2	2	0	1
Hospital/Government/OtI	20	0	0	0	1	3	2	2	4	5	2	0	0	0	1
Missing	118	0	0	4	10	10	8	7	14	10	3	2	0	0	50

	N	20-24 years old	25-29 years old	30-34 years old	35-39 years old	40-44 years old	45-49 years old	50-54 years old	55-59 years old	60-64 years old	65-69 years old	70-74 years old	75-81 years old	80 or older	Total
All	1829	0.16	1.91	7.16	12.66	21.05	19.52	13.67	11.54	7.22	3.23	1.09	0.6	0.16	100
Large firm (> 500)	1354	0.15	2.14	7.83	12.92	23.26	19.5	13.96	10.71	5.91	2.36	0.74	0.52	0	100
Medium firm (250-500)	73	0	4.11	5.48	12.33	21.92	23.29	12.33	8.22	6.85	4.11	0	0	1.37	100
Small firm (100-250)	60	0	1.67	6.67	15	20	20	10	8.33	11.67	6.67	0	0	0	100
Very small firm (<100)	214	0	0.93	4.21	10.28	11.68	22.43	14.49	15.89	9.35	6.07	2.8	0.93	0.93	100
University	41	2.44	0	9.76	14.63	9.76	14.63	14.63	7.32	12.2	4.88	4.88	4.88	0	100
Hospital/Government/OtI	19	0	0	0	5.26	15.79	10.53	10.53	21.05	26.32	10.53	0	0	0	100
Missing	68	0	0	5.88	14.71	14.71	11.76	10.29	20.59	14.71	4.41	2.94	0	0	100

Age at time of application (from D12 Year of birth)	N	mean(age)	S.D	median	p90	Interquartile	Missing
All	1829	47.22	9.98	46	61	14	90
Large firm (> 500)	1354	46.30	9.49	45	59	13	35
Medium firm (250-500)	73	47.03	10.16	46	60	11	1
Small firm (100-250)	60	47.40	10.28	45.5	62.5	16	0
Very small firm (<100)	214	50.82	10.66	50	66	14	2
university	41	49.90	13.39	49	68	21	1
Other	19	54.63	8.83	56	66	15	1
unknown	68	50.57	10.66	51	63	16.5	50

US

(2/2)

Reference: Country of Birth (参考: 生誕国)

D13 Country of Birth	All	US	Foreign	missing
All	1,919	1,325	520	74
Large firm (> 500)	1,389	973	394	22
Medium firm (250-500)	74	57	16	1
Small firm (100-250)	60	43	17	0
Very small firm (<100)	216	160	54	2
University	42	30	12	0
Hospital/Government/Other	20	16	4	0
Missing	118	46	23	49

%	N	US(%)	Foreign(%)	Total
All	1845	71.82	28.18	100
Large firm (> 500)	1367	71.18	28.82	100
Medium firm (250-500)	73	78.08	21.92	100
Small firm (100-250)	60	71.67	28.33	100
Very small firm (<100)	214	74.77	25.23	100
University	42	71.43	28.57	100
Hospital/Government/Ot	20	80.00	20.00	100
Missing	69	66.67	33.33	100

Japan

Question 1-3 Gender(性別)

	All	男性	女性	無回答
	All	Male	Female	No response
All	3658	3593	54	11
Large firm (> 500)	2932	2886	41	5
Medium firm (251-500)	201	194	7	0
Small firm (101-250)	130	127	3	0
Very small firm (<101)	182	181	0	1
university	82	81	1	0
Other	42	41	0	1
unknown	89	83	2	4

	%	N	Male	Female	Total
All		3647	98.52	1.48	100
Large firm (> 500)		2927	98.6	1.4	100
Medium firm (251-500)		201	96.52	3.48	100
Small firm (101-250)		130	97.69	2.31	100
Very small firm (<101)		181	100	0	100
university		82	98.78	1.22	100
Other		41	100	0	100
unknown		85	97.65	2.35	100

US

Question 1-3 Gender(性別)

D14 Gender	All	Male	Female	Missing
All	1,919	1,754	100	65
Large firm (> 500)	1389	1305	68	16
Medium firm (250-500)	74	69	4	1
Small firm (100-250)	60	56	4	0
Very small firm (<100)	216	208	8	0
University	42	38	4	0
Hospital/Government/Other	20	18	2	0
Missing	118	60	10	48

	%	N	Male	Female	Total
All		1,854	94.61	5.39	100
Large firm (> 500)		1373	95.05	4.95	100
Medium firm (250-500)		73	94.52	5.48	100
Small firm (100-250)		60	93.33	6.67	100
Very small firm (<100)		216	96.30	3.7	100
university		42	90.48	9.52	100
Other		20	90.00	10	100
unknown		70	85.71	14.29	100

Japan

Question 2-1 Highest degree at the time of research (当該発明につながる研究実施当時の最終学歴)

	All All	高校 High school or lower	高専・短大 Tech college or junior college	学士 University	修士 Master	博士 Ph.D.	無回答 No response
All	3658	305	204	1554	1115	450	30
Large firm (> 500)	2932	198	159	1249	1023	285	18
Medium firm (251-500)	201	23	13	111	37	16	1
Small firm (101-250)	130	22	13	74	6	13	2
Very small firm (<101)	182	40	11	84	29	17	1
university	82	0	0	2	5	74	1
Other	42	2	0	5	6	28	1
unknown	89	20	8	29	9	17	6

	%	N	High school or lower	Tech college or junior college	University	Master	Ph.D.	Total
All		3628	8.41	5.62	42.83	30.73	12.4	100
Large firm (> 500)		2914	6.79	5.46	42.86	35.11	9.78	100
Medium firm (251-500)		200	11.5	6.5	55.5	18.5	8	100
Small firm (101-250)		128	17.19	10.16	57.81	4.69	10.16	100
Very small firm (<101)		181	22.1	6.08	46.41	16.02	9.39	100
university		81	0	0	2.47	6.17	91.36	100
Other		41	4.88	0	12.2	14.63	68.29	100
unknown		83	24.1	9.64	34.94	10.84	20.48	100

The year in which this degree was earned

	N	mean(year)	S.D	Median	p90	Interquartile Range	No response
All	3047	1984.96	8.67	1986	1995	11	611
Large firm (> 500)	2511	1985.9	7.76	1986	1995	11	421
Medium firm (251-500)	160	1982.14	10.2	1983	1996	15	41
Small firm (100-250)	90	1982.13	10.13	1983	1995	14	40
Very small firm (<100)	122	1977.84	12.05	1977	1994	17	60
university	77	1977.81	10.14	1976	1994	15	5
Other	37	1986.54	10.99	1989	1996	12	5
unknown	50	1979.08	11.3	1978	1992.5	17	39

Note: We dropped records if year of degree < birth year + 21

US

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Question 2-1 Highest degree at the time of the research (当該発明につながる研究実施当時の最終学歴)

	All	High school or lower	Technical college or Junior college	University or college Bachelor's	University Master's	J.D	Ph.D, M.D. or equivalent	other	Missing
D1A Highest degree									
All	1,919	39	78	420	451	4	817	1	109
Large firm (> 500)	1389	23	55	322	373	2	612	1	1
Medium firm (250-500)	74	1	3	23	12	0	35	0	0
Small firm (100-250)	60	1	4	16	15	2	21	0	1
Very small firm (<100)	216	12	14	51	46	0	93	0	0
University	42	0	0	2	1	0	39	0	0
Hospital/Government/Othe	20	0	1	3	4	0	12	0	0
Missing	118	2	1	3	0	0	5	0	107

%	N	High school or lower	Technical college or Junior college	University or college Bachelor's	University Master's	J.D	Ph.D, M.D. or equivalent	other	Total
All	1810	2.15	4.31	23.2	24.92	0.22	45.14	0.06	100
Large firm (> 500)	1388	1.66	3.96	23.2	26.87	0.14	44.09	0.07	100
Medium firm (250-500)	74	1.35	4.05	31.08	16.22	0	47.3	0	100
Small firm (100-250)	59	1.69	6.78	27.12	25.42	3.39	35.59	0	100
Very small firm (<100)	216	5.56	6.48	23.61	21.3	0	43.06	0	100
University	42	0	0	4.76	2.38	0	92.86	0	100
Hospital/Government/Othe	20	0	5	15	20	0	60	0	100
Missing	11	18.18	9.09	27.27	0	0	45.45	0	100

The year in which this degree was earned

D1B The year in which this degree was earned	N	mean(age)	S.D	Median	p90	Interquartile	Missing
All	1741	1982.06	10.56	1983	1996	15	178
Large firm (> 500)	1345	1982.75	10.14	1983	1996	15	44
Medium firm (250-500)	73	1981.93	11.12	1983	1995	16	1
Small firm (100-250)	56	1983.20	11.03	1986	1997	18.5	4
Very small firm (<100)	198	1978.23	11.19	1979	1994	16	18
University	41	1979.63	13.99	1980	1999	18	1
Hospital/Government/Othe	20	1976.50	10.50	1975	1992	15.5	0
Missing	8	1981.50	12.20	1984	1995	21.5	110

US

(2/4)

Reference: Years of your first patent application? (参考: 最初の特許出願の年)

D2 Years of your first patent application?	mean(year)	S.D	N	Median	p90	Interquartile Range	Missing
All	1989.30	10.36	1,755	1991	2001	15	164
Large firm (> 500)	1989.27	9.96	1343	1991	2000	14	46
Medium firm (250-500)	1989.54	10.88	72	1993	2000	14.5	2
Small firm (100-250)	1991.07	11.00	58	1995.5	2002	15	2
Very small firm (<100)	1988.73	11.85	211	1992	2001	19	5
University	1989.14	12.06	42	1991	2001	19	0
Hospital/Government/Other	1991.21	12.14	19	1995	2002	20	1
Missing	1990.70	12.39	10	1997	2003	18	108

US

(3/4)

Reference: How many years had you worked in the technical field of the patent? (参考: 経験)

D3 How many years had you worked in the technical field of the patent?	mean(years)	S.D	N	Median	p90	Interquartile Range	Missing
All	12.98	10.49	1,780	10	28	16	139
Large firm (> 500)	12.82	10.29	1371	10	28	16	18
Medium firm (250-500)	12.55	9.63	73	10	25	16	1
Small firm (100-250)	13.30	10.34	57	12	30	16	3
Very small firm (<100)	13.95	11.66	209	12	30	16	7
University	13.38	10.89	42	12	28	13	0
Hospital/Government/Other	15.75	13.32	20	15	37.5	16.5	0
Missing	7.13	10.27	8	4	31	7	110

US

(4/4)

Reference: # of invention disclosures made by you to your firm? (参考: 発明届出数)

D4A. # of invention disclosures made by you to your firm?	# mean	S.D	N	Median	p90	Interquartile Range	Missing
All	9.36	13.79	1,769	5	20	8	150
Large firm (> 500)	10.09	14.73	1361	5	22	10	28
Medium firm (250-500)	5.96	6.35	72	4	15	6.5	2
Small firm (100-250)	5.41	6.99	58	4	10	6	2
Very small firm (<100)	7.12	10.79	211	5	12	6	5
University	6.19	5.12	42	5	12	5	0
Hospital/Government/Other	7.81	7.03	16	6.5	20	7	4
Missing	22.56	20.86	9	18	50	39	109

note: cases reporting over 100 converted to 100

% of invention disclosures were applied for patent? (特許出願の割合)

D4B. % of invention disclosures were applied for patent?	% mean	S.D	N	Median	p90	Interquartile Range	Missing
All	67.85	32.89	1447	80	100	50	472
Large firm (> 500)	66.99	32.54	1119	75	100	50	270
Medium firm (250-500)	68.33	34.76	59	80	100	50	15
Small firm (100-250)	64.44	37.29	45	75	100	60	15
Very small firm (<100)	73.10	33.21	168	90	100	50	48
University	69.44	33.01	36	77.5	100	50	6
Hospital/Government/Other	67.46	36.47	13	80	100	50	7
Missing	85.86	19.92	7	95	100	34	111

Japan

Question 3-1 Employment at the time of invention (当該発明当時の雇用・勤務形態)

	All	組織(企業など)に雇 われており、その組織 の部署に勤務していた	自営業者であった	学生であった	企業から大学への 研究派遣など、1 -3以外の場合	無回答
	All	Employed by a firm	Self-employed	Student	Other cases, such as the secondment from a firm to a university	No response
All	3658	3541	70	4	19	24
Large firm (> 500)	2932	2922	2	0	8	0
Medium firm (251-500)	201	200	1	0	0	0
Small firm (101-250)	130	129	1	0	0	0
Very small firm (<101)	182	140	40	0	2	0
university	82	73	0	2	7	0
Other	42	35	5	0	2	0
unknown	89	42	21	2	0	24
%	N	Employed by a firm	Self-employed	Student	Other cases, such as the secondment from a firm to a university	Total
All	3634	97.44	1.93	0.11	0.52	100
Large firm (> 500)	2932	99.66	0.07	0	0.27	100
Medium firm (251-500)	201	99.5	0.5	0	0	100
Small firm (101-250)	130	99.23	0.77	0	0	100
Very small firm (<101)	182	76.92	21.98	0	1.1	100
university	82	89.02	0	2.44	8.54	100
Other	42	83.33	11.9	0	4.76	100
unknown	65	64.62	32.31	3.08	0	100

Japan

Question 3-3 Is the organization one of the applicants? (その組織は、当該特許の出願人でしたか)

	All	はい	いいえ	無回答
	All	yes	No	No response
All	3634	3344	250	40
Large firm (> 500)	2932	2830	93	9
Medium firm (251-500)	201	180	20	1
Small firm (101-250)	130	109	19	2
Very small firm (<101)	182	141	33	8
university	82	14	66	2
Other	42	33	9	0
unknown	65	37	10	18

%	N	yes	no	Total
All	3594	93.04	6.96	100
Large firm (> 500)	2923	96.82	3.18	100
Medium firm (251-500)	200	90	10	100
Small firm (101-250)	128	85.16	14.84	100
Very small firm (<101)	174	81.03	18.97	100
university	80	17.5	82.5	100
Other	42	78.57	21.43	100
unknown	47	78.72	21.28	100

US

Question 3-3 Is the organization one of the applicants? (その組織は、当該特許の出願人でしたか)

D.8 Is the organization one of the applicants?	All	Yes	No	Missing
All	1,919	1,433	346	140
Large firm (> 500)	1389	1160	213	16
Medium firm (250-500)	74	57	15	2
Small firm (100-250)	60	46	11	3
Very small firm (<100)	216	133	78	5
University	42	27	15	0
Hospital/Government/Other	20	7	13	0
Missing	118	3	1	114

%	N	Yes(%)	No(%)	Total
All	1,779	80.55	19.45	100
Large firm (> 500)	1,373	84.49	15.51	100
Medium firm (250-500)	72	79.17	20.83	100
Small firm (100-250)	57	80.70	19.30	100
Very small firm (<100)	211	63.03	36.97	100
University	42	64.29	35.71	100
Hospital/Government/Other	20	35.00	65.00	100
Missing	4	75.00	25.00	100

Japan

Question 3-4 In which year did you join this organization or start your business if self-employed?(その組織に採用された年、もしくは自営業の創業年)

	mean(year)	Sd	N	Median	P90	Iqr	No response
All	1985.04	8.54	3415	1986	1995	11	137
Large firm (> 500)	1985.25	8.10	2822	1986	1995	11	52
Medium firm (251-500)	1984.49	9.89	194	1985.5	1996	15	5
Small firm (101-250)	1983.84	9.40	122	1985	1995	14	5
Very small firm (<101)	1985.22	11.15	127	1988	1997	17	47
university	1981.63	11.35	78	1981	1996	21	0
Other	1986.94	10.33	35	1989	1998	16	6
unknown	1980.22	9.12	37	1980	1992	15	22

Note: Self-employeds are dropped. And records are dropped if the year joining this organization < birth year + 18

Tenure (number of years at the organization at the time of application) (特許出願時の勤続年数)

	mean(year)	Sd	N	Median	P90	Iqr	No response
All	12.97	8.41	3415	12	25	12	137
Large firm (> 500)	12.73	7.96	2822	12	24	10	52
Medium firm (251-500)	13.89	9.85	194	12	27	15	5
Small firm (101-250)	14.17	9.29	122	14	27	14	5
Very small firm (<101)	12.84	11.14	127	9	30	17	47
university	16.45	11.08	78	17	32	20	0
Other	11.23	10.09	35	7	28	16	6
unknown	17.7	9.02	37	16	30	14	22

Note: We dropped records if the year joining this organization < birth year + 18, and self-employed.

US

Question 3-4 In which year did you join this organization or start your business if self-employed?(その組織に採用された年、もしくは自営業の創業年)

D10 In which year did you join this organization	mean(year)	S.D	N	Median	p90	Interquartile	Missing
All	1988.04	10.18	1843	1990	1999	16	76
Large firm (> 500)	1987	10.04	1373	1988	1999	16	16
Medium firm (250-500)	1989.57	9.95	74	1993	2000	13	0
Small firm (100-250)	1990.83	9.94	59	1995	2000	11	1
Very small firm (<100)	1993.89	8.16	212	1997	2000	9	4
University	1986.98	13.05	41	1990	1999	15	1
Hospital/Government/Other	1989.9	9.87	20	1992	2000.5	13.5	0
Missing	1986.69	10.65	64	1989	1999	14.5	54

Tenure (number of years at the organization at the time of application) (特許出願時の勤続年数)

	mean(year)	S.D	N	Median	p90	Interquartile	Missing
All	13.28	10.14	1843	11	28	15	76
Large firm (> 500)	14.29	10	1373	13	28	16	16
Medium firm (250-500)	11.76	9.81	74	8.5	29	13	0
Small firm (100-250)	10.49	9.74	59	6	29	10	1
Very small firm (<100)	7.47	8.08	212	5	19	8	4
University	14.51	13.22	41	11	34	15	1
Hospital/Government/Other	11.65	9.58	20	10	27	12	0
Missing	14.84	11.02	64	13	34	16.5	54

Japan

Question 3-5 Type of unit at the time of the invention (勤務していた部署の主要機能)

	All	研究開発	製造	ソフトウェア開発	その他	無回答
	All	R&D	Manufacturing	Software development	Other	No response
All	3658	3041	217	91	268	41
Large firm (> 500)	2932	2547	150	77	156	2
Medium firm (251-500)	201	173	13	4	10	1
Small firm (101-250)	130	98	12	3	16	1
Very small firm (<101)	182	108	31	7	32	4
university	82	37	1	0	39	5
Other	42	39	0	0	3	0
unknown	89	39	10	0	12	28

	%	N	R&D	Manufacturing	Software development	Other	Total
All		3617	84.08	6	2.52	7.41	100
Large firm (> 500)		2930	86.93	5.12	2.63	5.32	100
Medium firm (251-500)		200	86.5	6.5	2	5	100
Small firm (101-250)		129	75.97	9.3	2.33	12.4	100
Very small firm (<101)		178	60.67	17.42	3.93	17.98	100
university		77	48.05	1.3	0	50.65	100
Other		42	92.86	0	0	7.14	100
unknown		61	63.93	16.39	0	19.67	100

If R&D are selected (選択肢1 研究開発)

	All	独立した研究開発部門	製造など研究開発を主たる目的としていない部署に付属	無回答
	All	R&D – independent research and development unit	R&D – sub-unit attached to a unit with focus on non-R&D	no response
All	3041	2469	508	64
Large firm (> 500)	2547	2074	430	43
Medium firm (251-500)	173	148	20	5
Small firm (101-250)	98	76	18	4
Very small firm (<101)	108	77	29	2
university	37	32	2	3
Other	39	35	1	3
unknown	39	27	8	4

	%	N	R&D – independent research and development unit	R&D – sub-unit attached to a unit with focus on non-R&D	Total
All		2977	82.94	17.06	100
Large firm (> 500)		2504	82.83	17.17	100
Medium firm (251-500)		168	88.1	11.9	100
Small firm (101-250)		94	80.85	19.15	100
Very small firm (<101)		106	72.64	27.36	100
university		34	94.12	5.88	100
Other		36	97.22	2.78	100
unknown		35	77.14	22.86	100

US

Question 3-5 Type of unit at the time of the invention (勤務していた部署の主要機能)

D11 Type of unit at the time of the invention	All	R&D – independent research and development unit	R&D – sub-unit attached to a unit with focus on non-R&D	Manufacturing	Software development	Other	Missing
All	1,919	1200	325	154	56	122	62
Large firm (> 500)	1389	911	282	107	36	45	8
Medium firm (250-500)	74	49	13	9	1	2	0
Small firm (100-250)	60	34	6	15	1	4	0
Very small firm (<100)	216	118	12	18	18	47	3
University	42	32	1	0	0	9	0
Hospital/Government/Other	20	8	0	1	0	11	0
Missing	118	48	11	4	0	4	51

%	N	R&D – independent research and development unit	R&D – sub-unit attached to a unit with focus on non-R&D	Manufacturing	Software development	Other	Total
All	1857	64.62	17.5	8.29	3.02	6.57	100
Large firm (> 500)	1381	65.97	20.42	7.75	2.61	3.26	100
Medium firm (250-500)	74	66.22	17.57	12.16	1.35	2.7	100
Small firm (100-250)	60	56.67	10	25	1.67	6.67	100
Very small firm (<100)	213	55.4	5.63	8.45	8.45	22.07	100
University	42	76.19	2.38	0	0	21.43	100
Hospital/Government/Other	20	40	0	5	0	55	100
Missing	67	71.64	16.42	5.97	0	5.97	100

Japan

Question 3-6 Within 5 prior years, did you work for another employer? (当該発明前、5年以内の他企業等での常勤経験)

	All	Yes	No	No response
All	3658	383	3245	30
Large firm (> 500)	2932	270	2652	10
Medium firm (251-500)	201	28	170	3
Small firm (101-250)	130	14	115	1
Very small firm (<101)	182	35	145	2
university	82	11	68	3
Other	42	10	32	0
unknown	89	15	63	11

	%	N	Yes	No	Total
All		3628	10.56	89.44	100
Large firm (> 500)		2922	9.24	90.76	100
Medium firm (251-500)		198	14.14	85.86	100
Small firm (101-250)		129	10.85	89.15	100
Very small firm (<101)		180	19.44	80.56	100
university		79	13.92	86.08	100
Other		42	23.81	76.19	100
unknown		78	19.23	80.77	100

If "yes" are selected (選択肢2 はい)

	All	他の組織に雇用されてきた	他の組織に派遣・出向	無回答
		Worked in the other organization	On loan (or seconded) to the other organization	No response
All	383	162	211	10
Large firm (> 500)	270	79	186	5
Medium firm (251-500)	28	19	7	2
Small firm (101-250)	14	11	3	0
Very small firm (<101)	35	26	8	1
university	11	8	3	0
Other	10	8	2	0
unknown	15	11	2	2

	%	N	Worked in the other organization	On loan (or seconded) to the other organization	Total
All		373	43.43	56.57	100
Large firm (> 500)		265	29.81	70.19	100
Medium firm (251-500)		26	73.08	26.92	100
Small firm (101-250)		14	78.57	21.43	100
Very small firm (<101)		34	76.47	23.53	100
university		11	72.73	27.27	100
Other		10	80	20	100
unknown		13	84.62	15.38	100

US

Question 3-6 Within 5 prior years, did you work for another employer? (当該発明前、5年以内の他企業等での常勤経験)

D5 Within 5 prior years, did you work for another employer?	All	Yes	No	Missing	Yes(%)	No(%)	Total
All	1919	462	1341	116	25.62	74.38	100
Large firm (> 500)	1389	294	1089	6	21.26	78.74	100
Medium firm (250-500)	74	22	52	0	29.73	70.27	100
Small firm (100-250)	60	24	35	1	40.68	59.32	100
Very small firm (<100)	216	96	119	1	44.65	55.35	100
University	42	14	28	0	33.33	66.67	100
Hospital/Government/Other	20	9	11	0	45.00	55.00	100
Missing	118	3	7	108	30.00	70.00	100

Is your current organization less than 5

D.9 Is your current organization less than 5 years?	N	Yes	No	Missing	Yes(%)	No(%)	Total
All	1,919	94	1699	126	5.24	94.76	100
Large firm (> 500)	1389	35	1347	7	2.53	97.47	100
Medium firm (250-500)	74	3	71	0	4.05	95.95	100
Small firm (100-250)	60	1	58	1	1.69	98.31	100
Very small firm (<100)	216	52	160	4	24.53	75.47	100
University	42	2	40	0	4.76	95.24	100
Hospital/Government/Other	20	0	20	0	0	100	100
Missing	118	1	3	114	25	75	100

Japan

Question 3-7 If “Yes” above, did the experience in any of the above organizations play an important role in your invention? (その経験は当該発明にとって重要な役割を果たしましたか)

	All	yes	no
All	383	233	150
Large firm (> 500)	270	152	118
Medium firm (251-500)	28	18	10
Small firm (101-250)	14	9	5
Very small firm (<101)	35	27	8
university	11	8	3
Other	10	9	1
unknown	15	10	5

	%	N	yes	no	Total
All		383	60.84	39.16	100
Large firm (> 500)		270	56.3	43.7	100
Medium firm (251-500)		28	64.29	35.71	100
Small firm (101-250)		14	64.29	35.71	100
Very small firm (<101)		35	77.14	22.86	100
university		11	72.73	27.27	100
Other		10	90	10	100
unknown		15	66.67	33.33	100

Japan

Question 3-7(2) If "Yes", how did your experience in the most relevant other organization contribute to your invention? You can check all relevant boxes.
 (「はい」の場合の理由、重複回答あり)

	All	研究開発の企画あるいは実施に重要な先端的な知識などの習得	当該発明に重要な具体的な技術シーズを獲得することができた	当該発明へのニーズを把握することができた	以前の組織と現在の組織との間の共同開発が行いやすくなった	その他	無回答
	All	acquire the advanced knowledge useful for the planning and implementation of the research	acquire the specific technology seeds for the invention.	clarify the needs for the invention.	It facilitated the collaboration between the firm and the previous organization	Other	No response
All	233	141	105	60	21	8	3
Large firm (> 500)	152	93	64	37	13	7	3
Medium firm (251-500)	18	10	8	2	1	0	0
Small firm (101-250)	9	4	5	2	2	0	0
Very small firm (<101)	27	16	17	11	3	0	0
university	8	8	3	2	1	0	0
Other	9	7	2	4	1	0	0
unknown	10	3	6	2	0	1	0
%	N	acquire the advanced knowledge useful for the planning and implementation of the research	acquire the specific technology seeds for the invention.	clarify the needs for the invention.	It facilitated the collaboration between the firm and the previous organization	Other	Total
All	230	61.3	45.65	26.09	9.13	3.48	100
Large firm (> 500)	149	62.42	42.95	24.83	8.72	4.7	100
Medium firm (251-500)	18	55.56	44.44	11.11	5.56	0	100
Small firm (101-250)	9	44.44	55.56	22.22	22.22	0	100
Very small firm (<101)	27	59.26	62.96	40.74	11.11	0	100
university	8	100	37.5	25	12.5	0	100
Other	9	77.78	22.22	44.44	11.11	0	100
unknown	10	30	60	20	0	10	100

Japan

Question 3-8 For how long did you work in the above previous organization which contributed importantly to your invention? (雇用あるいは派遣・出向期間)

	All	1 year	2 years	3 years	4-6 years	7-9 years	10-19 years	more than 20 years	No response
All	233	32	49	31	34	18	30	30	9
Large firm (> 500)	152	28	41	24	20	11	16	8	4
Medium firm (251-500)	18	1	2	3	3	1	2	5	1
Small firm (101-250)	9	0	2	1	2	2	1	1	0
Very small firm (<101)	27	2	2	2	5	1	4	9	2
university	8	0	0	1	1	1	2	3	0
Other	9	1	1	0	2	1	2	2	0
unknown	10	0	1	0	1	1	3	2	2

%	N	1 year	2 years	3 years	4-6 years	7-9 years	10-19 years	more than 20 years	Total
All	224	14.29	21.88	13.84	15.18	8.04	13.39	13.39	100
Large firm (> 500)	148	18.92	27.7	16.22	13.51	7.43	10.81	5.41	100
Medium firm (251-500)	17	5.88	11.76	17.65	17.65	5.88	11.76	29.41	100
Small firm (101-250)	9	0	22.22	11.11	22.22	22.22	11.11	11.11	100
Very small firm (<101)	25	8	8	8	20	4	16	36	100
university	8	0	0	12.5	12.5	12.5	25	37.5	100
Other	9	11.11	11.11	0	22.22	11.11	22.22	22.22	100
unknown	8	0	12.5	0	12.5	12.5	37.5	25	100

Japan

Question 3-9 Previous organization if moved(前組織の類型)

	All	大学など高等教育機関 (付属研究所を含む)	国立研究機関	地方公共団体の研究機関	財団法人、民間病院、民間非営利研究機関	顧客・製品ユーザー	設備、材料、部品、ソフトウェア等のサプライヤー企業	競争企業	直接競合していないが同じ産業内の他企業	その他	無回答	
	All	University	National government research organization	Local government research organization	Foundation, hospital, or private research organization	Customers or users	Suppliers	Competitor	Non-competitor within the same industry	Other	No response	
All	233	62	8	2	9	20	22	9	43	56	2	
Large firm (> 500)	152	47	7	1	4	17	11	5	19	40	1	
Medium firm (251-500)	18	2	0	0	2	0	2	0	9	3	0	
Small firm (101-250)	9	1	1	0	0	0	2	0	1	3	1	
Very small firm (<101)	27	4	0	1	0	2	4	2	11	3	0	
university	8	3	0	0	2	0	0	1	0	2	0	
Other	9	3	0	0	0	0	0	0	2	4	0	
unknown	10	2	0	0	1	1	3	1	1	1	0	
	%	N	University	National government research organization	Local government research organization	Foundation, hospital, or private research organization	Customers or users	Suppliers	Competitor	Non-competitor within the same industry	Other	Total
All	231	26.84	3.46	0.87	3.9	8.66	9.52	3.9	18.61	24.24	100	
Large firm (> 500)	151	31.13	4.64	0.66	2.65	11.26	7.28	3.31	12.58	26.49	100	
Medium firm (251-500)	18	11.11	0	0	11.11	0	11.11	0	50	16.67	100	
Small firm (101-250)	8	12.5	12.5	0	0	0	25	0	12.5	37.5	100	
Very small firm (<101)	27	14.81	0	3.7	0	7.41	14.81	7.41	40.74	11.11	100	
university	8	37.5	0	0	25	0	0	12.5	0	25	100	
Other	9	33.33	0	0	0	0	0	0	22.22	44.44	100	
unknown	10	20	0	0	10	10	30	10	10	10	100	

US

Question 3-9 Previous organization if moved (前組織の種類)

	All	University	Federal Gov research organization	Suppliers	Customers	Competitor	Non-competitors	Hospital	Other	Missing
D6 Previous organization if moved										
All	579	98	19	16	11	53	150	11	85	136
Large firm (> 500)	301	65	15	11	8	42	88	3	50	19
Medium firm (250-500)	22	3	1	0	0	2	8	0	5	3
Small firm (100-250)	25	3	0	1	0	3	10	1	7	0
Very small firm (<100)	97	14	3	4	3	5	42	3	18	5
University	14	9	0	0	0	0	1	1	2	1
Hospital/Government/Other	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
Missing	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
%										
	N	University	Federal Gov research organization	Suppliers	Customers	Competitor	Non-competitors	Hospital	Other	Total
All	443	22.12	4.29	3.61	2.48	11.96	33.86	2.48	19.19	100
Large firm (> 500)	282	23.05	5.32	3.9	2.84	14.89	31.21	1.06	17.73	100
Medium firm (250-500)	19	15.79	5.26	0	0	10.53	42.11	0	26.32	100
Small firm (100-250)	25	12	0	4	0	12	40	4	28	100
Very small firm (<100)	92	15.22	3.26	4.35	3.26	5.43	45.65	3.26	19.57	100
University	13	69.23	0	0	0	0	7.69	7.69	15.38	100
Hospital/Government/Other	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX
Missing	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX

Japan

Question 4-1 What would best describe the business objective of your research leading to this invention? (当該発明につながる研究の事業上の目的)

	全体	新規事業立ち上げ	既存事業の強化	当面の事業とは直結しない、企業の技術基盤の強化	その他	無回答
	All	Creating a new business line*	Enhancement of existing business line	Enhancement of the technology base of the firm	other	no response
All	3658	828	2405	286	94	45
Large firm (> 500)	2932	690	1999	187	27	29
Medium firm (251-500)	201	39	144	15	3	0
Small firm (101-250)	130	17	92	16	5	0
Very small firm (<101)	182	54	102	14	10	2
university	82	11	7	26	33	5
Other	42	8	10	19	5	0
unknown	89	9	51	9	11	9

	%	N	Creating a new business line*	Enhancement of existing business line	Enhancement of the technology base of the firm	other	Total
All		3613	22.92	66.57	7.92	2.6	100
Large firm (> 500)		2903	23.77	68.86	6.44	0.93	100
Medium firm (251-500)		201	19.4	71.64	7.46	1.49	100
Small firm (101-250)		130	13.08	70.77	12.31	3.85	100
Very small firm (<101)		180	30	56.67	7.78	5.56	100
university		77	14.29	9.09	33.77	42.86	100
Other		42	19.05	23.81	45.24	11.9	100
unknown		80	11.25	63.75	11.25	13.75	100

When "Enhancement of existing business line" are chosen (選択肢2 既存事業の強化)

	全体	企業のコア事業が対象	非コア事業が対象	わからない	無回答
	All	directed to the "core business"	directed to the "non-core business"	don't know	no response
All	2405	1748	492	78	87
Large firm (> 500)	1999	1448	426	63	62
Medium firm (250-500)	144	113	27	1	3
Small firm (100-250)	92	68	14	4	6
Very small firm (<100)	102	76	14	4	8
university	7	4	1	1	1
Other	10	7	1	1	1
unknown	51	32	9	4	6

	%	All	directed to the "core business"	directed to the "non-core business"	Total
All		2240	78.04	21.96	100
Large firm (> 500)		1874	77.27	22.73	100
Medium firm (250-500)		140	80.71	19.29	100
Small firm (100-250)		82	82.93	17.07	100
Very small firm (<100)		90	84.44	15.56	100
university		5	80	20	100
Other		8	87.5	12.5	100
unknown		41	78.05	21.95	100

US

Question 4-1 What would best describe the business objective of your research leading to this invention? (当該発明につながる研究の事業上の目的)

A.1 What would best describe the purpose of your research leading to this invention, in relation to the business objective of your firm?	all	Creating a new business line*	Enhancement of existing business line	Enhancement of the technology base of the firm	other	Missing
All	1919	450	925	455	68	21
Large firm (> 500)	1389	297	723	334	31	4
Medium firm (250-500)	74	14	40	19	1	0
Small firm (100-250)	60	10	34	13	3	0
Very small firm (<100)	216	97	61	44	14	0
University	42	5	8	17	11	1
Hospital/Government/Other	20	5	6	4	5	0
Missing	118	22	53	24	3	16

%	N	Creating a new business line*	Enhancement of existing business line	Enhancement of the technology base of the firm	other	Total
All	1898	23.71	48.74	23.97	3.58	100
Large firm (> 500)	1385	21.44	52.2	24.12	2.24	100
Medium firm (250-500)	74	18.92	54.05	25.68	1.35	100
Small firm (100-250)	60	16.67	56.67	21.67	5	100
Very small firm (<100)	216	44.91	28.24	20.37	6.48	100
University	41	12.2	19.51	41.46	26.83	100
Hospital/Government/Other	20	25	30	20	25	100
Missing	102	21.57	51.96	23.53	2.94	100

Japan

Question 4-1(2) What would best describe the type of the innovation your research was expected to realize? (それは、どの種類の技術革新であったか)

	All All	新生産技術の開発 Creating a new process	既存生産技術の改 Improvement of an existing process	新製品の開発 Creating a new product	既存製品の改良 Improvement of an existing product	その他 other	無回答 no response
All	3658	351	290	2142	698	63	114
Large firm (> 500)	2932	261	217	1771	573	31	79
Medium firm (251-500)	201	16	23	110	40	5	7
Small firm (101-250)	130	14	13	64	34	2	3
Very small firm (<101)	182	21	19	103	31	3	5
university	82	21	5	30	5	14	7
Other	42	12	4	13	5	5	3
unknown	89	6	9	51	10	3	10

%	N	Creating a new process	Improvement of an existing process	Creating a new product	Improvement of an existing product	other	Total
All	3544	9.9	8.18	60.44	19.7	1.78	100
Large firm (> 500)	2853	9.15	7.61	62.08	20.08	1.09	100
Medium firm (251-500)	194	8.25	11.86	56.7	20.62	2.58	100
Small firm (101-250)	127	11.02	10.24	50.39	26.77	1.57	100
Very small firm (<101)	177	11.86	10.73	58.19	17.51	1.69	100
university	75	28	6.67	40	6.67	18.67	100
Other	39	30.77	10.26	33.33	12.82	12.82	100
unknown	79	7.59	11.39	64.56	12.66	3.8	100

US

Question 4-1 (2) What would best describe the type of the innovation your research was expected to realize? (それは、どの種類の技術革新であったか)

A.2 What would best describe the type of innovation your research was expected to realize?	all	Creating a new process	Improvement of an existing process	Creating a new product	Improvement of an existing product	other	Missing
All	1919	240	263	849	513	34	20
Large firm (> 500)	1389	162	198	612	392	22	3
Medium firm (250-500)	74	8	14	24	27	1	0
Small firm (100-250)	60	6	9	29	15	1	0
Very small firm (<100)	216	29	20	119	46	2	0
University	42	12	7	13	7	2	1
Hospital/Government/Other	20	4	2	6	6	2	0
Missing	118	19	13	46	20	4	16

%	N	Creating a new process	Improvement of an existing process	Creating a new product	Improvement of an existing product	other	Total
All	1899	12.64	13.85	44.71	27.01	1.79	100
Large firm (> 500)	1386	11.69	14.29	44.16	28.28	1.59	100
Medium firm (250-500)	74	10.81	18.92	32.43	36.49	1.35	100
Small firm (100-250)	60	10	15	48.33	25	1.67	100
Very small firm (<100)	216	13.43	9.26	55.09	21.3	0.93	100
University	41	29.27	17.07	31.71	17.07	4.88	100
Hospital/Government/Other	20	20	10	30	30	10	100
Missing	102	18.63	12.75	45.1	19.61	3.92	100

Japan

Question 4-2 What is the scope of your research leading to the invention? You can check all relevant boxes. (当該発明につながった研究の範囲 (重複回答あり))

