

Patenting 2007

Domestic patenting by enterprises on the decline

Domestic patenting by enterprises and associations has been declining steadily since the year 2000. Enterprises filed 1,898 domestic patent applications in 2000 and 1,349 applications in 2007. Enterprises having filed patent applications numbered 563 in 2000 and 467 in 2007. Over the same time period, the number of domestic patents granted to enterprises fell from 879 to 559 and the number of enterprises to which patents were granted from 262 to 246. One reason for the reduction is increased international patenting by enterprises. Applications for patents validated in Finland are also filed with international patenting offices, mainly the European Patent Office. A total of 141 European patents of 71 domestic enterprises were validated in Finland in 2007.

A total of 2,012 patent applications were filed direct with the National Board of Patents and Registration of Finland in 2007. The number was four down on the year before. Applications filed direct from abroad numbered 211. The number of domestic applications fell by 12 while that of foreign applications went up by six.

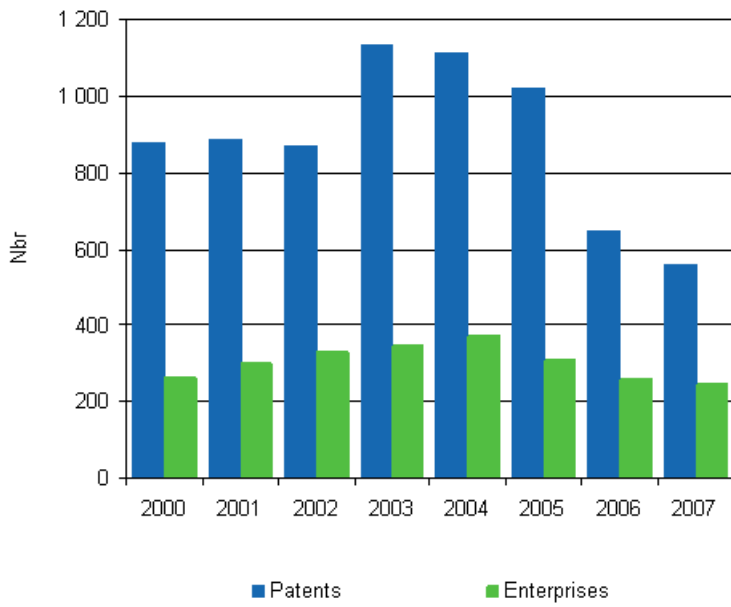
Enterprises and associations filed 1,349 domestic patent applications and the rest were filed by private individuals.

In 2007, a domestic patent application was filed by 467 enterprises or associations. The number fell by 59 from the previous year. Fifteen enterprises filed patent applications jointly with some other applicant, and 21 enterprises filed 10 or more applications. Most enterprises filed only one patent application; in 2007 such enterprises numbered 328.

The number of enterprises having filed patent applications was highest in the metal and engineering industries where 91 enterprises filed 437 applications for domestic patents and 66 enterprises were granted 223 patents. The next highest number of patents was granted in the electronics industry, where 111 domestic patents were granted to 46 enterprises.

In 2007, a total of 920 patents were granted in Finland, 301 of them to foreign applicants. In addition, 5,431 European patents were validated, 149 of them to Finnish applicants. Inclusive of European patents, the highest numbers of foreign patents were granted to applicants from the United States (25%), Germany (20%) and France (8%)

Figure: Domestic patents granted to enterprises and associations in 2000-2007



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Tables

1. Patent applications filed in Finland in 1985-2007

	Private assignee	Firm - community	Domestic applications total	Foreign applications	Applications Total
1985	681	1038	1719	3480	5199
1986	718	1035	1753	3630	5383
1987	747	1104	1851	3949	5800
1988	742	1235	1977	4091	6068
1989	682	1262	1944	4415	6359
1990	708	1360	2068	4414	6482
1991	863	1315	2178	4013	6191
1992	803	1247	2050	3948	5998
1993	891	1316	2207	3768	5975
1994	941	1395	2336	3852	6188
1995	731	1393	2124	4240	6364
1996	802	1424	2226	3087	5313
1997	784	1626	2410	2258	4668
1998	680	1791	2471	387	2858
1999	678	1833	2511	359	2870
2000	695	1883	2575	338	2913
2001	627	1764	2391	277	2668
2002	550	1606	2156	216	2372
2001	467	1506	1973	214	2187
2004	443	1567	2010	215	2225
2005	464	1371	1835	226	2061
2006	419	1394	1813	205	2018
2007	452	1349	1801	211	2012

