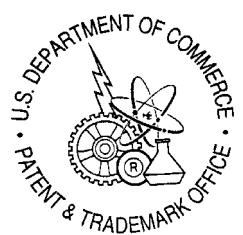


# ALL TECHNOLOGIES REPORT

JANUARY 1963 -- DECEMBER 1998



March 1999

U.S. PATENT AND TRADEMARK OFFICE  
OFFICE FOR PATENT AND TRADEMARK INFORMATION / TAF PROGRAM  
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*A TECHNOLOGY ASSESSMENT AND FORECAST REPORT*

# All Technologies Report

## 1963 - 1998

### Explanation of Data

This Technology Assessment and Forecast (TAF) Program Report profiles utility patent activity (i.e., "patents for inventions") for U.S. patents granted between 1963 and **DECEMBER 1998** in all technology areas. The source of the data used for this report is the TAF database maintained by the Office for Patent and Trademark Information.

#### Data Distribution By Date of Grant and By Date of Application

##### **Parts A1 and A2**

Part A1 distributes utility patent GRANT data by year of patent grant ("Patents Granted By Date of Patent Grant"). Part A2 distributes grant data by the year in which the patented application was filed ("Patents Granted By Date of Patent Application"). Parts A1 and A2 each provide patent counts (pages A1-1 and A2-1) and percent distributions (pages A1-2 and A2-2).

Patent data, as shown in the "**Pre 1985**" column, corresponds to the period 1963 through **1984**.

##### **Part B**

Part B of this report distributes patent GRANT data for organizations that have received U.S. patents since 1969. Data are presented by the year in which the patent was granted ("Patents By Year of Grant") and the year the patented application was filed ("Patents by Year of Application").

**DATA FOR THOSE APPLICATIONS WHICH WERE FILED BUT NEVER ISSUED (ROUGHLY 40% OF TOTAL FILINGS) ARE NOT INCLUDED IN THIS REPORT.**

Since the average time period between filing for a utility patent and the issuing of the patent (i.e., the patent's "pendency") is now about 24 months, the patented application data for applications filed from **1995 to DECEMBER 1998** are incomplete.\* This is because a significant number of the applications filed from **1995 to DECEMBER 1998** which will ultimately become patents were still pending in **DECEMBER 1998**. Since they had not yet become patents at the time this report was prepared, they were not included in this report.

Patented application data are of significant value since the date an application was filed more accurately reflects when the technology was developed. Additionally, fluctuations in data based on application date are much more likely to reflect changes in technological activity since, for the most part, such fluctuations would be immune from changes in U.S. Patent and Trademark Office (PTO) processing such as occurred in 1986 when the PTO issued fewer patents than would have normally been expected due to a lack of funds to print patents. Note that a patent's "pendency" can be quite variable from one patent to another thereby affecting the date of patent grant. Such variation in

pendency is determined by many factors, including PTO workload (which varies between technologies), budget and manpower levels, patent printing schedules, etc.

"Patents Granted By Date of Patent Application", as shown in the "**Pre 1985**" column, correspond to utility patent grants in the report which were filed prior to **1985**.

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#### Parts of the Report

**Parts A1 and A2** present tables which show, by number and percent, the patent activity in all technologies. Part A1 presents data by year of patent grant ("Patents Granted By Date of Patent Grant"). Part A2 redistributes grant data by year of patent application ("Patents Granted By Date of Patent Application"). The location of patent origin is determined by the residence of the first-named inventor at the time of grant.

**Patent ownership** information reflects ownership at the time of patent grant and does not include subsequent changes in ownership. If more than one assignee was declared at the time of grant, the patent is attributed to the first-named assignee. The U.S. and Foreign Corporations ownership categories count predominantly corporate patents; however, patents assigned to other organizations such as small businesses, nonprofit organizations, universities, etc. are also included in this category. While U.S. Government patent ownership includes only patents granted to the Federal Government, no such distinction is made for Foreign Government patents.