	All	基礎研究 Basic Research	応用研究 Applied Research	開発 Development	技術サービス technical support(quality control, manufacturing process design or product experiments)	その他 other	無回答 No response
All	3658	816	1389	2406	311	58	18
Large firm (> 500)	2932	599	1092	2007	230	41	12
Medium firm (251-500)	201	44	84	133	26	1	0
Small firm (101-250)	130	24	44	81	21	4	0
Very small firm (<101)	182	42	79	113	21	6	0
university	82	55	33	16	0	2	1
Other	42	30	18	14	1	2	0
unknown	89	22	39	42	12	2	5
	%	N	Basic Research	Applied Research	Development	technical support(quality control, manufacturing process design or product experiments)	other
All	3640	22.42	38.16	66.10	8.54	1.59	
Large firm (> 500)	2920	20.51	37.40	68.73	7.88	1.40	
Medium firm (251-500)	201	21.89	41.79	66.17	12.94	0.50	
Small firm (101-250)	130	18.46	33.85	62.31	16.15	3.08	
Very small firm (<101)	182	23.08	43.41	62.09	11.54	3.30	
university	81	67.90	40.74	19.75	0.00	2.47	
Other	42	71.43	42.86	33.33	2.38	4.76	
unknown	84	26.19	46.43	50.00	14.29	2.38	

Japan

Question 4-3 What was the main motivation of your research leading to the invention? You can check all relevant boxes. (当該発明につながる研究の主たる動機(重複回答あり))

	All	Solving technological issues for existing (or new) business of the firm ("needs"-oriented)	Commercialization of a scientific or technological discovery with potential for practical application ("seeds"-oriented)	Exploration of new technical seeds	other	no response
All	3658	2736	812	386	53	29
Large firm (> 500)	2932	2257	607	280	29	20
Medium firm (251-500)	201	154	52	24	5	0
Small firm (101-250)	130	90	30	15	2	1
Very small firm (<101)	182	131	46	25	2	1
university	82	29	44	18	8	1
Other	42	25	15	6	3	0
unknown	89	50	18	18	4	6

%	N	Solving technological issues for existing (or new) business of the firm ("needs"-oriented)	Commercialization of a scientific or technological discovery with potential for practical application ("seeds"-oriented)	Exploration of new technical seeds	other
All	3629	75.39	22.38	10.64	1.46
Large firm (> 500)	2912	77.51	20.84	9.62	1
Medium firm (251-500)	201	76.62	25.87	11.94	2.49
Small firm (101-250)	129	69.77	23.26	11.63	1.55
Very small firm (<101)	181	72.38	25.41	13.81	1.1
university	81	35.8	54.32	22.22	9.88
Other	42	59.52	35.71	14.29	7.14
unknown	83	60.24	21.69	21.69	4.82

Japan

Question 4-4 How many months of the research led up to this patent application? (研究開始から特許出願までに経過した時間)

	All	0.5 year	1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years	Over 8 years	No response
All	3658	232	450	1319	798	365	89	134	24	19	76	152
Large firm (> 500)	2932	192	376	1111	625	286	68	88	18	13	44	111
Medium firm (251-500)	201	14	20	75	50	20	2	9	2	1	4	4
Small firm (101-250)	130	10	16	44	37	12	3	4	0	1	1	2
Very small firm (<101)	182	11	23	45	47	16	7	13	1	3	8	8
university	82	1	5	10	17	15	6	10	0	1	6	11
Other	42	2	3	6	8	8	1	3	1	0	8	2
unknown	89	2	7	28	14	8	2	7	2	0	5	14

	%	N	0.5 year	1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years	Over 8 years	Total
All		3506	6.62	12.84	37.62	22.76	10.41	2.54	3.82	0.68	0.54	2.17	100
Large firm (> 500)		2821	6.81	13.33	39.38	22.16	10.14	2.41	3.12	0.64	0.46	1.56	100
Medium firm (251-500)		197	7.11	10.15	38.07	25.38	10.15	1.02	4.57	1.02	0.51	2.03	100
Small firm (101-250)		128	7.81	12.5	34.38	28.91	9.38	2.34	3.13	0	0.78	0.78	100
Very small firm (<101)		174	6.32	13.22	25.86	27.01	9.2	4.02	7.47	0.57	1.72	4.6	100
university		71	1.41	7.04	14.08	23.94	21.13	8.45	14.08	0	1.41	8.45	100
Other		40	5	7.5	15	20	20	2.5	7.5	2.5	0	20	100
unknown		75	2.67	9.33	37.33	18.67	10.67	2.67	9.33	2.67	0	6.67	100

	Mean (month)	Std. Dev.	N	Median	P90	Iqr	No response
All	23.69	26.43	3506	18	42	12	152
Large firm (> 500)	21.77	19.83	2821	18	36	12	111
Medium firm (251-500)	25.43	36.07	197	18	42	12	4
Small firm (101-250)	21.23	16.91	128	18	36	14.5	2
Very small firm (<101)	30.64	34.29	174	24	60	24	8
university	43.28	39.36	71	36	60	25	11
Other	65.2	88.84	40	36	198	43	2
unknown	38.88	63.07	75	24	66	24	14

US

Question 4-4 How many months of the research led up to this patent application? (研究開始から特許出願までに経過した時間)

A.3 How many months did the research leading to this patent last until its application? (month)	all	within 0.5 year	1 year	2 year	3 year	4 year	5 year	6 year	7 year	8 year	9 year or more	Missing
All	1,919	480	476	524	209	75	53	12	5	6	27	52
Large firm (> 500)	1389	364	342	397	151	47	32	11	5	4	11	25
Medium firm (250-500)	74	11	27	26	6	0	0	1	0	0	1	2
Small firm (100-250)	60	21	18	9	2	5	3	0	0	0	0	2
Very small firm (<100)	216	46	43	60	30	15	10	0	0	0	8	4
University	42	4	8	9	8	5	3	0	0	1	2	2
Hospital/Government/Other	20	2	4	3	3	2	1	0	0	1	4	0
Missing	118	32	34	20	9	1	4	0	0	0	1	17

%	N	within 0.5 year	1 year	2 year	3 year	4 year	5 year	6 year	7 year	8 year	9 year or more	Total
All	1867	25.71	25.5	28.07	11.19	4.02	2.84	0.64	0.27	0.32	1.45	100
Large firm (> 500)	1364	26.69	25.07	29.11	11.07	3.45	2.35	0.81	0.37	0.29	0.81	100
Medium firm (250-500)	72	15.28	37.5	36.11	8.33	0	0	1.39	0	0	1.39	100
Small firm (100-250)	58	36.21	31.03	15.52	3.45	8.62	5.17	0	0	0	0	100
Very small firm (<100)	212	21.7	20.28	28.3	14.15	7.08	4.72	0	0	0	3.77	100
University	40	10	20	22.5	20	12.5	7.5	0	0	2.5	5	100
Hospital/Government/Other	20	10	20	15	15	10	5	0	0	5	20	100
Missing	101	31.68	33.66	19.8	8.91	0.99	3.96	0	0	0	0.99	100

Org type	mean (month)	sd	N	Median	p90	Interquartile	Missing
All	20.55	24.37	1867	21	36	18	52
Large firm (> 500)	18.99	18.19	1364	12	36	18	25
Medium firm (250-500)	17.63	16.26	72	12	27	12	2
Small firm (100-250)	16.22	15.06	58	12	42	18	2
Very small firm (<100)	27.69	40.45	212	21	48	24	4
University	37.43	44.66	40	24	60	36	2
Hospital/Government/Other	51.85	57.69	20	33	114	66	0
Missing	18.28	30.27	101	12	36	18	17

Japan

Question 4-5 Which of the following scenarios best describes the creative process that led to your invention? (当該発明の創造プロセス)

	All	研究プロジェクト の主要目標	研究プロジェクト の主要目標では ないが予想でき た副産物	研究プロジェクト の主要目標とは 関係なく予想もし ていない副産物	アイデアを通常 業務で着想し、 研究プロジェクト の中で発展	アイデアを研究 開発費をかける ことなく直接特許 化した	その他	無回答
	All	targeted achievement	expected by- product	unexpected by product	related to your normal job	no R&D involved	other	no response
All	3658	1798	804	123	414	430	44	45
Large firm (> 500)	2932	1477	684	90	310	315	26	30
Medium firm (251-500)	201	109	36	1	25	25	3	2
Small firm (101-250)	130	48	29	6	26	20	1	0
Very small firm (<101)	182	72	25	9	36	32	6	2
university	82	39	15	10	4	10	3	1
Other	42	21	7	4	1	7	0	2
unknown	89	32	8	3	12	21	5	8
%	N	targeted achievement	expected by- product	unexpected by product	related to your normal job	no R&D involved	other	Total
All	3613	49.76	22.25	3.4	11.46	11.9	1.22	100
Large firm (> 500)	2902	50.9	23.57	3.1	10.68	10.85	0.9	100
Medium firm (251-500)	199	54.77	18.09	0.5	12.56	12.56	1.51	100
Small firm (101-250)	130	36.92	22.31	4.62	20	15.38	0.77	100
Very small firm (<101)	180	40	13.89	5	20	17.78	3.33	100
university	81	48.15	18.52	12.35	4.94	12.35	3.7	100
Other	40	52.5	17.5	10	2.5	17.5	0	100
unknown	81	39.51	9.88	3.7	14.81	25.93	6.17	100

US

Question 4-5 Which of the following scenarios best describes the creative process that led to your invention? (当該発明の創造プロセス)

A.4 Which of the following scenarios best describes the creative process that led to your invention?	all	targeted achievement	expected by-product	unexpected by product	related to your normal job	no R&D involved	other	Missing
All	1919	974	207	220	212	270	14	22
Large firm (> 500)	1389	697	160	163	155	200	9	5
Medium firm (250-500)	74	39	8	10	9	8	0	0
Small firm (100-250)	60	35	5	2	9	9	0	0
Very small firm (<100)	216	122	18	25	23	27	1	0
University	42	17	7	7	2	7	0	2
Hospital/Government/Other	20	8	1	2	3	6	0	0
Missing	118	56	8	11	11	13	4	15

%	N	targeted achievement	expected by-product	unexpected by product	related to your normal job	no R&D involved	other	Total
All	1897	51.34	10.91	11.6	11.18	14.23	0.74	100
Large firm (> 500)	1384	50.36	11.56	11.78	11.2	14.45	0.65	100
Medium firm (250-500)	74	52.7	10.81	13.51	12.16	10.81	0	100
Small firm (100-250)	60	58.33	8.33	3.33	15	15	0	100
Very small firm (<100)	216	56.48	8.33	11.57	10.65	12.5	0.46	100
University	40	42.5	17.5	17.5	5	17.5	0	100
Hospital/Government/Other	20	40	5	10	15	30	0	100
Missing	103	54.37	7.77	10.68	10.68	12.62	3.88	100

Japan

Question 4-6 What would best describe the type of the invention? (当該発明は「もの」「方法」どちらの発明であったか)

	All	「もの」の発明	「方法」の発明	上記の両方	無回答
	All	Product	Process	both	no response
All	3658	1638	1127	879	14
Large firm (> 500)	2932	1339	878	707	8
Medium firm (251-500)	201	89	63	49	0
Small firm (101-250)	130	59	49	22	0
Very small firm (<101)	182	70	62	49	1
university	82	30	26	25	1
Other	42	15	18	9	0
unknown	89	36	31	18	4

	%	N	Product	Process	both	Total
All		3644	44.95	30.93	24.12	100
Large firm (> 500)		2924	45.79	30.03	24.18	100
Medium firm (251-500)		201	44.28	31.34	24.38	100
Small firm (101-250)		130	45.38	37.69	16.92	100
Very small firm (<101)		181	38.67	34.25	27.07	100
university		81	37.04	32.1	30.86	100
Other		42	35.71	42.86	21.43	100
unknown		85	42.35	36.47	21.18	100

US

Question 4-6 What would best describe the type of the invention? (当該発明は「もの」「方法」どちらの発明であったか)

A.5 Which of the following would best describe the type of the invention in the focal patent?	all	Product	Process	both	Missing
All	1919	899	378	529	113
Large firm (> 500)	1389	658	291	376	64
Medium firm (250-500)	74	33	16	17	8
Small firm (100-250)	60	25	10	18	7
Very small firm (<100)	216	114	31	60	11
University	42	16	8	18	0
Hospital/Government/Other	20	8	2	9	1
Missing	118	45	20	31	22

%	N	Product	Process	both	Total
All	1806	49.78	20.93	29.29	100
Large firm (> 500)	1235	49.66	21.96	28.38	100
Medium firm (250-500)	66	50	24.24	25.76	100
Small firm (100-250)	53	47.17	18.87	33.96	100
Very small firm (<100)	205	55.61	15.12	29.27	100
University	42	38.1	19.05	42.86	100
Hospital/Government/Other	19	42.11	10.53	47.37	100
Missing	96	46.88	20.83	32.29	100

Japan

Question 4-7 Did the invention build in a substantial way on any prior patent that you were aware of? (当該発明は、先行特許を基礎として生み出されたものか)

	All	yes	no	no response
All	3658	1848	1776	34
Large firm (> 500)	2932	1525	1382	25
Medium firm (251-500)	201	110	91	0
Small firm (101-250)	130	51	79	0
Very small firm (<101)	182	76	104	2
university	82	31	50	1
Other	42	14	28	0
unknown	89	41	42	6

	%	N	yes	no	Total
All		3624	50.99	49.01	100
Large firm (> 500)		2907	52.46	47.54	100
Medium firm (251-500)		201	54.73	45.27	100
Small firm (101-250)		130	39.23	60.77	100
Very small firm (<101)		180	42.22	57.78	100
university		81	38.27	61.73	100
Other		42	33.33	66.67	100
unknown		83	49.4	50.6	100

If "yes", had the inventions of these prior patents been made in the firm (including the affiliated firms) firms as you belonged to? (当該発明の先行特許は所属企業内で生み出されたものか)

	All	yes	no	no response
All	1848	1131	701	16
Large firm (> 500)	1525	933	580	12
Medium firm (251-500)	110	72	36	2
Small firm (101-250)	51	28	23	0
Very small firm (<101)	76	49	26	1
university	31	16	14	1
Other	14	6	8	0
unknown	41	27	14	0

	%	N	yes	no	Total
All		1832	61.74	38.26	100
Large firm (> 500)		1513	61.67	38.33	100
Medium firm (251-500)		108	66.67	33.33	100
Small firm (101-250)		51	54.9	45.1	100
Very small firm (<101)		75	65.33	34.67	100
university		30	53.33	46.67	100
Other		14	42.86	57.14	100
unknown		41	65.85	34.15	100

Japan

Question 4-8 Has this invention led to any improvement inventions afterwards? (当該発明は、その後の改良発明につながったか)

	All	yes	no	no response
All	1848	1192	647	9
Large firm (> 500)	1525	974	544	7
Medium firm (251-500)	110	67	43	0
Small firm (101-250)	51	31	20	0
Very small firm (<101)	76	58	18	0
university	31	20	10	1
Other	14	11	3	0
unknown	41	31	9	1

	%	N	yes	no	Total
All		1839	64.82	35.18	100
Large firm (> 500)		1518	64.16	35.84	100
Medium firm (251-500)		110	60.91	39.09	100
Small firm (101-250)		51	60.78	39.22	100
Very small firm (<101)		76	76.32	23.68	100
university		30	66.67	33.33	100
Other		14	78.57	21.43	100
unknown		40	77.5	22.5	100

If YES, which type of the firms accounted for these improvement patents? (改良発明を行った組織の割合)

	All	自社	この研究で 提携関係に ある他社	競争企業	顧客・製品 ユーザー	サプライ ヤー企業	その他	無回答
	All	Your firm, including related firms	Firms in alliance such as co- applicants	The other competitor	Customers and product users	Suppliers	others	no response
All	1192	1150	143	141	55	26	14	10
Large firm (> 500)	974	950	96	126	37	23	7	9
Medium firm (251-500)	67	64	9	5	5	0	0	0
Small firm (101-250)	31	29	6	6	4	0	0	0
Very small firm (<101)	58	56	11	2	6	2	0	1
university	20	15	10	0	0	0	3	0
Other	11	8	4	0	1	0	3	0
unknown	31	28	7	2	2	1	1	0

	%	N	Your firm, including related firms	Firms in alliance such as co- applicants	The other competitor	Customers and product users	Suppliers	others	Total
All		1182	97.29	12.1	11.93	4.65	2.2	1.18	100
Large firm (> 500)		965	98.45	9.95	13.06	3.83	2.38	0.73	100
Medium firm (251-500)		67	95.52	13.43	7.46	7.46	0	0	100
Small firm (101-250)		31	93.55	19.35	19.35	12.9	0	0	100
Very small firm (<101)		57	98.25	19.3	3.51	10.53	3.51	0	100
university		20	75	50	0	0	0	15	100
Other		11	72.73	36.36	0	9.09	0	27.27	100
unknown		31	90.32	22.58	6.45	6.45	3.23	3.23	100

Japan

Question 4-9 Please indicate whether the co-inventor exists, according to the type of the following organizations. You can check all relevant boxes. (当該発明の共同発明者の類型(複回答あり))

	All	自社	外部組織の発明者がいる場合	設備、材料、部品、ソフトウェア等のサプライヤー企業	顧客・製品ユーザー	競争企業	直接競合していないが同じ産業内の他企業	上記以外の企業	大学など高等教育機関(付属研究所を含む)	国立研究機関	地方公共団体の研究機関	財団法人、民間病院、民間非営利研究機関	その他の政府機関	その他	無回答
	All	Your firm	any external co-inventor	Suppliers for parts, materials, equipments, software etc. (including contract manufactures)	Customers and product users	Competitor	Non-competitor(s) within the same industry	Other firm(s)	University and education	Government Research Organization	Local Government Research Organization	Hospital, Foundation, or Private Research Organization	Other government organization	other	no response
All	3658	2417	477	124	147	16	37	69	86	18	6	5	1	41	55
Large firm (> 500)	2932	2037	249	71	85	9	22	29	31	5	0	1	0	19	43
Medium firm (251-500)	201	139	39	10	18	1	4	6	3	3	0	0	0	2	1
Small firm (101-250)	130	86	40	4	19	2	3	5	6	1	1	0	0	3	0
Very small firm (<101)	182	88	46	16	16	2	4	8	6	0	0	1	0	3	6
university	82	13	57	15	1	0	2	13	29	2	0	2	0	4	2
Other	42	17	22	2	0	2	0	4	5	6	5	1	1	5	1
unknown	89	37	24	6	8	0	2	4	6	1	0	0	0	5	2

Note1: There are cases that respondent's answer of Question 4-9 discords with the number of inventors in the patent bibliographic

Note2: Any external co-inventor is 1 if there are co-inventor outside their own firm. Otherwise it is 0.

	%	N	Your firm	any external co-inventor	Suppliers for parts, materials, equipments, software etc. (including contract manufactures)	Customers and product users	Competitor	Non-competitor(s) within the same industry	Other firm(s)	University and education	Government Research Organization	Local Government Research Organization	Hospital, Foundation, or Private Research Organization	Other government organization	other
All		3603	67.48	13.32	3.46	4.1	0.45	1.03	1.93	2.4	0.5	0.17	0.14	0.03	1.14
Large firm (> 500)		2889	70.9	8.67	2.47	2.96	0.31	0.77	1.01	1.08	0.17	0	0.03	0	0.66
Medium firm (251-500)		200	69.62	19.53	5.01	9.02	0.5	2	3.01	1.5	1.5	0	0	0	1
Small firm (101-250)		130	66.15	30.77	3.08	14.62	1.54	2.31	3.85	4.62	0.77	0.77	0	0	2.31
Very small firm (<101)		176	51.06	26.69	9.28	9.28	1.16	2.32	4.64	3.48	0	0	0.58	0	1.74
university		80	16.4	71.91	18.92	1.26	0	2.52	16.4	36.59	2.52	0	2.52	0	5.05
Other		41	41.74	54.02	4.91	0	4.91	0	9.82	12.28	14.73	12.28	2.46	2.46	12.28
unknown		87	43.11	27.97	6.99	9.32	0	2.33	4.66	6.99	1.17	0	0	0	5.83

Note: For example, the incidence of co-invention with suppliers is given by

$$\text{Prob}(\text{coinvention with suppliers}) = \text{Prob}(\text{coinvention with suppliers} \mid \text{coinvention}) * \text{Prob}(\text{coinventions})$$

US

(1/2)

Question 4-9 Please indicate whether the co-inventor exists, according to the type of the following organizations. You can check all relevant boxes. (当該発明の共同発明者の類型(複回答あり))

	all	Your firm	Any External Co-inventor	Suppliers for parts, materials, equipments, software etc. (including contract manufactures)	Customers and product users	Competitor	Non-competitor(s) within the same industry	Other firm(s)	University	Government Research Organization	Hospital, Foundation, or Private Research Organization	Other	Missing
A.6A Including yourself, please indicate whether the co-inventor exists as well as its number, according to the type of the following organizations													
All	1919	1196	218	95	72	24	22	36	47	11	8	9	160
Large firm (> 500)	1389	922	135	66	47	17	15	22	21	7	3	2	101
Medium firm (250-500)	74	45	8	1	3	0	1	2	2	0	0	0	7
Small firm (100-250)	60	37	6	3	2	1	0	0	3	0	0	1	8
Very small firm (<100)	216	113	36	14	11	2	2	9	5	2	3	4	12
University	42	29	20	5	2	0	1	2	15	1	1	0	2
Hospital/Government/Other	20	7	5	0	1	0	0	0	1	1	1	1	0
Missing	118	43	8	6	6	4	3	1	0	0	0	1	30
%	N	Your firm	Any External Co-inventor	Suppliers for parts, materials, equipments, software etc. (including contract manufactures)	Customers and product users	Competitor	Non-competitor(s) within the same industry	Other firm(s)	University	Government Research Organization	Hospital, Foundation, or Private Research Organization	Other	
All	1759	67.99	12.39	5.4	4.09	1.36	1.25	2.05	2.67	0.63	0.45	0.51	
Large firm (> 500)	1288	71.58	10.48	5.12	3.65	1.32	1.16	1.71	1.63	0.54	0.23	0.16	
Medium firm (250-500)	67	67.16	11.94	1.49	4.48	0	1.49	2.99	2.99	0	0	0	
Small firm (100-250)	52	71.15	11.54	5.77	3.85	1.92	0	0	5.77	0	0	1.92	
Very small firm (<100)	204	55.39	17.65	6.86	5.39	0.98	0.98	4.41	2.45	0.98	1.47	1.96	
University	40	72.5	50	12.5	5	0	2.5	5	37.5	2.5	2.5	0	
Hospital/Government/Other	20	35	25	0	5	0	0	0	5	5	5	5	
Missing	88	48.86	9.09	6.82	6.82	4.55	3.41	1.14	0	0	0	1.14	

Japan

Question 4-9 (2) # of inventors, sole-invention, any external co-invention and multiple-assignee (発明者数、単独発明、外部共同発明、共同出願)

	all	# of inventors	median	p90	sole inventor	sole inventor (%)
All	3658	2.76	2	5	1020	27.88
Large firm (> 500)	2932	2.78	2	5	799	27.25
Medium firm (251-500)	201	2.82	2	5	51	25.37
Small firm (101-250)	130	2.68	2	5	37	28.46
Very small firm (<101)	182	2.35	2	4	69	37.91
university	82	2.83	3	5	22	26.83
Other	42	3.05	2	5	9	21.43
unknown	89	2.63	2	5	33	37.08

	Any external co-inventor	Any external co-inventor (%)	No response	Multiple-assignee	Multiple-assignee (%)
All	477	13.32	55	375	10.25
Large firm (> 500)	249	8.67	43	222	7.57
Medium firm (251-500)	39	19.53	1	33	16.42
Small firm (101-250)	40	30.77	0	34	26.15
Very small firm (<101)	46	26.69	6	37	20.33
university	57	71.91	2	20	24.39
Other	22	54.02	1	15	35.71
unknown	24	27.97	2	14	15.73

US

(2/2)

Question 4-9 (2) # of inventors, sole-invention, any external co-invention and multiple-assignee (発明者数、単独発明、外部共同発明、共同出願)

Based on patent applications

	all	# of inventors	median	p90	sole inventors	sole inventor (%)
All	1919	2.71	2	5	525	27.36
Large firm (> 500)	1389	2.79	2	5	353	25.41
Medium firm (250-500)	74	2.66	2	5	19	25.68
Small firm (100-250)	60	2.60	2	4	15	25
Very small firm (<100)	216	2.44	2	5	80	37.04
University	42	2.74	2.5	4	5	11.9
Hospital/Government/Other	20	1.95	1.5	4	10	50
Missing	118	2.45	2	4	43	36.44

	Any External Co-inventor	Any External Co-inventor (%)	Missing	Multiple-assignee	Multiple-assignee (%)
All	218	12.39	160	34	1.77
Large firm (> 500)	135	10.48	101	20	1.44
Medium firm (250-500)	8	11.94	7	1	1.35
Small firm (100-250)	6	11.54	8	2	3.33
Very small firm (<100)	36	17.65	12	6	2.78
University	20	50	2	2	4.76
Hospital/Government/Other	5	25	0	0	0
Missing	8	9.09	30	3	2.54

Japan

Question 4-10 Was there any (formal or informal) collaboration between your employer and other partners (excluding co-inventors)? You can check all relevant boxes. (当該発明につながる研究の外部組織との協力がある場合(但し共同発明者を除く)、協力相手の類型、重複回答あり)

	All	設備、材料、部品、ソフトウェア等のサプライヤー企業	顧客・製品ユーザー	競争企業	直接競合していないが同じ産業内の他企業	上記以外の企業	大学など高等教育機関(付属研究所を含む)	国立研究機関	地方公共団体の研究機関	財団法人、民間病院、民間非営利研究機関	その他の政府機関	その他	外部組織の発明者がいる場合	無回答
	All	Supplier(s), which provides parts, materials, or equipments	Customers or product users	Competitor(s)	Non-competitor(s) within the industry	Other firm(s)	University and education	Government Research Organization	Local government research organization	Hospital, Foundation, or Private Research Organization	Other Government Institution	others	any collaboration	no response
All	3658	536	289	27	65	72	154	45	14	25	10	38	1041	3
Large firm (> 500)	2932	428	226	23	46	50	110	27	3	18	6	28	804	2
Medium firm (251-500)	201	37	18	3	4	6	5	4	2	0	0	5	67	1
Small firm (101-250)	130	25	12	0	2	3	5	1	2	1	1	1	47	0
Very small firm (<101)	182	24	22	0	5	6	16	5	3	3	0	1	61	0
university	82	7	0	1	1	2	8	4	1	3	1	2	22	0
Other	42	6	1	0	3	2	4	1	1	0	1	0	14	0
unknown	89	9	10	0	4	3	6	3	2	0	1	1	26	0
	%	N	Supplier(s), which provides parts, materials, or equipments	Customers or product users	Competitor(s)	Non-competitor(s) within the industry	Other firm(s)	University and education	Government Research Organization	Local government research organization	Hospital, Foundation, or Private Research Organization	Other Government Institution	others	any collaboration
All		3655	14.66	7.91	0.74	1.78	1.97	4.21	1.23	0.38	0.68	0.27	1.04	28.48
Large firm (> 500)		2930	14.61	7.71	0.78	1.57	1.71	3.75	0.92	0.1	0.61	0.2	0.96	27.44
Medium firm (251-500)		200	18.5	9	1.5	2	3	2.5	2	1	0	0	2.5	33.5
Small firm (101-250)		130	19.23	9.23	0	1.54	2.31	3.85	0.77	1.54	0.77	0.77	0.77	36.15
Very small firm (<101)		182	13.19	12.09	0	2.75	3.3	8.79	2.75	1.65	1.65	0	0.55	33.52
university		82	8.54	0	1.22	1.22	2.44	9.76	4.88	1.22	3.66	1.22	2.44	26.83
Other		42	14.29	2.38	0	7.14	4.76	9.52	2.38	2.38	0	2.38	0	33.33
unknown		89	10.11	11.24	0	4.49	3.37	6.74	3.37	2.25	0	1.12	1.12	29.21

Note: For example, the incidence of co-invention with suppliers is given by ...

$\text{Prob}(\text{co-invention with suppliers}) = \text{Prob}(\text{co-invention with suppliers} \mid \text{co-invention}) * \text{Prob}(\text{co-inventions})$

US

Question 4–10 Was there any (formal or informal) collaboration between your employer and other partners (excluding co-inventors)? You can check all relevant boxes. (当該発明につながる研究の外部組織との協力がある場合(但し共同発明者を除く)、協力相手の類型、重複回答あり)

	all	Your firm	Suppliers for parts, materials, equipments, software etc. (including contract manufactures)	Customers and product users	Competitor	Non-competitor(s) within the same industry	Other firm(s)	University	Government Research Organization	Hospital, Foundation, or Private Research Organization	Other	Any External Collaborator	Missing
A.6B Was there any (formal or informal) collaboration between your employer and other partners (excluding co-inventors)													
All	1919	426	191	160	12	20	54	72	30	18	10	390	202
Large firm (> 500)	1389	333	144	122	11	14	35	46	19	12	6	275	111
Medium firm (250–500)	74	18	4	9	0	1	4	4	2	1	0	15	10
Small firm (100–250)	60	8	4	5	0	0	1	3	1	0	0	12	13
Very small firm (<100)	216	39	32	20	1	3	10	11	7	4	2	60	18
University	42	12	1	1	0	0	3	7	0	0	0	12	0
Hospital/Government/Other	20	1	2	2	0	0	0	0	1	1	2	8	1
Missing	118	15	4	1	0	2	1	1	0	0	0	8	49
%	N	Your firm	Suppliers for parts, materials, equipments, software etc. (including contract manufactures)	Customers and product users	Competitor	Non-competitor(s) within the same industry	Other firm(s)	University	Government Research Organization	Hospital, Foundation, or Private Research Organization	Other	Any External Collaborator	
All	1717	24.81	11.12	9.32	0.7	1.16	3.15	4.19	1.75	1.05	0.58	22.71	
Large firm (> 500)	1278	26.06	12.27	9.55	0.86	1.1	2.74	3.6	1.49	0.94	0.47	21.52	
Medium firm (250–500)	64	28.13	6.25	14.06	0	1.56	6.25	6.25	3.13	1.56	0	23.44	
Small firm (100–250)	47	17.02	8.51	10.64	0	0	2.13	6.38	2.13	0	0	25.53	
Very small firm (<100)	198	19.7	16.16	10.1	0.51	1.52	5.05	5.56	3.54	2.02	1.01	30.3	
University	42	28.57	2.38	2.38	0	0	7.14	16.67	0	0	0	28.57	
Hospital/Government/Other	19	5.26	10.53	10.53	0	0	0	0	5.26	5.26	10.53	42.11	
Missing	69	21.74	5.8	1.47	0	2.9	1.45	1.47	0	0	0	11.59	

Japan

Question 4-11 Were the interactions (discussions, meetings, sources of ideas, etc.) with the following types of people (apart from co-inventors) important during the research that led to the patented invention? (1 = not important, 5 = very important)(交流先重要性の評価)

People belong to the same firm (including affiliates), typically took less than one hour to reach his/her office or location.(同一組織内で移動時間が1時間以内)

	All	交流なし	全く重要ではない	重要ではない	どちらでもない	重要である	非常に重要である	無回答
	All	no interaction	1	2	3	4	5	no response
All	3658	693	127	138	325	969	933	473
Large firm (> 500)	2932	551	91	114	254	821	808	293
Medium firm (251-500)	201	45	7	6	17	49	42	35
Small firm (101-250)	130	19	8	6	13	32	25	27
Very small firm (<101)	182	41	12	3	21	29	29	47
university	82	17	6	2	8	14	6	29
Other	42	8	1	0	3	8	11	11
unknown	89	12	2	7	9	16	12	31
%	N	no interaction	1	2	3	4	5	Total
All	3185	21.76	3.99	4.33	10.2	30.42	29.29	100
Large firm (> 500)	2639	20.88	3.45	4.32	9.62	31.11	30.62	100
Medium firm (251-500)	166	27.11	4.22	3.61	10.24	29.52	25.3	100
Small firm (101-250)	103	18.45	7.77	5.83	12.62	31.07	24.27	100
Very small firm (<101)	135	30.37	8.89	2.22	15.56	21.48	21.48	100
university	53	32.08	11.32	3.77	15.09	26.42	11.32	100
Other	31	25.81	3.23	0	9.68	25.81	35.48	100
unknown	58	20.69	3.45	12.07	15.52	27.59	20.69	100

People belong to the same firm (including affiliates), typically took more than one hour to reach his/her office or location.(同一組織内で移動時間が1時間超)

	All	交流なし	全く重要ではない	重要ではない	どちらでもない	重要である	非常に重要である	無回答
	All	no interaction	1	2	3	4	5	no response
All	3658	1105	196	236	507	709	279	626
Large firm (> 500)	2932	909	152	191	416	607	245	412
Medium firm (251-500)	201	56	10	16	25	35	14	45
Small firm (101-250)	130	31	8	11	17	26	5	32
Very small firm (<101)	182	52	12	5	27	26	9	51
university	82	26	8	3	6	5	0	34
Other	42	14	3	0	4	5	3	13
unknown	89	17	3	10	12	5	3	39
%	N	no interaction	1	2	3	4	5	Total
All	3032	36.44	6.46	7.78	16.72	23.38	9.2	100
Large firm (> 500)	2520	36.07	6.03	7.58	16.51	24.09	9.72	100
Medium firm (251-500)	156	35.9	6.41	10.26	16.03	22.44	8.97	100
Small firm (101-250)	98	31.63	8.16	11.22	17.35	26.53	5.1	100
Very small firm (<101)	131	39.69	9.16	3.82	20.61	19.85	6.87	100
university	48	54.17	16.67	6.25	12.5	10.42	0	100
Other	29	48.28	10.34	0	13.79	17.24	10.34	100
unknown	50	34	6	20	24	10	6	100

Japan

Question 4-11 Were the interactions (discussions, meetings, sources of ideas, etc.) with the following types of people (apart from co-inventors) important during the research that led to the patented invention? (1 = not important, 5 = very important)(交流先重要性の評価)

People belong to other organization(unaffiliated), typically took less than one hour to reach his/her office or location (組織外で移動時間が1時間以内)

	All	交流なし	全く重要ではない	重要ではない	どちらでもない	重要である	非常に重要である	無回答
	All	no interaction	1	2	3	4	5	no response
All	3658	1385	196	245	501	493	178	660
Large firm (> 500)	2932	1150	162	199	413	408	148	452
Medium firm (251-500)	201	73	8	11	24	27	8	50
Small firm (101-250)	130	39	7	15	18	17	4	30
Very small firm (<101)	182	65	7	11	24	20	6	49
university	82	24	7	2	8	6	6	29
Other	42	12	1	0	6	7	3	13
unknown	89	22	4	7	8	8	3	37
%	N	no interaction	1	2	3	4	5	Total
All	2998	46.2	6.54	8.17	16.71	16.44	5.94	100
Large firm (> 500)	2480	46.37	6.53	8.02	16.65	16.45	5.97	100
Medium firm (251-500)	151	48.34	5.3	7.28	15.89	17.88	5.3	100
Small firm (101-250)	100	39	7	15	18	17	4	100
Very small firm (<101)	133	48.87	5.26	8.27	18.05	15.04	4.51	100
university	53	45.28	13.21	3.77	15.09	11.32	11.32	100
Other	29	41.38	3.45	0	20.69	24.14	10.34	100
unknown	52	42.31	7.69	13.46	15.38	15.38	5.77	100

People belong to other organization (unaffiliated), typically took more than one hour to reach his/her office or location(組織外で移動時間が1時間超)

	All	交流なし	全く重要ではない	重要ではない	どちらでもない	重要である	非常に重要である	無回答
	All	no interaction	1	2	3	4	5	no response
All	3658	1150	188	277	541	665	340	497
Large firm (> 500)	2932	966	151	224	429	540	276	346
Medium firm (251-500)	201	58	8	16	32	30	21	36
Small firm (101-250)	130	34	4	15	22	26	7	22
Very small firm (<101)	182	52	10	9	29	32	14	36
university	82	12	9	5	12	16	9	19
Other	42	7	2	1	6	12	7	7
unknown	89	21	4	7	11	9	6	31
%	N	no interaction	1	2	3	4	5	Total
All	3161	36.38	5.95	8.76	17.11	21.04	10.76	100
Large firm (> 500)	2586	37.35	5.84	8.66	16.59	20.88	10.67	100
Medium firm (251-500)	165	35.15	4.85	9.7	19.39	18.18	12.73	100
Small firm (101-250)	108	31.48	3.7	13.89	20.37	24.07	6.48	100
Very small firm (<101)	146	35.62	6.85	6.16	19.86	21.92	9.59	100
university	63	19.05	14.29	7.94	19.05	25.4	14.29	100
Other	35	20	5.71	2.86	17.14	34.29	20	100
unknown	58	36.21	6.9	12.07	18.97	15.52	10.34	100

Japan

Question 4-12 Excluding co-inventors, how important were the following sources of knowledge for suggesting the research that led to the patented invention? (1 = not important, 5 = very important) (研究の着想に有用であった知識源の重要度)

Scientific and Technical Literature (科学技術文献)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	653	126	260	484	1378	618	139
Large firm (> 500)	2932	532	87	220	400	1116	492	85
Medium firm (251-500)	201	33	6	13	34	82	24	9
Small firm (101-250)	130	28	14	5	17	43	15	8
Very small firm (<101)	182	40	13	7	21	68	17	16
university	82	4	2	4	4	30	33	5
Other	42	1	1	1	2	14	20	3
unknown	89	15	3	10	6	25	17	13
%	N	I did not use	1	2	3	4	5	Total
All	3519	18.56	3.58	7.39	13.75	39.16	17.56	100
Large firm (> 500)	2847	18.69	3.06	7.73	14.05	39.2	17.28	100
Medium firm (251-500)	192	17.19	3.13	6.77	17.71	42.71	12.5	100
Small firm (101-250)	122	22.95	11.48	4.1	13.93	35.25	12.3	100
Very small firm (<101)	166	24.1	7.83	4.22	12.65	40.96	10.24	100
university	77	5.19	2.6	5.19	5.19	38.96	42.86	100
Other	39	2.56	2.56	2.56	5.13	35.9	51.28	100
unknown	76	19.74	3.95	13.16	7.89	32.89	22.37	100