2. Domestic patent applications by region in 2001, 2003, 2005 and 2007

Region	Year			
	2001	2003	2005	2007
Regions Total	2390	1972	1826	1801
Uusimaa	793	748	714	716
Itä-Uusimaa	40	28	32	34
Varsinais-Suomi	202	170	139	145
Satakunta	79	55	57	38
Kanta-Häme	47	38	49	35
Pirkanmaa	364	270	179	189
Päijät-Häme	73	49	51	59
Kymenlaakso	58	33	40	44
South Karelia	25	27	29	29
Etelä-Savo	27	27	34	34
Pohjois-Savo	101	56	84	70
North Karelia	40	47	45	34
Central Finland	200	131	120	110
South Ostrobothnia	33	24	21	23
Ostrobothnia	31	41	61	61
Central Ostrobothnia	19	13	4	5
North Ostrobothnia	160	135	137	106
Kainuu	14	9	13	7
Lappi	26	15	18	15
Åland	2	.	5	1
Unknown / Foreign countries	54	59	1	50

3. Domestic patent applications of enterprises and associations by industry in 2001, 2004 and 2007

Industry	Year					
	2001		2004		2007	
	Applications	Nr of enterprises	Applications	Nr of enterprises	Applications	Nr of enterprises
Total of industries	1775	610	1583	552	1349	467
Total of manufacturing industries	1137	296	1066	295	840	217
Manufacture of food products and beverages	23	10	11	9	16	9
Manufacture of textiles and clothing	12	6	12	6	8	3
Manufacture of wood and wood products	52	20	49	18	38	11
Manufacture of chemicals and chemical products	102	34	56	35	79	35
Manufacture of metals, metal products, machinery	467	125	541	142	437	91
Manufacture of electrical and optical equipment	419	69	356	61	226	52
Other manufacturing industries	62	32	41	24	36	16
Total of other industries	638	314	517	257	509	250
Electricity, gas and water supply	3	3	0	0	.	.
Construction	23	19	42	19	26	20
Wholesale and retail trade	75	54	63	49	51	33
Transport, storage and communication	94	14	37	7	18	9
Computer and related activities	94	59	56	35	63	43
Research and development	118	29	103	26	131	26
Other business activities	176	102	162	87	137	33
Other industries	55	34	54	34	83	33

4. Patents granted in Finland by IPC section in 2007

Industry	Patents granted in Finland		European patents validated in Finland	
	Total	Finnish assignees	Total	Finnish assignees
Total of patents granted	920	619	5431	149
Human necessities	163	73	1168	18
Performing operations, transporting	214	184	817	21
Chemistry, metallurgy	95	44	1419	18
Textiles, paper	81	62	190	19
Fixed constructions	31	23	147	2
Mechanical engineering	68	61	295	11
Physics	131	89	441	20
Electricity	137	83	954	40

5. Domestic patents granted to enterprises and associations by industry in 2001-2007

Industry	Year					
	2001		2004		2007	
	Patents	Enterprises	Patents	Enterprises	Patents	Enterprises
Total of industries	886	302	1114	372	559	246
Total of manufacturing industries	711	192	817	218	396	150
Manufacture of food products and beverages	13	6	9	4	3	3
Manufacture of textiles and clothing	5	3	3	2	3	2
Manufacture of wood and wood products	24	13	19	11	17	5
Manufacture of chemicals and chemical products	61	26	55	26	33	22
Manufacture of metals, metal products, machinery	196	87	356	98	223	66
Manufacture of electrical and optical equipment	403	48	357	65	111	46
Other manufacturing industries	9	9	18	12	6	6
Total of other industries	175	110	297	154	163	96
Electricity, gas and water supply	2	1	2	2	1	1
Construction	12	11	7	6	3	3
Wholesale and retail trade	27	16	22	14	24	15
Transport, storage and communication	37	10	72	14	12	2
Computer and related activities	8	7	40	31	28	17
Research and development	26	11	35	12	27	14
Other business activities	45	38	100	61	51	31
Other industries	18	16	19	14	17	13