**Part B** is a ranked listing of national and international organizations (i.e., corporations, universities, government agencies) which have received 1000 or more U.S. utility patents since 1969. Data line 1 for each listed organization distributes counts of patent grants by year of grant. Data line 2 for each organization redistributes those same patent grants by year in which the patented applications were filed. Information on patent ownership reflects ownership at the time of patent grant. Although a substantial effort has been made to combine name variations into a single organizational name, many organizations continue to have patents listed under more than one organizational name.

**Note:** A report titled Industrial Patent Activity in the United States is a more extensive version of Part B of this report. That report, which currently shows organizations granted 15 or more patents during the period 1973 to 1997, is available from the National Technical Information Service (703-605-6000).

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\* As of **DECEMBER 1998**, utility patent application data are approximately 98% complete for utility patent applications filed in 1995, 84% complete for applications filed in 1996, and 27% complete for applications filed in 1997. They are essentially complete for applications filed prior to 1995.

Part A1  
Patent Grants as Distributed By Year of Patent Grant

## ---- Patents Granted By Date Of Patent Grant (Granted: Jan 01, 1963 - Dec 31, 1998) ----

----- NUMBER OF PATENTS -----  
 Pre 1985 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 Total

Total	1416597	71661	70860	82952	77924	95537	90364	96513	97444	98342	101676	101419	109646	111983	147520	2770438
U.S. Origin	970240	39556	38126	43520	40496	50186	47390	51179	52253	53231	56066	55739	61104	61707	80294	1701087
Foreign Origin	446357	32105	32734	39432	37428	45351	42974	45334	45191	45111	45610	45680	48542	50276	67226	1069351
JAPAN	105510	12746	13209	16557	16158	20168	19525	21026	21925	22293	22384	21764	23053	23179	30841	390338
GERMANY	108847	6718	6856	7884	7353	8352	7614	7680	7309	6893	6731	6600	6818	7008	9095	211758
UNITED KINGDOM	57477	2494	2405	2775	2579	3094	2789	2800	2425	2295	2234	2478	2453	2678	3464	94440
FRANCE	41280	2400	2369	2874	2661	3140	2866	3030	3029	2909	2779	2821	2788	2958	3674	81578
CANADA	23447	1342	1314	1594	1489	1959	1859	2036	1964	1944	2008	2104	2233	2379	2974	50646
SWITZERLAND	24960	1233	1211	1374	1245	1363	1284	1335	1197	1127	1169	1056	1112	1090	1278	42034
ITALY	14131	919	995	1183	1076	1297	1259	1209	1271	1285	1215	1078	1200	1239	1582	30939
SWEDEN	15379	857	883	948	777	837	768	716	626	636	706	806	854	867	1225	26885
NETHERLANDS	13075	766	722	922	806	1060	960	992	855	800	852	799	797	808	1226	25440
TAIWAN	568	174	208	343	457	591	732	906	1001	1189	1443	1620	1897	2057	3100	16286
SOUTH KOREA	172	41	46	84	97	159	225	405	538	779	943	1161	1493	1891	3259	11293
AUSTRALIA	4382	340	374	389	416	501	432	463	409	378	467	459	471	478	720	10679
BELGIUM	5128	240	243	295	302	359	313	324	325	350	352	397	488	515	693	10324
AUSTRIA	4836	318	357	345	337	402	393	359	371	312	289	337	362	376	387	9781
U.S.S.R.	5774	147	116	121	96	161	174	178	66	65	53	12	16	4	6	6989
ISRAEL	1701	179	189	245	238	325	299	304	335	314	350	384	484	534	754	6635
FINLAND	1738	200	210	275	232	230	304	331	361	293	312	358	444	452	595	6335
DENMARK	2917	187	182	204	151	221	158	210	193	197	207	199	241	333	391	5991
SPAIN	1387	78	97	115	126	131	130	153	133	158	141	148	157	177	248	3379
NORWAY	1633	90	81	135	121	126	112	111	108	117	126	130	139	142	198	3369
SOUTH AFRICA	1453	96	88	107	103	134	114	105	97	93	101	123	111	101	115	2941
HUNGARY	1230	108	131	127	94	129	93	85	88	61	46	50	43	25	50	2360
CZECHOSLOVAKIA	1758	54	35	46	33	34	39	27	17	13	19	15	8	9	9	2116
MEXICO	1185	32	37	49	44	39	32	29	39	45	44	40	39	45	57	1756
NEW ZEALAND	584	33	52	68	55	58	51	41	44	39	37	44	52	85	114	1357
HONG KONG,S.A.R.-PEOP	301	25	31	34	41	48	52	50	60	60	57	86	88	81	160	1174
IRELAND	339	30	28	38	43	65	54	56	55	53	50	50	78	73	74	1086
BRAZIL	396	30	27	34	29	36	41	62	40	57	60	63	63	62	74	1074
ARGENTINA	476	11	17	18	16	20	17	16	20	24	32	31	30	35	43	806
CHINA P.REP.	108	1	9	23	47	52	47	50	41	53	48	62	46	62	72	721
POLAND	512	11	14	13	8	14	17	8	5	8	8	8	15	11	15	667
INDIA	261	10	18	12	14	14	23	22	24	30	27	37	35	47	85	659
LUXEMBOURG	275	37	31	22	29	29	17	27	26	28	22	24	18	22	20	627
SINGAPORE	53	9	3	11	6	18	12	15	32	38	51	53	88	94	120	603
RUSSIAN FEDERATION									3	38	98	116	111	189	555	
LIECHTENSTEIN	321	13	17	16	10	11	15	11	16	11	17	17	12	11	16	514
Others ( 122 )	2763	136	129	152	139	174	154	162	146	161	192	168	200	237	303	5216