Patent Literature (特許文献)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	504	116	210	451	1460	796	121
Large firm (> 500)	2932	396	80	171	348	1196	668	73
Medium firm (251-500)	201	21	3	8	34	86	44	5
Small firm (101-250)	130	17	9	12	16	55	15	6
Very small firm (<101)	182	36	12	7	22	64	28	13
university	82	12	6	4	18	22	11	9
Other	42	8	2	1	4	8	14	5
unknown	89	14	4	7	9	29	16	10
%	N	I did not use	1	2	3	4	5	Total
All	3537	14.25	3.28	5.94	12.75	41.28	22.5	100
Large firm (> 500)	2859	13.85	2.8	5.98	12.17	41.83	23.36	100
Medium firm (251-500)	196	10.71	1.53	4.08	17.35	43.88	22.45	100
Small firm (101-250)	124	13.71	7.26	9.68	12.9	44.35	12.1	100
Very small firm (<101)	169	21.3	7.1	4.14	13.02	37.87	16.57	100
university	73	16.44	8.22	5.48	24.66	30.14	15.07	100
Other	37	21.62	5.41	2.7	10.81	21.62	37.84	100
unknown	79	17.72	5.06	8.86	11.39	36.71	20.25	100

Question 4-12 Excluding co-inventors, how important were the following sources of knowledge for suggesting the research that led to the patented invention? (1 = not important, 5 = very important) (研究の着想に有用であった知識源の重要度)

Scientific and Technical Literature (科学技術文献)

A7_a Scientific and Technical Literature	all	I did not use	1	2	3	4	5	Missing	%4 or 5
All	1,919	460	110	182	331	330	355	151	685
Large firm (> 500)	1389	339	89	143	242	255	243	78	498
Medium firm (250-500)	74	15	5	10	15	14	7	8	21
Small firm (100-250)	60	14	5	4	12	6	11	8	17
Very small firm (<100)	216	64	7	17	41	30	46	11	76
University	42	5	1	1	6	9	19	1	28
Hospital/Government/Other	20	3	0	0	2	5	9	1	14
Missing	118	20	3	7	13	11	20	44	31
%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1768	26.02	6.22	10.29	18.72	18.67	20.08	100	38.74
Large firm (> 500)	1311	25.86	6.79	10.91	18.46	19.45	18.54	100	37.99
Medium firm (250-500)	66	22.73	7.58	15.15	22.73	21.21	10.61	100	31.82
Small firm (100-250)	52	26.92	9.62	7.69	23.08	11.54	21.15	100	32.69
Very small firm (<100)	205	31.22	3.41	8.29	20	14.63	22.44	100	37.07
University	41	12.2	2.44	2.44	14.63	21.95	46.34	100	68.29
Hospital/Government/Other	19	15.79	0	0	10.53	26.32	47.37	100	73.68
Missing	74	27.03	4.05	9.46	17.57	14.86	27.03	100	41.89

Patent Literature (特許文献)

A7_b patent literature	all	I did not use	1	2	3	4	5	Missing	%4 or 5
All	1919	615	179	198	263	241	258	165	499
Large firm (> 500)	1389	447	137	154	205	181	178	87	359
Medium firm (250-500)	74	22	6	12	8	8	9	9	17
Small firm (100-250)	60	16	5	5	5	9	11	9	20
Very small firm (<100)	216	82	22	14	25	23	37	13	60
University	42	13	4	4	5	5	9	2	14
Hospital/Government/Other	20	10	1	0	3	3	2	1	5
Missing	118	25	4	9	12	12	12	44	24
%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1754	35.06	10.21	11.29	14.99	13.74	14.71	100	28.45
Large firm (> 500)	1302	34.33	10.52	11.83	15.75	13.9	13.67	100	27.57
Medium firm (250-500)	65	33.85	9.23	18.46	12.31	12.31	13.85	100	26.16
Small firm (100-250)	51	31.37	9.8	9.8	9.8	17.65	21.57	100	39.22
Very small firm (<100)	203	40.39	10.84	6.9	12.32	11.33	18.23	100	29.56
University	40	32.5	10	10	12.5	12.5	22.5	100	35
Hospital/Government/Other	19	52.63	5.26	0	15.79	15.79	10.53	100	26.32
Missing	74	33.78	5.41	12.16	16.22	16.22	16.22	100	32.44

Japan

Question 4-12 Excluding co-inventors, how important were the following sources of knowledge for suggesting the research that led to the patented invention? (1 = not important, 5 = very important) (研究の着想に有用であった知識源の重要度)

Trade Fair or Exhibition(見本市、展示会)

	All	使っていない I did not use	全く重要でない 1	重要でない 2	どちらでもない 3	重要である 4	非常に重要である 5	無回答 no response
All	3658	1160	355	472	729	658	104	180
Large firm (> 500)	2932	957	270	398	598	526	76	107
Medium firm (251-500)	201	64	14	18	35	44	13	13
Small firm (101-250)	130	32	21	19	28	18	3	9
Very small firm (<101)	182	50	19	13	33	39	9	19
university	82	25	15	10	13	6	2	11
Other	42	14	10	1	7	4	0	6
unknown	89	18	6	13	15	21	1	15

%	N	I did not use	1	2	3	4	5	Total
All	3478	33.35	10.21	13.57	20.96	18.92	2.99	100
Large firm (> 500)	2825	33.88	9.56	14.09	21.17	18.62	2.69	100
Medium firm (251-500)	188	34.04	7.45	9.57	18.62	23.4	6.91	100
Small firm (101-250)	121	26.45	17.36	15.7	23.14	14.88	2.48	100
Very small firm (<101)	163	30.67	11.66	7.98	20.25	23.93	5.52	100
university	71	35.21	21.13	14.08	18.31	8.45	2.82	100
Other	36	38.89	27.78	2.78	19.44	11.11	0	100
unknown	74	24.32	8.11	17.57	20.27	28.38	1.35	100

Technical conferences and workshops(技術的なコンファレンス・ワークショップ)

	All	使っていない I did not use	全く重要でない 1	重要でない 2	どちらでもない 3	重要である 4	非常に重要である 5	無回答 no response
All	3658	1187	278	364	800	717	117	195
Large firm (> 500)	2932	975	214	297	647	593	92	114
Medium firm (251-500)	201	65	15	19	48	29	8	17
Small firm (101-250)	130	38	17	13	27	20	2	13
Very small firm (<101)	182	61	19	15	32	32	3	20
university	82	22	4	8	18	10	9	11
Other	42	7	3	1	8	15	2	6
unknown	89	19	6	11	20	18	1	14

%	N	I did not use	1	2	3	4	5	Total
All	3463	34.28	8.03	10.51	23.1	20.7	3.38	100
Large firm (> 500)	2818	34.6	7.59	10.54	22.96	21.04	3.26	100
Medium firm (251-500)	184	35.33	8.15	10.33	26.09	15.76	4.35	100
Small firm (101-250)	117	32.48	14.53	11.11	23.08	17.09	1.71	100
Very small firm (<101)	162	37.65	11.73	9.26	19.75	19.75	1.85	100
university	71	30.99	5.63	11.27	25.35	14.08	12.68	100
Other	36	19.44	8.33	2.78	22.22	41.67	5.56	100
unknown	75	25.33	8	14.67	26.67	24	1.33	100

Question 4–12 Excluding co-inventors, how important were the following sources of knowledge for suggesting the research that led to the patented invention? (1 = not important, 5 = very important) (研究の着想に有用であった知識源の重要度)

Trade Fair or Exhibition(見本市、展示会)

A7_c Fair or exhibition	all	I did not use	1	2	3	4	5	Missing	%4 or 5
All	1,919	1269	228	108	78	26	16	194	42
Large firm (>=501)	1389	957	166	75	55	22	8	106	30
Medium SMEs	74	51	5	2	3	0	3	10	3
Small firms (100–250)	60	32	10	3	4	0	1	10	1
Very small firm (< 100)	216	135	32	13	12	4	3	17	7
University	42	30	4	2	2	0	1	3	1
Hospital, foundation, etc. /gov/ other	20	14	1	3	0	0	0	2	0
Missing	118	50	10	10	2	0	0	46	0

%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1725	73.57	13.22	6.26	4.52	1.51	0.93	100	2.44
Large firm (>=501)	1283	74.59	12.94	5.85	4.29	1.71	0.62	100	2.33
Medium SMEs	64	79.69	7.81	3.13	4.69	0	4.69	100	4.69
Small firms (100–250)	50	64	20	6	8	0	2	100	2
Very small firm (< 100)	199	67.84	16.08	6.53	6.03	2.01	1.51	100	3.52
University	39	76.92	10.26	5.13	5.13	0	2.56	100	2.56
Hospital, foundation, etc. /gov/ other	18	77.78	5.56	16.67	0	0	0	100	0
Missing	72	69.44	13.89	13.89	2.78	0	0	100	0

Technical conferences and workshops(技術的なコンファレンス・ワークショップ)

A7_d Technical conferences and workshops	all	I did not use	1	2	3	4	5	Missing	%4 or 5
All	1919	948	201	204	211	126	56	173	182
Large firm (>=501)	1389	703	143	165	148	94	45	91	139
Medium SMEs	74	35	12	6	6	6	0	9	6
Small firms (100–250)	60	27	8	4	9	4	0	8	4
Very small firm (< 100)	216	117	27	13	28	11	3	17	14
University	42	18	1	8	6	2	5	2	7
Hospital, foundation, etc. /gov/ other	20	9	0	3	4	3	0	1	3
Missing	118	39	10	5	10	6	3	45	

%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1746	54.3	11.51	11.68	12.08	7.22	3.21	100	10.43
Large firm (>=501)	1298	54.16	11.02	12.71	11.4	7.24	3.47	100	10.71
Medium SMEs	65	53.85	18.46	9.23	9.23	9.23	0	100	9.23
Small firms (100–250)	52	51.92	15.38	7.69	17.31	7.69	0	100	7.69
Very small firm (< 100)	199	58.79	13.57	6.53	14.07	5.53	1.51	100	7.04
University	40	45	2.5	20	15	5	12.5	100	17.5
Hospital, foundation, etc. /gov/ other	19	47.37	0	15.79	21.05	15.79	0	100	15.79
Missing	73	53.42	13.7	6.85	13.7	8.22	4.11	100	12.33

Japan

Question 4-12 Excluding co-inventors, how important were the following sources of knowledge for suggesting the research that led to the patented invention? (1 = not important, 5 = very important) (研究の着想に有用であった知識源の重要度)

Standard documents, such as those from ISO (standards, contributions)(ISOなどの標準関連文書)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	1411	582	573	592	246	56	198
Large firm (> 500)	2932	1159	466	473	469	202	49	114
Medium firm (251-500)	201	78	27	30	35	9	3	19
Small firm (101-250)	130	42	25	24	21	7	0	11
Very small firm (<101)	182	65	27	23	30	14	1	22
university	82	29	15	10	13	4	0	11
Other	42	15	8	2	6	3	2	6
unknown	89	23	14	11	18	7	1	15

%	N	I did not use	1	2	3	4	5	Total
All	3460	40.78	16.82	16.56	17.11	7.11	1.62	100
Large firm (> 500)	2818	41.13	16.54	16.78	16.64	7.17	1.74	100
Medium firm (251-500)	182	42.86	14.84	16.48	19.23	4.95	1.65	100
Small firm (101-250)	119	35.29	21.01	20.17	17.65	5.88	0	100
Very small firm (<101)	160	40.63	16.88	14.37	18.75	8.75	0.63	100
university	71	40.85	21.13	14.08	18.31	5.63	0	100
Other	36	41.67	22.22	5.56	16.67	8.33	5.56	100
unknown	74	31.08	18.92	14.86	24.32	9.46	1.35	100

Your firm excluding co-inventors (組織内)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	388	148	208	593	1530	630	161
Large firm (> 500)	2932	291	100	165	481	1278	533	84
Medium firm (251-500)	201	22	5	15	32	79	33	15
Small firm (101-250)	130	11	12	9	21	52	14	11
Very small firm (<101)	182	28	15	4	27	63	26	19
university	82	17	8	10	12	16	8	11
Other	42	7	2	1	4	18	4	6
unknown	89	12	6	4	16	24	12	15

%	N	I did not use	1	2	3	4	5	Total
All	3497	11.1	4.23	5.95	16.96	43.75	18.02	100
Large firm (> 500)	2848	10.22	3.51	5.79	16.89	44.87	18.71	100
Medium firm (251-500)	186	11.83	2.69	8.06	17.2	42.47	17.74	100
Small firm (101-250)	119	9.24	10.08	7.56	17.65	43.7	11.76	100
Very small firm (<101)	163	17.18	9.2	2.45	16.56	38.65	15.95	100
university	71	23.94	11.27	14.08	16.9	22.54	11.27	100
Other	36	19.44	5.56	2.78	11.11	50	11.11	100
unknown	74	16.22	8.11	5.41	21.62	32.43	16.22	100

US

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Question 4-12 Excluding co-inventors, how important were the following sources of knowledge for suggesting the research that led to the patented invention? (1 = not important, 5 = very important) (研究の着想に有用であった知識源の重要度)

Standard documents, such as those from ISO (standards, contributions)(ISOなどの標準関連文書)

A7_e Standard documents, such as from ISO (standards, contributions)	all	I did not use	1	2	3	4	5	Missing	%4 or 5
All	1,919	1224	222	112	94	48	36	183	84
Large firm (>=501)	1389	913	157	86	68	37	27	101	64
Medium SMEs	74	46	8	4	3	2	2	9	4
Small firms (100-250)	60	35	8	1	5	1	1	9	2
Very small firm (< 100)	216	136	34	12	10	5	4	15	9
University	42	30	5	2	2	1	0	2	1
Hospital, foundation, etc. /gov/ other	20	12	1	2	2	1	0	2	1
Missing	118	52	9	5	4	1	2	45	3

%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1736	70.51	12.8	6.45	5.41	2.76	2.07	100	4.83
Large firm (>=501)	1288	70.89	12.2	6.68	5.28	2.87	2.1	100	4.97
Medium SMEs	65	70.77	12.3	6.15	4.62	3.08	3.08	100	6.16
Small firms (100-250)	51	68.63	15.7	1.96	9.8	1.96	1.96	100	3.92
Very small firm (< 100)	201	67.66	16.9	5.97	4.98	2.49	1.99	100	4.48
University	40	75	12.5	5	5	2.5	0	100	2.5
Hospital, foundation, etc. /gov/ other	18	66.67	5.56	11.1	11.1	5.56	0	100	5.56
Missing	73	71.23	12.3	6.85	5.48	1.37	2.74	100	4.11

Your firm excluding co-inventors (組織内)

A7_F Your firm, excluding co-inventors	all	I did not use	1	2	3	4	5	Missing	%4 or 5
All	1919	355	124	233	377	346	321	163	667
Large firm (>=501)	1389	233	87	171	293	273	247	85	520
Medium SMEs	74	6	4	14	16	16	10	8	26
Small firms (100-250)	60	7	7	5	10	13	9	9	22
Very small firm (< 100)	216	61	20	25	33	25	38	14	63
University	42	21	3	3	8	3	2	2	5
Hospital, foundation, etc. /gov/ other	20	11	0	2	3	2	1	1	3
Missing	118	16	3	13	14	14	14	44	28

%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1756	20.22	7.06	13.3	21.5	19.7	18.28	100	37.98
Large firm (>=501)	1304	17.87	6.67	13.1	22.5	20.9	18.94	100	39.88
Medium SMEs	66	9.09	6.06	21.2	24.2	24.2	15.15	100	39.39
Small firms (100-250)	51	13.73	13.7	9.8	19.6	25.5	17.65	100	43.14
Very small firm (< 100)	202	30.2	9.9	12.4	16.3	12.4	18.81	100	31.19
University	40	52.5	7.5	7.5	20	7.5	5	100	12.5
Hospital, foundation, etc. /gov/ other	19	57.89	0	10.5	15.8	10.5	5.26	100	15.79
Missing	74	21.62	4.05	17.6	18.9	18.9	18.92	100	37.84

Japan

Question 4-12 Excluding co-inventors, how important were the following sources of knowledge for suggesting the research that led to the patented invention? (1 = not important, 5 = very important) (研究の着想に有用であった知識源の重要度)

University and Education (大学など高等教育機関)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	1528	352	415	672	423	95	173
Large firm (> 500)	2932	1283	279	347	545	315	59	104
Medium firm (251-500)	201	83	21	21	42	17	1	16
Small firm (101-250)	130	46	21	15	23	9	7	9
Very small firm (<101)	182	72	17	14	30	28	2	19
university	82	13	3	5	14	22	19	6
Other	42	10	1	3	7	14	3	4
unknown	89	21	10	10	11	18	4	15

%	N	I did not use	1	2	3	4	5	Total
All	3485	43.85	10.1	11.91	19.28	12.14	2.73	100
Large firm (> 500)	2828	45.37	9.87	12.27	19.27	11.14	2.09	100
Medium firm (251-500)	185	44.86	11.35	11.35	22.7	9.19	0.54	100
Small firm (101-250)	121	38.02	17.36	12.4	19.01	7.44	5.79	100
Very small firm (<101)	163	44.17	10.43	8.59	18.4	17.18	1.23	100
university	76	17.11	3.95	6.58	18.42	28.95	25	100
Other	38	26.32	2.63	7.89	18.42	36.84	7.89	100
unknown	74	28.38	13.51	13.51	14.86	24.32	5.41	100

Non-University Public Research Organization (大学以外の公的研究機関)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	1600	368	425	689	341	49	186
Large firm (> 500)	2932	1346	287	361	549	249	27	113
Medium firm (251-500)	201	84	19	16	41	24	4	13
Small firm (101-250)	130	42	23	17	21	13	4	10
Very small firm (<101)	182	75	18	14	35	19	2	19
university	82	22	7	5	18	14	6	10
Other	42	12	2	1	10	9	2	6
unknown	89	19	12	11	15	13	4	15

%	N	I did not use	1	2	3	4	5	Total
All	3472	46.08	10.6	12.24	19.84	9.82	1.41	100
Large firm (> 500)	2819	47.75	10.18	12.81	19.47	8.83	0.96	100
Medium firm (251-500)	188	44.68	10.11	8.51	21.81	12.77	2.13	100
Small firm (101-250)	120	35	19.17	14.17	17.5	10.83	3.33	100
Very small firm (<101)	163	46.01	11.04	8.59	21.47	11.66	1.23	100
university	72	30.56	9.72	6.94	25	19.44	8.33	100
Other	36	33.33	5.56	2.78	27.78	25	5.56	100
unknown	74	25.68	16.22	14.86	20.27	17.57	5.41	100

US

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Question 4–12 Excluding co-inventors, how important were the following sources of knowledge for suggesting the research that led to the patented invention? (1 = not important, 5 = very important)
(研究の着想に有用であった知識源の重要度)

University and Education (大学など高等教育機関)

	all	I did not use	1	2	3	4	5	Missing	%4 or 5
A7_G Universities									
All	1,919	1180	204	122	120	67	38	188	105
Large firm (>=501)	1389	904	149	94	78	40	22	102	62
Medium SMEs	74	45	6	4	5	3	2	9	5
Small firms (100–250)	60	33	7	3	6	1	0	10	1
Very small firm (< 100)	216	126	28	9	19	14	2	18	16
University	42	11	2	6	6	6	9	2	15
Hospital, foundation, etc. /gov/ other	20	13	0	3	1	1	1	1	2
Missing	118	48	12	3	5	2	2	46	4

%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1731	68.17	11.8	7.05	6.93	3.87	2.2	100	6.07
Large firm (>=501)	1287	70.24	11.6	7.3	6.06	3.11	1.71	100	4.82
Medium SMEs	65	69.23	9.23	6.15	7.69	4.62	3.08	100	7.7
Small firms (100–250)	50	66	14	6	12	2	0	100	2
Very small firm (< 100)	198	63.64	14.1	4.55	9.6	7.07	1.01	100	8.08
University	40	27.5	5	15	15	15	22.5	100	37.5
Hospital, foundation, etc. /gov/ other	19	68.42	0	15.8	5.26	5.26	5.26	100	10.52
Missing	72	66.67	16.7	4.17	6.94	2.78	2.78	100	5.56

Non-University Public Research Organization (大学以外の公的研究機関)

	all	I did not use	1	2	3	4	5	Missing	%4 or 5
A7_H Governments research organization									
All	1919	1371	173	91	58	28	15	183	43
Large firm (>=501)	1389	1036	118	66	39	21	8	101	29
Medium SMEs	74	54	6	3	2	1	0	8	1
Small firms (100–250)	60	40	8	2	1	0	0	9	0
Very small firm (< 100)	216	143	29	11	12	2	2	17	4
University	42	32	3	1	2	2	0	2	2
Hospital, foundation, etc. /gov/ other	20	14	0	2	1	0	2	1	2
Missing	118	52	9	6	1	2	3	45	5

%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1736	78.97	9.97	5.24	3.34	1.61	0.86	100	2.47
Large firm (>=501)	1288	80.43	9.16	5.12	3.03	1.63	0.62	100	2.25
Medium SMEs	66	81.82	9.09	4.55	3.03	1.52	0	100	1.52
Small firms (100–250)	51	78.43	15.7	3.92	1.96	0	0	100	0
Very small firm (< 100)	199	71.86	14.6	5.53	6.03	1.01	1.01	100	2.02
University	40	80	7.5	2.5	5	5	0	100	5
Hospital, foundation, etc. /gov/ other	19	73.68	0	10.5	5.26	0	10.53	100	10.53
Missing	73	71.23	12.3	8.22	1.37	2.74	4.11	100	6.85

Japan

Question 4-12 Excluding co-inventors, how important were the following sources of knowledge for suggesting the research that led to the patented invention? (1 = not important, 5 = very important) (研究の着想に有用であった知識源の重要度)

Customers or Product users (顧客・製品ユーザー)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	830	157	198	433	1199	694	147
Large firm (> 500)	2932	684	120	169	354	978	549	78
Medium firm (251-500)	201	39	4	10	21	66	49	12
Small firm (101-250)	130	18	8	5	13	48	28	10
Very small firm (<101)	182	38	7	2	16	61	40	18
university	82	29	7	5	17	9	4	11
Other	42	11	4	2	5	11	5	4
unknown	89	11	7	5	7	26	19	14

%	N	I did not use	1	2	3	4	5	Total
All	3511	23.64	4.47	5.64	12.33	34.15	19.77	100
Large firm (> 500)	2854	23.97	4.2	5.92	12.4	34.27	19.24	100
Medium firm (251-500)	189	20.63	2.12	5.29	11.11	34.92	25.93	100
Small firm (101-250)	120	15	6.67	4.17	10.83	40	23.33	100
Very small firm (<101)	164	23.17	4.27	1.22	9.76	37.2	24.39	100
university	71	40.85	9.86	7.04	23.94	12.68	5.63	100
Other	38	28.95	10.53	5.26	13.16	28.95	13.16	100
unknown	75	14.67	9.33	6.67	9.33	34.67	25.33	100

Suppliers (サプライヤー)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	1108	269	359	742	761	233	186
Large firm (> 500)	2932	914	212	301	580	625	194	106
Medium firm (251-500)	201	56	8	16	41	53	13	14
Small firm (101-250)	130	31	15	8	34	27	3	12
Very small firm (<101)	182	52	11	14	43	29	11	22
university	82	27	9	8	17	6	5	10
Other	42	11	6	3	9	7	0	6
unknown	89	17	8	9	18	14	7	16

%	N	I did not use	1	2	3	4	5	Total
All	3472	31.91	7.75	10.34	21.37	21.92	6.71	100
Large firm (> 500)	2826	32.34	7.5	10.65	20.52	22.12	6.86	100
Medium firm (251-500)	187	29.95	4.28	8.56	21.93	28.34	6.95	100
Small firm (101-250)	118	26.27	12.71	6.78	28.81	22.88	2.54	100
Very small firm (<101)	160	32.5	6.88	8.75	26.88	18.13	6.88	100
university	72	37.5	12.5	11.11	23.61	8.33	6.94	100
Other	36	30.56	16.67	8.33	25	19.44	0	100
unknown	73	23.29	10.96	12.33	24.66	19.18	9.59	100

US

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Question 4-12 Excluding co-inventors, how important were the following sources of knowledge for suggesting the research that led to the patented invention? (1 = not important, 5 = very important) (研究の着想に有用であった知識源の重要度)

Customers or Product users (顧客・製品ユーザー)

	all	I did not use	1	2	3	4	5	Missing	%4 or 5
A7_I Customers or product users									
All	1,919	756	136	141	244	261	208	173	469
Large firm (>=501)	1389	554	108	110	179	193	149	96	342
Medium SMEs	74	26	6	2	13	8	10	9	18
Small firms (100-250)	60	22	1	6	6	6	11	8	17
Very small firm (< 100)	216	81	13	15	27	34	32	14	66
University	42	26	3	1	7	3	1	1	4
Hospital, foundation, etc. /gov/ other	20	13	1	2	2	1	0	1	1
Missing	118	34	4	5	10	16	5	44	21
%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1746	43.3	7.79	8.08	13.97	14.95	11.91	100	26.86
Large firm (>=501)	1293	42.85	8.35	8.51	13.84	14.93	11.52	100	26.45
Medium SMEs	65	40	9.23	3.08	20	12.31	15.38	100	27.69
Small firms (100-250)	52	42.31	1.92	11.54	11.54	11.54	21.15	100	32.69
Very small firm (< 100)	202	40.1	6.44	7.43	13.37	16.83	15.84	100	32.67
University	41	63.41	7.32	2.44	17.07	7.32	2.44	100	9.76
Hospital, foundation, etc. /gov/ other	19	68.42	5.26	10.53	10.53	5.26	0	100	5.26
Missing	74	45.95	5.41	6.76	13.51	21.62	6.76	100	28.38

Suppliers (サプライヤー)

	all	I did not use	1	2	3	4	5	Missing	%4 or 5
A7_J Suppliers									
All	1919	1098	223	141	142	92	42	181	134
Large firm (>=501)	1389	811	161	107	109	65	38	98	103
Medium SMEs	74	44	6	7	4	4	0	9	4
Small firms (100-250)	60	28	8	4	5	6	0	9	6
Very small firm (< 100)	216	122	29	17	18	12	2	16	14
University	42	34	3	0	1	0	2	2	2
Hospital, foundation, etc. /gov/ other	20	14	0	2	1	1	0	2	1
Missing	118	45	16	4	4	4	0	45	4
%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1738	63.18	12.83	8.11	8.17	5.29	2.42	100	7.71
Large firm (>=501)	1291	62.82	12.47	8.29	8.44	5.03	2.94	100	7.97
Medium SMEs	65	67.69	9.23	10.77	6.15	6.15	0	100	6.15
Small firms (100-250)	51	54.9	15.69	7.84	9.8	11.76	0	100	11.76
Very small firm (< 100)	200	61	14.5	8.5	9	6	1	100	7
University	40	85	7.5	0	2.5	0	5	100	5
Hospital, foundation, etc. /gov/ other	18	77.78	0	11.11	5.56	5.56	0	100	5.56
Missing	73	61.64	21.92	5.48	5.48	5.48	0	100	5.48

Japan

Question 4-12 Excluding co-inventors, how important were the following sources of knowledge for suggesting the research that led to the patented invention? (1 = not important, 5 = very important) (研究の着想に有用であった知識源の重要度)

Competitors (e.g. knowledge from its products) (競争相手)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	818	179	175	538	1305	483	160
Large firm (> 500)	2932	662	127	125	420	1099	413	86
Medium firm (251-500)	201	40	11	14	31	62	28	15
Small firm (101-250)	130	23	11	11	13	46	17	9
Very small firm (<101)	182	46	14	9	31	53	10	19
university	82	23	8	7	21	11	2	10
Other	42	8	3	0	10	13	2	6
unknown	89	16	5	9	12	21	11	15

	%	N	I did not use	1	2	3	4	5	Total
All		3498	23.38	5.12	5	15.38	37.31	13.81	100
Large firm (> 500)		2846	23.26	4.46	4.39	14.76	38.62	14.51	100
Medium firm (251-500)		186	21.51	5.91	7.53	16.67	33.33	15.05	100
Small firm (101-250)		121	19.01	9.09	9.09	10.74	38.02	14.05	100
Very small firm (<101)		163	28.22	8.59	5.52	19.02	32.52	6.13	100
university		72	31.94	11.11	9.72	29.17	15.28	2.78	100
Other		36	22.22	8.33	0	27.78	36.11	5.56	100
unknown		74	21.62	6.76	12.16	16.22	28.38	14.86	100

Consulting or contract R&D firms (コンサルティング企業・R&D請負企業)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	1803	526	485	519	108	18	199
Large firm (> 500)	2932	1501	419	396	408	81	12	115
Medium firm (250-500)	201	103	21	28	25	3	3	18
Small firm (100-250)	130	50	28	17	18	6	0	11
Very small firm (<100)	182	80	26	21	26	7	1	21
university	82	30	14	8	15	5	0	10
Other	42	18	6	2	9	1	0	6
unknown	89	21	12	13	18	5	2	18

	%	N	I did not use	1	2	3	4	5	Total
All		3459	52.12	15.21	14.02	15	3.12	0.52	100
Large firm (> 500)		2817	53.28	14.87	14.06	14.48	2.88	0.43	100
Medium firm (250-500)		183	56.28	11.48	15.3	13.66	1.64	1.64	100
Small firm (100-250)		119	42.02	23.53	14.29	15.13	5.04	0	100
Very small firm (<100)		161	49.69	16.15	13.04	16.15	4.35	0.62	100
university		72	41.67	19.44	11.11	20.83	6.94	0	100
Other		36	50	16.67	5.56	25	2.78	0	100
unknown		71	29.58	16.9	18.31	25.35	7.04	2.82	100

US

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Question 4–12 Excluding co-inventors, how important were the following sources of knowledge for suggesting the research that led to the patented invention? (1 = not important, 5 = very important) (研究の着想に有用であった知識源の重要度)

Competitors (e.g. knowledge from its products) (競争相手)

A7_K competitors	all	I did not use	1	2	3	4	5	Missing	%4 or 5
All	1,919	1154	195	134	135	85	41	175	126
Large firm (>=501)	1389	847	154	96	108	61	26	97	87
Medium SMEs	74	44	3	10	4	2	2	9	4
Small firms (100–250)	60	35	5	3	1	5	3	8	8
Very small firm (< 100)	216	131	22	15	16	9	9	14	18
University	42	34	2	2	2	0	0	2	0
Hospital, foundation, etc. /gov/ oth	20	14	1	1	0	3	0	1	3
Missing	118	49	8	7	4	5	1	44	6

%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1744	66.17	11.18	7.68	7.74	4.87	2.35	99.99	7.22
Large firm (>=501)	1292	65.56	11.92	7.43	8.36	4.72	2.01	100	6.73
Medium SMEs	65	67.69	4.62	15.38	6.15	3.08	3.08	100	6.16
Small firms (100–250)	52	67.31	9.62	5.77	1.92	9.62	5.77	100.01	15.39
Very small firm (< 100)	202	64.85	10.89	7.43	7.92	4.46	4.46	100.01	8.92
University	40	85	5	5	5	0	0	100	0
Hospital, foundation, etc. /gov/ oth	19	73.68	5.26	5.26	0	15.79	0	99.99	15.79
Missing	74	66.22	10.81	9.46	5.41	6.76	1.35	100.01	8.11

Japan

Question 4-12 Excluding co-inventors, how important were the following sources of knowledge for suggesting the research that led to the patented invention? (1 = not important, 5 = very important) (研究の着想に有用であった知識源の重要度)

others

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	3212	142	58	133	26	44	43
Large firm (> 500)	2932	2593	110	48	112	18	26	25
Medium firm (251-500)	201	177	8	3	5	2	4	2
Small firm (101-250)	130	117	7	0	1	2	3	0
Very small firm (<101)	182	153	11	2	6	1	3	6
university	82	64	3	3	4	1	6	1
Other	42	34	1	1	3	1	1	1
unknown	89	74	2	1	2	1	1	8
%	N	I did not use	1	2	3	4	5	Total
All	3615	88.85	3.93	1.6	3.68	0.72	1.22	100
Large firm (> 500)	2907	89.2	3.78	1.65	3.85	0.62	0.89	100
Medium firm (251-500)	199	88.94	4.02	1.51	2.51	1.01	2.01	100
Small firm (101-250)	130	90	5.38	0	0.77	1.54	2.31	100
Very small firm (<101)	176	86.93	6.25	1.14	3.41	0.57	1.7	100
university	81	79.01	3.7	3.7	4.94	1.23	7.41	100
Other	41	82.93	2.44	2.44	7.32	2.44	2.44	100
unknown	81	91.36	2.47	1.23	2.47	1.23	1.23	100

Question 4–12 Excluding co-inventors, how important were the following sources of knowledge for suggesting the research that led to the patented invention? (1 = not important, 5 = very important) (研究の着想に有用であった知識源の重要度)

Others

A7_L Others	all	I did not use	1	2	3	4	5	Missing	%4 or 5
All	1,919	1158	40	3	6	8	16	688	24
Large firm (>=501)	1389	864	32	2	6	8	7	470	15
Medium SMEs	74	51	1	0	0	0	0	22	0
Small firms (100–250)	60	32	0	0	0	0	0	28	0
Very small firm (< 100)	216	138	6	1	0	0	4	67	4
University	42	22	0	0	0	0	0	20	0
Hospital, foundation, etc. /gov/ othe	20	13	1	0	0	0	0	6	0
Missing	118	38	0	0	0	0	5	75	5
%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1231	94.07	3.25	0.24	0.49	0.65	1.3	100	1.95
Large firm (>=501)	919	94.02	3.48	0.22	0.65	0.87	0.76	100	1.63
Medium SMEs	52	98.08	1.92	0	0	0	0	100	0
Small firms (100–250)	32	100	0	0	0	0	0	100	0
Very small firm (< 100)	149	92.62	4.03	0.67	0	0	2.68	100	2.68
University	22	100	0	0	0	0	0	100	0
Hospital, foundation, etc. /gov/ othe	14	92.86	7.14	0	0	0	0	100	0
Missing	43	88.37	0	0	0	0	11.63	100	11.63

Japan

Question 4-12 Excluding co-inventors, how important were the following sources of knowledge for suggesting the research that led to the patented invention? (1 = not important, 5 = very important) (研究の着想に有用であった知識源の重要度)

4 or 5

%	Scientific and Technical Literature	Patent Literature	Trade Fair or Exhibition	technical conferences and workshops	Standard documents, such as those from ISO (standards, contributions)	Your firm excluding co-inventors	University and Education	Non-University Public Research Organization	Customers or Product users	Suppliers	Competitors (e.g. knowledge from its products)	Consulting or contract R&D firms
All	56.72	63.78	21.91	24.08	8.73	61.77	14.86	11.23	53.92	28.63	51.11	3.64
Large firm (> 500)	56.48	65.20	21.31	24.31	8.91	63.59	13.22	9.79	53.50	28.98	53.13	3.30
Medium firm (251-500)	55.21	66.33	30.32	20.11	6.59	60.22	9.73	14.89	60.85	35.29	48.39	3.28
Small firm (101-250)	47.54	56.45	17.36	18.80	5.88	55.46	13.22	14.17	63.33	25.42	52.07	5.04
Very small firm (<101)	51.20	54.44	29.45	21.60	9.38	54.60	18.40	12.88	61.59	25.00	38.65	4.97
university	81.82	45.21	11.27	26.76	5.63	33.80	53.95	27.78	18.31	15.28	18.06	6.94
Other	87.18	59.46	11.11	47.22	13.89	61.11	44.74	30.56	42.11	19.44	41.67	2.78
unknown	55.26	56.96	29.73	25.33	10.81	48.65	29.73	22.97	60.00	28.77	43.24	9.86

US

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Question 4-12 Excluding co-inventors, how important were the following sources of knowledge for suggesting the research that led to the patented invention? (1 = not important, 5 = very important) (研究の着想に有用であった知識源の重要度)

4 or 5

A7. %

	Scientific and Technical Literature	Patent Literature	Trade Fair or Exhibition	technical conferences and workshops	Standard documents, such as those from ISO (standards, contributions)	Your firm excluding co-inventors	University and Education	Non-University Public Research Organization	Customers or Product users	Suppliers	Competitors (e.g. knowledge from its products)
All	38.74	28.45	2.43	10.42	4.84	37.98	6.07	2.48	26.86	7.71	7.22
Large firm (>=501)	37.99	27.57	2.34	10.71	4.97	39.88	4.82	2.25	26.45	7.98	6.73
Medium SMEs	31.82	26.15	4.69	9.23	6.15	39.39	7.69	1.52	27.69	6.15	6.15
Small firms (100-250)	32.69	39.22	2	7.69	3.92	43.14	2	0	32.69	11.76	15.38
Very small firm (< 100)	37.07	29.56	3.52	7.04	4.48	31.19	8.08	2.01	32.67	7	8.91
University	68.29	35	2.56	17.5	2.5	12.5	37.5	5	9.76	5	0
Hospital, foundation, etc. /gov/ othe	73.68	26.32	0	15.79	5.56	15.79	10.53	10.53	5.26	5.56	15.79
Missing	41.89	32.43	0	12.33	4.11	37.84	5.56	6.85	28.38	5.48	8.11

Japan

Question 4-13 Excluding co-inventors, how important were the following sources of knowledge for contributing to the completion of the research that led to the patented invention? (1 = not important, 5 = very important) (研究を実施するために使用した知識の重要度)

Scientific and Technical Literature (科学技術文献)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	794	147	270	543	1190	570	144
Large firm (> 500)	2932	646	111	228	449	963	448	87
Medium firm (251-500)	201	48	5	14	31	64	27	12
Small firm (101-250)	130	28	13	12	18	36	14	9
Very small firm (<101)	182	49	13	9	20	56	20	15
university	82	5	2	2	5	30	32	6
Other	42	3	1	0	3	16	17	2
unknown	89	15	2	5	17	25	12	13

	%	N	I did not use	1	2	3	4	5	Total
All		3514	22.6	4.18	7.68	15.45	33.86	16.22	100
Large firm (> 500)		2845	22.71	3.9	8.01	15.78	33.85	15.75	100
Medium firm (251-500)		189	25.4	2.65	7.41	16.4	33.86	14.29	100
Small firm (101-250)		121	23.14	10.74	9.92	14.88	29.75	11.57	100
Very small firm (<101)		167	29.34	7.78	5.39	11.98	33.53	11.98	100
university		76	6.58	2.63	2.63	6.58	39.47	42.11	100
Other		40	7.5	2.5	0	7.5	40	42.5	100
unknown		76	19.74	2.63	6.58	22.37	32.89	15.79	100

Patent Literature (特許文献)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	626	112	234	503	1322	721	140
Large firm (> 500)	2932	508	81	198	391	1078	591	85
Medium firm (251-500)	201	29	3	13	29	75	45	7
Small firm (101-250)	130	18	7	8	24	50	15	8
Very small firm (<101)	182	37	8	10	24	60	28	15
university	82	14	6	2	14	23	12	11
Other	42	9	2	0	2	13	13	3
unknown	89	11	5	3	19	23	17	11