6. European patents validated in Finland by IPC-section and resident country of assignee in 2007

Resident country of assignee	Total of patents	A: Human necessities	B:Performing operations, transporting	C: Chemistry, metallurgy	D: Textiles, paper	E: Fixed constructions	F: Mechanical engineering	G:Physics	H:Electricity
Total of countries	5431	1168	817	1419	190	147	295	441	954
Finland	149	18	21	18	19	2	11	20	40
United States	1328	321	135	387	32	8	36	112	297
Germany	1099	172	242	268	82	34	79	82	140
France	398	87	55	129	8	13	26	32	48
Japan	360	43	40	91	9	1	10	46	120
Switzerland	318	112	58	65	5	7	26	19	26
Great Britain	270	69	34	83	3	10	11	26	34
Sweden	265	57	51	42	9	16	22	23	45
Italy	207	61	43	49	4	9	18	8	15
Netherlands	182	33	27	61	2	6	8	20	25
Denmark	107	31	12	44	1	4	6	5	4
Republic of Korea	106	2	4	4	.	.	1	6	89
Total of other countries	642	162	95	178	16	37	41	42	71

7. Patents granted to Finnish enterprises by European Patent Office and United States Patent and Trademark Office by industry in 2007

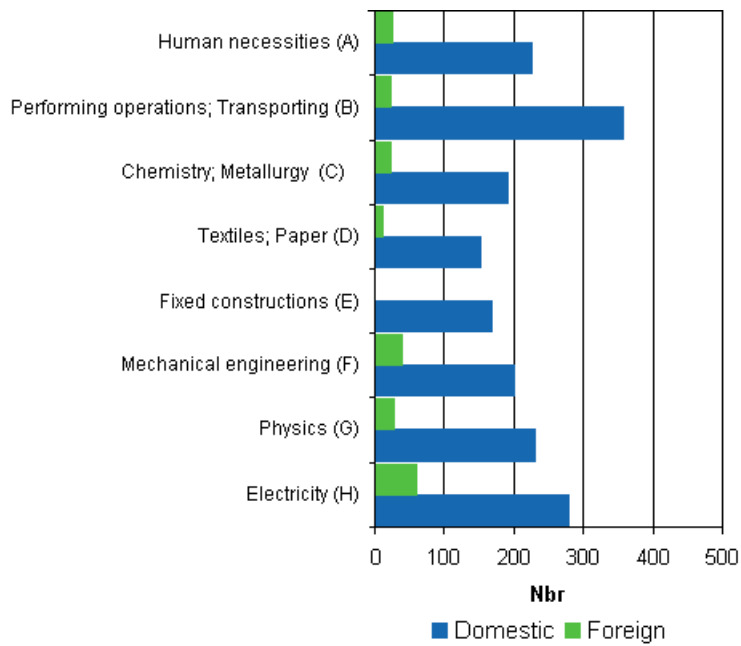
Industry	European Patent Office		United States Patent and Trademark Office	
	Patents	Enterprises	Patents	Enterprises
Total of industries	732	171	945	138
Total of manufacturing industries	649	126	860	84
Manufacture of food products and beverages	8	6	1	1
Manufacture of textiles and clothing	11	3	1	1
Manufacture of wood and wood products	12	6	8	3
Manufacture of chemicals and chemical products	52	19	35	18
Manufacture of metals, metal products, machinery and equipment	156	48	57	23
Manufacture of electrical and optical equipment	401	36	751	32
Other manufacturing industries	9	8	7	6
Construction	1	1	..	..
Wholesale and retail trade	8	7	5	5
Transport, storage and communication	17	4	3	2
Computer and related activities	6	4	21	13
Research and development	19	8	27	16
Other business activities	24	14	27	16
Other industries	8	7	2	2