## Ownership:

U.S. Corporations	735977	31181	29490	33726	31437	38664	36093	39133	40308	41826	44036	44035	48741	50220	66062	1310929
U.S. Government	32911	1139	1022	981	733	880	983	1183	1161	1166	1258	1028	923	944	1018	47330
U.S. Individuals	236317	9265	9477	10887	10122	13028	12542	13207	12751	12281	12805	12885	13729	12914	16407	408617
Foreign Corporations	330653	25957	26545	32371	30960	37506	35548	37594	38239	38401	38788	38688	41476	42907	57668	853301
Foreign Government	4894	483	479	555	453	441	423	472	463	434	296	245	259	273	256	10426
Foreign Individuals	75845	3636	3847	4432	4219	5018	4775	4924	4522	4234	4493	4538	4518	4725	6109	139835

## ----- Patents Granted By Date Of Patent Grant (Granted: Jan 01, 1963 - Dec 31, 1998) -----

## ----- PERCENT OF PATENTS -----

	Pre 1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total
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<b>Total</b>	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
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U.S. Origin	68	55	54	52	52	53	52	53	54	54	55	55	56	55	54	61
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Foreign Origin	32	45	46	48	48	47	48	47	46	46	45	45	44	45	46	39
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JAPAN	7	18	19	20	21	21	22	22	23	23	22	21	21	21	21	14
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GERMANY	8	9	10	10	9	9	8	8	7	7	7	6	6	6	6	8
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UNITED KINGDOM	4	3	3	3	3	3	3	3	2	2	2	2	2	2	2	3
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FRANCE	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
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CANADA	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
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SWITZERLAND	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	2
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ITALY	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
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SWEDEN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
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NETHERLANDS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
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TAIWAN					1	1	1	1	1	1	1	2	2	2	2	1
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SOUTH KOREA										1	1	1	1	2	2	0
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AUSTRALIA		1			1		1									0
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BELGIUM																0
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AUSTRIA			1													0
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U.S.S.R.																0
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ISRAEL														1		0
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FINLAND																0
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DENMARK																0
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SPAIN																0
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NORWAY																0
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SOUTH AFRICA																0
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HUNGARY																0
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CZECHOSLOVAKIA																0
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MEXICO																0
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NEW ZEALAND																0
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HONG KONG, S.A.R.-PEOP																0
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IRELAND																0
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BRAZIL																0
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ARGENTINA																0
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CHINA P.REP.																0
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POLAND																0
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INDIA																0
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LUXEMBOURG																0
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SINGAPORE																0
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RUSSIAN FEDERATION																0
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LIECHTENSTEIN																0
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Others ( 122 )																0
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**Ownership:**