	%	N	I did not use	1	2	3	4	5	Total
All		3518	17.79	3.18	6.65	14.3	37.58	20.49	100
Large firm (> 500)		2847	17.84	2.85	6.95	13.73	37.86	20.76	100
Medium firm (251-500)		194	14.95	1.55	6.7	14.95	38.66	23.2	100
Small firm (101-250)		122	14.75	5.74	6.56	19.67	40.98	12.3	100
Very small firm (<101)		167	22.16	4.79	5.99	14.37	35.93	16.77	100
university		71	19.72	8.45	2.82	19.72	32.39	16.9	100
Other		39	23.08	5.13	0	5.13	33.33	33.33	100
unknown		78	14.1	6.41	3.85	24.36	29.49	21.79	100

US

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Question 4-13 Excluding co-inventors, how important were the following sources of knowledge for contributing to the completion of the research that led to the patented invention? (1 = not important, 5 = very important) (研究を実施するために使用した知識の重要度)

Scientific and Technical Literature (科学技術文献)

A8_a Scientific and Technical Literature	all	I did not use	1	2	3	4	5	Missing	%4 or 5
All	1,919	459	138	224	348	281	313	156	594
Large firm (>=501)	1389	345	110	169	268	210	205	82	415
Medium SMEs	74	13	6	10	16	11	10	8	21
Small firms (100-250)	60	14	4	6	8	5	14	9	19
Very small firm (< 100)	216	54	10	27	35	35	43	12	78
University	42	2	2	5	6	6	20	1	26
Hospital, foundation, etc. /gov/ other	20	4	0	0	2	4	9	1	13
Missing	118	27	6	7	13	10	12	43	22
%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1763	26.04	7.83	12.7	19.7	15.9	17.75	100	33.69
Large firm (>=501)	1307	26.4	8.42	12.9	20.5	16.1	15.68	100	31.75
Medium SMEs	66	19.7	9.09	15.2	24.2	16.7	15.15	100	31.82
Small firms (100-250)	51	27.45	7.84	11.8	15.7	9.8	27.45	100	37.25
Very small firm (< 100)	204	26.47	4.9	13.2	17.2	17.2	21.08	100	38.24
University	41	4.88	4.88	12.2	14.6	14.6	48.78	100	63.41
Hospital, foundation, etc. /gov/ other	19	21.05	0	0	10.5	21.1	47.37	100	68.42
Missing	75	36	8	9.33	17.3	13.3	16	100	29.33

Patent Literature (特許文献)

A8_b patent literature	all	I did not use	1	2	3	4	5	Missing	%4 or 5
All	1919	617	192	221	280	217	218	174	435
Large firm (>=501)	1389	453	152	168	218	160	143	95	303
Medium SMEs	74	24	7	8	8	7	11	9	18
Small firms (100-250)	60	15	7	3	7	7	12	9	19
Very small firm (< 100)	216	77	16	28	24	24	33	14	57
University	42	10	5	4	6	7	8	2	15
Hospital, foundation, etc. /gov/ other	20	8	1	1	3	3	3	1	6
Missing	118	30	4	9	14	9	8	44	17
%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1745	35.36	11	12.7	16.1	12.4	12.49	100	24.93
Large firm (>=501)	1294	35.01	11.8	13	16.9	12.4	11.05	100	23.41
Medium SMEs	65	36.92	10.8	12.3	12.3	10.8	16.92	100	27.69
Small firms (100-250)	51	29.41	13.7	5.88	13.7	13.7	23.53	100	37.26
Very small firm (< 100)	202	38.12	7.92	13.9	11.9	11.9	16.34	100	28.22
University	40	25	12.5	10	15	17.5	20	100	37.5
Hospital, foundation, etc. /gov/ other	19	42.11	5.26	5.26	15.8	15.8	15.79	100	31.58
Missing	74	40.54	5.41	12.2	18.9	12.2	10.81	100	22.97

Japan

Question 4-13 Excluding co-inventors, how important were the following sources of knowledge for contributing to the completion of the research that led to the patented invention? (1 = not important, 5 = very important) (研究を実施するために使用した知識の重要度)

Trade Fair or Exhibition(見本市、展示会)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	1305	357	442	686	591	86	191
Large firm (> 500)	2932	1073	297	368	549	471	61	113
Medium firm (251-500)	201	77	14	20	34	34	9	13
Small firm (101-250)	130	32	16	16	30	21	4	11
Very small firm (<101)	182	61	11	12	32	37	7	22
university	82	29	7	10	10	9	2	15
Other	42	14	6	3	10	5	0	4
unknown	89	19	6	13	21	14	3	13

	%	N	I did not use	1	2	3	4	5	Total
All		3467	37.64	10.3	12.75	19.79	17.05	2.48	100
Large firm (> 500)		2819	38.06	10.54	13.05	19.47	16.71	2.16	100
Medium firm (251-500)		188	40.96	7.45	10.64	18.09	18.09	4.79	100
Small firm (101-250)		119	26.89	13.45	13.45	25.21	17.65	3.36	100
Very small firm (<101)		160	38.13	6.88	7.5	20	23.13	4.38	100
university		67	43.28	10.45	14.93	14.93	13.43	2.99	100
Other		38	36.84	15.79	7.89	26.32	13.16	0	100
unknown		76	25	7.89	17.11	27.63	18.42	3.95	100

Technical conferences and workshops(技術的なコンファレンス・ワークショップ)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	1320	303	401	743	601	90	200
Large firm (> 500)	2932	1095	243	327	587	490	73	117
Medium firm (251-500)	201	78	12	25	44	22	4	16
Small firm (101-250)	130	34	18	16	30	18	2	12
Very small firm (<101)	182	64	15	16	40	24	3	20
university	82	24	3	7	14	15	6	13
Other	42	7	5	0	9	16	0	5
unknown	89	18	7	10	19	16	2	17

	%	N	I did not use	1	2	3	4	5	Total
All		3458	38.17	8.76	11.6	21.49	17.38	2.6	100
Large firm (> 500)		2815	38.9	8.63	11.62	20.85	17.41	2.59	100
Medium firm (251-500)		185	42.16	6.49	13.51	23.78	11.89	2.16	100
Small firm (101-250)		118	28.81	15.25	13.56	25.42	15.25	1.69	100
Very small firm (<101)		162	39.51	9.26	9.88	24.69	14.81	1.85	100
university		69	34.78	4.35	10.14	20.29	21.74	8.7	100
Other		37	18.92	13.51	0	24.32	43.24	0	100
unknown		72	25	9.72	13.89	26.39	22.22	2.78	100

US

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Question 4-13 Excluding co-inventors, how important were the following sources of knowledge for contributing to the completion of the research that led to the patented invention? (1 = not important, 5 = very important) (研究を実施するために使用した知識の重要度)

Trade Fair or Exhibition (見本市、展示会)

A8_c Fair or exhibition	all	I did not use	1	2	3	4	5	Missing	%4 or 5
All	1,919	1329	197	106	60	22	12	193	34
Large firm (>=501)	1389	996	138	81	41	16	8	109	24
Medium SMEs	74	52	3	5	4	0	1	9	1
Small firms (100-250)	60	34	12	2	1	1	0	10	1
Very small firm (< 100)	216	144	31	8	8	5	3	17	8
University	42	33	3	2	2	0	0	2	0
Hospital, foundation, etc. /gov/ oth	20	14	0	4	1	0	0	1	0
Missing	118	56	10	4	3	0	0	45	0

%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1726	77	11.41	6.14	3.48	1.27	0.7	100	1.97
Large firm (>=501)	1280	77.81	10.78	6.33	3.2	1.25	0.63	100	1.88
Medium SMEs	65	80	4.62	7.69	6.15	0	1.54	100	1.54
Small firms (100-250)	50	68	24	4	2	2	0	100	2
Very small firm (< 100)	199	72.36	15.58	4.02	4.02	2.51	1.51	100	4.02
University	40	82.5	7.5	5	5	0	0	100	0
Hospital, foundation, etc. /gov/ oth	19	73.68	0	21.05	5.26	0	0	100	0
Missing	73	76.71	13.7	5.48	4.11	0	0	100	0

Technical conferences and workshops (技術的なコンファレンス・ワークショップ)

A8_d Technical conferences and workshops	all	I did not use	1	2	3	4	5	Missing	%4 or 5
All	1919	1074	211	169	145	95	40	185	135
Large firm (>=501)	1389	803	161	122	104	66	31	102	97
Medium SMEs	74	42	6	11	2	4	0	9	4
Small firms (100-250)	60	30	7	6	5	2	0	10	2
Very small firm (< 100)	216	127	24	19	14	12	4	16	16
University	42	20	4	5	5	3	3	2	6
Hospital, foundation, etc. /gov/ oth	20	9	2	2	3	2	1	1	3
Missing	118	43	7	4	12	6	1	45	7

%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1734	61.94	12.17	9.75	8.36	5.48	2.31	100.01	7.79
Large firm (>=501)	1287	62.39	12.51	9.48	8.08	5.13	2.41	100	7.54
Medium SMEs	65	64.62	9.23	16.92	3.08	6.15	0	100	6.15
Small firms (100-250)	50	60	14	12	10	4	0	100	4
Very small firm (< 100)	200	63.5	12	9.5	7	6	2	100	8
University	40	50	10	12.5	12.5	7.5	7.5	100	15
Hospital, foundation, etc. /gov/ oth	19	47.37	10.53	10.53	15.79	10.53	5.26	100.01	15.79
Missing	73	58.9	9.59	5.48	16.44	8.22	1.37	100	9.59

Japan

Question 4-13 Excluding co-inventors, how important were the following sources of knowledge for contributing to the completion of the research that led to the patented invention? (1 = not important, 5 = very important) (研究を実施するために使用した知識の重要度)

Standard documents, such as those from ISO (standards, contributions)(ISOなどの標準関連文書)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	1478	511	463	625	293	81	207
Large firm (> 500)	2932	1215	410	377	504	240	67	119
Medium firm (251-500)	201	80	23	25	31	18	7	17
Small firm (101-250)	130	40	27	18	26	7	0	12
Very small firm (<101)	182	73	20	20	29	17	1	22
university	82	32	8	8	13	4	1	16
Other	42	17	8	3	5	1	3	5
unknown	89	21	15	12	17	6	2	16

	%	N	I did not use	1	2	3	4	5	Total
All		3451	42.83	14.81	13.42	18.11	8.49	2.35	100
Large firm (> 500)		2813	43.19	14.58	13.4	17.92	8.53	2.38	100
Medium firm (251-500)		184	43.48	12.5	13.59	16.85	9.78	3.8	100
Small firm (101-250)		118	33.9	22.88	15.25	22.03	5.93	0	100
Very small firm (<101)		160	45.63	12.5	12.5	18.13	10.63	0.63	100
university		66	48.48	12.12	12.12	19.7	6.06	1.52	100
Other		37	45.95	21.62	8.11	13.51	2.7	8.11	100
unknown		73	28.77	20.55	16.44	23.29	8.22	2.74	100

Your firm excluding co-inventors(組織内)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	428	140	167	540	1404	807	172
Large firm (> 500)	2932	320	96	126	428	1185	688	89
Medium firm (251-500)	201	22	5	12	33	67	47	15
Small firm (101-250)	130	15	13	10	13	51	16	12
Very small firm (<101)	182	35	10	7	32	51	27	20
university	82	20	7	6	14	13	9	13
Other	42	5	4	0	7	15	5	6
unknown	89	11	5	6	13	22	15	17

	%	N	I did not use	1	2	3	4	5	Total
All		3486	12.28	4.02	4.79	15.49	40.28	23.15	100
Large firm (> 500)		2843	11.26	3.38	4.43	15.05	41.68	24.2	100
Medium firm (251-500)		186	11.83	2.69	6.45	17.74	36.02	25.27	100
Small firm (101-250)		118	12.71	11.02	8.47	11.02	43.22	13.56	100
Very small firm (<101)		162	21.6	6.17	4.32	19.75	31.48	16.67	100
university		69	28.99	10.14	8.7	20.29	18.84	13.04	100
Other		36	13.89	11.11	0	19.44	41.67	13.89	100
unknown		72	15.28	6.94	8.33	18.06	30.56	20.83	100

US

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Question 4-13 Excluding co-inventors, how important were the following sources of knowledge for contributing to the completion of the research that led to the patented invention? (1 = not important, 5 = very important) (研究を実施するために使用した知識の重要度)

Standard documents, such as those from ISO (standards, contributions)(ISOなどの標準関連文書)

A8_e Standard documents, such as from ISO (standards, contributions)	all	I did not use	1	2	3	4	5	Missing	%4 or 5
All	1,919	1220	191	109	110	56	35	198	91
Large firm (>=501)	1389	906	143	75	79	46	25	115	71
Medium SMEs	74	45	6	4	5	2	3	9	5
Small firms (100-250)	60	36	7	4	2	1	1	9	2
Very small firm (< 100)	216	137	23	17	14	4	5	16	9
University	42	32	4	0	3	0	1	2	1
Hospital, foundation, etc. /gov/ other	20	11	1	2	4	1	0	1	1
Missing	118	53	7	7	3	2	0	46	2

%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1721	70.89	11.1	6.33	6.39	3.25	2.03	100	5.28
Large firm (>=501)	1274	71.11	11.2	5.89	6.2	3.61	1.96	100	5.57
Medium SMEs	65	69.23	9.23	6.15	7.69	3.08	4.62	100	7.7
Small firms (100-250)	51	70.59	13.7	7.84	3.92	1.96	1.96	100	3.92
Very small firm (< 100)	200	68.5	11.5	8.5	7	2	2.5	100	4.5
University	40	80	10	0	7.5	0	2.5	100	2.5
Hospital, foundation, etc. /gov/ other	19	57.89	5.26	10.5	21.1	5.26	0	100	5.26
Missing	72	73.61	9.72	9.72	4.17	2.78	0	100	2.78

Your firm excluding co-inventors(組織内)

A8_F Your firm, excluding co-inventors	all	I did not use	1	2	3	4	5	Missing	%4 or 5
All	1919	394	104	220	325	350	359	167	709
Large firm (>=501)	1389	269	68	166	243	272	280	91	552
Medium SMEs	74	9	7	13	14	10	13	8	23
Small firms (100-250)	60	11	4	4	9	11	13	8	24
Very small firm (< 100)	216	57	19	25	32	32	37	14	69
University	42	20	4	2	6	3	5	2	8
Hospital, foundation, etc. /gov/ other	20	11	0	2	4	2	0	1	2
Missing	118	17	2	8	17	20	11	43	31

%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1752	22.49	5.94	12.6	18.6	20	20.49	100	40.47
Large firm (>=501)	1298	20.72	5.24	12.8	18.7	21	21.57	100	42.53
Medium SMEs	66	13.64	10.6	19.7	21.2	15.2	19.7	100	34.85
Small firms (100-250)	52	21.15	7.69	7.69	17.3	21.2	25	100	46.15
Very small firm (< 100)	202	28.22	9.41	12.4	15.8	15.8	18.32	100	34.16
University	40	50	10	5	15	7.5	12.5	100	20
Hospital, foundation, etc. /gov/ other	19	57.89	0	10.5	21.1	10.5	0	100	10.53
Missing	75	22.67	2.67	10.7	22.7	26.7	14.67	100	41.34

Japan

Question 4-13 Excluding co-inventors, how important were the following sources of knowledge for contributing to the completion of the research that led to the patented invention? (1 = not important, 5 = very important) (研究を実施するために使用した知識の重要度)

University and Education (大学など高等教育機関)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	1643	402	399	597	341	83	193
Large firm (> 500)	2932	1383	335	330	475	244	50	115
Medium firm (251-500)	201	92	16	24	36	17	0	16
Small firm (101-250)	130	45	22	16	20	13	4	10
Very small firm (<101)	182	76	17	11	29	26	1	22
university	82	16	1	3	12	18	20	12
Other	42	11	1	4	9	11	3	3
unknown	89	20	10	11	16	12	5	15

	%	N	I did not use	1	2	3	4	5	Total
All		3465	47.42	11.6	11.52	17.23	9.84	2.4	100
Large firm (> 500)		2817	49.09	11.89	11.71	16.86	8.66	1.77	100
Medium firm (251-500)		185	49.73	8.65	12.97	19.46	9.19	0	100
Small firm (101-250)		120	37.5	18.33	13.33	16.67	10.83	3.33	100
Very small firm (<101)		160	47.5	10.63	6.88	18.13	16.25	0.63	100
university		70	22.86	1.43	4.29	17.14	25.71	28.57	100
Other		39	28.21	2.56	10.26	23.08	28.21	7.69	100
unknown		74	27.03	13.51	14.86	21.62	16.22	6.76	100

Non-University Public Research Organization (大学以外の公的研究機関)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	1711	403	416	603	271	48	206
Large firm (> 500)	2932	1440	333	349	479	177	31	123
Medium firm (251-500)	201	92	13	24	32	22	3	15
Small firm (101-250)	130	42	24	14	21	16	2	11
Very small firm (<101)	182	83	16	10	30	19	2	22
university	82	21	3	5	19	14	7	13
Other	42	12	3	2	10	9	1	5
unknown	89	21	11	12	12	14	2	17

	%	N	I did not use	1	2	3	4	5	Total
All		3452	49.57	11.67	12.05	17.47	7.85	1.39	100
Large firm (> 500)		2809	51.26	11.85	12.42	17.05	6.3	1.1	100
Medium firm (251-500)		186	49.46	6.99	12.9	17.2	11.83	1.61	100
Small firm (101-250)		119	35.29	20.17	11.76	17.65	13.45	1.68	100
Very small firm (<101)		160	51.88	10	6.25	18.75	11.88	1.25	100
university		69	30.43	4.35	7.25	27.54	20.29	10.14	100
Other		37	32.43	8.11	5.41	27.03	24.32	2.7	100
unknown		72	29.17	15.28	16.67	19.44	2.78	100	

US

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Question 4-13 Excluding co-inventors, how important were the following sources of knowledge for contributing to the completion of the research that led to the patented invention? (1 = not important, 5 = very important) (研究を実施するために使用した知識の重要度)

University and Education (大学など高等教育機関)

A8_G Universities	all	I did not use	1	2	3	4	5	Missing	%4 or 5
All	1,919	1253	175	121	90	50	36	194	86
Large firm (>=501)	1389	958	130	88	51	32	17	113	49
Medium SMEs	74	49	2	3	6	4	1	9	5
Small firms (100-250)	60	33	8	3	6	1	0	9	1
Very small firm (< 100)	216	131	25	17	16	6	5	16	11
University	42	13	3	2	5	7	11	1	18
Hospital, foundation, etc. /gov/ other	20	13	1	3	1	0	1	1	1
Missing	118	56	6	5	5	0	1	45	1

%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1725	72.64	10.1	7.01	5.22	2.9	2.09	100	4.99
Large firm (>=501)	1276	75.08	10.2	6.9	4	2.51	1.33	100	3.84
Medium SMEs	65	75.38	3.08	4.62	9.23	6.15	1.54	100	7.69
Small firms (100-250)	51	64.71	15.7	5.88	11.8	1.96	0	100	1.96
Very small firm (< 100)	200	65.5	12.5	8.5	8	3	2.5	100	5.5
University	41	31.71	7.32	4.88	12.2	17.1	26.83	100	43.9
Hospital, foundation, etc. /gov/ other	19	68.42	5.26	15.8	5.26	0	5.26	100	5.26
Missing	73	76.71	8.22	6.85	6.85	0	1.37	100	1.37

Governments research organization

A8_H Governments research organization	all	I did not use	1	2	3	4	5	Missing	%4 or 5
All	1919	1388	168	81	52	21	12	197	33
Large firm (>=501)	1389	1043	117	65	32	11	8	113	19
Medium SMEs	74	57	3	1	3	1	0	9	1
Very small firm (< 100)	60	36	9	4	1	1	0	9	1
University	216	154	23	6	9	4	2	18	6
Hospital, foundation, etc. /gov/ other	42	30	2	3	4	2	0	1	2
Other	20	11	3	1	1	1	2	1	3
Missing	118	57	11	1	2	1	0	46	1

%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1722	80.6	9.76	4.7	3.02	1.22	0.7	100	1.92
Large firm (>=501)	1276	81.74	9.17	5.09	2.51	0.86	0.63	100	1.49
Medium SMEs	65	87.69	4.62	1.54	4.62	1.54	0	100	1.54
Small firms (100-250)	51	70.59	17.7	7.84	1.96	1.96	0	100	1.96
Very small firm (< 100)	198	77.78	11.6	3.03	4.55	2.02	1.01	100	3.03
University	41	73.17	4.88	7.32	9.76	4.88	0	100	4.88
Hospital, foundation, etc. /gov/ other	19	57.89	15.8	5.26	5.26	5.26	10.53	100	15.79
Missing	72	79.17	15.3	1.39	2.78	1.39	0	100	1.39

Japan

Question 4-13 Excluding co-inventors, how important were the following sources of knowledge for contributing to the completion of the research that led to the patented invention? (1 = not important, 5 = very important) (研究を実施するために使用した知識の重要度)

Customers or Product users (顧客・製品ユーザー)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	996	207	244	484	977	585	165
Large firm (> 500)	2932	822	168	197	382	801	469	93
Medium firm (251-500)	201	50	6	11	31	53	43	7
Small firm (101-250)	130	22	7	12	21	37	20	11
Very small firm (<101)	182	48	6	9	17	50	32	20
university	82	29	7	8	11	9	3	15
Other	42	11	7	1	9	7	4	3
unknown	89	14	6	6	13	20	14	16

	%	N	I did not use	1	2	3	4	5	Total
All		3493	28.51	5.93	6.99	13.86	27.97	16.75	100
Large firm (> 500)		2839	28.95	5.92	6.94	13.46	28.21	16.52	100
Medium firm (251-500)		194	25.77	3.09	5.67	15.98	27.32	22.16	100
Small firm (101-250)		119	18.49	5.88	10.08	17.65	31.09	16.81	100
Very small firm (<101)		162	29.63	3.7	5.56	10.49	30.86	19.75	100
university		67	43.28	10.45	11.94	16.42	13.43	4.48	100
Other		39	28.21	17.95	2.56	23.08	17.95	10.26	100
unknown		73	19.18	8.22	8.22	17.81	27.4	19.18	100

Suppliers(サプライヤー)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	1141	286	320	646	788	279	198
Large firm (> 500)	2932	934	229	259	507	655	237	111
Medium firm (251-500)	201	65	8	13	39	44	17	15
Small firm (101-250)	130	25	16	14	32	23	8	12
Very small firm (<101)	182	60	9	15	29	36	10	23
university	82	28	9	8	12	7	3	15
Other	42	12	7	1	9	7	1	5
unknown	89	17	8	10	18	16	3	17

	%	N	I did not use	1	2	3	4	5	Total
All		3460	32.98	8.27	9.25	18.67	22.77	8.06	100
Large firm (> 500)		2821	33.11	8.12	9.18	17.97	23.22	8.4	100
Medium firm (251-500)		186	34.95	4.3	6.99	20.97	23.66	9.14	100
Small firm (101-250)		118	21.19	13.56	11.86	27.12	19.49	6.78	100
Very small firm (<101)		159	37.74	5.66	9.43	18.24	22.64	6.29	100
university		67	41.79	13.43	11.94	17.91	10.45	4.48	100
Other		37	32.43	18.92	2.7	24.32	18.92	2.7	100
unknown		72	23.61	11.11	13.89	25	22.22	4.17	100

Question 4-13 Excluding co-inventors, how important were the following sources of knowledge for contributing to the completion of the research that led to the patented invention? (1 = not important, 5 = very important) (研究を実施するために使用した知識の重要度)

Customers or Product users (顧客・製品ユーザー)

A8_I Customers or product users	all	I did not use	1	2	3	4	5	Missing	%4 or 5
All	1,919	905	156	156	169	186	157	190	343
Large firm (>=501)	1389	681	120	116	113	135	114	110	249
Medium SMEs	74	33	3	5	12	7	5	9	12
Small firms (100-250)	60	21	7	6	3	7	7	9	14
Very small firm (< 100)	216	87	17	18	31	25	23	15	48
University	42	29	4	3	1	3	0	2	3
Hospital, foundation, etc. /gov/ other	20	13	0	3	0	3	0	1	3
Missing	118	41	5	5	9	6	8	44	14

%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1729	52.34	9.02	9.02	9.77	10.8	9.08	100	19.84
Large firm (>=501)	1279	53.24	9.38	9.07	8.84	10.6	8.91	100	19.47
Medium SMEs	65	50.77	4.62	7.69	18.5	10.8	7.69	100	18.46
Small firms (100-250)	51	41.18	13.7	11.8	5.88	13.7	13.73	100	27.46
Very small firm (< 100)	201	43.28	8.46	8.96	15.4	12.4	11.44	100	23.88
University	40	72.5	10	7.5	2.5	7.5	0	100	7.5
Hospital, foundation, etc. /gov/ other	19	68.42	0	15.8	0	15.8	0	100	15.79
Missing	74	55.41	6.76	6.76	12.2	8.11	10.81	100	18.92

Suppliers (サプライヤー)

A8_J Suppliers	all	I did not use	1	2	3	4	5	Missing	%4 or 5
All	1919	1073	176	151	165	106	57	191	163
Large firm (>=501)	1389	109	797	127	113	118	81	44	199
Medium SMEs	74	9	41	4	8	6	3	3	9
Small firms (100-250)	60	9	26	10	3	7	5	0	12
Very small firm (< 100)	216	16	110	22	22	28	12	6	40
University	42	2	35	2	0	1	1	1	2
Hospital, foundation, etc. /gov/ other	20	1	14	1	1	1	2	0	3
Missing	118	45	50	10	4	4	2	3	6

%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1728	62.09	10.2	8.74	9.55	6.13	3.3	100	9.43
Large firm (>=501)	1280	62.27	9.92	8.83	9.22	6.33	3.44	100	9.77
Medium SMEs	65	63.08	6.15	12.3	9.23	4.62	4.62	100	9.24
Small firms (100-250)	51	50.98	19.6	5.88	13.7	9.8	0	100	9.8
Very small firm (< 100)	200	55	11	11	14	6	3	100	9
University	40	87.5	5	0	2.5	2.5	2.5	100	5
Hospital, foundation, etc. /gov/ other	19	73.68	5.26	5.26	5.26	10.5	0	100	10.53
Missing	73	68.49	13.7	5.48	5.48	2.74	4.11	100	6.85

Japan

Question 4-13 Excluding co-inventors, how important were the following sources of knowledge for contributing to the completion of the research that led to the patented invention? (1 = not important, 5 = very important) (研究を実施するために使用した知識の重要度)

Competitors (e.g. knowledge from its products) (競争相手)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	1100	246	260	641	917	298	196
Large firm (> 500)	2932	894	186	205	525	758	251	113
Medium firm (251-500)	201	62	15	17	29	47	17	14
Small firm (101-250)	130	27	12	16	18	35	11	11
Very small firm (<101)	182	60	14	10	30	38	8	22
university	82	27	6	5	17	11	2	14
Other	42	11	3	1	8	12	2	5
unknown	89	19	10	6	14	16	7	17
%	N	I did not use	1	2	3	4	5	Total
All	3462	31.77	7.11	7.51	18.52	26.49	8.61	100
Large firm (> 500)	2819	31.71	6.6	7.27	18.62	26.89	8.9	100
Medium firm (251-500)	187	33.16	8.02	9.09	15.51	25.13	9.09	100
Small firm (101-250)	119	22.69	10.08	13.45	15.13	29.41	9.24	100
Very small firm (<101)	160	37.5	8.75	6.25	18.75	23.75	5	100
university	68	39.71	8.82	7.35	25	16.18	2.94	100
Other	37	29.73	8.11	2.7	21.62	32.43	5.41	100
unknown	72	26.39	13.89	8.33	19.44	22.22	9.72	100

Consulting or contract R&D firms(コンサルティング企業・R&D請負企業)

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	1912	508	430	494	84	21	209
Large firm (> 500)	2932	1595	407	345	384	62	17	122
Medium firm (251-500)	201	107	19	29	26	3	1	16
Small firm (101-250)	130	48	30	15	20	3	0	14
Very small firm (<101)	182	91	24	16	24	5	0	22
university	82	32	10	6	16	4	0	14
Other	42	16	7	4	7	2	1	5
unknown	89	23	11	15	17	5	2	16
%	N	I did not use	1	2	3	4	5	Total
All	3449	55.44	14.73	12.47	14.32	2.44	0.61	100
Large firm (> 500)	2810	56.76	14.48	12.28	13.67	2.21	0.6	100
Medium firm (251-500)	185	57.84	10.27	15.68	14.05	1.62	0.54	100
Small firm (101-250)	116	41.38	25.86	12.93	17.24	2.59	0	100
Very small firm (<101)	160	56.88	15	10	15	3.13	0	100
university	68	47.06	14.71	8.82	23.53	5.88	0	100
Other	37	43.24	18.92	10.81	18.92	5.41	2.7	100
unknown	73	31.51	15.07	20.55	23.29	6.85	2.74	100

US

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Question 4-13 Excluding co-inventors, how important were the following sources of knowledge for contributing to the completion of the research that led to the patented invention? (1 = not important, 5 = very important) (研究を実施するために使用した知識の重要度)

Competitors (e.g. knowledge from its products) (競争相手)

A8_K competitors	all	I did not use	1	2	3	4	5	Missing	%4 or 5
All	1,919	1259	160	127	97	47	36	193	83
Large firm (>=501)	1389	942	121	90	68	34	22	112	56
Medium SMEs	74	46	4	8	4	1	2	9	3
Small firms (100-250)	60	33	8	3	3	3	1	9	4
Very small firm (< 100)	216	136	21	15	15	5	9	15	14
University	42	35	1	2	2	0	0	2	0
Hospital, foundation, etc. /gov/ other	20	14	1	1	0	2	1	1	3
Missing	118	53	4	8	5	2	1	45	3

%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1726	72.94	9.27	7.36	5.62	2.72	2.09	100	4.81
Large firm (>=501)	1277	73.77	9.48	7.05	5.32	2.66	1.72	100	4.38
Medium SMEs	65	70.77	6.15	12.3	6.15	1.54	3.08	100	4.62
Small firms (100-250)	51	64.71	15.7	5.88	5.88	5.88	1.96	100	7.84
Very small firm (< 100)	201	67.66	10.5	7.46	7.46	2.49	4.48	100	6.97
University	40	87.5	2.5	5	5	0	0	100	0
Hospital, foundation, etc. /gov/ other	19	73.68	5.26	5.26	0	10.5	5.26	100	15.79
Missing	73	72.6	5.48	11	6.85	2.74	1.37	100	4.11

Japan

Question 4-13 Excluding co-inventors, how important were the following sources of knowledge for contributing to the completion of the research that led to the patented invention? (1 = not important, 5 = very important) (研究を実施するために使用した知識の重要度)

others

	All	使っていない	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	I did not use	1	2	3	4	5	no response
All	3658	3172	155	72	156	20	21	62
Large firm (> 500)	2932	2552	123	60	131	15	12	39
Medium firm (251-500)	201	179	5	6	7	0	2	2
Small firm (101-250)	130	114	9	1	1	3	2	0
Very small firm (<101)	182	154	12	1	6	0	1	8
university	82	69	3	2	3	0	2	3
Other	42	33	1	0	5	1	1	1
unknown	89	71	2	2	3	1	1	9

	%	N	I did not use	1	2	3	4	5	Total
All		3596	88.21	4.31	2	4.34	0.56	0.58	100
Large firm (> 500)		2893	88.21	4.25	2.07	4.53	0.52	0.41	100
Medium firm (251-500)		199	89.95	2.51	3.02	3.52	0	1.01	100
Small firm (101-250)		130	87.69	6.92	0.77	0.77	2.31	1.54	100
Very small firm (<101)		174	88.51	6.9	0.57	3.45	0	0.57	100
university		79	87.34	3.8	2.53	3.8	0	2.53	100
Other		41	80.49	2.44	0	12.2	2.44	2.44	100
unknown		80	88.75	2.5	2.5	3.75	1.25	1.25	100

Question 4-13 Excluding co-inventors, how important were the following sources of knowledge for contributing to the completion of the research that led to the patented invention? (1 = not important, 5 = very important) (研究を実施するために使用した知識の重要度)

Other

A8_L Other	all	I did not use	1	2	3	4	5	Missing	%4 or 5
All	1,919	1157	43	4	8	7	9	691	15
Large firm (>=501)	1389	861	34	3	5	6	8	472	11
Medium SMEs	74	51	0	0	0	0	0	23	0
Small firms (100-250)	60	29	2	0	1	0	0	28	1
Very small firm (< 100)	216	139	6	1	2	0	1	67	2
University	42	24	0	0	0	0	0	18	0
Hospital, foundation, etc. /gov/ other	20	14	1	0	0	0	0	5	0
Missing	118	39	0	0	0	1	0	78	1

%	N	I did not use	1	2	3	4	5	Total	%4 or 5
All	1228	94.22	3.5	0.33	0.65	0.57	0.73	100	1.3
Large firm (>=501)	917	93.89	3.71	0.33	0.55	0.65	0.87	100	1.52
Medium SMEs	51	100	0	0	0	0	0	100	0
Small firms (100-250)	32	90.63	6.25	0	3.13	0	0	100	0
Very small firm (< 100)	149	93.29	4.03	0.67	1.34	0	0.67	100	0.67
University	24	100	0	0	0	0	0	100	0
Hospital, foundation, etc. /gov/ other	15	93.33	6.67	0	0	0	0	100	0
Missing	40	97.5	0	0	0	2.5	0	100	2.5

Japan

Question 4–13 Excluding co-inventors, how important were the following sources of knowledge for contributing to the completion of the research that led to the patented invention? (1 = not important, 5 = very important)
(研究を実施するために使用した知識の重要度)

4 or 5

%	Scientific and Technical Literature	Patent Literature	Trade Fair or Exhibition	technical conferences and workshops	Standard documents, such as those from ISO (standards, contributions)	Your firm excluding co-inventors	University and Education	Non-University Public Research Organization	Customers or Product users	Suppliers	Competitors (e.g. knowledge from its products)	Consulting or contract R&D firms
All	50.09	58.07	19.53	19.98	10.84	63.43	12.24	9.24	44.72	30.84	35.10	3.04
Large firm (> 500)	49.60	58.62	18.87	20.00	10.91	65.88	10.44	7.40	44.73	31.62	35.79	2.81
Medium firm (251–500)	48.15	61.86	22.87	14.05	13.59	61.29	9.19	13.44	49.48	32.80	34.22	2.16
Small firm (101–250)	41.32	53.28	21.01	16.95	5.93	56.78	14.17	15.13	47.90	26.27	38.66	2.59
Very small firm (<101)	45.51	52.69	27.50	16.67	11.25	48.15	16.88	13.13	50.62	28.93	28.75	3.13
university	81.58	49.30	16.42	30.43	7.58	31.88	54.29	30.43	17.91	14.93	19.12	5.88
Other	82.50	66.67	13.16	43.24	10.81	55.56	35.90	27.03	28.21	21.62	37.84	8.11
unknown	48.68	51.28	22.37	25.00	10.96	51.39	22.97	22.22	46.58	26.39	31.94	9.59

US

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Question 4-13 Excluding co-inventors, how important were the following sources of knowledge for contributing to the completion of the research that led to the patented invention? (1 = not important, 5 = very important) (研究を実施するために使用した知識の重要度)

4 or 5

A8. %	Scientific and Technical Literature	Patent Literature	Trade Fair or Exhibition	technical conferences and workshops	Standard documents, such as those from ISO (standards, contributions)	Your firm excluding co-inventors	University and Education	Non-University Public Research Organization	Customers or Product users	Suppliers	Competitors (e.g. knowledge from its products)
All	33.69	24.93	1.97	7.79	5.29	40.47	4.99	1.92	19.84	9.43	4.81
Large firm (>=501)	31.75	23.42	1.88	7.54	5.57	42.53	3.84	1.49	19.47	9.77	4.39
Medium SMEs	31.82	27.69	1.54	6.15	7.69	34.85	7.69	1.54	18.46	9.23	4.62
Small firms (100-250)	37.25	37.25	2	4	3.92	46.15	1.96	1.96	27.45	9.8	7.84
Very small firm (< 100)	38.24	28.22	4.02	8	4.5	34.16	5.5	3.03	23.88	9	6.97
University	63.41	37.5	0	15	2.5	20	43.9	4.88	7.5	5	0
Hospital, foundation, etc. /gov/ ot	68.42	31.58	0	15.79	5.26	10.53	5.26	15.79	15.79	10.53	15.79
Missing	29.33	22.97	0	9.59	2.78	41.33	1.37	1.39	18.92	6.85	4.11

Japan

Question 4-14 What was the relative importance of the following sources of knowledge of foreign countries compared to those in Japan for your research that led to the patented invention as a whole? (-2 = much less important, 0= equal, 2 = much more import)(外国の知識源は国内のものと比較してどの程度重要であったか)

Scientific and Technical Literature(科学技術文献)

	All	使っていない	重要性で大きく劣る	重要性で上回る	同等	重要性で上回る	重要性で大きく上回る	無回答
	All	I did not use	-2	-1	0	1	2	no response
All	3658	1089	122	275	1174	526	298	174
Large firm (> 500)	2932	885	91	217	980	411	234	114
Medium firm (251-500)	201	66	10	18	59	29	9	10
Small firm (101-250)	130	43	10	8	41	12	7	9
Very small firm (<101)	182	67	4	16	38	30	11	16
university	82	5	1	5	23	21	19	8
Other	42	3	0	4	12	11	9	3
unknown	89	20	6	7	21	12	9	14
%	N	I did not use	-2	-1	0	1	2	Total
All	3484	31.26	3.5	7.89	33.7	15.1	8.55	100
Large firm (> 500)	2818	31.41	3.23	7.7	34.78	14.58	8.3	100
Medium firm (251-500)	191	34.55	5.24	9.42	30.89	15.18	4.71	100
Small firm (101-250)	121	35.54	8.26	6.61	33.88	9.92	5.79	100
Very small firm (<101)	166	40.36	2.41	9.64	22.89	18.07	6.63	100
university	74	6.76	1.35	6.76	31.08	28.38	25.68	100
Other	39	7.69	0	10.26	30.77	28.21	23.08	100
unknown	75	26.67	8	9.33	28	16	12	100

Patent Literature(特許文献)

	All	使っていない	重要性で大きく劣る	重要性で上回る	同等	重要性で上回る	重要性で大きく上回る	無回答
	All	I did not use	-2	-1	0	1	2	no response
All	3658	895	139	314	1370	524	260	156
Large firm (> 500)	2932	703	107	262	1138	409	212	101
Medium firm (251-500)	201	52	6	18	74	33	14	4
Small firm (101-250)	130	36	11	9	44	17	2	11
Very small firm (<101)	182	54	7	12	53	32	11	13
university	82	17	2	4	25	18	5	11
Other	42	14	0	3	10	6	5	4
unknown	89	19	6	6	26	9	11	12
%	N	I did not use	-2	-1	0	1	2	Total
All	3502	25.56	3.97	8.97	39.12	14.96	7.42	100
Large firm (> 500)	2831	24.83	3.78	9.25	40.2	14.45	7.49	100
Medium firm (251-500)	197	26.4	3.05	9.14	37.56	16.75	7.11	100
Small firm (101-250)	119	30.25	9.24	7.56	36.97	14.29	1.68	100
Very small firm (<101)	169	31.95	4.14	7.1	31.36	18.93	6.51	100
university	71	23.94	2.82	5.63	35.21	25.35	7.04	100
Other	38	36.84	0	7.89	26.32	15.79	13.16	100
unknown	77	24.68	7.79	7.79	33.77	11.69	14.29	100