8. Partner countries in patents granted to Finnish inventors in 2007

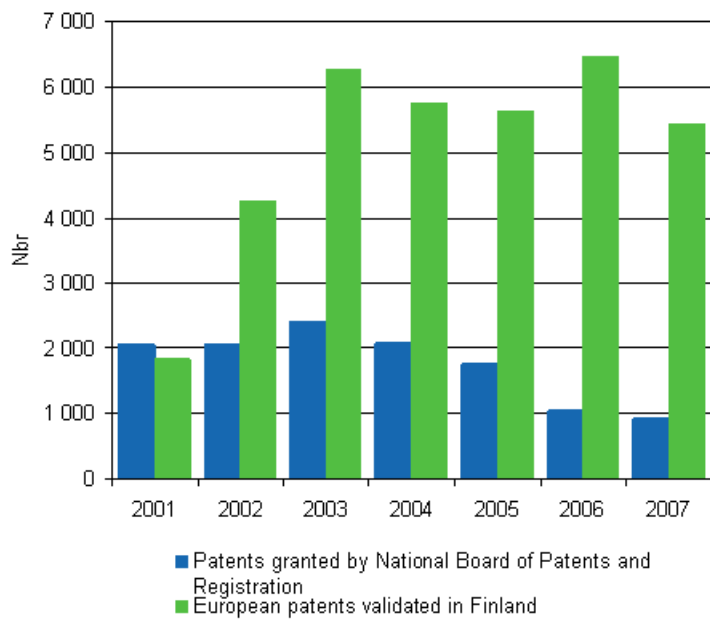
Partner's country of residence	Domestic ownership of inventions made abroad		Foreign ownership of domestic inventions		Patents with at least one foreign co-inventor	
	EPO	USPTO	EPO	USPTO	EPO	USPTO
Total of grants	764	1164	720	1027	720	1027
Total co-operation with abroad	172	332	81	111	89	147
EU-27	118	..	50	..	58	..
Great Britain	24	47	4	3	11	13
United States	35	141	19	45	19	63
Germany	22	32	9	8	16	23
Sweden	31	30	29	24	15	13
Denmark	15	30	2	1	5	7
Austria	5	1	2	..	3	2
Japan	4	13	2	..	3	1
Netherlands	5	7	4	14	5	10
France	6	2	..	1	2	4
Italy	1	5	..	..	..	3
China	6	6	..	..	3	5

Figures

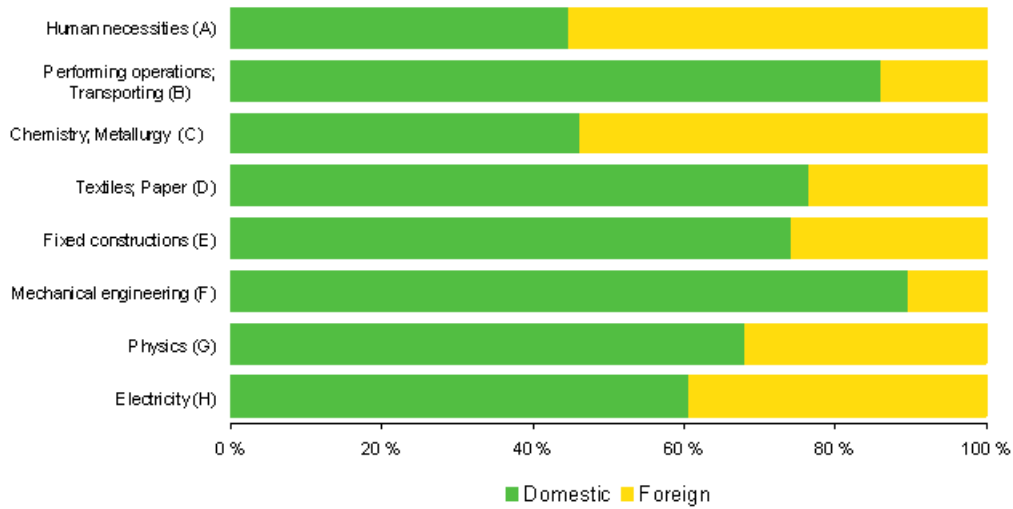
1. Patent applications filed in Finland by IPC section in 2007