U.S. Corporations	52	44	42	41	40	40	40	41	41	43	43	43	44	45	45	47
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U.S. Government	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2
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U.S. Individuals	17	13	13	13	13	14	14	14	13	12	13	13	13	12	11	15
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Foreign Corporations	23	36	37	39	40	39	39	39	39	39	38	38	38	38	39	31
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Foreign Government	1	1	1	1												0
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Foreign Individuals	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	5
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**Part A2**  
**Patent Grants as Distributed By Year of Patent Application**

## ---- Patents Granted By Date Of Patent Application (Granted: Jan 01, 1963 - Dec 31, 1998) ----

## ---- NUMBER OF PATENTED APPLICATIONS ----

	Pre 1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total
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<b>Total</b>	<b>1560561</b>	<b>71437</b>	<b>75085</b>	<b>81454</b>	<b>90117</b>	<b>96056</b>	<b>99191</b>	<b>99818</b>	<b>102832</b>	<b>105911</b>	<b>118678</b>	<b>129749</b>	<b>102184</b>	<b>36848</b>	<b>517</b>	<b>2770438</b>
U.S. Origin	1048167	37712	38930	42454	47010	50250	53266	53790	56690	59264	65384	73118	54741	19994	317	1701087
Foreign Origin	512394	33725	36155	39000	43107	45806	45925	46028	46142	46647	53294	56631	47443	16854	200	1069351
JAPAN	132045	14333	15370	16963	19872	21660	22104	22811	22714	22066	25352	26126	21289	7567	66	390338
GERMANY	122227	6892	7207	7359	7621	7764	7504	6920	6966	6775	7431	8016	6686	2370	20	211758
UNITED KINGDOM	62760	2401	2475	2753	2709	2815	2594	2341	2265	2474	2819	3024	2245	758	7	94440
FRANCE	46375	2365	2580	2723	2945	2930	3051	2980	2926	2926	3062	3380	2524	808	3	81578
CANADA	26033	1300	1402	1672	1882	2036	1938	2052	1984	2274	2472	2725	2130	730	16	50646
SWITZERLAND	27434	1158	1245	1189	1329	1358	1197	1174	1129	1129	1209	1245	904	330	4	42034
ITALY	16038	955	1098	1139	1267	1232	1283	1250	1267	1184	1268	1387	1151	417	3	30939
SWEDEN	17148	789	771	749	724	747	658	695	718	824	980	982	797	302	1	26885
NETHERLANDS	14642	772	798	841	982	1004	919	810	852	887	916	930	819	265	3	25440
TAIWAN	873	252	351	517	557	725	932	1116	1260	1567	1908	2197	2569	1413	49	16286
SOUTH KOREA	255	70	86	141	207	410	510	795	906	1026	1587	2029	2553	706	12	11293
AUSTRALIA	5112	368	426	433	445	427	448	422	447	495	508	542	485	120	1	10679
BELGIUM	5612	262	308	306	301	346	336	347	336	393	493	618	495	165	6	10324
AUSTRIA	5485	312	335	338	381	367	396	332	306	327	399	415	296	92		9781
U.S.S.R.	6034	96	107	140	147	156	137	80	50	20	10	9	2	1		6989
ISRAEL	2137	186	231	295	283	320	325	316	355	422	578	593	460	131	3	6635
FINLAND	2162	218	211	264	262	310	350	352	329	361	460	493	448	115		6335
DENMARK	3282	170	170	190	200	154	232	202	177	225	276	394	224	93	2	5991
SPAIN	1570	92	118	117	124	146	146	133	165	155	188	192	163	70		3379
NORWAY	1817	99	126	115	120	94	119	122	129	141	140	168	128	51		3369
SOUTH AFRICA	1648	89	89	130	95	124	98	88	95	143	136	96	85	24	1	2941
HUNGARY	1496	111	102	101	98	87	86	67	44	45	43	47	22	11		2360
CZECHOSLOVAKIA	1846	39	39	26	40	32	16	14	20	19	10	8	5	2		2116
MEXICO	1253	38	45	31	37	38	34	43	49	35	48	46	47	12		1756
NEW ZEALAND	680	48	62	52	45	52	43	39	40	37	75	82	79	23		1357
HONG KONG,S.A.R.-PEOP	350	26	40	43	46	62	50	64	65	69	110	92	110	47		1174
IRELAND	398	34	44	51	63	52	54	57	50	52	93	69	54	15		1086
BRAZIL	451	31	28	36	31	62	41	58	57	59	87	59	57	17		1074
ARGENTINA	502	15	18	24	13	10	27	24	24	38	38	34	33	6		806
CHINA P.REP.	118	13	52	42	51	45	43	53	50	73	51	58	54	17	1	721
POLAND	545	5	9	9	17	8	8	9	6	12	15	8	14	2		667
INDIA	285	14	18	10	20	27	25	23	35	34	42	49	57	19	1	659
LUXEMBOURG	340	20	29	23	21	23	25	29	25	18	30	20	19	5		627
SINGAPORE	65	10	7	10	14	21	19	32	60	54	95	90	94	32		603
RUSSIAN FEDERATION								2	27	95	123	136	133	39		555
LIECHTENSTEIN		347	13	13	13	11	16	12	14	17	14	15	10	5		514
Others ( 122 )	3029	129	145	155	147	146	165	162	197	179	228	257	202	74	1	5216