Japan

Question 4-14 What was the relative importance of the following sources of knowledge of foreign countries compared to those in Japan for your research that led to the patented invention as a whole? (-2 = much less important, 0= equal, 2 = much more import)(外国の知識源は国内のものと比較してどの程度重要であったか)

Trade Fair or Exhibition(見本市、展示会)

	All	使っていない	重要性で大きく劣る	重要性で上回る	同等	重要性で上回る	重要性で大きく上回る	無回答
	All	I did not use	-2	-1	0	1	2	no response
All	3658	1721	187	295	889	259	71	236
Large firm (> 500)	2932	1420	146	245	725	201	53	142
Medium firm (251-500)	201	98	10	14	46	16	4	13
Small firm (101-250)	130	48	11	14	31	11	1	14
Very small firm (<101)	182	76	8	9	43	15	8	23
university	82	30	5	5	16	5	2	19
Other	42	23	0	3	7	2	0	7
unknown	89	26	7	5	21	9	3	18
%	N	I did not use	-2	-1	0	1	2	Total
All	3422	50.29	5.46	8.62	25.98	7.57	2.07	100
Large firm (> 500)	2790	50.9	5.23	8.78	25.99	7.2	1.9	100
Medium firm (251-500)	188	52.13	5.32	7.45	24.47	8.51	2.13	100
Small firm (101-250)	116	41.38	9.48	12.07	26.72	9.48	0.86	100
Very small firm (<101)	159	47.8	5.03	5.66	27.04	9.43	5.03	100
university	63	47.62	7.94	7.94	25.4	7.94	3.17	100
Other	35	65.71	0	8.57	20	5.71	0	100
unknown	71	36.62	9.86	7.04	29.58	12.68	4.23	100

Technical conferences and workshops(技術的なコンファレンス・ワークショップ)

	All	使っていない	重要性で大きく劣る	重要性で上回る	同等	重要性で上回る	重要性で大きく上回る	無回答
	All	I did not use	-2	-1	0	1	2	no response
All	3658	1701	172	281	899	268	95	242
Large firm (> 500)	2932	1412	136	222	725	220	68	149
Medium firm (251-500)	201	94	9	21	51	9	3	14
Small firm (101-250)	130	51	12	14	31	6	1	15
Very small firm (<101)	182	80	10	8	45	11	5	23
university	82	24	3	5	11	14	9	16
Other	42	11	0	3	11	4	6	7
unknown	89	29	2	8	25	4	3	18
%	N	I did not use	-2	-1	0	1	2	Total
All	3416	49.8	5.04	8.23	26.32	7.85	2.78	100
Large firm (> 500)	2783	50.74	4.89	7.98	26.05	7.91	2.44	100
Medium firm (251-500)	187	50.27	4.81	11.23	27.27	4.81	1.6	100
Small firm (101-250)	115	44.35	10.43	12.17	26.96	5.22	0.87	100
Very small firm (<101)	159	50.31	6.29	5.03	28.3	6.92	3.14	100
university	66	36.36	4.55	7.58	16.67	21.21	13.64	100
Other	35	31.43	0	8.57	31.43	11.43	17.14	100
unknown	71	40.85	2.82	11.27	35.21	5.63	4.23	100

Japan

Question 4-14 What was the relative importance of the following sources of knowledge of foreign countries compared to those in Japan for your research that led to the patented invention as a whole? (-2 = much less important, 0= equal, 2 = much more import)(外国の知識源は国内のものと比較してどの程度重要であったか)

Standard documents, such as those from ISO (standards, contributions)(ISOなどの標準関連文書)

	All	使っていない	重要性で大きく劣る	重要性で上回る	同等	重要性で上回る	重要性で大きく上回る	無回答
	All	I did not use	-2	-1	0	1	2	no response
All	3658	1889	224	243	870	141	52	239
Large firm (> 500)	2932	1549	176	189	705	120	45	148
Medium firm (251-500)	201	105	13	16	47	5	2	13
Small firm (101-250)	130	54	15	14	27	6	0	14
Very small firm (<101)	182	87	11	10	48	4	0	22
university	82	35	4	7	13	5	1	17
Other	42	27	0	3	5	0	1	6
unknown	89	32	5	4	25	1	3	19
%	N	I did not use	-2	-1	0	1	2	Total
All	3419	55.25	6.55	7.11	25.45	4.12	1.52	100
Large firm (> 500)	2784	55.64	6.32	6.79	25.32	4.31	1.62	100
Medium firm (251-500)	188	55.85	6.91	8.51	25	2.66	1.06	100
Small firm (101-250)	116	46.55	12.93	12.07	23.28	5.17	0	100
Very small firm (<101)	160	54.38	6.88	6.25	30	2.5	0	100
university	65	53.85	6.15	10.77	20	7.69	1.54	100
Other	36	75	0	8.33	13.89	0	2.78	100
unknown	70	45.71	7.14	5.71	35.71	1.43	4.29	100

Your firm excluding co-inventors(組織内)

	All	使っていない	重要性で大きく劣る	重要性で上回る	同等	重要性で上回る	重要性で大きく上回る	無回答
	All	I did not use	-2	-1	0	1	2	no response
All	3658	1482	190	285	1165	202	83	251
Large firm (> 500)	2932	1224	150	230	956	162	63	147
Medium firm (251-500)	201	77	10	22	59	11	3	19
Small firm (101-250)	130	43	12	8	44	5	2	16
Very small firm (<101)	182	67	9	10	47	13	9	27
university	82	27	6	3	24	4	1	17
Other	42	18	0	5	9	3	1	6
unknown	89	26	3	7	26	4	4	19
%	N	I did not use	-2	-1	0	1	2	Total
All	3407	43.5	5.58	8.37	34.19	5.93	2.44	100
Large firm (> 500)	2785	43.95	5.39	8.26	34.33	5.82	2.26	100
Medium firm (251-500)	182	42.31	5.49	12.09	32.42	6.04	1.65	100
Small firm (101-250)	114	37.72	10.53	7.02	38.6	4.39	1.75	100
Very small firm (<101)	155	43.23	5.81	6.45	30.32	8.39	5.81	100
university	65	41.54	9.23	4.62	36.92	6.15	1.54	100
Other	36	50	0	13.89	25	8.33	2.78	100
unknown	70	37.14	4.29	10	37.14	5.71	5.71	100

Japan

Question 4-14 What was the relative importance of the following sources of knowledge of foreign countries compared to those in Japan for your research that led to the patented invention as a whole? (-2 = much less important, 0= equal, 2 = much more import)(外国の知識源は国内のものと比較してどの程度重要であったか)

University and Education(大学など高等教育機関)

	All	使っていない	重要性で大きく劣る	重要性で上回る	同等	重要性で上回る	重要性で大きく上回る	無回答
	All	I did not use	-2	-1	0	1	2	no response
All	3658	2006	197	256	753	162	55	229
Large firm (> 500)	2932	1673	155	203	597	123	40	141
Medium firm (251-500)	201	114	10	20	36	6	1	14
Small firm (101-250)	130	56	15	13	25	4	2	15
Very small firm (<101)	182	96	9	7	35	9	2	24
university	82	19	3	2	28	10	8	12
Other	42	17	0	4	8	6	1	6
unknown	89	31	5	7	24	4	1	17
%	N	I did not use	-2	-1	0	1	2	Total
All	3429	58.5	5.75	7.47	21.96	4.72	1.6	100
Large firm (> 500)	2791	59.94	5.55	7.27	21.39	4.41	1.43	100
Medium firm (251-500)	187	60.96	5.35	10.7	19.25	3.21	0.53	100
Small firm (101-250)	115	48.7	13.04	11.3	21.74	3.48	1.74	100
Very small firm (<101)	158	60.76	5.7	4.43	22.15	5.7	1.27	100
university	70	27.14	4.29	2.86	40	14.29	11.43	100
Other	36	47.22	0	11.11	22.22	16.67	2.78	100
unknown	72	43.06	6.94	9.72	33.33	5.56	1.39	100

Non-University Public Research Organization(大学以外の公的研究機関)

	All	使っていない	重要性で大きく劣る	重要性で上回る	同等	重要性で上回る	重要性で大きく上回る	無回答
	All	I did not use	-2	-1	0	1	2	no response
All	3658	2066	204	239	752	123	36	238
Large firm (> 500)	2932	1721	158	187	603	95	26	142
Medium firm (251-500)	201	114	12	18	38	4	1	14
Small firm (101-250)	130	55	15	12	27	4	1	16
Very small firm (<101)	182	99	10	5	37	4	1	26
university	82	29	4	6	17	6	4	16
Other	42	16	0	3	9	7	1	6
unknown	89	32	5	8	21	3	2	18
%	N	I did not use	-2	-1	0	1	2	Total
All	3420	60.41	5.96	6.99	21.99	3.6	1.05	100
Large firm (> 500)	2790	61.68	5.66	6.7	21.61	3.41	0.93	100
Medium firm (251-500)	187	60.96	6.42	9.63	20.32	2.14	0.53	100
Small firm (101-250)	114	48.25	13.16	10.53	23.68	3.51	0.88	100
Very small firm (<101)	156	63.46	6.41	3.21	23.72	2.56	0.64	100
university	66	43.94	6.06	9.09	25.76	9.09	6.06	100
Other	36	44.44	0	8.33	25	19.44	2.78	100
unknown	71	45.07	7.04	11.27	29.58	4.23	2.82	100

Japan

Question 4-14 What was the relative importance of the following sources of knowledge of foreign countries compared to those in Japan for your research that led to the patented invention as a whole? (-2 = much less important, 0= equal, 2 = much more import)(外国の知識源は国内のものと比較してどの程度重要であったか)

Customers or Product users(顧客・製品ユーザー)

	All	使っていない	重要性で大きく劣る	重要性で上回る	同等	重要性で上回る	重要性で大きく上回る	無回答
	All	I did not use	-2	-1	0	1	2	no response
All	3658	1500	150	250	978	384	180	216
Large firm (> 500)	2932	1238	110	205	810	301	140	128
Medium firm (251-500)	201	75	10	18	50	29	10	9
Small firm (101-250)	130	40	13	6	36	13	6	16
Very small firm (<101)	182	66	8	11	40	19	14	24
university	82	33	5	3	14	6	4	17
Other	42	20	0	4	10	3	1	4
unknown	89	28	4	3	18	13	5	18
%	N	I did not use	-2	-1	0	1	2	Total
All	3442	43.58	4.36	7.26	28.41	11.16	5.23	100
Large firm (> 500)	2804	44.15	3.92	7.31	28.89	10.73	4.99	100
Medium firm (251-500)	192	39.06	5.21	9.38	26.04	15.1	5.21	100
Small firm (101-250)	114	35.09	11.4	5.26	31.58	11.4	5.26	100
Very small firm (<101)	158	41.77	5.06	6.96	25.32	12.03	8.86	100
university	65	50.77	7.69	4.62	21.54	9.23	6.15	100
Other	38	52.63	0	10.53	26.32	7.89	2.63	100
unknown	71	39.44	5.63	4.23	25.35	18.31	7.04	100

Suppliers(サプライヤー)

	All	使っていない	重要性で大きく劣る	重要性で上回る	同等	重要性で上回る	重要性で大きく上回る	無回答
	All	I did not use	-2	-1	0	1	2	no response
All	3658	1698	183	297	907	235	95	243
Large firm (> 500)	2932	1402	139	243	752	180	73	143
Medium firm (251-500)	201	92	8	19	49	12	5	16
Small firm (101-250)	130	46	13	13	32	8	2	16
Very small firm (<101)	182	79	9	9	36	17	6	26
university	82	31	6	4	13	6	5	17
Other	42	20	3	3	6	3	1	6
unknown	89	28	5	6	19	9	3	19
%	N	I did not use	-2	-1	0	1	2	Total
All	3415	49.72	5.36	8.7	26.56	6.88	2.78	100
Large firm (> 500)	2789	50.27	4.98	8.71	26.96	6.45	2.62	100
Medium firm (251-500)	185	49.73	4.32	10.27	26.49	6.49	2.7	100
Small firm (101-250)	114	40.35	11.4	11.4	28.07	7.02	1.75	100
Very small firm (<101)	156	50.64	5.77	5.77	23.08	10.9	3.85	100
university	65	47.69	9.23	6.15	20	9.23	7.69	100
Other	36	55.56	8.33	8.33	16.67	8.33	2.78	100
unknown	70	40	7.14	8.57	27.14	12.86	4.29	100

Japan

Question 4-14 What was the relative importance of the following sources of knowledge of foreign countries compared to those in Japan for your research that led to the patented invention as a whole? (-2 = much less important, 0= equal, 2 = much more import)(外国の知識源は国内のものと比較してどの程度重要であったか)

Competitors (e.g. knowledge from its products) (競争相手)

	All	使っていない	重要性で大きく劣る	重要性で上回る	同等	重要性で上回る	重要性で大きく上回る	無回答
	All	I did not use	-2	-1	0	1	2	no response
All	3658	1389	139	228	1004	452	222	224
Large firm (> 500)	2932	1128	99	184	836	365	189	131
Medium firm (251-500)	201	76	14	14	47	24	13	13
Small firm (101-250)	130	38	9	11	38	15	4	15
Very small firm (<101)	182	73	7	8	41	22	7	24
university	82	27	7	3	15	12	3	15
Other	42	18	0	3	8	5	2	6
unknown	89	29	3	5	19	9	4	20

	%	N	I did not use	1	2	3	4	5	Total
All		3434	40.45	4.05	6.64	29.24	13.16	6.46	100
Large firm (> 500)		2801	40.27	3.53	6.57	29.85	13.03	6.75	100
Medium firm (251-500)		188	40.43	7.45	7.45	25	12.77	6.91	100
Small firm (101-250)		115	33.04	7.83	9.57	33.04	13.04	3.48	100
Very small firm (<101)		158	46.2	4.43	5.06	25.95	13.92	4.43	100
university		67	40.3	10.45	4.48	22.39	17.91	4.48	100
Other		36	50	0	8.33	22.22	13.89	5.56	100
unknown		69	42.03	4.35	7.25	27.54	13.04	5.8	100

Consulting or contract R&D firms (コンサルティング企業・R&D請負企業)

	All	使っていない	重要性で大きく劣る	重要性で上回る	同等	重要性で上回る	重要性で大きく上回る	無回答
	All	I did not use	-2	-1	0	1	2	no response
All	3658	2222	217	239	650	65	22	243
Large firm (> 500)	2932	1844	173	188	515	49	19	144
Medium firm (251-500)	201	123	10	16	33	2	1	16
Small firm (101-250)	130	60	14	11	22	6	1	16
Very small firm (<101)	182	102	7	12	34	2	0	25
university	82	34	8	3	17	2	0	18
Other	42	27	0	1	7	1	0	6
unknown	89	32	5	8	22	3	1	18

	%	N	I did not use	1	2	3	4	5	Total
All		3415	65.07	6.35	7	19.03	1.9	0.64	100
Large firm (> 500)		2788	66.14	6.21	6.74	18.47	1.76	0.68	100
Medium firm (251-500)		185	66.49	5.41	8.65	17.84	1.08	0.54	100
Small firm (101-250)		114	52.63	12.28	9.65	19.3	5.26	0.88	100
Very small firm (<101)		157	64.97	4.46	7.64	21.66	1.27	0	100
university		64	53.13	12.5	4.69	26.56	3.13	0	100
Other		36	75	0	2.78	19.44	2.78	0	100
unknown		71	45.07	7.04	11.27	30.99	4.23	1.41	100

Japan

Question 4-14 What was the relative importance of the following sources of knowledge of foreign countries compared to those in Japan for your research that led to the patented invention as a whole? (-2 = much less important, 0= equal, 2 = much more import)(外国の知識源は国内のものと比較してどの程度重要であったか)

other

	All	使っていない	重要性で 大きく劣る	重要性で 上回る	同等	重要性で 上回る	重要性で大 きく上回る	無回答
	All	I did not use	-2	-1	0	1	2	no response
All	3658	3199	83	36	229	5	5	101
Large firm (> 500)	2932	2576	63	26	186	4	5	72
Medium firm (251-500)	201	178	4	3	14	0	0	2
Small firm (101-250)	130	111	8	2	5	0	0	4
Very small firm (<101)	182	158	5	3	9	0	0	7
university	82	70	3	1	5	0	0	3
Other	42	35	0	0	4	1	0	2
unknown	89	71	0	1	6	0	0	11

	%	N	I did not use	1	2	3	4	5	Total
All		3557	89.94	2.33	1.01	6.44	0.14	0.14	100
Large firm (> 500)		2860	90.07	2.2	0.91	6.5	0.14	0.17	100
Medium firm (251-500)		199	89.45	2.01	1.51	7.04	0	0	100
Small firm (101-250)		126	88.1	6.35	1.59	3.97	0	0	100
Very small firm (<101)		175	90.29	2.86	1.71	5.14	0	0	100
university		79	88.61	3.8	1.27	6.33	0	0	100
Other		40	87.5	0	0	10	2.5	0	100
unknown		78	91.03	0	1.28	7.69	0	0	100

Japan

Question 4-15 Including this patent, how many domestic patent grants do you expect your research would generate directly for your firm, including those with joint ownership? (当該研究は何件の国内特許登録をもたらしますか?)

	All	1	2-5	6-10	11-50	51-100	101-	no response
All	3658	616	1813	581	420	89	51	88
Large firm (> 500)	2932	481	1412	485	366	76	45	67
Medium firm (251-500)	201	38	124	19	15	1	1	3
Small firm (101-250)	130	31	80	14	3	1	0	1
Very small firm (<101)	182	32	95	25	22	3	3	2
university	82	17	43	12	3	3	2	2
Other	42	7	22	8	4	1	0	0
unknown	89	10	37	18	7	4	0	13

	%	N	1	2-5	6-10	11-50	51-100	101-	Total
All		3570	17.25	50.78	16.27	11.76	2.49	1.43	100
Large firm (> 500)		2865	16.79	49.28	16.93	12.77	2.65	1.57	100
Medium firm (251-500)		198	19.19	62.63	9.6	7.58	0.51	0.51	100
Small firm (101-250)		129	24.03	62.02	10.85	2.33	0.78	0	100
Very small firm (<101)		180	17.78	52.78	13.89	12.22	1.67	1.67	100
university		80	21.25	53.75	15	3.75	3.75	2.5	100
Other		42	16.67	52.38	19.05	9.52	2.38	0	100
unknown		76	13.16	48.68	23.68	9.21	5.26	0	100

Japan

Question 4-16 How many man-months did the research leading to the patent require, including those of co-inventors? (当該発明の研究の開始から特許出願までの研究期間)

	All	less than 3 man-months	4-6 man-months	7-12 man-months	13-24 man-months	25-48 man-months	49-72 man-months	73-96 man-months	97 man-months or more	No response
All	3658	682	570	599	715	513	201	64	220	94
Large firm (> 500)	2932	536	469	498	564	397	159	53	190	66
Medium firm (251-500)	201	34	35	31	45	32	9	4	8	3
Small firm (101-250)	130	37	19	18	27	16	6	3	4	0
Very small firm (<101)	182	36	15	29	38	35	12	2	8	7
university	82	16	14	7	20	10	6	1	5	3
Other	42	7	5	3	10	10	4	0	2	1
unknown	89	16	13	13	11	13	5	1	3	14

%	N	less than 3 man-months	4-6 man-months	7-12 man-months	13-24 man-months	25-48 man-months	49-72 man-months	73-96 man-months	97 man-months or more	Total
All	3564	19.14	15.99	16.81	20.06	14.39	5.64	1.8	6.17	100
Large firm (> 500)	2866	18.7	16.36	17.38	19.68	13.85	5.55	1.85	6.63	100
Medium firm (251-500)	198	17.17	17.68	15.66	22.73	16.16	4.55	2.02	4.04	100
Small firm (101-250)	130	28.46	14.62	13.85	20.77	12.31	4.62	2.31	3.08	100
Very small firm (<101)	175	20.57	8.57	16.57	21.71	20	6.86	1.14	4.57	100
university	79	20.25	17.72	8.86	25.32	12.66	7.59	1.27	6.33	100
Other	41	17.07	12.2	7.32	24.39	24.39	9.76	0	4.88	100
unknown	75	21.33	17.33	17.33	14.67	17.33	6.67	1.33	4	100

	mean(month)	S.D	N	Median	p90	Iqr	No response
All	25.41	35.1	3564	9.5	60.5	31.5	94
Large firm (> 500)	25.85	35.99	2866	9.5	60.5	31.5	66
Medium firm (250-500)	22.97	30.43	198	9.5	60.5	31.5	3
Small firm (100-250)	19.95	28.69	130	9.5	48.5	17	0
Very small firm (<100)	25.28	31.5	175	18.5	60.5	31.5	7
university	26.05	35.61	79	18.5	60.5	31.5	3
Other	27.85	31.97	41	18.5	60.5	31.5	1
unknown	22.75	30.88	75	9.5	60.5	31.5	14

Note: As to choice (1)-(7) of Question 4-16, we use mean values of each range as scale scores.
As to choice (8), we calculated the scale score supposing log normal distribution.

US

Question 4-16 How many man-months did the research leading to the patent require, including those of co-inventors? (当該発明の研究の開始から特許出願までの研究期間)

A9 How many man-months did the research leading to the patent require, including those of co-inventors?	All	less than 1 man-months	1-3 man-months	4-6 man-months	7-12 man-months	13-24 man-months	25-48 man-months	49-72 man-months	73-96 man-months	97 man-months or more	Don't Know	Missing
All	1919	129	243	323	341	324	234	81	26	73	10	135
Large firm (>=501)	1389	99	185	249	256	243	163	51	16	53	6	68
Medium SMEs	74	4	9	15	9	17	9	2	0	2	1	6
Small firms (100-250)	60	6	4	12	16	7	7	1	0	1	0	6
Very small firm (< 100)	216	9	30	27	39	40	34	17	5	10	1	4
University	42	2	3	1	7	5	9	5	3	2	1	4
Hospital, foundation, etc. /gov/ other	20	3	0	1	3	4	2	2	1	3	0	1
Missing	118	6	12	18	11	8	10	3	1	2	1	46
%	N	less than 1 man-months	1-3 man-months	4-6 man-months	7-12 man-months	13-24 man-months	25-48 man-months	49-72 man-months	73-96 man-months	97 man-months or more	Total	
All	1774	7.27	13.7	18.21	19.22	18.26	13.19	4.57	1.47	4.11	100	
Large firm (>=501)	1315	7.53	14.07	18.94	19.47	18.48	12.4	3.88	1.22	4.03	100	
Medium SMEs	67	5.97	13.43	22.39	13.43	25.37	13.43	2.99	0	2.99	100	
Small firms (100-250)	54	11.11	7.41	22.22	29.63	12.96	12.96	1.85	0	1.85	100	
Very small firm (< 100)	211	4.27	14.22	12.8	18.48	18.96	16.11	8.06	2.37	4.74	100	
University	37	5.41	8.11	2.7	18.92	13.51	24.32	13.51	8.11	5.41	100	
\	19	15.79	0	5.26	15.79	21.05	10.53	10.53	5.26	15.79	100	
Missing	71	8.45	16.9	25.35	15.49	11.27	14.08	4.23	1.41	2.82	100	
Man-month	mean(month)	S.D	N	Median	p90	Interquartile Range	Missing					
All	19.09	23.09	1774	9.50	60.50	13.5	145					
Large firm (>=501)	18.23	22.56	1315	9.50	36.50	13.5	74					
Medium SMEs	16.99	19.78	67	9.50	36.50	13.5	7					
Small firms (100-250)	14.18	17.21	54	9.50	36.50	13.5	6					
Very small firm (< 100)	23.34	25.15	211	18.50	60.50	31.5	5					
University	33.00	27.92	37	36.50	75.00	51	5					
Hospital, foundation, etc. /gov/ other	35.21	34.92	19	18.50	97.00	51	1					
Missing	16.69	21.78	71	5.00	37	16.5	47					

Japan

Question 4-17 Funding sources (Incidence and % in shares). You can check all relevant boxes. (当該研究のための費用の資金源(重複回答あり))

	All	発明者所属企業の内 部資金	政府からの資金	発明者所属企業 以外の企業から の資金	クライアントまた は顧客からの資 金	設備、材料、部 品、ソフトウェア等 サプライヤー企業	ベンチャーキャ ピトル、エンジェ ルなどからの投 資資金	その他	無回答
	All	Internal funds	Government funds	Other companies	Customers or product users	Suppliers	Venture capital or angels	other	no response
All	3,658	3,488	161	109	139	103	10	53	81
Large firm (> 500)	2,932	2,841	67	55	84	76	4	19	61
Medium firm (251-500)	201	196	4	4	12	9	0	0	2
Small firm (101-250)	130	122	2	1	13	4	1	1	3
Very small firm (<101)	182	167	20	14	15	4	3	9	2
university	82	57	40	23	3	6	0	11	1
Other	42	38	14	5	3	0	0	7	0
unknown	89	67	14	7	9	4	2	6	12
%yes	N	Internal funds	Government funds	Other companies	Customers or product users	Suppliers	Venture capital or angels	other	no response
All	3577	97.51	4.50	3.05	3.89	2.88	0.28	1.48	
Large firm (> 500)	2871	98.96	2.33	1.92	2.93	2.65	0.14	0.66	
Medium firm (251-500)	199	98.49	2.01	2.01	6.03	4.52	0.00	0.00	
Small firm (101-250)	127	96.06	1.57	0.79	10.24	3.15	0.79	0.79	
Very small firm (<101)	180	92.78	11.11	7.78	8.33	2.22	1.67	5.00	
university	81	70.37	49.38	28.40	3.70	7.41	0.00	13.58	
Other	42	90.48	33.33	11.90	7.14	0.00	0.00	16.67	
unknown	77	87.01	18.18	9.09	11.69	5.19	2.60	7.79	
Mean Share	N	Internal funds	Government funds	Other companies	Customers or product users	Suppliers	Venture capital or angels	other	no response
All	3,562	93.73	1.87	1.32	1.33	0.56	0.06	1.12	96
Large firm (> 500)	2,865	96.37	0.86	0.85	0.85	0.49	0.02	0.55	67
Medium firm (251-500)	198	94.31	0.86	0.83	3.18	0.81	0	0	3
Small firm (101-250)	127	92.76	1.18	0.59	4.41	0.2	0.08	0.79	3
Very small firm (<101)	176	85.64	2.89	2.66	3.92	0.51	0.68	3.69	6
university	79	44.11	26.08	15.06	0.76	3.48	0	10.51	3
Other	42	69.76	17.38	2.26	2.38	0	0	8.21	0
unknown	75	77.73	7.87	3.33	3.6	0.73	0.33	6.4	14
Mean Share weighted by man-month	N	Internal funds	Government funds	Other companies	Customers or product users	Suppliers	Venture capital or angels	other	no response
All	3,525	92.81	2.5	1.15	1.5	0.81	0.17	1.06	133
Large firm (> 500)	2,840	95.46	1.26	0.55	1.16	0.81	0.14	0.62	92
Medium firm (251-500)	196	96.2	0.81	0.24	2.14	0.6	0	0	5
Small firm (101-250)	127	87.57	2.48	0.55	8.91	0.36	0.07	0.06	3
Very small firm (<101)	171	87.22	3.95	1.41	2.23	0.43	0.89	3.88	11
university	77	47.84	23.57	18.89	0.26	3.29	0	6.15	5
Other	41	49.91	27.56	3.61	3.34	0	0	15.58	1
unknown	73	73.5	14.89	6.99	1.58	0.52	0.9	1.62	16

US

Question 4-17 Funding sources (Incidence and % in shares) You can check all relevant boxes. (当該研究のための費用の資金源(重複回答あり))

A10. Funding source	All	Internal funds	Government funds	Other companies	Customers or product users	Suppliers	Venture capital or angels	other	Missing
All	1919	1678	103	92	45	55	32	10	140
Large firm (>=501)	1389	1284	49	61	33	5	15	4	72
Medium SMEs	74	68	7	5	0	0	0	0	4
Small firms (100-250)	60	49	4	3	0	1	2	1	6
Very small firm (< 100)	216	173	13	15	12	43	8	3	4
University	42	25	23	1	0	3	6	1	3
Hospital, foundation, etc. /gov/ other	20	16	5	4	0	0	0	1	1
Missing	118	63	2	3	0	3	1	0	50

%yes	N	Internal funds	Government funds	Other companies	Customers or product users	Suppliers	Venture capital or angels	other
All	1779	94.32	5.79	5.17	2.53	3.09	1.8	0.56
Large firm (>=501)	1317	97.49	3.72	4.63	2.51	0.38	1.14	0.30
Medium SMEs	70	97.14	10	7.14	0	0	0	0.00
Small firms (100-250)	54	90.74	7.41	5.56	0	1.85	3.7	1.85
Very small firm (< 100)	212	81.6	6.13	7.08	5.66	20.28	3.77	1.42
University	39	64.1	58.97	2.56	0	7.69	15.38	2.56
Hospital, foundation, etc. /gov/ other	19	84.21	26.32	21.05	0	0	0	5.26
Missing	68	92.65	2.94	4.41	0	4.41	1.47	0

A10 Funding sources (% mean)	N	Internal funds	Government funds	Other companies	Customers or product users	Suppliers	Venture capital or angels	Other
All	1779	89.91	3.29	0.81	2.51	0.52	2.36	0.35
Large firm (>=501)	1317	94.46	1.96	0.32	2.02	0.49	0.19	0.24
Medium SMEs	70	90.86	5.14	0	4	0	0	0
Small firms (100-250)	54	87.78	3.52	2.04	3.15	0	1.67	1.85
Very small firm (< 100)	212	72.3	3.14	2.24	3.87	1.33	16.57	0.57
University	39	45.51	40.64	8.72	1.03	0	2.82	1.28
Hospital, foundation, etc. /gov/ other	19	65.53	16.58	0	15.79	0	0	2.11
Missing	68	89.71	2.21	1.47	2.94	0	3.68	0

A10 Funding sources (% mean) weight by A9 man-month	N	Internal funds	Government funds	Other companies	Customers or product users	Suppliers	Venture capital or angels	Other
All	1753	86.19	5.51	1.35	2.87	0.52	3.29	0.25
Large firm (>=501)	1297	93.85	2.87	0.46	1.8	0.54	0.26	0.2
Medium SMEs	67	90.81	4.66	0	4.53	0	0	0
Small firms (100-250)	54	88.52	5.89	0.78	3.64	0	1.12	0.07
Very small firm (< 100)	211	64.92	4.79	4.67	6.1	0.94	18.15	0.42
University	37	30.14	54.48	8.8	0.61	0	5.97	0
Hospital, foundation, etc. /gov/ other	19	67.88	13.2	0	16.74	0	0	2.18
Missing	68	83.27	7.32	0.17	3.19	0	6.05	0

Japan

Question 4-18 Did the availability of funds constrain the research leading to the invention? You can check all relevant boxes. (リスク資金の利用可能性が制約となったか(重複回答あり))

		リスク資金不足のために望んでいた研究の範囲を実質的に縮小した	リスク資金不足のために研究開始・完了が実質的に遅れた	リスク資金が制約にさらなかったが、事業化への投資が制約された	リスク資金は研究開発にも事業化への投資にも制約にさらなかった	その他	無回答
	All	The scope of the research was significantly narrowed	Either the startup or the completion of the research was significantly delayed	Research was not constrained but the follow-up investment for its commercialization was constrained	Not constrained either in its research or in the follow-up investment for commercialization	Other	no response
All	3,658	263	196	855	2,203	92	130
Large firm (> 500)	2,932	189	135	693	1,808	56	96
Medium firm (251-500)	201	9	11	45	129	7	4
Small firm (101-250)	130	9	4	23	86	6	4
Very small firm (<101)	182	26	29	45	89	5	7
university	82	11	6	16	36	9	5
Other	42	7	3	10	16	6	1
unknown	89	12	8	23	39	3	13
%	N	The scope of the research was significantly narrowed	Either the startup or the completion of the research was significantly delayed	Research was not constrained but the follow-up investment for its commercialization was constrained	Not constrained either in its research or in the follow-up investment for commercialization	Other	
All	3528	7.45	5.56	24.23	62.44	2.61	
Large firm (> 500)	2836	6.66	4.76	24.44	63.75	1.97	
Medium firm (251-500)	197	4.57	5.58	22.84	65.48	3.55	
Small firm (101-250)	126	7.14	3.17	18.25	68.25	4.76	
Very small firm (<101)	175	14.86	16.57	25.71	50.86	2.86	
university	77	14.29	7.79	20.78	46.75	11.69	
Other	41	17.07	7.32	24.39	39.02	14.63	
unknown	76	15.79	10.53	30.26	51.32	3.95	

Japan

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Question 5-1 How important were the following motivations for your invention? (1 = not important, 5 = very important) (当該特許につながる発明への動機の重要度)

Satisfaction from the contribution to the progress of science and technology (科学技術の進歩への貢献による満足度)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	3658	194	297	881	1526	669	91
Large firm (> 500)	2932	155	245	716	1271	494	51
Medium firm (251-500)	201	10	21	66	71	28	5
Small firm (101-250)	130	7	12	41	46	17	7
Very small firm (<101)	182	13	14	38	65	40	12
university	82	1	0	3	28	48	2
Other	42	1	2	0	14	23	2
unknown	89	7	3	17	31	19	12

	%	N	1	2	3	4	5	Total
All		3567	5.44	8.33	24.7	42.78	18.76	100
Large firm (> 500)		2881	5.38	8.5	24.85	44.12	17.15	100
Medium firm (251-500)		196	5.1	10.71	33.67	36.22	14.29	100
Small firm (101-250)		123	5.69	9.76	33.33	37.4	13.82	100
Very small firm (<101)		170	7.65	8.24	22.35	38.24	23.53	100
university		80	1.25	0	3.75	35	60	100
Other		40	2.5	5	0	35	57.5	100
unknown		77	9.09	3.9	22.08	40.26	24.68	100

Satisfaction from solving technical problems (チャレンジングな技術課題を解決すること自体への興味)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	3658	50	61	231	1749	1508	59
Large firm (> 500)	2932	40	52	176	1402	1232	30
Medium firm (251-500)	201	1	5	15	106	72	2
Small firm (101-250)	130	0	1	17	62	49	1
Very small firm (<101)	182	5	2	11	94	60	10
university	82	0	0	7	34	37	4
Other	42	1	0	1	10	28	2
unknown	89	3	1	4	41	30	10

	%	N	1	2	3	4	5	Total
All		3599	1.39	1.69	6.42	48.6	41.9	100
Large firm (> 500)		2902	1.38	1.79	6.06	48.31	42.45	100
Medium firm (251-500)		199	0.5	2.51	7.54	53.27	36.18	100
Small firm (101-250)		129	0	0.78	13.18	48.06	37.98	100
Very small firm (<101)		172	2.91	1.16	6.4	54.65	34.88	100
university		78	0	0	8.97	43.59	47.44	100
Other		40	2.5	0	2.5	25	70	100
unknown		79	3.8	1.27	5.06	51.9	37.97	100

US

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Question 5-1 How important were the following motivations for your invention? (1 = not important, 5 = very important) (当該特許につながる発明への動機の重要度)

Satisfaction from the contribution to the progress of science and technology (科学技術の進歩への貢献による満足度)

C.5_B Satisfaction from contributing to the progress of science and technology	all	1	2	3	4	5	Missing	%4 or 5
All	1919	110	179	390	517	598	125	1115
Large firm (>=501)	1389	81	140	304	392	423	49	815
Medium SMEs	74	6	9	12	16	31	0	47
Small firms (100-250)	60	3	5	11	20	19	2	39
Very small firm (< 100)	216	16	17	42	59	69	13	128
University	42	0	1	2	9	27	3	36
Hospital, foundation, etc. /gov/ othe	20	2	0	6	7	4	1	11
Missing	118	2	7	13	14	25	57	39

%	N	1	2	3	4	5	Total	%4 or 5
All	1794	6.13	9.98	21.74	28.82	33.33	100	62.15
Large firm (>=501)	1340	6.04	10.45	22.69	29.25	31.57	100	60.82
Medium SMEs	74	8.11	12.16	16.22	21.62	41.89	100	63.51
Small firms (100-250)	58	5.17	8.62	18.97	34.48	32.76	100	67.24
Very small firm (< 100)	203	7.88	8.37	20.69	29.06	33.99	100	63.05
University	39	0	2.56	5.13	23.08	69.23	100	92.31
Hospital, foundation, etc. /gov/ othe	19	10.53	0	31.58	36.84	21.05	100	57.89
Missing	61	3.28	11.48	21.31	22.95	40.98	100	63.93

Satisfaction from solving technical problems (チャレンジングな技術課題を解決すること自体への興味)

C.5_A Satisfaction from solving technical problems	all	1	2	3	4	5	Missing	%4 or 5
All	1,919	25	44	180	577	983	110	1560
Large firm (>=501)	1389	16	29	131	435	737	41	1172
Medium SMEs	74	3	3	4	21	43	0	64
Small firms (100-250)	60	1	2	8	14	33	2	47
Very small firm (< 100)	216	4	7	25	69	101	10	170
University	42	0	1	3	9	26	3	35
Hospital, foundation, etc. /gov/ othe	20	1	0	5	6	8	0	14
Missing	118	0	2	4	23	35	54	58

%	N	1	2	3	4	5	Total	%4 or 5
All	1809	1.38	2.43	9.95	31.9	54.34	100	86.24
Large firm (>=501)	1348	1.19	2.15	9.72	32.27	54.67	100	86.94
Medium SMEs	74	4.05	4.05	5.41	28.38	58.11	100	86.49
Small firms (100-250)	58	1.72	3.45	13.79	24.14	56.9	100	81.04
Very small firm (< 100)	206	1.94	3.4	12.14	33.5	49.03	100	82.53
University	39	0	2.56	7.69	23.08	66.67	100	89.75
Hospital, foundation, etc. /gov/ othe	20	5	0	25	30	40	100	70
Missing	64	0	3.13	6.25	35.94	54.69	100	90.63

Japan

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Question 5-1 How important were the following motivations for your invention? (1 = not important, 5 = very important) (当該特許につながる発明への動機の重要度)