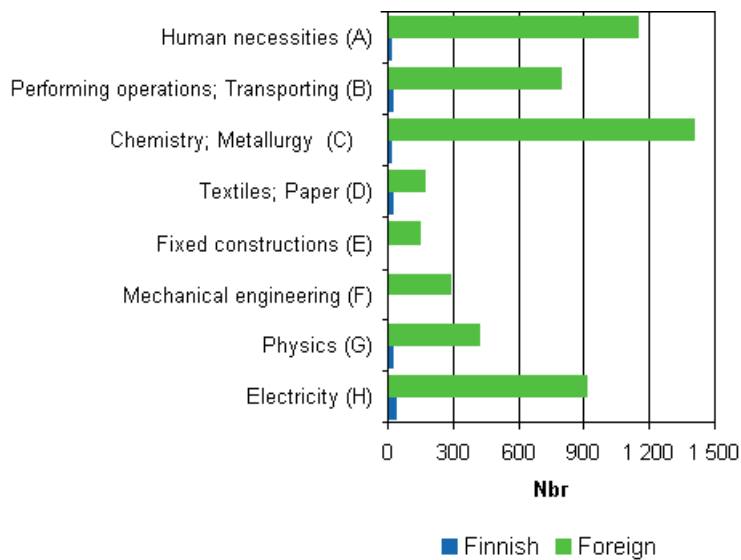
2. Patents granted and European patents validated in 2001 - 2007



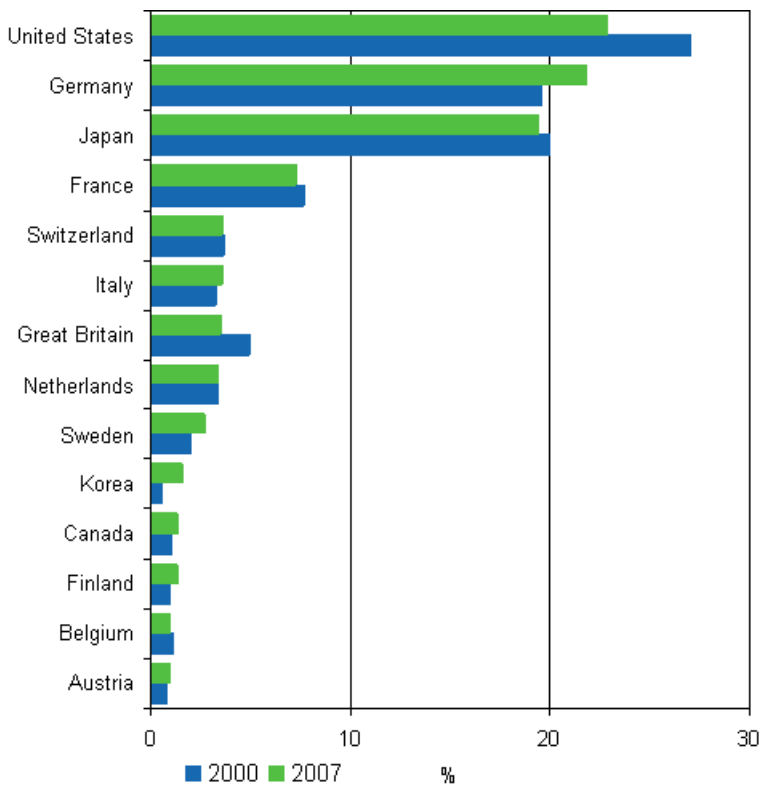
3. Patents granted in Finland in 2007



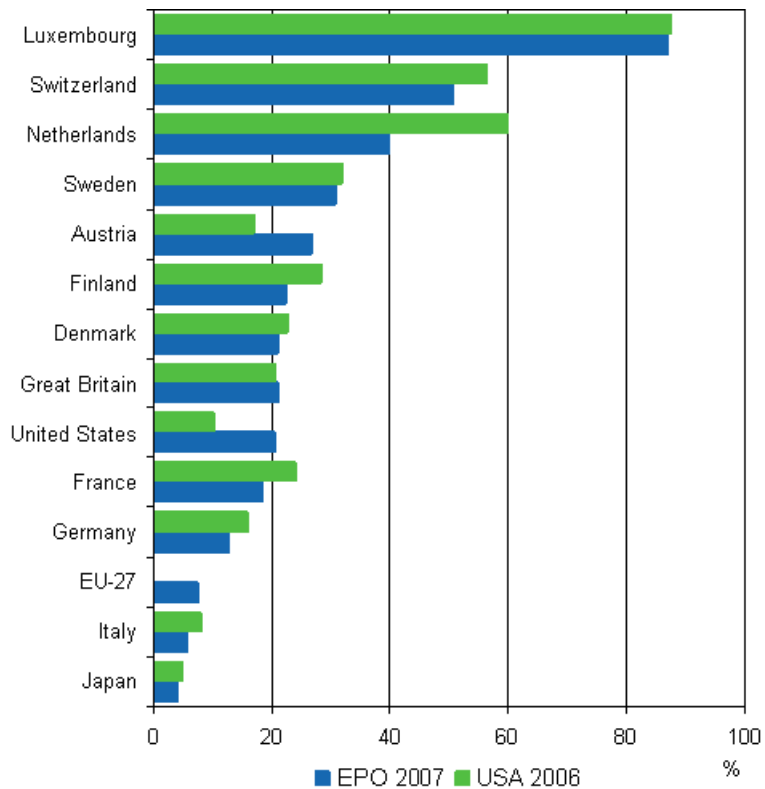
4. European patents validated in Finland in 2007