Improvement of the performance of the organization I work for (所属組織のパフォーマンス向上)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	3658	173	227	865	1817	473	103
Large firm (> 500)	2932	125	172	690	1498	401	46
Medium firm (251-500)	201	6	9	43	113	24	6
Small firm (101-250)	130	3	9	33	64	13	8
Very small firm (<101)	182	18	17	47	65	18	17
university	82	10	9	24	27	4	8
Other	42	4	5	10	14	5	4
unknown	89	7	6	18	36	8	14

%	N	1	2	3	4	5	Total
All	3555	4.87	6.39	24.33	51.11	13.31	100
Large firm (> 500)	2886	4.33	5.96	23.91	51.91	13.89	100
Medium firm (251-500)	195	3.08	4.62	22.05	57.95	12.31	100
Small firm (101-250)	122	2.46	7.38	27.05	52.46	10.66	100
Very small firm (<101)	165	10.91	10.3	28.48	39.39	10.91	100
university	74	13.51	12.16	32.43	36.49	5.41	100
Other	38	10.53	13.16	26.32	36.84	13.16	100
unknown	75	9.33	8	24	48	10.67	100

Career advances and opportunities for new/better jobs (キャリア向上、より良い仕事に就く機会拡大)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	3658	499	710	1306	867	160	116
Large firm (> 500)	2932	379	580	1084	707	126	56
Medium firm (251-500)	201	25	44	63	53	12	4
Small firm (101-250)	130	21	23	44	30	4	8
Very small firm (<101)	182	30	34	57	37	6	18
university	82	26	10	26	10	2	8
Other	42	7	9	10	9	3	4
unknown	89	11	10	22	21	7	18

%	N	1	2	3	4	5	Total
All	3542	14.09	20.05	36.87	24.48	4.52	100
Large firm (> 500)	2876	13.18	20.17	37.69	24.58	4.38	100
Medium firm (251-500)	197	12.69	22.34	31.98	26.9	6.09	100
Small firm (101-250)	122	17.21	18.85	36.07	24.59	3.28	100
Very small firm (<101)	164	18.29	20.73	34.76	22.56	3.66	100
university	74	35.14	13.51	35.14	13.51	2.7	100
Other	38	18.42	23.68	26.32	23.68	7.89	100
unknown	71	15.49	14.08	30.99	29.58	9.86	100

US

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Question 5-1 How important were the following motivations for your invention? (1 = not important, 5 = very important) (当該特許につながる発明への動機の重要度)

Generating value for my firm/improving my firm's performance

C.5.D Generating value for my firm/improving my firm's performance	all	1	2	3	4	5	Missing	%4 or 5
All	1919	63	69	263	633	779	112	1412
Large firm (>=501)	1389	29	52	201	496	571	40	1067
Medium SMEs	74	1	3	7	32	31	0	63
Small firms (100-250)	60	3	0	10	19	26	2	45
Very small firm (< 100)	216	11	4	24	56	111	10	167
University	42	12	8	7	11	1	3	12
Hospital, foundation, etc. /gov/ othe	20	5	2	3	4	4	2	8
Missing	118	2	0	11	15	35	55	50
%	N	1	2	3	4	5	Total	%4 or 5
All	1807	3.49	3.82	14.6	35	43.1	100	78.14
Large firm (>=501)	1349	2.15	3.85	14.9	36.8	42.3	100	79.1
Medium SMEs	74	1.35	4.05	9.46	43.2	41.9	100	85.13
Small firms (100-250)	58	5.17	0	17.2	32.8	44.8	100	77.59
Very small firm (< 100)	206	5.34	1.94	11.7	27.2	53.9	100	81.06
University	39	30.8	20.5	18	28.2	2.56	100	30.77
Hospital, foundation, etc. /gov/ othe	18	27.8	11.1	16.7	22.2	22.2	100	44.44
Missing	63	3.17	0	17.5	23.8	55.6	100	79.37

Career advances and opportunities for new/better jobs (キャリア向上、より良い仕事に就く機会拡大)

C.5.E Career advances and opportunities for new/better jobs	all	1	2	3	4	5	Missing	%4 or 5
All	1,919	327	361	506	398	196	131	594
Large firm (>=501)	1389	193	260	406	320	160	50	480
Medium SMEs	74	13	14	20	16	10	1	26
Small firms (100-250)	60	17	11	12	13	4	3	17
Very small firm (< 100)	216	74	46	38	28	15	15	43
University	42	13	10	7	8	1	3	9
Hospital, foundation, etc. /gov/ othe	20	8	5	2	3	0	2	3
Missing	118	9	15	21	10	6	57	16
%	N	1	2	3	4	5	Total	%4 or 5
All	1788	18.3	20.2	28.3	22.3	11	100	33.22
Large firm (>=501)	1339	14.4	19.4	30.3	23.9	12	100	35.85
Medium SMEs	73	17.8	19.2	27.4	21.9	13.7	100	35.62
Small firms (100-250)	57	29.8	19.3	21.1	22.8	7.02	100	29.83
Very small firm (< 100)	201	36.8	22.9	18.9	13.9	7.46	100	21.39
University	39	33.3	25.6	18	20.5	2.56	100	23.07
Hospital, foundation, etc. /gov/ othe	18	44.4	27.8	11.1	16.7	0	100	16.67
Missing	61	14.8	24.6	34.4	16.4	9.84	100	26.23

Japan

(3/4)

Question 5-1 How important were the following motivations for your invention? (1 = not important, 5 = very important) (当該特許につながる発明への動機の重要度)

Prestige/reputation (名声・評判)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	3658	649	831	1366	600	91	121
Large firm (> 500)	2932	527	696	1103	479	69	58
Medium firm (251-500)	201	35	53	77	22	5	9
Small firm (101-250)	130	26	27	51	14	4	8
Very small firm (<101)	182	28	30	73	27	5	19
university	82	15	7	28	21	3	8
Other	42	3	7	10	17	1	4
unknown	89	15	11	24	20	4	15

%	N	1	2	3	4	5	Total
All	3537	18.35	23.49	38.62	16.96	2.57	100
Large firm (> 500)	2874	18.34	24.22	38.38	16.67	2.4	100
Medium firm (251-500)	192	18.23	27.6	40.1	11.46	2.6	100
Small firm (101-250)	122	21.31	22.13	41.8	11.48	3.28	100
Very small firm (<101)	163	17.18	18.4	44.79	16.56	3.07	100
university	74	20.27	9.46	37.84	28.38	4.05	100
Other	38	7.89	18.42	26.32	44.74	2.63	100
unknown	74	20.27	14.86	32.43	27.03	5.41	100

Benefits in terms of working condition as a reward by the employer such as research budget available (研究予算の拡大など研究条件での便益)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	3658	661	750	1369	679	81	118
Large firm (> 500)	2932	538	631	1109	535	58	61
Medium firm (251-500)	201	38	42	75	35	3	8
Small firm (101-250)	130	30	25	50	15	2	8
Very small firm (<101)	182	36	31	74	21	3	17
university	82	7	6	21	34	9	5
Other	42	2	6	8	19	3	4
unknown	89	10	9	32	20	3	15

%	N	1	2	3	4	5	Total
All	3540	18.67	21.19	38.67	19.18	2.29	100
Large firm (> 500)	2871	18.74	21.98	38.63	18.63	2.02	100
Medium firm (251-500)	193	19.69	21.76	38.86	18.13	1.55	100
Small firm (101-250)	122	24.59	20.49	40.98	12.3	1.64	100
Very small firm (<101)	165	21.82	18.79	44.85	12.73	1.82	100
university	77	9.09	7.79	27.27	44.16	11.69	100
Other	38	5.26	15.79	21.05	50	7.89	100
unknown	74	13.51	12.16	43.24	27.03	4.05	100

US

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Question 5-1 How important were the following motivations for your invention? (1 = not important, 5 = very important) (当該特許につながる発明への動機の重要度)

Prestige/reputation (名声・評判)

C.5_F Prestige / reputation	all	1	2	3	4	5	Missing	%4 or 5
All	1919	266	341	534	430	227	121	657
Large firm (>=501)	1389	170	265	403	333	172	46	505
Medium SMEs	74	13	9	21	20	11	0	31
Small firms (100-250)	60	9	10	14	13	12	2	25
Very small firm (< 100)	216	58	37	49	43	17	12	60
University	42	3	9	12	10	5	3	15
Hospital, foundation, etc. /gov/ othe	20	4	3	8	1	2	2	3
Missing	118	9	8	27	10	8	56	18

%	N	1	2	3	4	5	Total	%4 or 5
All	1798	14.8	19	29.7	23.9	12.6	100	36.55
Large firm (>=501)	1343	12.7	19.7	30	24.8	12.8	100	37.61
Medium SMEs	74	17.6	12.2	28.4	27	14.9	100	41.89
Very small firm (< 100)	58	15.5	17.2	24.1	22.4	20.7	100	43.1
University	204	28.4	18.1	24	21.1	8.33	100	29.41
Hospital, foundation, etc.	39	7.69	23.1	30.8	25.6	12.8	100	38.46
Other	18	22.2	16.7	44.4	5.56	11.1	100	16.67
Missing	62	14.5	12.9	43.6	16.1	12.9	100	29.03

Benefits in terms of working condition as a reward by the employer such as research budget available (研究予算の拡大など研究条件での便益)

C.5_I Beneficial working conditions from my company (e.g., increased research budget)	all	1	2	3	4	5	Missing	%4 or 5
All	1,919	647	415	418	214	86	139	300
Large firm (>=501)	1389	447	317	337	171	60	57	231
Medium SMEs	74	26	19	15	8	6	0	14
Small firms (100-250)	60	21	10	13	10	4	2	14
Very small firm (< 100)	216	102	39	30	16	11	18	27
University	42	17	10	6	4	2	3	6
Hospital, foundation, etc. /gov/ othe	20	9	4	5	0	0	2	0
Missing	118	25	16	12	5	3	57	8

%	N	1	2	3	4	5	Total	%4 or 5
All	1780	36.4	23.3	23.5	12	4.83	100	16.85
Large firm (>=501)	1332	33.6	23.8	25.3	12.8	4.5	100	17.34
Medium SMEs	74	35.1	25.7	20.3	10.8	8.11	100	18.92
Small firms (100-250)	58	36.2	17.2	22.4	17.2	6.9	100	24.14
Very small firm (< 100)	198	51.5	19.7	15.2	8.08	5.56	100	13.64
University	39	43.6	25.6	15.4	10.3	5.13	100	15.39
Hospital, foundation, etc. /gov/ othe	18	50	22.2	27.8	0	0	100	0
Missing	61	41	26.2	19.7	8.2	4.92	100	13.12

Japan

(4/4)

Question 5-1 How important were the following motivations for your invention? (1 = not important, 5 = very important) (当該特許につながる発明への動機の重要度)

Monetary rewards (金銭的報酬)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	3658	557	773	1390	706	117	115
Large firm (> 500)	2932	421	631	1138	591	96	55
Medium firm (251-500)	201	41	43	83	21	4	9
Small firm (101-250)	130	30	26	48	17	2	7
Very small firm (<101)	182	30	31	59	39	5	18
university	82	19	18	23	13	1	8
Other	42	8	6	16	8	2	2
unknown	89	8	18	23	17	7	16

	%	N	1	2	3	4	5	Total
All		3543	15.72	21.82	39.23	19.93	3.3	100
Large firm (> 500)		2877	14.63	21.93	39.56	20.54	3.34	100
Medium firm (251-500)		192	21.35	22.4	43.23	10.94	2.08	100
Small firm (101-250)		123	24.39	21.14	39.02	13.82	1.63	100
Very small firm (<101)		164	18.29	18.9	35.98	23.78	3.05	100
university		74	25.68	24.32	31.08	17.57	1.35	100
Other		40	20	15	40	20	5	100
unknown		73	10.96	24.66	31.51	23.29	9.59	100

others

	All	非常に重要である	無回答
	All	5	no response
All	3658	3	3655
Large firm (> 500)	2932	1	2931
Medium firm (251-500)	201	0	201
Small firm (101-250)	130	0	130
Very small firm (<101)	182	0	182
university	82	1	81
Other	42	0	42
unknown	89	1	88

	%	N	5	Total
All		3	100	100
Large firm (> 500)		1	100	100
university		1	100	100
unknown		1	100	100

US

(4/7)

Question 5-1 How important were the following motivations for your invention? (1 = not important, 5 = very important) (当該特許につながる発明への動機の重要度)

Monetary rewards (金銭的報酬)

	all	1	2	3	4	5	Missing	%4 or 5
C.5_J Monetary rewards								
All	1919	569	430	408	239	150	123	389
Large firm (>=501)	1389	422	356	316	157	90	48	247
Medium SMEs	74	31	18	13	7	4	1	11
Small firms (100-250)	60	22	10	8	8	10	2	18
Very small firm (< 100)	216	60	25	41	42	36	12	78
University	42	11	4	12	12	0	3	12
Hospital, foundation, etc. /gov/ other	20	4	3	4	5	2	2	7
Missing	118	19	14	14	8	8	55	16
%	all	1	2	3	4	5	Total	%4 or 5
All	1796	31.7	23.9	22.7	13.3	8.35	100	21.66
Large firm (>=501)	1341	31.5	26.6	23.6	11.7	6.71	100	18.42
Medium SMEs	73	42.5	24.7	17.8	9.59	5.48	100	15.07
Small firms (100-250)	58	37.9	17.2	13.8	13.8	17.2	100	31.03
Very small firm (< 100)	204	29.4	12.3	20.1	20.6	17.7	100	38.24
University	39	28.2	10.3	30.8	30.8	0	100	30.77
Hospital, foundation, etc. /gov/ other	18	22.2	16.7	22.2	27.8	11.1	100	38.89
Missing	63	30.2	22.2	22.2	12.7	12.7	100	25.4

US

(5/7)

Question 5-1 How important were the following motivations for your invention? (1 = not important, 5 = very important) (当該特許につながる発明への動機の重要度)

Recognition from co-workers

C.5_G Recognition from co-workers	all	1	2	3	4	5	Missing	%4 or 5
All	1,919	365	378	559	356	140	121	496
Large firm (>=501)	1389	220	294	431	285	114	45	399
Medium SMEs	74	19	12	21	16	6	0	22
Small firms (100-250)	60	16	7	17	15	3	2	18
Very small firm (< 100)	216	83	37	49	26	9	12	35
University	42	8	9	12	8	2	3	10
Hospital, foundation, etc. /gov/ othe	20	6	7	5	0	0	2	0
Missing	118	13	12	24	6	6	57	12

%	N	1	2	3	4	5	Total	%4 or 5
All	1798	20.3	21	31.1	19.8	7.79	100	27.59
Large firm (>=501)	1344	16.4	21.9	32.1	21.2	8.48	100	29.69
Medium SMEs	74	25.7	16.2	28.4	21.6	8.11	100	29.73
Small firms (100-250)	58	27.6	12.1	29.3	25.9	5.17	100	31.03
Very small firm (< 100)	204	40.7	18.1	24	12.8	4.41	100	17.16
University	39	20.5	23.1	30.8	20.5	5.13	100	25.64
Hospital, foundation, etc. /gov/ othe	18	33.3	38.9	27.8	0	0	100	0
Missing	61	21.3	19.7	39.3	9.84	9.84	100	19.68

Recognition from others in the same profession (outside the firm)

C.5_H Recognition from others in the same profession (outside the firm)	all	1	2	3	4	5	Missing	%4 or 5
All	1919	475	410	449	320	134	131	454
Large firm (>=501)	1389	342	321	349	227	98	52	325
Medium SMEs	74	16	19	18	13	8	0	21
Small firms (100-250)	60	21	8	10	15	4	2	19
Very small firm (< 100)	216	72	38	37	44	12	13	56
University	42	4	8	8	12	6	4	18
Hospital, foundation, etc. /gov/ othe	20	5	3	6	2	1	3	3
Missing	118	15	13	21	7	5	57	12

%	all	1	2	3	4	5	Total	%4 or 5
All	1788	26.6	22.9	25.1	17.9	7.49	100	25.39
Large firm (>=501)	1337	25.6	24	26.1	17	7.33	100	24.31
Medium SMEs	74	21.6	25.7	24.3	17.6	10.8	100	28.38
Small firms (100-250)	58	36.2	13.8	17.2	25.9	6.9	100	32.76
Very small firm (< 100)	203	35.5	18.7	18.2	21.7	5.91	100	27.58
University	38	10.5	21.1	21.1	31.6	15.8	100	47.37
Hospital, foundation, etc. /gov/ othe	17	29.4	17.7	35.3	11.8	5.88	100	17.64
Missing	61	24.6	21.3	34.4	11.5	8.2	100	19.68

US

(6/7)

Question 5-1 How important were the following motivations for your invention? (1 = not important, 5 = very important) (当該特許につながる発明への動機の重要度)

For societal good

C5_K For societal good	all	1	2	3	4	5	Missing	%4 or 5
All	1,919	514	376	405	284	210	130	494
Large firm (>=501)	1389	407	302	314	187	123	56	310
Medium SMEs	74	18	20	17	10	8	1	18
Small firms (100-250)	60	16	8	11	12	11	2	23
Very small firm (< 100)	216	48	32	37	49	38	12	87
University	42	1	5	8	12	13	3	25
Hospital, foundation, etc. /gov/ other	20	3	1	3	4	8	1	12
Missing	118	21	8	15	10	9	55	19

%	N	1	2	3	4	5	Total	%4 or 5
All	1789	28.73	21.02	22.64	15.87	11.74	100	27.61
Large firm (>=501)	1333	30.53	22.66	23.56	14.03	9.23	100	23.26
Medium SMEs	73	24.66	27.4	23.29	13.7	10.96	100	24.66
Small firms (100-250)	58	27.59	13.79	18.97	20.69	18.97	100	39.66
Very small firm (< 100)	204	23.53	15.69	18.14	24.02	18.63	100	42.65
University	39	2.56	12.82	20.51	30.77	33.33	100	64.1
Hospital, foundation, etc. /gov/ other	19	15.79	5.26	15.79	21.05	42.11	100	63.16
Missing	63	33.33	12.7	23.81	15.87	14.29	100	30.16

Japan

Question 5-1 How important were the following motivations for your invention? (1 = not important, 5 = very important) (当該特許につながる発明への動機の重要度)

4 or 5

%	Satisfaction from the contribution to the progress of science and technology	Satisfaction from solving technical problems	Improvement of the performance of the organization I work for	Career advances and opportunities for new/better jobs	Prestige/reputation	Benefits in terms of working condition as a reward by the employer such as research budget available	Monetary rewards
All	61.54	90.50	64.42	28.99	19.54	21.47	23.23
Large firm (> 500)	61.26	90.76	65.80	28.96	19.07	20.65	23.88
Medium firm (251-500)	50.51	89.45	70.26	32.99	14.06	19.69	13.02
Small firm (101-250)	51.22	86.05	63.11	27.87	14.75	13.93	15.45
Very small firm (<101)	61.76	89.53	50.30	26.22	19.63	14.55	26.83
university	95.00	91.03	41.89	16.22	32.43	55.84	18.92
Other	92.50	95.00	50.00	31.58	47.37	57.89	25.00
unknown	64.94	89.87	58.67	39.44	32.43	31.08	32.88

US

(7/7)

Question 5-1 How important were the following motivations for your invention? (1 = not important, 5 = very important) (当該特許につながる発明への動機の重要度)

4 or 5

C5 (4 or 5) %

	B Satisfaction from contributing to the progress of science and technology	A Satisfaction from solving technical problems	D Generating value for my firm/improving my firm's performance	E Career advances and opportunities for new/better jobs	F Prestige / reputation	I Beneficial working conditions from my company (e.g., increased research budget)	J Monetary rewards
All	62.15	86.24	78.14	33.22	36.55	16.85	21.66
Large firm (>=501)	60.82	86.94	79.1	35.85	37.61	17.34	18.42
Medium SMEs	63.51	86.49	85.13	35.62	41.89	18.92	15.07
Small firms (100-250)	67.24	81.04	77.59	29.83	43.1	24.14	31.03
Very small firm (< 100)	63.05	82.53	81.06	21.39	29.41	13.64	38.24
University	92.31	89.75	30.77	23.07	38.46	15.39	30.77
Hospital, foundation, etc. /gov/ other	57.89	70	44.44	16.67	16.67	0	38.89
Missing	63.93	90.63	79.37	26.23	29.03	13.12	25.4

	C It's my job to invent	G Recognition from co-workers	H Recognition from others in the same profession (outside the firm)	K For societal good
All	48.13	27.59	25.39	27.61
Large firm (>=501)	50.33	29.69	24.31	23.26
Medium SMEs	41.89	29.73	28.38	24.66
Small firms (100-250)	41.38	31.03	32.76	39.66
Very small firm (< 100)	42.65	17.16	27.58	42.65
University	17.95	25.64	47.37	64.1
Hospital, foundation, etc. /gov/ other	26.32	0	17.64	63.16
Missing	57.81	19.68	19.68	30.16

Japan

Question 6-1 Economic value of the patent (当該発明の経済的価値は同時期の技術開発成果全体における地位)

Economic value in Japan (当該発明の経済的価値(国内))

	All All	最上位10% Top 10%	上位25% Top25%, but not top 10%	中位 Top half, but not top 25%	下位50% Bottom half	不明 Don't know	無回答 no response
All	3658	288	671	1045	675	906	73
Large firm (> 500)	2932	209	532	847	578	714	52
Medium firm (251-500)	201	13	27	65	34	62	0
Small firm (101-250)	130	13	22	32	23	39	1
Very small firm (<101)	182	30	38	49	13	46	6
university	82	6	25	21	12	17	1
Other	42	9	8	6	4	14	1
unknown	89	8	19	25	11	14	12

%	N	Top 10%	Top25%, but not top 10%	Top half, but not top 25%	Bottom half	Total
All	2679	10.75	25.05	39.01	25.2	100
Large firm (> 500)	2166	9.65	24.56	39.1	26.69	100
Medium firm (251-500)	139	9.35	19.42	46.76	24.46	100
Small firm (101-250)	90	14.44	24.44	35.56	25.56	100
Very small firm (<101)	130	23.08	29.23	37.69	10	100
university	64	9.38	39.06	32.81	18.75	100
Other	27	33.33	29.63	22.22	14.81	100
unknown	63	12.7	30.16	39.68	17.46	100

Economic value in the world (当該発明の経済的価値(世界))

	All All	最上位10% Top 10%	上位25% Top25%, but not top 10%	中位 Top half, but not top 25%	下位50% Bottom half	不明 Don't know	無回答 no response
All	3658	223	617	961	659	1103	95
Large firm (> 500)	2932	157	496	769	570	874	66
Medium firm (250-500)	201	11	18	64	32	76	0
Small firm (100-250)	130	10	15	26	23	49	7
Very small firm (<100)	182	23	40	45	13	53	8
university	82	5	24	24	9	19	1
Other	42	8	8	8	2	16	0
unknown	89	9	16	25	10	16	13

%	N	Top 10%	Top25%, but not top 10%	Top half, but not top 25%	Bottom half	Total
All	2460	9.07	25.08	39.07	26.79	100
Large firm (> 500)	1992	7.88	24.9	38.6	28.61	100
Medium firm (250-500)	125	8.8	14.4	51.2	25.6	100
Small firm (100-250)	74	13.51	20.27	35.14	31.08	100
Very small firm (<100)	121	19.01	33.06	37.19	10.74	100
university	62	8.06	38.71	38.71	14.52	100
Other	26	30.77	30.77	30.77	7.69	100
unknown	60	15	26.67	41.67	16.67	100

US

(1/2)

Question 6-1 Economic value of the patent(当該発明の経済的価値は同時期の技術開発成果全体における地位)

Economic value in the US

B.2	all	Top 10%	Top25%, but not top 10%	Top half, but not top 25%	Bottom half	Don't know	Missing
All	1919	183	256	383	643	309	145
Large firm (>=501)	1389	115	193	272	519	224	66
Medium SMEs	74	3	11	18	20	17	5
Small firms (100-250)	60	5	8	17	15	9	6
Very small firm (< 100)	216	38	30	59	50	33	6
University	42	8	5	6	8	10	5
Hospital, foundation, etc. /gov/ other	20	6	1	3	4	5	1
Missing	118	8	8	8	27	11	56

%	N	Top 10%	Top25%, but not top 10%	Top half, but not top 25%	Bottom half	Total
All	1465	12.49	17.47	26.14	43.89	100
Large firm (>=501)	1099	10.46	17.56	24.75	47.22	100
Medium SMEs	52	5.77	21.15	34.62	38.46	100
Small firms (100-250)	45	11.11	17.78	37.78	33.33	100
Very small firm (< 100)	177	21.47	16.95	33.33	28.25	100
University	27	29.63	18.52	22.22	29.63	100
Hospital, foundation, etc. /gov/ other	14	42.86	7.14	21.43	28.57	100
Missing	51	15.69	15.69	15.69	52.94	100

Economic value – in the World Wide

B.2	all	Top 10%	Top25%, but not top 10%	Top half, but not top 25%	Bottom half	Don't know	Missing
All	1919	159	220	335	621	389	195
Large firm (>=501)	1389	98	167	243	497	283	101
Medium SMEs	74	4	12	14	20	18	6
Small firms (100-250)	60	5	5	17	12	13	8
Very small firm (< 100)	216	31	24	45	53	49	14
University	42	9	5	6	7	11	4
Hospital, foundation, etc. /gov/ other	20	6	1	2	4	4	3
Missing	118	6	6	8	28	11	59

%	N	Top 10%	Top25%, but not top 10%	Top half, but not top 25%	Bottom half	Total
All	1335	11.91	16.49	25.09	46.52	100
Large firm (>=501)	1005	9.75	16.62	24.18	49.45	100
Medium SMEs	50	8	24	28	40	100
Small firms (100-250)	39	12.82	12.82	43.59	30.77	100
Very small firm (< 100)	153	20.26	15.69	29.41	34.64	100
University	27	33.33	18.52	22.22	25.93	100
Hospital, foundation, etc. /gov/ other	13	46.15	7.69	15.38	30.77	100
Missing	48	12.5	12.5	16.67	58.33	100

US

(2/2)

Question 6-1 Economic value of the patent(当該発明の経済的価値は同時期の技術開発成果全体における地位)

Technical significance in the US

B.1	all	Top 10%	Top25%, but not top 10%	Top half, but not top 25%	Bottom half	Don't know	Missing
All	1919	218	296	387	489	340	189
Large firm (>=501)	1389	128	210	320	401	235	95
Medium SMEs	74	5	15	12	15	22	5
Small firms (100-250)	60	10	8	7	17	10	8
Very small firm (< 100)	216	47	43	30	36	45	15
University	42	13	10	2	3	10	4
Hospital, foundation, etc. /gov/ other	20	5	2	4	1	5	3
Missing	118	10	8	12	16	13	59

%	N	Top 10%	Top25%, but not top 10%	Top half, but not top 25%	Bottom half	Total
All	1390	15.68	21.29	27.84	35.18	100
Large firm (>=501)	1059	12.09	19.83	30.22	37.87	100
Medium SMEs	47	10.64	31.91	25.53	31.91	100
Small firms (100-250)	42	23.81	19.05	16.67	40.48	100
Very small firm (< 100)	156	30.13	27.56	19.23	23.08	100
University	28	46.43	35.71	7.14	10.71	100
Hospital, foundation, etc. /gov/ other	12	41.67	16.67	33.33	8.33	100
Missing	46	21.74	17.39	26.09	34.78	100

Technical significance - in the World Wide

B.1	all	Top 10%	Top25%, but not top 10%	Top half, but not top 25%	Bottom half	Don't know	Missing
All	1919	183	256	383	643	309	145
Large firm (>=501)	1389	115	193	272	519	224	66
Medium SMEs	74	3	11	18	20	17	5
Small firms (100-250)	60	5	8	17	15	9	6
Very small firm (< 100)	216	38	30	59	50	33	6
University	42	8	5	6	8	10	5
Hospital, foundation, etc. /gov/ other	20	6	1	3	4	5	1
Missing	118	8	8	8	27	11	56

%	N	Top 10%	Top25%, but not top 10%	Top half, but not top 25%	Bottom half	Total
All	1465	12.49	17.47	26.14	43.89	100
Large firm (>=501)	1099	10.46	17.56	24.75	47.22	100
Medium SMEs	52	5.77	21.15	34.62	38.46	100
Small firms (100-250)	45	11.11	17.78	37.78	33.33	100
Very small firm (< 100)	177	21.47	16.95	33.33	28.25	100
University	27	29.63	18.52	22.22	29.63	100
Hospital, foundation, etc. /gov/ other	14	42.86	7.14	21.43	28.57	100
Missing	51	15.69	15.69	15.69	52.94	100

Japan

(1/6)

Question6-2 How important were the following reasons for patenting this invention? (1 = not important, 5 = very important)?(特許化の理由としての重要度)

Commercial exploitation (自社製品・自社製造工程での排他的な利用)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	3658	46	97	252	1209	1259	795
Large firm (> 500)	2932	31	77	193	951	1057	623
Medium firm (251-500)	201	0	4	9	88	61	39
Small firm (101-250)	130	1	5	9	48	41	26
Very small firm (<101)	182	4	2	16	59	62	39
university	82	4	4	11	23	17	23
Other	42	5	3	8	8	8	10
unknown	89	1	2	6	32	13	35

	%	N	1	2	3	4	5	Total
All		2863	1.61	3.39	8.8	42.23	43.97	100
Large firm (> 500)		2309	1.34	3.33	8.36	41.19	45.78	100
Medium firm (251-500)		162	0	2.47	5.56	54.32	37.65	100
Small firm (101-250)		104	0.96	4.81	8.65	46.15	39.42	100
Very small firm (<101)		143	2.8	1.4	11.19	41.26	43.36	100
university		59	6.78	6.78	18.64	38.98	28.81	100
Other		32	15.63	9.38	25	25	25	100
unknown		54	1.85	3.7	11.11	59.26	24.07	100

Licensing (ライセンス)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	3658	153	377	722	1114	462	830
Large firm (> 500)	2932	114	304	564	930	369	651
Medium firm (251-500)	201	11	31	53	47	15	44
Small firm (101-250)	130	9	20	34	29	8	30
Very small firm (<101)	182	12	13	40	41	34	42
university	82	3	5	10	32	13	19
Other	42	2	0	5	14	12	9
unknown	89	2	4	16	21	11	35

	%	N	1	2	3	4	5	Total
All		2828	5.41	13.33	25.53	39.39	16.34	100
Large firm (> 500)		2281	5	13.33	24.73	40.77	16.18	100
Medium firm (251-500)		157	7.01	19.75	33.76	29.94	9.55	100
Small firm (101-250)		100	9	20	34	29	8	100
Very small firm (<101)		140	8.57	9.29	28.57	29.29	24.29	100
university		63	4.76	7.94	15.87	50.79	20.63	100
Other		33	6.06	0	15.15	42.42	36.36	100
unknown		54	3.7	7.41	29.63	38.89	20.37	100

US

(1/5)

Question6-2 How important were the following reasons for patenting this invention? (1 = not important, 5 = very important)?(特許化の理由としての重要度)

Commercial exploitation (自社製品・自社製造工程での排他的な利用)

B3_a Commercial exploitation	all	1	2	3	4	5	Missing	%4 or 5
All	1,919	97	73	154	386	1067	142	1453
Large firm (>=501)	1389	80	55	113	300	777	64	1077
Medium SMEs	74	3	4	5	17	41	4	58
Small firms (100-250)	60	2	1	3	10	38	6	48
Very small firm (< 100)	216	5	5	15	35	149	7	184
University	42	4	3	6	8	17	4	25
Hospital, foundation, etc. /gov/ other	20	3	0	4	4	8	1	12
Missing	118	0	5	8	12	37	56	49

%	N	1	2	3	4	5	Total	%4 or 5
All	1777	5.46	4.11	8.67	21.72	60.05	100	81.77
Large firm (>=501)	1325	6.04	4.15	8.53	22.64	58.64	100	81.28
Medium SMEs	70	4.29	5.71	7.14	24.29	58.57	100	82.86
Small firms (100-250)	54	3.7	1.85	5.56	18.52	70.37	100	88.89
Very small firm (< 100)	209	2.39	2.39	7.18	16.75	71.29	100	88.04
University	38	10.53	7.89	15.79	21.05	44.74	100	65.79
Hospital, foundation, etc. /gov/ other	19	15.79	0	21.05	21.05	42.11	100	63.16
Missing	62	0	8.06	12.9	19.35	59.68	100	79.03

Licensing (ライセンス)

B3_b Licensing	all	1	2	3	4	5	Missing	%4 or 5
All	1919	658	262	282	254	276	187	530
Large firm (>=501)	1389	522	207	219	182	162	97	344
Medium SMEs	74	31	13	8	12	5	5	17
Small firms (100-250)	60	26	5	9	4	10	6	14
Very small firm (< 100)	216	51	27	29	33	64	12	97
University	42	3	2	5	9	17	6	26
Hospital, foundation, etc. /gov/ other	20	4	2	3	4	5	2	9
Missing	118	21	6	9	10	13	59	23

%	N	1	2	3	4	5	Total	%4 or 5
All	1732	37.99	15.13	16.28	14.67	15.94	100	30.61
Large firm (>=501)	1292	40.4	16.02	16.95	14.09	12.54	100	26.63
Medium SMEs	69	44.93	18.84	11.59	17.39	7.25	100	24.64
Small firms (100-250)	54	48.15	9.26	16.67	7.41	18.52	100	25.93
Very small firm (< 100)	204	25	13.24	14.22	16.18	31.37	100	47.55
University	36	8.33	5.56	13.89	25	47.22	100	72.22
Hospital, foundation, etc. /gov/ other	18	22.22	11.11	16.67	22.22	27.78	100	50
Missing	59	35.59	10.17	15.25	16.95	22.03	100	38.98

Japan

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Question6-2 How important were the following reasons for patenting this invention? (1 = not important, 5 = very important)?(特許化の理由としての重要度)

Cross-licensing (クロスライセンシング)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	3658	182	341	762	1140	388	845
Large firm (> 500)	2932	117	245	582	982	356	650
Medium firm (251-500)	201	11	40	59	40	6	45
Small firm (101-250)	130	10	25	36	23	7	29
Very small firm (<101)	182	15	16	53	41	10	47
university	82	15	4	10	25	4	24
Other	42	8	5	9	6	3	11
unknown	89	6	6	13	23	2	39

	%	N	1	2	3	4	5	Total
All		2813	6.47	12.12	27.09	40.53	13.79	100
Large firm (> 500)		2282	5.13	10.74	25.5	43.03	15.6	100
Medium firm (251-500)		156	7.05	25.64	37.82	25.64	3.85	100
Small firm (101-250)		101	9.9	24.75	35.64	22.77	6.93	100
Very small firm (<101)		135	11.11	11.85	39.26	30.37	7.41	100
university		58	25.86	6.9	17.24	43.1	6.9	100
Other		31	25.81	16.13	29.03	19.35	9.68	100
unknown		50	12	12	26	46	4	100

Pure defense (純粋的な防衛)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	3658	134	239	552	1338	566	829
Large firm (> 500)	2932	97	189	440	1113	451	642
Medium firm (251-500)	201	2	14	25	85	31	44
Small firm (101-250)	130	6	11	20	40	25	28
Very small firm (<101)	182	5	12	32	54	36	43
university	82	13	7	15	17	8	22
Other	42	9	4	6	6	7	10
unknown	89	2	2	14	23	8	40

	%	N	1	2	3	4	5	Total
All		2829	4.74	8.45	19.51	47.3	20.01	100
Large firm (> 500)		2290	4.24	8.25	19.21	48.6	19.69	100
Medium firm (251-500)		157	1.27	8.92	15.92	54.14	19.75	100
Small firm (101-250)		102	5.88	10.78	19.61	39.22	24.51	100
Very small firm (<101)		139	3.6	8.63	23.02	38.85	25.9	100
university		60	21.67	11.67	25	28.33	13.33	100
Other		32	28.13	12.5	18.75	18.75	21.88	100
unknown		49	4.08	4.08	28.57	46.94	16.33	100

US

(2/5)

Question6-2 How important were the following reasons for patenting this invention? (1 = not important, 5 = very important)?(特許化の理由としての重要度)

Cross-licensing (クロスライセンシング)

B3_c Cross-licensing	all	1	2	3	4	5	Missing	%4 or 5
All	1,919	762	256	284	233	187	197	420
Large firm (>=501)	1389	542	181	220	199	148	99	347
Medium SMEs	74	37	16	6	6	3	6	9
Small firms (100-250)	60	28	8	13	2	3	6	5
Very small firm (< 100)	216	100	33	30	13	23	17	36
University	42	23	5	3	3	2	6	5
Hospital, foundation, etc. /gov/ other	20	7	2	2	4	2	3	6
Missing	118	25	11	10	6	6	60	12

%	N	1	2	3	4	5	Total	%4 or 5
All	1722	44.3	14.9	16.5	13.5	10.9	100	24.39
Large firm (>=501)	1290	42	14	17.1	15.4	11.5	100	26.9
Medium SMEs	68	54.4	23.5	8.82	8.82	4.41	100	13.23
Small firms (100-250)	54	51.9	14.8	24.1	3.7	5.56	100	9.26
Very small firm (< 100)	199	50.3	16.6	15.1	6.53	11.6	100	18.09
University	36	63.9	13.9	8.33	8.33	5.56	100	13.89
Hospital, foundation, etc. /gov/ other	17	41.2	11.8	11.8	23.5	11.8	100	35.29
Missing	52	43.1	19	17.2	10.3	10.3	100	20.68

Pure defense (純粋的な防衛)

B3_d Pure defense	all	1	2	3	4	5	Missing	%4 or 5
All	1919	398	211	358	389	384	179	773
Large firm (>=501)	1389	271	157	282	301	291	87	592
Medium SMEs	74	22	9	7	22	9	5	31
Small firms (100-250)	60	13	10	7	11	13	6	24
Very small firm (< 100)	216	54	25	44	32	45	16	77
University	42	19	2	4	7	6	4	13
Hospital, foundation, etc. /gov/ other	20	7	4	3	0	4	2	4
Missing	118	12	4	11	16	16	59	32

%	N	1	2	3	4	5	Total	%4 or 5
All	1740	22.9	12.1	20.6	22.4	22.1	100	44.43
Large firm (>=501)	1302	20.8	12.1	21.7	23.1	22.4	100	45.47
Medium SMEs	69	31.9	13	10.1	31.9	13	100	44.92
Small firms (100-250)	54	24.1	18.5	13	20.4	24.1	100	44.44
Very small firm (< 100)	200	27	12.5	22	16	22.5	100	38.5
University	38	50	5.26	10.5	18.4	15.8	100	34.21
Hospital, foundation, etc. /gov/ other	18	38.9	22.2	16.7	0	22.2	100	22.22
Missing	59	20.3	6.78	18.6	27.1	27.1	100	54.24

Japan

(3/6)

Question6-2 How important were the following reasons for patenting this invention? (1 = not important, 5 = very important)?(特許化の理由としての重要度)

Blocking patents (ブロッキング特許)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	3658	121	202	508	1428	570	829
Large firm (> 500)	2932	87	162	414	1165	460	644
Medium firm (251-500)	201	1	11	21	94	31	43
Small firm (101-250)	130	4	5	18	48	29	26
Very small firm (<101)	182	5	5	24	73	32	43
university	82	12	8	11	21	7	23
Other	42	11	6	5	5	5	10
unknown	89	1	5	15	22	6	40

	%	N	1	2	3	4	5	Total
All		2829	4.28	7.14	17.96	50.48	20.15	100
Large firm (> 500)		2288	3.8	7.08	18.09	50.92	20.1	100
Medium firm (251-500)		158	0.63	6.96	13.29	59.49	19.62	100
Small firm (101-250)		104	3.85	4.81	17.31	46.15	27.88	100
Very small firm (<101)		139	3.6	3.6	17.27	52.52	23.02	100
university		59	20.34	13.56	18.64	35.59	11.86	100
Other		32	34.38	18.75	15.63	15.63	15.63	100
unknown		49	2.04	10.2	30.61	44.9	12.24	100

Prevention of inventing-around (迂回の防止)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	3658	187	383	1017	1000	218	853
Large firm (> 500)	2932	141	321	838	802	171	659
Medium firm (251-500)	201	4	24	57	61	10	45
Small firm (101-250)	130	8	8	37	38	10	29
Very small firm (<101)	182	7	10	43	59	16	47
university	82	15	6	17	16	4	24
Other	42	9	7	6	8	3	9
unknown	89	3	7	19	16	4	40

	%	N	1	2	3	4	5	Total
All		2805	6.67	13.65	36.26	35.65	7.77	100
Large firm (> 500)		2273	6.2	14.12	36.87	35.28	7.52	100
Medium firm (251-500)		156	2.56	15.38	36.54	39.1	6.41	100
Small firm (101-250)		101	7.92	7.92	36.63	37.62	9.9	100
Very small firm (<101)		135	5.19	7.41	31.85	43.7	11.85	100
university		58	25.86	10.34	29.31	27.59	6.9	100
Other		33	27.27	21.21	18.18	24.24	9.09	100
unknown		49	6.12	14.29	38.78	32.65	8.16	100

US

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Question6-2 How important were the following reasons for patenting this invention? (1 = not important, 5 = very important)?(特許化の理由としての重要度)

Blocking patents (ブロッキング特許)

B3_e Blocking patents	all	1	2	3	4	5	Missing	%4 or 5
All	1,919	365	200	374	419	376	185	795
Large firm (>=501)	1389	257	149	291	314	288	90	602
Medium SMEs	74	15	4	12	23	15	5	38
Small firms (100-250)	60	10	8	11	14	11	6	25
Very small firm (< 100)	216	46	27	43	39	45	16	84
University	42	18	1	5	10	3	5	13
Hospital, foundation, etc. /gov/ other	20	6	5	1	0	5	3	5
Missing	118	13	6	11	19	9	60	28

%	N	1	2	3	4	5	Total	%4 or 5
All	1734	21.1	11.5	21.6	24.2	21.7	100	45.84
Large firm (>=501)	1299	19.8	11.5	22.4	24.2	22.2	100	46.34
Medium SMEs	69	21.7	5.8	17.4	33.3	21.7	100	55.07
Small firms (100-250)	54	18.5	14.8	20.4	25.9	20.4	100	46.3
Very small firm (< 100)	200	23	13.5	21.5	19.5	22.5	100	42
University	37	48.7	2.7	13.5	27	8.11	100	35.14
Hospital, foundation, etc. /gov/ other	17	35.3	29.4	5.88	0	29.4	100	29.41
Missing	58	22.4	10.3	19	32.8	15.5	100	48.28

Prevention of inventing-around (迂回の防止)

B3_f Preventing inventing-around other key patents of your firm	all	1	2	3	4	5	Missing	%4 or 5
All	1919	818	282	258	214	148	199	362
Large firm (>=501)	1389	585	216	209	172	105	102	277
Medium SMEs	74	32	11	10	8	8	5	16
Small firms (100-250)	60	29	7	6	3	8	7	11
Very small firm (< 100)	216	109	34	18	20	19	16	39
University	42	26	2	5	2	2	5	4
Hospital, foundation, etc. /gov/ other	20	10	2	2	1	2	3	3
Missing	118	27	10	8	8	4	61	12

%	N	1	2	3	4	5	Total	%4 or 5
All	1720	47.6	16.4	15	12.4	8.6	100	21.04
Large firm (>=501)	1287	45.5	16.8	16.2	13.4	8.16	100	21.52
Medium SMEs	69	46.4	15.9	14.5	11.6	11.6	100	23.18
Small firms (100-250)	53	54.7	13.2	11.3	5.66	15.1	100	20.75
Very small firm (< 100)	200	54.5	17	9	10	9.5	100	19.5
University	37	70.3	5.41	13.5	5.41	5.41	100	10.82
Hospital, foundation, etc. /gov/ other	17	58.8	11.8	11.8	5.88	11.8	100	17.64
Missing	57	47.4	17.5	14	14	7.02	100	21.06

Japan

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Question6-2 How important were the following reasons for patenting this invention? (1 = not important, 5 = very important)?(特許化の理由としての重要度)

Inventor's reputation (発明者の評判)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	3658	646	780	1051	286	49	846
Large firm (> 500)	2932	541	654	854	196	30	657
Medium firm (251-500)	201	31	49	56	16	2	47
Small firm (101-250)	130	22	28	43	7	0	30
Very small firm (<101)	182	31	25	54	22	5	45
university	82	10	8	16	23	4	21
Other	42	5	3	8	12	5	9
unknown	89	6	13	20	10	3	37

	%	N	1	2	3	4	5	Total
All		2812	22.97	27.74	37.38	10.17	1.74	100
Large firm (> 500)		2275	23.78	28.75	37.54	8.62	1.32	100
Medium firm (251-500)		154	20.13	31.82	36.36	10.39	1.3	100
Small firm (101-250)		100	22	28	43	7	0	100
Very small firm (<101)		137	22.63	18.25	39.42	16.06	3.65	100
university		61	16.39	13.11	26.23	37.7	6.56	100
Other		33	15.15	9.09	24.24	36.36	15.15	100
unknown		52	11.54	25	38.46	19.23	5.77	100

Corporation's reputation (Patenting enhances the technological reputation of the firm) (企業の評判)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	3658	319	451	887	980	189	832
Large firm (> 500)	2932	279	397	745	745	117	649
Medium firm (251-500)	201	14	19	42	69	15	42
Small firm (101-250)	130	6	12	27	43	13	29
Very small firm (<101)	182	7	9	40	62	21	43
university	82	7	4	14	29	5	23
Other	42	3	3	7	9	9	11
unknown	89	3	7	12	23	9	35

	%	N	1	2	3	4	5	Total
All		2826	11.29	15.96	31.39	34.68	6.69	100
Large firm (> 500)		2283	12.22	17.39	32.63	32.63	5.12	100
Medium firm (251-500)		159	8.81	11.95	26.42	43.4	9.43	100
Small firm (101-250)		101	5.94	11.88	26.73	42.57	12.87	100
Very small firm (<101)		139	5.04	6.47	28.78	44.6	15.11	100
university		59	11.86	6.78	23.73	49.15	8.47	100
Other		31	9.68	9.68	22.58	29.03	29.03	100
unknown		54	5.56	12.96	22.22	42.59	16.67	100

US

(4/5)

Question6-2 How important were the following reasons for patenting this invention? (1 = not important, 5 = very important)?(特許化の理由としての重要度)

Inventor's reputation

B3_g Inventor's reputation	all	1	2	3	4	5	Missing	%4 or 5
All	1,919	911	295	261	169	95	188	264
Large firm (>=501)	1389	671	230	205	124	66	93	190
Medium SMEs	74	36	14	10	5	4	5	9
Small firms (100-250)	60	29	6	11	5	3	6	8
Very small firm (< 100)	216	129	24	20	16	10	17	26
University	42	11	5	6	8	7	5	15
Hospital, foundation, etc. /gov/ other	20	9	3	1	3	0	4	3
Missing	118	26	13	8	8	5	58	13

%	N	1	2	3	4	5	Total	%4 or 5
All	1731	52.63	17.04	15.08	9.76	5.49	100	15.25
Large firm (>=501)	1296	51.77	17.75	15.82	9.57	5.09	100	14.66
Medium SMEs	69	52.17	20.29	14.49	7.25	5.8	100	13.05
Small firms (100-250)	54	53.7	11.11	20.37	9.26	5.56	100	14.82
Very small firm (< 100)	199	64.82	12.06	10.05	8.04	5.03	100	13.07
University	37	29.73	13.51	16.22	21.62	18.92	100	40.54
Hospital, foundation, etc. /gov/ other	16	56.25	18.75	6.25	18.75	0	100	18.75
Missing	60	43.33	21.67	13.33	13.33	8.33	100	21.66

Firm's reputation

B3_h Firm's reputation	all	1	2	3	4	5	Missing	%4 or 5
All	1919	499	273	447	337	191	172	528
Large firm (>=501)	1389	360	224	349	245	127	84	372
Medium SMEs	74	17	3	24	14	11	5	25
Small firms (100-250)	60	16	5	14	10	9	6	19
Very small firm (< 100)	216	70	16	42	44	33	11	77
University	42	13	5	6	9	5	4	14
Hospital, foundation, etc. /gov/ other	20	7	5	2	3	0	3	3
Missing	118	16	15	10	12	6	59	18

%	N	1	2	3	4	5	Total	%4 or 5
All	1747	28.56	15.63	25.59	19.29	10.93	100	30.22
Large firm (>=501)	1305	27.59	17.16	26.74	18.77	9.73	100	28.5
Medium SMEs	69	24.64	4.35	34.78	20.29	15.94	100	36.23
Small firms (100-250)	54	29.63	9.26	25.93	18.52	16.67	100	35.19
Very small firm (< 100)	205	34.15	7.8	20.49	21.46	16.1	100	37.56
University	38	34.21	13.16	15.79	23.68	13.16	100	36.84
Hospital, foundation, etc. /gov/ other	17	41.18	29.41	11.76	17.65	0	100	17.65
Missing	59	27.12	25.42	16.95	20.34	10.17	100	30.51

Japan

(5/6)

Question6-2 How important were the following reasons for patenting this invention? (1 = not important, 5 = very important)?(特許化の理由としての重要度)

others

	All	どちらでもない	非常に重要である	無回答
	All	other	5	no response
All	3658	1	1	3656
Large firm (> 500)	2932	1	0	2931
Medium firm (251-500)	201	0	0	201
Small firm (101-250)	130	0	0	130
Very small firm (<101)	182	0	0	182
university	82	0	1	81
Other	42	0	0	42
unknown	89	0	0	89
%	N	other	5	Total
All	2	50	50	100
Large firm (> 500)	1	100	0	100
Medium firm (251-500)	1	0	100	100

Japan

(6/6)

Question6-2 How important were the following reasons for patenting this invention? (1 = not important, 5 = very important)?(特許化の理由としての重要度)

4 or 5

%	Commercial exploitation	Licensing	Cross-licensing	Pure defense	Blocking patents	Prevention of inventing-around	Inventors' reputation	Corporations' reputation (Patenting enhances the technological reputation of the firm)
All	43.97	16.34	13.79	20.01	20.15	7.77	1.74	6.69
Large firm (> 500)	45.78	16.18	15.60	19.69	20.10	7.52	1.32	5.12
Medium firm (250-500)	37.65	9.55	3.85	19.75	19.62	6.41	1.30	9.43
Small firm (100-250)	39.42	8.00	6.93	24.51	27.88	9.90	0.00	12.87
Very small firm (<100)	43.36	24.29	7.41	25.90	23.02	11.85	3.65	15.11
university	28.81	20.63	6.90	13.33	11.86	6.90	6.56	8.47
Other	25.00	36.36	9.68	21.88	15.63	9.09	15.15	29.03
unknown	24.07	20.37	4.00	16.33	12.24	8.16	5.77	16.67

US

(5/5)

Question6-2 How important were the following reasons for patenting this invention? (1 = not important, 5 = very important)?(特許化の理由としての重要度)

4 or 5

B.3 %	A Commercial exploitation of the patented technology in your own product/process in an exclusive manner(including its future possibility)	B Licensing (obtain exclusive rights to license the invention in order to generate licensing revenues)	C Cross-licensing (improve your bargaining position in the Trading of your own patent rights in exchange for other firms' patent rights)	D Pure defense (to ensure that the use of own technology not be blocked by others)	E Blocking patents (avoid that others commercialize similar inventions)	F Prevention of inventing-around (avoid that others invent around the patent of the own firm)	G Inventors' reputation	H Firm's reputation (Patenting enhances the technological reputation of the firm)
All	81.77	30.61	24.39	44.43	45.84	21.04	15.25	30.22
Large firm (>=501)	81.28	26.63	26.9	45.47	46.34	21.52	14.66	28.5
Medium SMEs	82.86	24.64	13.23	44.92	55.07	23.18	13.05	36.23
Small firms (100-250)	88.89	25.93	9.26	44.44	46.3	20.75	14.82	35.19
Very small firm (< 100)	88.04	47.55	18.09	38.5	42	19.5	13.07	37.56
University	65.79	72.22	13.89	34.21	35.14	10.82	40.54	36.84
Hospital, foundation, etc. /gov/ othe	63.16	50	35.29	22.22	29.41	17.64	18.75	17.65
Missing	79.03	38.98	20.68	54.24	48.28	21.06	21.66	30.51

Japan

Question 6-3 Internal commercialization. Has the applicant/owner ever used this patent for its product or for its production?(当該発明は出願者によって製品などに利用されたか)

	All	はい	いいえ	未利用だが使用可能性を検討中	無回答
	All	yes	No.	Not yet, but still investigating the possibilities	no response
All	3658	1998	1026	547	87
Large firm (> 500)	2932	1584	846	432	70
Medium firm (251-500)	201	119	51	29	2
Small firm (101-250)	130	82	31	15	2
Very small firm (<101)	182	129	34	18	1
university	82	27	31	23	1
Other	42	14	16	12	0
unknown	89	43	17	18	11

	%	N	yes	no	Not yet, but still investigating the possibilities	Total
All		3571	55.95	28.73	15.32	100
Large firm (> 500)		2862	55.35	29.56	15.09	100
Medium firm (251-500)		199	59.8	25.63	14.57	100
Small firm (101-250)		128	64.06	24.22	11.72	100
Very small firm (<101)		181	71.27	18.78	9.94	100
university		81	33.33	38.27	28.4	100
Other		42	33.33	38.1	28.57	100
unknown		78	55.13	21.79	23.08	100

If Yes, did the inventions require co-development or co-production with another firm to bring it to the market?(他社との共同開発や共同生産が必要であったか)

	All	はい	いいえ	無回答
	All	Yes	No.	no response
All	1998	450	1525	23
Large firm (> 500)	1584	319	1250	15
Medium firm (250-500)	119	30	87	2
Small firm (100-250)	82	20	60	2
Very small firm (<100)	129	44	82	3
university	27	14	13	0
Other	14	5	9	0
unknown	43	18	24	1

	%	N	yes	no	Total
All		1975	22.78	77.22	100
Large firm (> 500)		1569	20.33	79.67	100
Medium firm (250-500)		117	25.64	74.36	100
Small firm (100-250)		80	25	75	100
Very small firm (<100)		126	34.92	65.08	100
university		27	51.85	48.15	100
Other		14	35.71	64.29	100
unknown		42	42.86	57.14	100

US

(1/2)

Question 6-3 Internal commercialization. Has the applicant/owner ever used this patent for its product or for its production? (当該発明は出願者によって製品などに利用されたか)

	all	yes	no	Not yet, but still investigating the possibilities	Don't know	Missing
B4 Commercialization						
All	1919	866	359	491	135	68
Large firm (>=501)	1389	610	284	360	118	17
Medium SMEs	74	37	19	15	1	2
Small firms (100-250)	60	38	9	11	1	1
Very small firm (< 100)	216	125	19	62	8	2
University	42	20	1	20	0	1
Hospital, foundation, etc. /gov/ other	20	5	8	6	1	0
Missing	118	31	19	17	6	45
%	all	yes	no	Not yet, but still investigating the possibilities	Total	
All	1716	50.47	20.92	28.61	100	
Large firm (>=501)	1254	48.64	22.65	28.71	100	
Medium SMEs	71	52.11	26.76	21.13	100	
Small firms (100-250)	58	65.52	15.52	18.97	100	
Very small firm (< 100)	206	60.68	9.22	30.1	100	
University	41	48.78	2.44	48.78	100	
Hospital, foundation, etc. /gov/ other	19	26.32	42.11	31.58	100	
Missing	67	46.27	28.36	25.37	100	

US

(2/2)

Reference: While many innovations involve a combination of products, processes, and services, would you characterize the commercial application of the focal patent as primarily involving a new product, process, or service? (参考: 当該特許の応用先は新製品、新生産過程あるいはサービスの中のどれか)

	all	Product	Process	Service	Don't know	Missing
B5 While many innovations involve a combination of products, processes, and services, would you characterize the commercial application of the focal patent as primarily involving a new product, process, or service?						
All	948	678	177	14	6	73
Large firm (>=501)	635	476	124	12	3	20
Medium SMEs	40	29	10	0	0	1
Small firms (100-250)	40	31	7	0	0	2
Very small firm (< 100)	128	101	20	2	2	3
University	23	17	5	0	0	1
Hospital, foundation, etc. /gov/ other	5	2	2	0	1	0
Missing	77	22	9	0	0	46
%	N	Product	Process	Service	Total	
All	869	78.02	20.37	1.61	100	
Large firm (>=501)	612	77.78	20.26	1.96	100	
Medium SMEs	39	74.36	25.64	0	100	
Small firms (100-250)	38	81.58	18.42	0	100	
Very small firm (< 100)	123	82.11	16.26	1.63	100	
University	22	77.27	22.73	0	100	
Hospital, foundation, etc. /gov/ other	4	50	50	0	100	
Missing	31	70.97	29.03	0	100	

Japan

Question 6-4. How long did it take from the application to the use of the invention? (出願から利用開始までの時間)

	All	1年未満	1年以上、 2年未満	2年以上、 3年未満	3年以上、 4年未満	4年以上、 5年未満	5年以上、 6年未満	6年以上、 7年未満	7年以上、 8年未満	8年以上、 9年未満	9年以上、 10年未満	10年以上、 15年未満	15年以上、 20年未満	20年以上	無回答	
	All	less than one year	1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years	9 years	10- 14years	15-19 years	20 years or more	no response	
All	1998	605	605	261	175	63	54	15	18	6	7	12	1	1	175	
Large firm (> 500)	1584	504	481	207	127	52	40	13	13	5	6	8	0	1	127	
Medium firm (251-500)	119	35	40	18	6	1	6	0	0	0	0	0	0	0	13	
Small firm (101-250)	82	28	27	9	4	3	2	0	0	0	0	0	0	0	9	
Very small firm (<101)	129	29	34	17	21	4	3	1	3	0	0	4	0	0	13	
university	27	2	5	6	7	2	3	0	1	0	0	0	0	0	1	
Other	14	1	3	1	3	1	0	0	1	0	1	0	1	0	2	
unknown	43	6	15	3	7	0	0	1	0	1	0	0	0	0	10	
	%	N	less than one year	1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years	9 years	10- 14years	15-19 years	20 years or more	Total
All	1823	33.19	33.19	14.32	9.6	3.46	2.96	0.82	0.99	0.33	0.38	0.66	0.05	0.05	100	
Large firm (> 500)	1457	34.59	33.01	14.21	8.72	3.57	2.75	0.89	0.89	0.34	0.41	0.55	0	0.07	100	
Medium firm (251-500)	106	33.02	37.74	16.98	5.66	0.94	5.66	0	0	0	0	0	0	0	100	
Small firm (101-250)	73	38.36	36.99	12.33	5.48	4.11	2.74	0	0	0	0	0	0	0	100	
Very small firm (<101)	116	25	29.31	14.66	18.1	3.45	2.59	0.86	2.59	0	0	3.45	0	0	100	
university	26	7.69	19.23	23.08	26.92	7.69	11.54	0	3.85	0	0	0	0	0	100	
Other	12	8.33	25	8.33	25	8.33	0	0	8.33	0	8.33	0	8.33	0	100	
unknown	33	18.18	45.45	9.09	21.21	0	0	3.03	0	3.03	0	0	0	0	100	

Japan

Question 6-5 how many domestic patents (including the other firms' patents) are jointly used in the commercial application of the invention? (当該特許の商業的利用において約何件の特許が利用されたか)

	All	1 domestic patent (your patent covers all patented technologies of the product/the process)	2 to 5	6 to 10	11-50	51-100	101-500	501-1000	more than 1001	no response
All	1998	434	865	284	248	58	27	7	2	73
Large firm (> 500)	1584	301	671	256	216	53	26	7	2	52
Medium firm (251-500)	119	37	62	10	7	1	0	0	0	2
Small firm (101-250)	82	28	44	3	2	1	0	0	0	4
Very small firm (<101)	129	46	50	9	16	1	1	0	0	6
university	27	9	9	4	3	0	0	0	0	2
Other	14	2	7	1	2	0	0	0	0	2
unknown	43	11	22	1	2	2	0	0	0	5

%	N	1 domestic patent (your patent covers all patented technologies of the product/the process)	2 to 5	6 to 10	11-50	51-100	101-500	501-1000	more than 1001	Total
All	1925	22.55	44.94	14.75	12.88	3.01	1.4	0.36	0.1	100
Large firm (> 500)	1532	19.65	43.8	16.71	14.1	3.46	1.7	0.46	0.13	100
Medium firm (251-500)	117	31.62	52.99	8.55	5.98	0.85	0	0	0	100
Small firm (101-250)	78	35.9	56.41	3.85	2.56	1.28	0	0	0	100
Very small firm (<101)	123	37.4	40.65	7.32	13.01	0.81	0.81	0	0	100
university	25	36	36	16	12	0	0	0	0	100
Other	12	16.67	58.33	8.33	16.67	0	0	0	0	100
unknown	38	28.95	57.89	2.63	5.26	5.26	0	0	0	100

US

Question 6-5 How many domestic patents (including the other firms' patents) are jointly used in the commercial application of the invention? (当該特許の商業的利用において約何件の特許が利用されたか)

	all	1 domestic patent	2 to 5	6 to 10	11-50	51-100	101- 500	501- 1000	more than 1001	Don't know	Missing
B.6 Roughly speaking, how many domestic patents (including the other firms' patents) are jointly used, together with your patent in the commercial application of the invention?											
All	947	163	385	124	96	15	14	3	1	78	68
Large firm (>=501)	634	96	267	81	80	13	14	3	1	61	18
Medium SMEs	40	8	22	6	0	1	0	0	0	2	1
Small firms (100-250)	40	14	17	4	1	0	0	0	0	3	1
Very small firm (< 100)	128	33	56	23	10	1	0	0	0	4	1
University	23	2	11	3	2	0	0	0	0	3	2
Hospital, foundation, etc. /gov/ other	5	0	2	1	2	0	0	0	0	0	0
Missing	77	10	10	6	1	0	0	0	0	5	45
%	N	1 domestic patent	2 to 5	6 to 10	11-50	51-100	101- 500	501- 1000	more than 1001	Total	
All	801	20.35	48.06	15.48	11.99	1.87	1.75	0.37	0.12	100	
Large firm (>=501)	555	17.3	48.11	14.59	14.41	2.34	2.52	0.54	0.18	100	
Medium SMEs	37	21.62	59.46	16.22	0	2.7	0	0	0	100	
Small firms (100-250)	36	38.89	47.22	11.11	2.78	0	0	0	0	100	
Very small firm (< 100)	123	26.83	45.53	18.7	8.13	0.81	0	0	0	100	
University	18	11.11	61.11	16.67	11.11	0	0	0	0	100	
Hospital, foundation, etc. /gov/ other	5	0	40	20	40	0	0	0	0	100	
Missing	27	37.04	37.04	22.22	3.7	0	0	0	0	100	

Japan

Question 6-6 Has this patent been licensed by (one of) the patent-holder(s) ? (当該特許は、特許保有者によってライセンスされたか)

	All	yes	no	Not yet, but willing to license	no response
All	3658	796	2006	684	172
Large firm (> 500)	2932	593	1645	555	139
Medium firm (251-500)	201	42	118	34	7
Small firm (101-250)	130	39	77	11	3
Very small firm (<101)	182	54	92	34	2
university	82	27	27	24	4
Other	42	16	12	12	2
unknown	89	25	35	14	15

%	N	yes	no	Not yet, but willing to license	Total
All	3486	22.83	57.54	19.62	100
Large firm (> 500)	2793	21.23	58.9	19.87	100
Medium firm (251-500)	194	21.65	60.82	17.53	100
Small firm (101-250)	127	30.71	60.63	8.66	100
Very small firm (<101)	180	30	51.11	18.89	100
university	78	34.62	34.62	30.77	100
Other	40	40	30	30	100
unknown	74	33.78	47.3	18.92	100

US

(1/4)

Question 6-6 Has this patent been licensed by (one of) the patent-holder(s) to an independent party? (当該特許は、特許保有者によって第三者にライセンスされたか)

B9 licensing	all	yes	no	No, but willing to license	Don't know	Missing
All	1919	194	1019	259	382	65
Large firm (>=501)	1389	105	771	174	324	15
Medium SMEs	74	5	45	10	13	1
Small firms (100-250)	60	7	40	5	7	1
Very small firm (< 100)	216	47	104	44	20	1
University	42	20	9	9	3	1
Hospital, foundation, etc. /gov/ other	20	3	11	4	2	0
Missing	118	7	39	13	13	46

%	N	yes	no	No, but willing to license	Total
All	1472	13.18	69.23	17.6	100
Large firm (>=501)	1050	10	73.43	16.57	100
Medium SMEs	60	8.33	75	16.67	100
Small firms (100-250)	52	13.46	76.92	9.62	100
Very small firm (< 100)	195	24.1	53.33	22.56	100
University	38	52.63	23.68	23.68	100
Hospital, foundation, etc. /gov/ other	18	16.67	61.11	22.22	100
Missing	59	11.86	66.1	22.03	100

Japan

Question 6-6(2) If Yes, does it include cross-license? (それはクロスライセンスを含むか)

	All	yes	no	Don't know	No response
All	796	150	417	215	14
Large firm (> 500)	593	121	303	160	9
Medium firm (251-500)	42	5	21	15	1
Small firm (101-250)	39	7	24	7	1
Very small firm (<101)	54	9	33	11	1
university	27	5	11	11	0
Other	16	1	10	5	0
unknown	25	2	15	6	2

	%	N	yes	no	Total
All		567	26.46	73.54	100
Large firm (> 500)		424	28.54	71.46	100
Medium firm (251-500)		26	19.23	80.77	100
Small firm (101-250)		31	22.58	77.42	100
Very small firm (<101)		42	21.43	78.57	100
university		16	31.25	68.75	100
Other		11	9.09	90.91	100
unknown		17	11.76	88.24	100

non conditional cross license (クロスライセンスされた特許の割合)

	All	yes	no	unknown
All	3658	150	3107	401
Large firm (> 500)	2932	121	2503	308
Medium firm (251-500)	201	5	173	23
Small firm (101-250)	130	7	112	11
Very small firm (<101)	182	9	159	14
university	82	5	62	15
Other	42	1	34	7
unknown	89	2	64	23

	%	N	yes	no	Total
All		3257	4.61	95.39	100
Large firm (> 500)		2624	4.61	95.39	100
Medium firm (251-500)		178	2.81	97.19	100
Small firm (101-250)		119	5.88	94.12	100
Very small firm (<101)		168	5.36	94.64	100
university		67	7.46	92.54	100
Other		35	2.86	97.14	100
unknown		66	3.03	96.97	100

US

(2/4)

Question 6-6(2) If Yes, does it include cross-license? (それはクロスライセンスを含むか)

B10 Cross licensing	all	yes	no	Don't know	Missing
All	277	42	143	28	64
Large firm (>=501)	131	27	70	19	15
Medium SMEs	6	1	4	0	1
Small firms (100-250)	9	1	4	3	1
Very small firm (< 100)	52	7	40	4	1
University	22	3	17	1	1
Hospital, foundation, etc. /gov/ other	XX	XX	XX	XX	XX
Missing	XX	XX	XX	XX	XX

%	N	yes	no	Total
All	185	22.7	77.3	100
Large firm (>=501)	97	27.84	72.16	100
Medium SMEs	5	20	80	100
Small firms (100-250)	5	20	80	100
Very small firm (< 100)	47	14.89	85.11	100
University	20	15	85	100
Hospital, foundation, etc. /gov/ other	XX	XX	XX	XX
Missing	XX	XX	XX	XX

Unconditional

	all	yes	no	Missing (including Don't Know on License or Cross-license)
All	1919	42	1433	444
Large firm (>=501)	1389	27	1024	338
Medium SMEs	74	1	59	14
Small firms (100-250)	60	1	51	8
Very small firm (< 100)	216	7	188	21
University	42	3	36	3
Hospital, foundation, etc. /gov/ other	XX	XX	XX	XX
Missing	XX	XX	XX	XX

%	N	yes	no	Total
All	1475	2.85	97.15	100
Large firm (>=501)	1051	2.57	97.43	100
Medium SMEs	60	1.67	98.33	100
Small firms (100-250)	52	1.92	98.08	100
Very small firm (< 100)	195	3.59	96.41	100
University	39	7.69	92.31	100
Hospital, foundation, etc. /gov/ other	XX	XX	XX	XX
Missing	XX	XX	XX	XX

Japan

Question 6-6(3) How many licensees have got the license? (また、それは複数の企業にライセンスされたか)

	All	only one	2-4 firms	5-10 firms	10 or more firms	don't know	no response
All	796	338	107	16	20	248	67
Large firm (> 500)	593	241	73	11	14	199	55
Medium firm (251-500)	42	20	2	2	0	15	3
Small firm (101-250)	39	18	9	0	0	10	2
Very small firm (<101)	54	27	11	1	3	9	3
university	27	14	4	1	0	7	1
Other	16	7	5	0	1	3	0
unknown	25	11	3	1	2	5	3

%	N	only one	2-4 firms	5-10 firms	10 or more firms	Total
All	481	70.27	22.25	3.33	4.16	100
Large firm (> 500)	339	71.09	21.53	3.24	4.13	100
Medium firm (251-500)	24	83.33	8.33	8.33	0	100
Small firm (101-250)	27	66.67	33.33	0	0	100
Very small firm (<101)	42	64.29	26.19	2.38	7.14	100
university	19	73.68	21.05	5.26	0	100
Other	13	53.85	38.46	0	7.69	100
unknown	17	64.71	17.65	5.88	11.76	100

US

(3/4)

Question 6-6(3) How many licensees have got the license? (また、それは複数の企業にライセンスされたか)

B.11 How many licensees have got the license?	all	only one	2-4 firms	5-10 firms	11-50 firms	51-100 firms	more than 100	Don't know	Missing
All	270	108	46	6	3	2	2	40	63
Large firm (>=501)	126	51	24	4	3	2	2	26	14
Medium SMEs	6	1	3	0	0	0	0	1	1
Small firms (100-250)	9	5	1	0	0	0	0	2	1
Very small firm (< 100)	50	27	14	2	0	0	0	6	1
University	22	16	2	0	0	0	0	3	1
Hospital, foundation, etc. /gov/ other	XX	XX	XX	XX	XX	XX	XX	XX	XX
Missing	XX	XX	XX	XX	XX	XX	XX	XX	XX

%	N	only one	2-4 firms	5-10 firms	more than 10 firms	Total
All	167	64.67	27.54	3.59	4.19	100
Large firm (>=501)	86	59.3	27.91	4.65	8.14	100
Medium SMEs	4	25	75	0	0	100
Small firms (100-250)	6	83.33	16.67	0	0	100
Very small firm (< 100)	43	62.79	32.56	4.65	0	100
University	18	88.89	11.11	0	0	100
Hospital, foundation, etc. /gov/ other	XX	XX	XX	XX	XX	XX
Missing	XX	XX	XX	XX	XX	XX

US

(4/4)

Reference: Did the licensing contracts include exclusivity clauses? (参考:ライセンス契約に排他条項があるか)

	all	yes	no	Don't know	Missing
B12 exclusive licensing					
All	270	108	33	65	64
Large firm (>=501)	127	42	22	48	15
Medium SMEs	XX	XX	XX	XX	XX
Small firms (100-250)	9	4	1	3	1
Very small firm (< 100)	49	35	7	6	1
University	22	18	0	3	1
Hospital, foundation, etc. /gov/ other	XX	XX	XX	XX	XX
Missing	XX	XX	XX	XX	XX
%	N	yes	no	Total	
All	141	76.6	23.4	100	
Large firm (>=501)	64	65.63	34.38	100.01	
Medium SMEs	XX	XX	XX	XX	
Small firms (100-250)	5	80	20	100	
Very small firm (< 100)	42	83.33	16.67	100	
University	18	100	0	100	
Hospital, foundation, etc. /gov/ other	XX	XX	XX	XX	
Missing	XX	XX	XX	XX	

Japan

Question 6-7 Has this patent been exploited commercially by yourself or any of your co-inventors for starting a new company? (発明者は新会社設立によって当該特許を利用したか)

	All	yes	no	No response
All	3658	134	3199	325
Large firm (> 500)	2932	82	2602	248
Medium firm (251-500)	201	9	173	19
Small firm (101-250)	130	3	116	11
Very small firm (<101)	182	19	150	13
university	82	5	68	9
Other	42	7	32	3
unknown	89	9	58	22

	%	N	yes	no	Total
All		3333	4.02	95.98	100
Large firm (> 500)		2684	3.06	96.94	100
Medium firm (251-500)		182	4.95	95.05	100
Small firm (101-250)		119	2.52	97.48	100
Very small firm (<101)		169	11.24	88.76	100
university		73	6.85	93.15	100
Other		39	17.95	82.05	100
unknown		67	13.43	86.57	100

US

Question 6-7 Has this patent been exploited commercially by yourself or any of your co-inventors for starting a new company? (発明者は新会社設立によって当該特許を利用したか)

B13 Start-ups	all	yes	no	Don't know	Missing
All	1919	127	1594	116	82
Large firm (>=501)	1389	41	1231	92	25
Medium SMEs	74	2	67	4	1
Small firms (100-250)	60	3	53	2	2
Very small firm (< 100)	216	60	142	11	3
University	42	14	25	1	2
Hospital, foundation, etc. /gov/ othe	20	4	14	1	1
Missing	118	3	62	5	48

%	N	yes	no	Total
All	1721	7.38	92.62	100
Large firm (>=501)	1272	3.22	96.78	100
Medium SMEs	69	2.9	97.1	100
Small firms (100-250)	56	5.36	94.64	100
Very small firm (< 100)	202	29.7	70.3	100
University	39	35.9	64.1	100
Hospital, foundation, etc. /gov/ othe	18	22.22	77.78	100
Missing	65	4.62	95.38	100

Japan

Question 6-3,6,7 Summary (1)

Any commercialization either through internal (in-house) commercialization, license or startup (発明は商用化、ライセンス、新会社の設立などで利用されたか)

		全て「いいえ」	いずれかが「はい」	それ以外
	All	all "no"	any "yes"	other
All	3658	1265	2185	208
Large firm (> 500)	2932	1053	1714	165
Medium firm (251-500)	201	65	127	9
Small firm (101-250)	130	31	97	2
Very small firm (<101)	182	40	137	5
university	82	33	41	8
Other	42	20	20	2
unknown	89	23	49	17

	%	N	all "no"	any "yes"	Total
All		3450	36.67	63.33	100
Large firm (> 500)		2767	38.06	61.94	100
Medium firm (251-500)		192	33.85	66.15	100
Small firm (101-250)		128	24.22	75.78	100
Very small firm (<101)		177	22.6	77.4	100
university		74	44.59	55.41	100
Other		40	50	50	100
unknown		72	31.94	68.06	100

US

Question 6-3,6,7 Summary (1)

Any commercialization either through internal (in-house) commercialization, license or startup (発明は商用化、ライセンス、新会社の設立などで利用されたか)

	all	all "no"	any "yes"	Missing
All	1919	587	971	361
Large firm (>=501)	1389	453	669	267
Medium SMEs	74	24	40	10
Small firms (100-250)	60	14	41	5
Very small firm (< 100)	216	52	149	15
University	42	9	29	4
Hospital, foundation, etc. /gov/ oth	20	10	8	2
Missing	118	25	35	58

%	N	all "no"	any "yes"	Total
All	1558	37.68	62.32	100
Large firm (>=501)	1122	40.37	59.63	100
Medium SMEs	64	37.5	62.5	100
Small firms (100-250)	55	25.45	74.55	100
Very small firm (< 100)	201	25.87	74.13	100
University	38	23.68	76.32	100
Hospital, foundation, etc. /gov/ oth	18	55.56	44.44	100
Missing	60	41.67	58.33	100

Japan

Question 6-3,6,7 Summary (2)

Pure in house or not (発明は自社のみ使用かどうか)

	All	Yes	No	no response
All	3658	1198	2248	212
Large firm (> 500)	2932	979	1788	165
Medium firm (251-500)	201	69	119	13
Small firm (101-250)	130	49	70	11
Very small firm (<101)	182	69	107	6
university	82	12	69	1
Other	42	2	39	1
unknown	89	18	56	15

	%	N	Yes	No	Total
All		3446	34.76	65.24	100
Large firm (> 500)		2767	35.38	64.62	100
Medium firm (251-500)		188	36.7	63.3	100
Small firm (101-250)		119	41.18	58.82	100
Very small firm (<101)		176	39.2	60.8	100
university		81	14.81	85.19	100
Other		41	4.88	95.12	100
unknown		74	24.32	75.68	100

US

Question 6-3,6,7 Summary (2)

Pure in house or not (発明は自社のみ使用かどうか)

	all	yes	no	Missing
All	1919	687	1029	203
Large firm (>=501)	1389	531	723	135
Medium SMEs	74	33	38	3
Small firms (100-250)	60	32	26	2
Very small firm (< 100)	216	59	147	10
University	42	6	35	1
Hospital, foundation, etc. /gov/ oth	20	2	17	1
Missing	118	24	43	51

%	N	yes	no	Total
All	1716	40.03	59.97	100
Large firm (>=501)	1254	42.34	57.66	100
Medium SMEs	71	46.48	53.52	100
Small firms (100-250)	58	55.17	44.83	100
Very small firm (< 100)	206	28.64	71.36	100
University	41	14.63	85.37	100
Hospital, foundation, etc. /gov/ oth	19	10.53	89.47	100
Missing	67	35.82	64.18	100