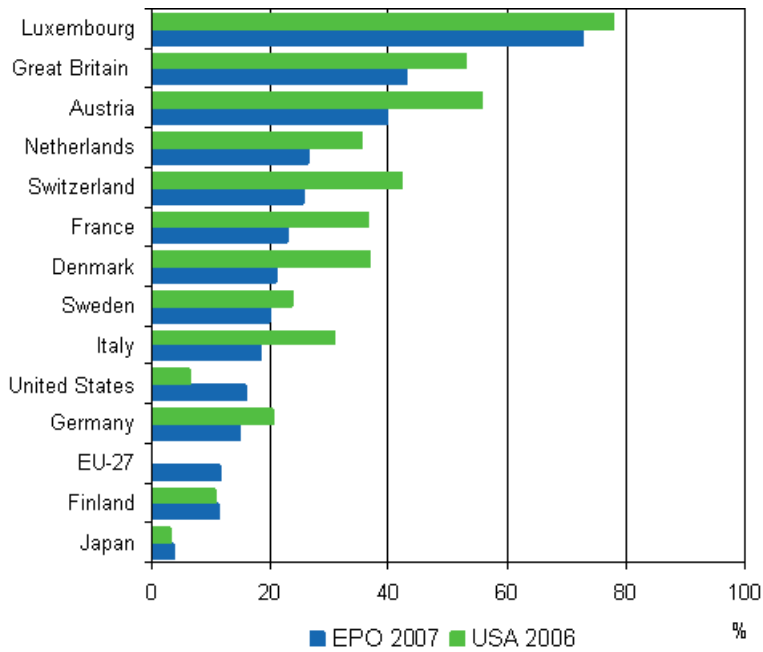
5. Selected countries shares of European patenting in 2000 and 2007



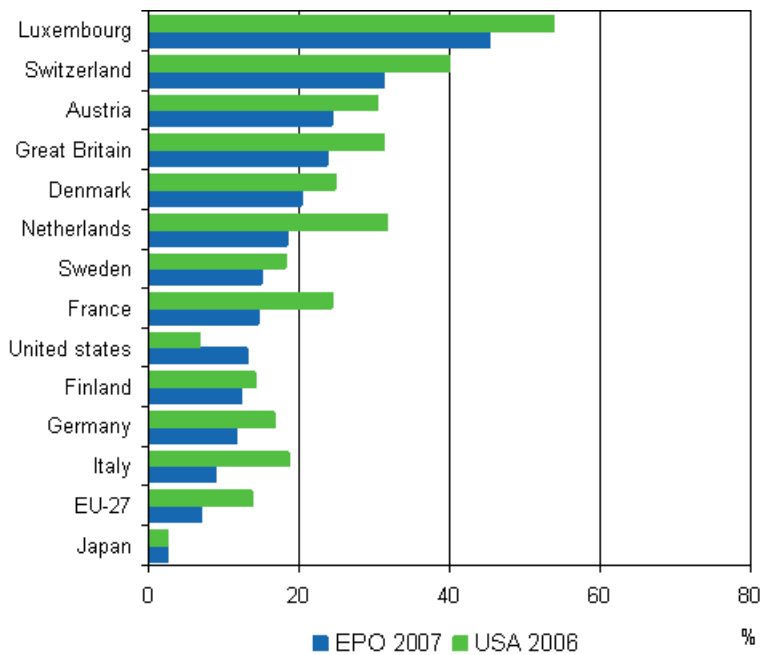
6. Domestic ownership of foreign inventions



7. Foreign ownership of domestic inventions



8. Joint inventions share of domestic inventions



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