Japan

Question 6-8 If this patent is used neither internally within the applicant firm, licensing nor for starting a new company, what are the important reasons for that? You can check all relevant boxes. (自社内、ライセンス等によって利用されていない理由(重複回答あり))

	All	他社が類似技術の特許化することをブロックするため	特許は他社による迂回防止に有用だから	技術・市場動向が発明の有用性を低下させる方向に変化したから	発明の技術水準が高くなったから	基礎的な発明でありその応用技術を発展させることが出来なかった	発明の利用を予定していた自社事業が整理・縮小されたから	発明の利用を予定していた自社新事業が不成功に終わったから	当該発明の実施に必要な他分野の技術開発が遅れているから	発明を実施する上で上記以外のボトルネックが存在したから	わからない	無回答
	All	The patent is used or was used for blocking other firms patent inventions.	The patent is used or was used for preventing the inventing-around by other firms	Technology or market environment has changed in the direction for reducing the value of this invention	Low technical level of the invention	The firm has not been able to develop the application technologies for this basic invention.	The business of the firm for which the invention was aimed at has been downsized	The new business of the firm for which the invention was aimed at has not been successful	The development of the complementary technology in other technology fields is delayed	Other bottlenecks have existed	don't know	no response
All	1,265	450	202	234	113	218	259	152	151	92	59	73
Large firm (> 500)	1,053	383	172	213	92	161	232	138	129	71	47	54
Medium firm (251-500)	65	27	12	5	11	10	6	3	5	6	5	5
Small firm (101-250)	31	13	6	3	4	6	4	4	4	2	1	0
Very small firm (<101)	40	12	6	6	3	9	4	3	4	3	3	6
university	33	6	0	5	2	16	5	0	3	6	1	1
Other	20	1	2	2	0	11	3	1	3	0	2	2
unknown	23	8	4	0	1	5	5	3	3	4	0	5
%	N	The patent is used or was used for blocking other firms patent inventions.	The patent is used or was used for preventing the inventing-around by other firms	Technology or market environment has changed in the direction for reducing the value of this invention	Low technical level of the invention	The firm has not been able to develop the application technologies for this basic invention.	The business of the firm for which the invention was aimed at has been downsized	The new business of the firm for which the invention was aimed at has not been successful	The development of the complementary technology in other technology fields is delayed	Other bottlenecks have existed		
All	1,133	39.72	17.83	20.65	9.97	19.24	22.86	13.42	13.33	8.12		
Large firm (> 500)	952	40.23	18.07	22.37	9.66	16.91	24.37	14.5	13.55	7.46		
Medium firm (251-500)	55	49.09	21.82	9.09	20	18.18	10.91	5.45	9.09	10.91		
Small firm (101-250)	30	43.33	20	10	13.33	20	13.33	13.33	13.33	6.67		
Very small firm (<101)	31	38.71	19.35	19.35	9.68	29.03	12.9	9.68	12.9	9.68		
university	31	19.35	0	16.13	6.45	51.61	16.13	0	9.68	19.35		
Other	16	6.25	12.5	12.5	0	68.75	18.75	6.25	18.75	0		
unknown	18	44.44	22.22	0	5.56	27.78	27.78	16.67	16.67	22.22		

US

Question 6-8 If this patent is used neither internally within the applicant firm, licensing nor for starting a new company, what are the important reasons for that? You can check all relevant boxes. (自社内、ライセンス等によって利用されていない理由(重複回答あり))

	all	c. The patent is used or was used for blocking other firms patent similar inventions.	d. The patent is used or was used for preventing the inventing-around by other firms	e. Technology or market environment has changed in the direction for reducing the value of this invention	f. Low technical level of the invention	i. The firm has not been able to develop the application technologies for this basic invention.	j. The business of the firm for which the invention was aimed at has been downsized	k. The new line of business based on the invention has not been successful	l. The development of the complementary technology in other technology fields is delayed
B14 If this patent is used neither internally within the applicant firm, licensing nor for starting a new company, what are the important reasons for that? You can check all relevant boxes.									
All	1919	295	201	234	56	101	178	63	77
Large firm (>=501)	1389	252	167	199	45	74	151	50	61
Medium SMEs	74	9	8	12	2	10	5	0	4
Small firms (100-250)	60	5	3	1	2	2	3	2	2
Very small firm (< 100)	216	12	10	12	4	7	11	8	4
University	42	3	1	1	2	2	2	1	0
Hospital, foundation, etc. /gov/ other	20	3	3	2	0	1	1	0	1
Missing	118	11	9	7	1	5	5	2	5

%	N	c. The patent is used or was used for blocking other firms patent similar inventions.	d. The patent is used or was used for preventing the inventing-around by other firms	e. Technology or market environment has changed in the direction for reducing the value of this invention	f. Low technical level of the invention	i. The firm has not been able to develop the application technologies for this basic invention.	j. The business of the firm for which the invention was aimed at has been downsized	k. The new line of business based on the invention has not been successful	l. The development of the complementary technology in other technology fields is delayed
All	852	34.62	23.59	27.46	6.57	11.85	20.89	7.39	9.04
Large firm (>=501)	671	37.56	24.89	29.66	6.71	11.03	22.5	7.45	9.09
Medium SMEs	37	24.32	21.62	32.43	5.41	27.03	13.51	0	10.81
Small firms (100-250)	16	31.25	18.75	6.25	12.5	12.5	18.75	12.5	12.5
Very small firm (< 100)	64	18.75	15.63	18.75	6.25	10.94	17.19	12.5	6.25
University	16	18.75	6.25	6.25	12.5	12.5	12.5	6.25	0
Hospital, foundation, etc. /gov/ other	12	25	25	16.67	0	8.33	8.33	0	8.33
Missing	36	30.56	25	19.44	2.78	13.89	13.89	5.56	13.89

	a. We are still actively exploring the commercial possibilities of this invention	b. The technology is used internally as a research tool to develop other commercial technologies	g. Lack of interest from potential licenses	h. Lack of capital for starting a new firm based on the technology	m. other	n. Don't know	Missing	Skipped
All	381	159	72	53	63	81	117	869
Large firm (>=501)	281	124	44	21	47	64	54	600
Medium SMEs	14	6	3	2	1	3	2	32
Small firms (100-250)	7	3	2	2	3	1	6	37
Very small firm (< 100)	37	9	13	20	7	10	5	137
University	13	7	3	1	0	0	1	25
Hospital, foundation, etc. /gov/ other	10	0	1	4	2	0	0	8
Missing	19	10	6	3	3	3	49	30

%	a. We are still actively exploring the commercial possibilities of this invention	b. The technology is used internally as a research tool to develop other commercial technologies	g. Lack of interest from potential licenses	h. Lack of capital for starting a new firm based on the technology	m. other
All	44.72	18.66	8.45	6.22	7.39
Large firm (>=501)	41.88	18.48	6.56	3.13	7
Medium SMEs	37.84	16.22	8.11	5.41	2.7
Small firms (100-250)	43.75	18.75	12.5	12.5	18.75
Very small firm (< 100)	57.81	14.06	20.31	31.25	10.94
University	81.25	43.75	18.75	6.25	0
Hospital, foundation, etc. /gov/ other	83.33	0	8.33	33.33	16.67
Missing	52.78	27.78	16.67	8.33	8.33

Japan

Question 6-9 Did you publish a scientific/technical paper describing this invention?
(当該発明の内容を科学技術論文として公表したか)

	All	yes	no	no response
All	3658	704	2872	82
Large firm (> 500)	2932	509	2361	62
Medium firm (251-500)	201	26	173	2
Small firm (101-250)	130	17	111	2
Very small firm (<101)	182	36	143	3
university	82	66	15	1
Other	42	27	14	1
unknown	89	23	55	11

	%	N	yes	no	Total
All		3576	19.69	80.31	100
Large firm (> 500)		2870	17.74	82.26	100
Medium firm (251-500)		199	13.07	86.93	100
Small firm (101-250)		128	13.28	86.72	100
Very small firm (<101)		179	20.11	79.89	100
university		81	81.48	18.52	100
Other		41	65.85	34.15	100
unknown		78	29.49	70.51	100

If Yes, which of the following choices apply to the relationship between the patent application of your invention and the publication of your scientific/technical paper? You can check all relevant boxes. (国内特許出願と当該論文公表の関係について、重複回答あり)

		論文公表の前に関連発明の特許出願義務の規則があり、それに該当した	論文公表の結果、他社による自社技術使用防止のため出願した	特許出願手続きのため当該論文公表が遅れた	特許出願と論文公表は無関係であった	無回答
All		The patent application of the inventions was mandatory prior to the publication because of the internal rule of the employer.	The patent application before the publication of your paper was necessary to prevent the free use of the technology of your firm as disclosed in your publication	The patent application procedure led to the delay of your publication	The timing of the patent application had no effect on the timing of publications.	no response
All	704	418	190	87	119	9
Large firm (> 500)	509	351	130	49	68	5
Medium firm (251-500)	26	10	8	3	7	0
Small firm (101-250)	17	10	4	3	4	0
Very small firm (<101)	36	8	14	5	11	3
university	66	20	18	16	19	1
Other	27	12	6	6	6	0
unknown	23	7	10	5	4	0

	%	N	The patent application of the inventions was mandatory prior to the publication because of the internal rule of the employer.	The patent application before the publication of your paper was necessary to prevent the free use of the technology of your firm as disclosed in your publication	The patent application procedure led to the delay of your publication	The timing of the patent application had no effect on the timing of publications.
All		695	60.14	27.34	12.52	17.12
Large firm (> 500)		504	69.64	25.79	9.72	13.49
Medium firm (251-500)		26	38.46	30.77	11.54	26.92
Small firm (101-250)		17	58.82	23.53	17.65	23.53
Very small firm (<101)		33	24.24	42.42	15.15	33.33
university		65	30.77	27.69	24.62	29.23
Other		27	44.44	22.22	22.22	22.22
unknown		23	30.43	43.48	21.74	17.39

US

Reference: In the three years prior to the focal patent, how many articles did you publish in scientific journals? (参考: 当該特許の前の三年間に何本の論文を公表したか)

	all	yes	no	Missing				
C4 Any article published in the three years prior to the focal patent? (dummy)								
All	1919	884	910	125				
Large firm (>=501)	1389	648	689	52				
Medium SMEs	74	41	32	1				
Small firms (100-250)	60	25	30	5				
Very small firm (< 100)	216	90	117	9				
University	42	36	3	3				
Hospital, foundation, etc. /gov/ other	20	15	5	0				
Missing	118	29	34	55				
C4 (% dummy)	N	yes	no	Total				
All	1794	49.28	50.72	100				
Large firm (>=501)	1337	48.47	51.53	100				
Medium SMEs	73	56.16	43.84	100				
Small firms (100-250)	55	45.45	54.55	100				
Very small firm (< 100)	207	43.48	56.52	100				
University	39	92.31	7.69	100				
Hospital, foundation, etc. /gov/ other	20	75.00	25	100				
Missing	63	46.03	53.97	100				
C.4 (article mean)	mean(article)	S.D	N	median	p90	Interquartile Range	Missing	
All	3.28	9.05	1794	0	9	3	125	
Large firm (>=501)	2.90	7.55	1337	0	8	3	52	
Medium SMEs	2.66	4.62	73	1	6	3	1	
Small firms (100-250)	2.05	3.89	55	0	5	3	5	
Very small firm (< 100)	2.97	7.94	207	0	5	3	9	
University	16.77	14.22	39	12	35	25	3	
Hospital, foundation, etc. /gov/ other	15.05	43.92	20	5	18.5	7.5	0	
Missing	2.21	3.90	63	0	10	3	55	

Japan

(1/6)

Question 6-10 In your opinion, how important are the following corporate strategies for the successful commercialization of this invention? (1 = not important, 5 = very important) (当該発明の商業的成功のための企業戦略としての重要度)

First mover's advantage in the development of complementary technologies and the patent portfolio (当該発明を補完・補強する技術開発、特許網構築における先行優位)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	1998	25	54	214	1046	606	53
Large firm (> 500)	1584	20	42	165	843	485	29
Medium firm (251-500)	119	2	3	16	62	34	2
Small firm (101-250)	82	1	3	14	39	19	6
Very small firm (<101)	129	2	3	11	65	42	6
university	27	0	1	3	12	9	2
Other	14	0	0	2	4	5	3
unknown	43	0	2	3	21	12	5

Note: When the answer of Question 6-3 is 1 (The invention are used by applicants)

	%	N	1	2	3	4	5	Total
All		1945	1.29	2.78	11	53.78	31.16	100
Large firm (> 500)		1555	1.29	2.7	10.61	54.21	31.19	100
Medium firm (251-500)		117	1.71	2.56	13.68	52.99	29.06	100
Small firm (101-250)		76	1.32	3.95	18.42	51.32	25	100
Very small firm (<101)		123	1.63	2.44	8.94	52.85	34.15	100
university		25	0	4	12	48	36	100
Other		11	0	0	18.18	36.36	45.45	100
unknown		38	0	5.26	7.89	55.26	31.58	100

First mover's advantage in commercialization (short lead-time between the patenting and its exploitation in the market) (市場投入における先行優位)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	1998	21	38	245	1076	566	52
Large firm (> 500)	1584	20	30	191	868	450	25
Medium firm (251-500)	119	0	2	13	62	40	2
Small firm (101-250)	82	1	1	10	45	19	6
Very small firm (<101)	129	0	2	14	67	36	10
university	27	0	0	6	9	10	2
Other	14	0	0	5	4	3	2
unknown	43	0	3	6	21	8	5

Note: When the answer of Question 6-3 is 1 (The invention are used by applicants)

	%	N	1	2	3	4	5	Total
All		1946	1.08	1.95	12.59	55.29	29.09	100
Large firm (> 500)		1559	1.28	1.92	12.25	55.68	28.86	100
Medium firm (251-500)		117	0	1.71	11.11	52.99	34.19	100
Small firm (101-250)		76	1.32	1.32	13.16	59.21	25	100
Very small firm (<101)		119	0	1.68	11.76	56.3	30.25	100
university		25	0	0	24	36	40	100
Other		12	0	0	41.67	33.33	25	100
unknown		38	0	7.89	15.79	55.26	21.05	100

Question 6–10 In your opinion, how important are the following corporate strategies for the successful commercialization of this invention? (1 = not important, 5 = very important) (当該発明の商業的成功のための企業戦略としての重要度)

	all	1	2	3	4	5	Don't know	%4 or 5	Missing
B7A First mover's advantage in the development of complementary technologies and the patent portfolio									
All	946	49	62	158	246	288	55	534	88
Large firm (>=501)	633	33	43	115	181	195	41	376	25
Medium SMEs	40	2	5	7	11	12	1	23	2
Small firms (100–250)	40	4	6	1	12	13	0	25	4
Very small firm (< 100)	128	7	7	27	29	46	7	75	5
University	23	1	0	1	4	12	3	16	2
Hospital, foundation, etc. /gov/ ot	XX	XX	XX	XX	XX	XX	XX	XX	XX
Missing	XX	XX	XX	XX	XX	XX	XX	XX	XX

%	N	1	2	3	4	5	Total	%4 or 5
All	803	6.1	7.72	19.68	30.64	35.87	100	66.51
Large firm (>=501)	567	5.82	7.58	20.28	31.92	34.39	100	66.31
Medium SMEs	37	5.41	13.51	18.92	29.73	32.43	100	62.16
Small firms (100–250)	36	11.11	16.67	2.78	33.33	36.11	100	69.44
Very small firm (< 100)	116	6.03	6.03	23.28	25	39.66	100	64.66
University	18	5.56	0	5.56	22.22	66.67	100	88.89
Hospital, foundation, etc. /gov/ ot	XX	XX	XX	XX	XX	XX	XX	XX
Missing	XX	XX	XX	XX	XX	XX	XX	XX

	all	1	2	3	4	5	Don't know	%4 or 5	Missing
B7B First mover's advantage in commercialization									
All	946	38	46	132	235	359	48	594	88
Large firm (>=501)	633	30	34	96	165	245	35	410	28
Medium SMEs	40	2	0	11	11	13	1	24	2
Small firms (100–250)	40	1	1	0	16	18	2	34	2
Very small firm (< 100)	128	3	8	18	30	59	6	89	4
University	23	1	1	2	6	9	2	15	2
Hospital, foundation, etc. /gov/ ot	XX	XX	XX	XX	XX	XX	XX	XX	XX
Missing	XX	XX	XX	XX	XX	XX	XX	XX	XX

%	N	1	2	3	4	5	Total	%4 or 5
All	810	4.69	5.68	16.3	29.01	44.32	100	73.33
Large firm (>=501)	570	5.26	5.96	16.84	28.95	42.98	100	71.93
Medium SMEs	37	5.41	0	29.73	29.73	35.14	100	64.87
Small firms (100–250)	36	2.78	2.78	0	44.44	50	100	94.44
Very small firm (< 100)	118	2.54	6.78	15.25	25.42	50	100	75.42
University	19	5.26	5.26	10.53	31.58	47.37	100	78.95
Hospital, foundation, etc. /gov/ ot	XX	XX	XX	XX	XX	XX	XX	XX
Missing	XX	XX	XX	XX	XX	XX	XX	XX

Japan

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Question 6-10 In your opinion, how important are the following corporate strategies for the successful commercialization of this invention? (1 = not important, 5 = very important) (当該発明の商業的成功のための企業戦略としての重要度)

Complementary manufacturing capability (事業化に必要な優れた製造能力)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	1998	45	83	396	959	461	54
Large firm (> 500)	1584	43	64	321	771	356	29
Medium firm (251-500)	119	0	4	19	68	26	2
Small firm (101-250)	82	1	3	18	37	17	6
Very small firm (<101)	129	0	6	25	55	34	9
university	27	1	0	2	9	14	1
Other	14	0	2	4	3	2	3
unknown	43	0	4	7	16	12	4

Note: When the answer of Question 6-3 is 1 (The invention are used by applicants)

%	N	1	2	3	4	5	Total
All	1944	2.31	4.27	20.37	49.33	23.71	100
Large firm (> 500)	1555	2.77	4.12	20.64	49.58	22.89	100
Medium firm (251-500)	117	0	3.42	16.24	58.12	22.22	100
Small firm (101-250)	76	1.32	3.95	23.68	48.68	22.37	100
Very small firm (<101)	120	0	5	20.83	45.83	28.33	100
university	26	3.85	0	7.69	34.62	53.85	100
Other	11	0	18.18	36.36	27.27	18.18	100
unknown	39	0	10.26	17.95	41.03	30.77	100

Complementary sales/service capability (事業化に必要なすぐれた販売・サービス能力)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	1998	66	116	558	841	351	66
Large firm (> 500)	1584	58	95	467	668	259	37
Medium firm (251-500)	119	2	9	27	56	20	5
Small firm (101-250)	82	2	7	19	31	15	8
Very small firm (<101)	129	0	2	29	61	30	7
university	27	0	0	3	11	11	2
Other	14	2	1	3	2	3	3
unknown	43	2	2	10	12	13	4

Note: When the answer of Question 6-3 is 1 (The invention are used by applicants)

%	N	1	2	3	4	5	Total
All	1932	3.42	6	28.88	43.53	18.17	100
Large firm (> 500)	1547	3.75	6.14	30.19	43.18	16.74	100
Medium firm (251-500)	114	1.75	7.89	23.68	49.12	17.54	100
Small firm (101-250)	74	2.7	9.46	25.68	41.89	20.27	100
Very small firm (<101)	122	0	1.64	23.77	50	24.59	100
university	25	0	0	12	44	44	100
Other	11	18.18	9.09	27.27	18.18	27.27	100
unknown	39	5.13	5.13	25.64	30.77	33.33	100

US

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Question 6-10 In your opinion, how important are the following corporate strategies for the successful commercialization of this invention? (1 = not important, 5 = very important) (当該発明の商業的成功のための企業戦略としての重要度)

B7C Complementary manufacturing capability	all	1	2	3	4	5	Don't know	%4 or 5	Missing
All	945	157	106	171	180	129	110	309	92
Large firm (>=501)	632	116	78	118	130	88	74	218	28
Medium SMEs	40	6	4	9	6	4	9	10	2
Small firms (100-250)	40	5	2	9	7	12	3	19	2
Very small firm (< 100)	128	24	17	23	26	16	15	42	7
University	23	5	2	3	3	1	6	4	3
Hospital, foundation, etc. /gov/ other	XX	XX	XX	XX	XX	XX	XX	XX	XX
Missing	XX	XX	XX	XX	XX	XX	XX	XX	XX
%	N	1	2	3	4	5	Total	%4 or 5	
All	743	21.13	14.27	23.01	24.23	17.36	100	41.59	
Large firm (>=501)	530	21.89	14.72	22.26	24.53	16.6	100	41.13	
Medium SMEs	29	20.69	13.79	31.03	20.69	13.79	100	34.48	
Small firms (100-250)	35	14.29	5.71	25.71	20	34.29	100	54.29	
Very small firm (< 100)	106	22.64	16.04	21.7	24.53	15.09	100	39.62	
University	14	35.71	14.29	21.43	21.43	7.14	100	28.57	
Hospital, foundation, etc. /gov/ other	XX	XX	XX	XX	XX	XX	XX	XX	
Missing	XX	XX	XX	XX	XX	XX	XX	XX	
B7D Complementary sales/service capability	all	1	2	3	4	5	Don't know	%4 or 5	Missing
All	945	152	104	157	197	125	106	322	104
Large firm (>=501)	632	111	83	110	142	75	76	217	35
Medium SMEs	40	7	7	7	5	6	5	11	3
Small firms (100-250)	40	5	4	8	7	12	2	19	2
Very small firm (< 100)	128	19	6	26	29	23	14	52	11
University	23	6	1	2	4	1	6	5	3
Hospital, foundation, etc. /gov/ other	XX	XX	XX	XX	XX	XX	XX	XX	XX
Missing	XX	XX	XX	XX	XX	XX	XX	XX	XX
%	N	1	2	3	4	5	Total	%4 or 5	
All	735	20.68	14.15	21.36	26.8	17.01	100	43.81	
Large firm (>=501)	521	21.31	15.93	21.11	27.26	14.4	100	41.66	
Medium SMEs	32	21.88	21.88	21.88	15.63	18.75	100	34.38	
Small firms (100-250)	36	13.89	11.11	22.22	19.44	33.33	100	52.77	
Very small firm (< 100)	103	18.45	5.83	25.24	28.16	22.33	100	50.49	
University	14	42.86	7.14	14.29	28.57	7.14	100	35.71	
Hospital, foundation, etc. /gov/ other	XX	XX	XX	XX	XX	XX	XX	XX	
Missing	XX	XX	XX	XX	XX	XX	XX	XX	

Japan

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Question 6-10 In your opinion, how important are the following corporate strategies for the successful commercialization of this invention? (1 = not important, 5 = very important) (当該発明の商業的成功のための企業戦略としての重要度)

Enforcement of the patents domestically and internationally (その特許権の内外におけるエンフォースメント)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	1998	36	119	684	928	156	75
Large firm (> 500)	1584	32	92	557	743	123	37
Medium firm (251-500)	119	1	8	41	60	4	5
Small firm (101-250)	82	1	4	24	39	5	9
Very small firm (<101)	129	0	9	39	57	14	10
university	27	0	4	6	10	2	5
Other	14	1	1	4	2	3	3
unknown	43	1	1	13	17	5	6

Note: When the answer of Question 6-3 is 1 (The invention are used by applicants)

	%	N	1	2	3	4	5	Total
All		1923	1.87	6.19	35.57	48.26	8.11	100
Large firm (> 500)		1547	2.07	5.95	36.01	48.03	7.95	100
Medium firm (251-500)		114	0.88	7.02	35.96	52.63	3.51	100
Small firm (101-250)		73	1.37	5.48	32.88	53.42	6.85	100
Very small firm (<101)		119	0	7.56	32.77	47.9	11.76	100
university		22	0	18.18	27.27	45.45	9.09	100
Other		11	9.09	9.09	36.36	18.18	27.27	100
unknown		37	2.7	2.7	35.14	45.95	13.51	100

Secrecy (such as manufacturing know-how) (企業機密)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	1998	58	128	529	881	333	69
Large firm (> 500)	1584	53	95	438	713	252	33
Medium firm (251-500)	119	0	8	30	60	17	4
Small firm (101-250)	82	1	7	19	33	14	8
Very small firm (<101)	129	3	9	26	53	27	11
university	27	0	1	6	6	10	4
Other	14	0	2	2	4	3	3
unknown	43	1	6	8	12	10	6

Note: When the answer of Question 6-3 is 1 (The invention are used by applicants)

	%	N	1	2	3	4	5	Total
All		1929	3.01	6.64	27.42	45.67	17.26	100
Large firm (> 500)		1551	3.42	6.13	28.24	45.97	16.25	100
Medium firm (251-500)		115	0	6.96	26.09	52.17	14.78	100
Small firm (101-250)		74	1.35	9.46	25.68	44.59	18.92	100
Very small firm (<101)		118	2.54	7.63	22.03	44.92	22.88	100
university		23	0	4.35	26.09	26.09	43.48	100
Other		11	0	18.18	18.18	36.36	27.27	100
unknown		37	2.7	16.22	21.62	32.43	27.03	100

US

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Question 6-10 In your opinion, how important are the following corporate strategies for the successful commercialization of this invention? (1 = not important, 5 = very important) (当該発明の商業的成功のための企業戦略としての重要度)

B7E Patents	all	1	2	3	4	5	Don't know	%4 or 5	Missing
All	945	49	78	169	238	276	48	514	87
Large firm (>=501)	632	36	52	128	175	186	30	361	25
Medium SMEs	40	3	2	8	12	10	3	22	2
Small firms (100-250)	40	3	5	4	8	16	2	24	2
Very small firm (< 100)	128	4	16	19	29	46	9	75	5
University	23	2	1	1	6	7	3	13	3
Hospital, foundation, etc. /gov/ other	XX	XX	XX	XX	XX	XX	XX	XX	XX
Missing	XX	XX	XX	XX	XX	XX	XX	XX	XX
%	N	1	2	3	4	5	Total	%4 or 5	
All	810	6.05	9.63	20.86	29.38	34.07	100	63.45	
Large firm (>=501)	577	6.24	9.01	22.18	30.33	32.24	100	62.57	
Medium SMEs	35	8.57	5.71	22.86	34.29	28.57	100	62.86	
Small firms (100-250)	36	8.33	13.89	11.11	22.22	44.44	100	66.66	
Very small firm (< 100)	114	3.51	14.04	16.67	25.44	40.35	100	65.79	
University	17	11.76	5.88	5.88	35.29	41.18	100	76.47	
Hospital, foundation, etc. /gov/ other	XX	XX	XX	XX	XX	XX	XX	XX	
Missing	XX	XX	XX	XX	XX	XX	XX	XX	
Secrecy									
B7F Secrecy	all	1	2	3	4	5	Don't know	%4 or 5	Missing
All	945	145	136	161	173	141	88	314	101
Large firm (>=501)	632	102	98	111	131	99	57	230	34
Medium SMEs	40	4	5	6	10	4	8	14	3
Small firms (100-250)	40	9	5	7	5	11	1	16	2
Very small firm (< 100)	128	20	24	29	17	17	14	34	7
University	42	5	2	1	6	0	5	6	4
Hospital, foundation, etc. /gov/ other	XX	XX	XX	XX	XX	XX	XX	XX	XX
Missing	XX	XX	XX	XX	XX	XX	XX	XX	XX
%	N	1	2	3	4	5	Total	%4 or 5	
All	756	19.18	17.99	21.3	22.88	18.65	100	41.53	
Large firm (>=501)	541	18.85	18.11	20.52	24.21	18.3	100	42.51	
Medium SMEs	29	13.79	17.24	20.69	34.48	13.79	100	48.27	
Small firms (100-250)	37	24.32	13.51	18.92	13.51	29.73	100	43.24	
Very small firm (< 100)	107	18.69	22.43	27.1	15.89	15.89	100	31.78	
University	14	35.71	14.29	7.14	42.86	0	100	42.86	
Hospital, foundation, etc. /gov/ other	XX	XX	XX	XX	XX	XX	XX	XX	
Missing	XX	XX	XX	XX	XX	XX	XX	XX	

Japan

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Question 6-10 In your opinion, how important are the following corporate strategies for the successful commercialization of this invention? (1 = not important, 5 = very important) (当該発明の商業的成功のための企業戦略としての重要度)

Product/process complexity (製品および生産プロセスの複雑性)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	1998	121	302	966	449	75	85
Large firm (> 500)	1584	105	237	794	348	53	47
Medium firm (251-500)	119	6	20	55	24	10	4
Small firm (101-250)	82	1	11	35	22	4	9
Very small firm (<101)	129	5	19	54	37	1	13
university	27	1	3	7	10	2	4
Other	14	1	2	6	0	2	3
unknown	43	2	10	15	8	3	5

Note: When the answer of Question 6-3 is 1 (The invention are used by applicants)

	%	N	1	2	3	4	5	Total
All		1913	6.33	15.79	50.5	23.47	3.92	100
Large firm (> 500)		1537	6.83	15.42	51.66	22.64	3.45	100
Medium firm (251-500)		115	5.22	17.39	47.83	20.87	8.7	100
Small firm (101-250)		73	1.37	15.07	47.95	30.14	5.48	100
Very small firm (<101)		116	4.31	16.38	46.55	31.9	0.86	100
university		23	4.35	13.04	30.43	43.48	8.7	100
Other		11	9.09	18.18	54.55	0	18.18	100
unknown		38	5.26	26.32	39.47	21.05	7.89	100

Collaboration with the firms with complementary technologies (補完的な技術を有する企業との協力)

	All	全く重要でない	重要でない	どちらでもない	重要である	非常に重要である	無回答
	All	1	2	3	4	5	no response
All	1998	141	264	824	578	116	75
Large firm (> 500)	1584	112	216	672	459	85	40
Medium firm (251-500)	119	8	15	57	25	10	4
Small firm (101-250)	82	6	9	37	17	3	10
Very small firm (<101)	129	7	17	36	51	8	10
university	27	3	0	6	10	5	3
Other	14	0	1	3	5	1	4
unknown	43	5	6	13	11	4	4

Note: When the answer of Question 6-3 is 1 (The invention are used by applicants)

	%	N	1	2	3	4	5	Total
All		1923	7.33	13.73	42.85	30.06	6.03	100
Large firm (> 500)		1544	7.25	13.99	43.52	29.73	5.51	100
Medium firm (251-500)		115	6.96	13.04	49.57	21.74	8.7	100
Small firm (101-250)		72	8.33	12.5	51.39	23.61	4.17	100
Very small firm (<101)		119	5.88	14.29	30.25	42.86	6.72	100
university		24	12.5	0	25	41.67	20.83	100
Other		10	0	10	30	50	10	100
unknown		39	12.82	15.38	33.33	28.21	10.26	100

US

(4/5)

Question 6-10 In your opinion, how important are the following corporate strategies for the successful commercialization of this invention? (1 = not important, 5 = very important) (当該発明の商業的成功のための企業戦略としての重要度)

B7G Product/Process complexity	all	1	2	3	4	5	Don't know	%4 or 5	Missing
All	945	126	133	190	207	114	79	321	96
Large firm (>=501)	632	83	94	134	139	93	57	232	32
Medium SMEs	40	5	5	12	9	2	4	11	3
Small firms (100-250)	40	8	4	6	16	3	1	19	2
Very small firm (< 100)	128	22	24	23	31	11	11	42	6
University	23	5	2	5	4	0	4	4	3
Hospital, foundation, etc. /gov/ othe	XX	XX	XX	XX	XX	XX	XX	XX	XX
Missing	XX	XX	XX	XX	XX	XX	XX	XX	XX
%	N	1	2	3	4	5	Total	%4 or 5	
All	770	16.36	17.27	24.68	26.88	14.81	100	41.69	
Large firm (>=501)	243	15.29	17.31	24.68	25.6	17.13	100	42.73	
Medium SMEs	33	15.15	15.15	36.36	27.27	6.06	100	33.33	
Small firms (100-250)	37	21.62	10.81	16.22	43.24	8.11	100	51.35	
Very small firm (< 100)	111	19.82	21.62	20.72	27.93	9.91	100	37.84	
University	16	31.25	12.5	31.25	25	0	100	25	
Hospital, foundation, etc. /gov/ othe	XX	XX	XX	XX	XX	XX	XX	XX	
Missing	XX	XX	XX	XX	XX	XX	XX	XX	

Collaboration with the firms with complementary technologies (補完的な技術を有する企業との協力)

B7H Collaboration with the firms with complementary technologies	all	1	2	3	4	5	Don't know	%4 or 5	Missing
All	945	387	141	90	79	42	111	121	95
Large firm (>=501)	632	287	91	68	53	21	82	74	30
Medium SMEs	40	16	9	4	2	0	6	2	3
Small firms (100-250)	40	19	6	4	3	3	2	6	3
Very small firm (< 100)	128	42	26	9	15	15	16	30	5
University	23	10	3	1	3	1	2	4	3
Hospital, foundation, etc. /gov/ othe	XX	XX	XX	XX	XX	XX	XX	XX	XX
Missing	XX	XX	XX	XX	XX	XX	XX	XX	XX
%	N	1	2	3	4	5	Total	%4 or 5	
All	739	52.37	19.08	12.18	10.69	5.68	100	16.37	
Large firm (>=501)	520	55.19	17.5	13.08	10.19	4.04	100	14.23	
Medium SMEs	31	51.61	29.03	12.9	6.45	0	100	6.45	
Small firms (100-250)	35	54.29	17.14	11.43	8.57	8.57	100	17.14	
Very small firm (< 100)	107	39.25	24.3	8.41	14.02	14.02	100	28.04	
University	18	55.56	16.67	5.56	16.67	5.56	100	22.23	
Hospital, foundation, etc. /gov/ othe	XX	XX	XX	XX	XX	XX	XX	XX	
Missing	XX	XX	XX	XX	XX	XX	XX	XX	

Japan

(5/6)

Question 6-10 In your opinion, how important are the following corporate strategies for the successful commercialization of this invention? (1 = not important, 5 = very important) (当該発明の商業的成功のための企業戦略としての重要度)

others(その他)

	All	全く重要でない	重要である	非常に重要である	無回答
	All	1	4	5	no response
All	1998	1	1	1	1995
Large firm (> 500)	1584	1	0	0	1583
Medium firm (251-500)	119	0	0	0	119
Small firm (101-250)	82	0	0	0	82
Very small firm (<101)	129	0	1	0	128
university	27	0	0	0	27
Other	14	0	0	1	13
unknown	43	0	0	0	43

Note: When the answer of Question 6-3 is 1 (The invention are used by applicants)

	%	N	1	4	5	Total
All		3	33.33	33.33	33.33	100
Large firm (> 500)		1	100	0	0	100
Very small firm (<101)		1	0	100	0	100
Other		1	0	0	100	100

Japan

(6/6)

Question 6-10 Summary

4 or 5

%	First mover's advantage in the development of complementary technologies and the patent portfolio	First mover's advantage in commercialization (short lead-time between the patenting and its exploitation in the market)	Complementary manufacturing capability	Complementary sales/service capability	Enforcement of the patents domestically and internationally	Secrecy (such as manufacturing know-how)	Product/process complexity	Collaboration with the firms with complementary technologies
All	84.94	84.38	73.05	61.7	56.37	62.93	27.39	36.09
Large firm (> 500)	85.4	84.54	72.48	59.92	55.98	62.22	26.09	35.23
Medium firm (251-500)	82.05	87.18	80.34	66.67	56.14	66.96	29.57	30.43
Small firm (101-250)	76.32	84.21	71.05	62.16	60.27	63.51	35.62	27.78
Very small firm (<101)	86.99	86.55	74.17	74.59	59.66	67.8	32.76	49.58
university	84	76	88.46	88	54.55	69.57	52.17	62.5
Other	81.82	58.33	45.45	45.45	45.45	63.64	18.18	60
unknown	86.84	76.32	71.79	64.1	59.46	59.46	28.95	38.46

Note: When the answer of Question 6-3 is 1 (The invention are used by applicants)

US

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Question 6–10 Summary

4 or 5

B7 (4 or 5) %

	A First mover's advantage in the development of complementary technologies and the patent portfolio	B First mover's advantage in commercialization	C Complementary manufacturing capability	D Complementary sales/service capability	E Patents	F Secrecy	G Product/Processes complexity	H Collaboration with the firms with complementary technologies
All	66.51	73.33	41.59	43.81	63.45	41.53	41.69	16.37
Large firm (>=501)	66.31	71.93	41.13	41.66	62.57	42.51	42.73	14.23
Medium SMEs	62.16	64.87	34.48	34.38	62.86	48.27	33.33	6.45
Small firms (100–250)	69.44	94.44	54.29	52.77	66.66	43.24	51.35	17.14
Very small firm (< 100)	64.66	75.42	39.62	50.49	65.79	31.78	37.84	28.04
University	88.89	78.95	28.57	35.71	76.47	42.86	25	22.23
Hospital, foundation, etc. /gov/	XX	XX	XX	XX	XX	XX	XX	XX
Missing	XX	XX	XX	XX	XX	XX	XX	XX

US

(6/6)

Reference: From the commercial launch of your product/process/service, approximately how long was it until another firm introduced a competing alternative? (参考: 当該特許が商業化されてから、別の企業が競争的な代替手段(製品、生産過程あるいはサービス)を導入するのに要した時間)

B8 From the commercial launch of your product/process/service, approximately how long was it until another firm introduced a competing alternative?	all	Less than 6 months	6 months - 1.5 years	1.5-3 years	3-5 years	More than	Don't know	Missing
All	945	65	87	110	65	116	419	83
Large firm (>=501)	632	51	61	71	45	79	301	24
Medium SMEs	40	1	3	10	1	5	18	2
Small firms (100-250)	40	4	5	3	4	8	14	2
Very small firm (< 100)	128	7	13	21	14	14	54	5
University	23	2	0	2	0	4	13	2
Hospital, foundation, etc. /gov/ other	XX	XX	XX	XX	XX	XX	XX	XX
Missing	XX	XX	XX	XX	XX	XX	XX	XX
%	N	Less than 6 months	6 months - 1.5 years	1.5-3 years	3-5 years	More than	Total	
All	443	14.67	19.64	24.83	14.67	26.19	100	
Large firm (>=501)	307	16.61	19.87	23.13	14.66	25.73	100	
Medium SMEs	20	5	15	50	5	25	100	
Small firms (100-250)	24	16.67	20.83	12.5	16.67	33.33	100	
Very small firm (< 100)	69	10.14	18.84	30.43	20.29	20.29	100	
University	8	25	0	25	0	50	100	
Hospital, foundation, etc. /gov/ other	XX	XX	XX	XX	XX	XX	XX	
Missing	XX	XX	XX	XX	XX	XX	XX	