## Ownership:

U.S. Corporations	797434	29653	30421	32767	36213	38807	40921	41833	44665	46694	52027	59762	44125	15401	206	1310929
U.S. Government	35497	874	737	662	892	1005	1168	1178	1191	1184	1006	998	694	240	4	47330
U.S. Individuals	254150	8992	9653	10905	12090	12744	13334	12812	12848	13696	14862	15069	12181	5161	120	408617
Foreign Corporations	384176	27840	29816	32109	35976	38305	38611	39144	39455	39394	45364	48567	40361	14041	142	853301
Foreign Government	5947	440	451	432	387	452	472	420	340	262	280	284	207	52		10426
Foreign Individuals	83357	3638	4007	4579	4559	4743	4685	4431	4333	4681	5139	5069	4616	1953	45	139835

## ---- Patents Granted By Date Of Patent Application (Granted: Jan 01, 1963 - Dec 31, 1998) ----

## ---- PERCENT OF PATENTED APPLICATIONS ----

	Pre 1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total
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Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
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U.S. Origin	67	53	52	52	52	54	54	55	56	55	56	54	54	61	61	61
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Foreign Origin	33	47	48	48	48	46	46	45	44	45	44	46	46	39	39	39
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JAPAN	8	20	20	21	22	23	22	23	22	21	21	20	21	21	13	14
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GERMANY	8	10	10	9	8	8	8	7	7	6	6	6	7	6	4	8
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UNITED KINGDOM	4	3	3	3	3	3	3	2	2	2	2	2	2	2	1	3
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FRANCE	3	3	3	3	3	3	3	3	3	3	3	3	2	2	1	3
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CANADA	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2
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SWITZERLAND	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2
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ITALY	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
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SWEDEN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
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NETHERLANDS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
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TAIWAN										1	2	2	3	4	9	1
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SOUTH KOREA										1	1	1	2	2	2	0
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AUSTRALIA	1	1	1													0
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BELGIUM															1	0
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AUSTRIA															0	
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U.S.S.R.															0	
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ISRAEL														1	0	
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FINLAND															0	
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DENMARK															0	
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SPAIN															0	
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NORWAY															0	
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SOUTH AFRICA															0	
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HUNGARY															0	
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CZECHOSLOVAKIA															0	
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MEXICO															0	
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NEW ZEALAND															0	
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HONG KONG, S.A.R.-PEOP															0	
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IRELAND															0	
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BRAZIL															0	
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ARGENTINA															0	
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CHINA P.REP.															0	
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POLAND															0	
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INDIA															0	
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LUXEMBOURG															0	
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SINGAPORE															0	
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RUSSIAN FEDERATION															0	
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LIECHTENSTEIN															0	
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Others ( 122 )															0	
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## Ownership:

U.S. Corporations	51	42	41	40	40	40	41	42	43	44	44	46	43	42	40	47
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U.S. Government	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
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U.S. Individuals	16	13	13	13	13	13	13	13	12	13	12	12	12	14	23	15
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Foreign Corporations	25	39	40	39	40	40	39	39	38	37	38	37	39	38	27	31
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Foreign Government	1	1	1												0	
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Foreign Individuals	5	5	5	6	5	5	5	4	4	4	4	4	5	5	9	5
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**Part B**  
**Ranked Listing of Organizations with Patent Grants**  
**As Distributed By Year of Patent Grant**  
**and As Distributed By Year of Patent Application**

---- Technology Assessment and Forecast Report ----

ALL TECHNOLOGIES REPORT (PARTS A1, A2, B)

Page B - 1

---- Organizational Patenting

(Granted: Jan 01, 1969 - Dec 31, 1998) ---- Ranked List of Organizations with 1000 or More Patents ----

Pre

	1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	TOTAL
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**GENERAL ELECTRIC COMPANY**

Patents By Year of Grant:	13985	778	714	779	689	819	787	809	937	932	970	758	819	664	729	25169
Patents By Year of Application:	15479	696	664	707	781	821	900	883	949	858	855	804	591	181	0	25169

**INTERNATIONAL BUSINESS MACHINES CORPORATION**

Patents By Year of Grant:	8500	578	598	591	549	623	609	679	842	1085	1298	1383	1867	1724	2657	23583
Patents By Year of Application:	9794	509	547	541	637	708	874	1220	1468	1196	1734	2258	1666	427	4	23583

**HITACHI, LTD**

Patents By Year of Grant:	5264	693	731	845	908	1054	908	928	956	913	976	910	963	903	1094	18046
Patents By Year of Application:	6932	720	827	924	1052	1064	1020	997	908	892	948	985	611	165	1	18046

**CANON KABUSHIKI KAISHA**

Patents By Year of Grant:	2640	427	523	846	723	954	870	827	1109	1037	1096	1087	1541	1381	1928	16989
Patents By Year of Application:	3740	652	787	710	813	960	989	1162	1218	1247	1706	1718	893	394	0	16989

**TOSHIBA CORPORATION**

Patents By Year of Grant:	2900	698	694	824	751	962	893	1014	1023	1039	968	969	914	862	1170	15681
Patents By Year of Application:	4412	661	693	823	961	1012	1039	1181	928	875	1063	982	802	246	3	15681

**EASTMAN KODAK COMPANY**

Patents By Year of Grant:	5557	223	229	296	433	589	721	863	775	1007	888	772	768	795	1124	15040
Patents By Year of Application:	5907	289	346	459	696	833	908	927	1026	762	745	746	1003	390	3	15040

**AT&T CORP.**

Patents By Year of Grant:	8667	546	437	406	375	387	430	484	440	448	595	638	510	46	150	14559
Patents By Year of Application:	9721	361	360	308	335	509	492	461	564	690	470	181	83	24	0	14559

**U.S. PHILIPS CORPORATION**

Patents By Year of Grant:	6053	466	503	687	581	746	637	650	501	441	396	504	477	473	725	13840
Patents By Year of Application:	7125	534	600	569	654	668	553	492	438	438	546	587	483	153	0	13840

**E. I. DU PONT DE NEMOURS AND COMPANY**

Patents By Year of Grant:	7218	342	329	419	375	443	481	597	599	568	486	441	395	311	393	13397
Patents By Year of Application:	7824	380	394	406	434	573	640	551	503	443	413	413	294	128	1	13397

**SIEMENS AKTIENGESELLSCHAFT**

Patents By Year of Grant:	5970	418	410	539	562	658	508	475	398	371	376	419	418	454	626	12602
Patents By Year of Application:	6838	453	528	528	544	463	459	379	406	396	450	489	472	195	2	12602

**MOTOROLA, INC.**

Patents By Year of Grant:	2988	256	334	414	341	384	394	613	660	729	837	1012	1064	1058	1406	12490
Patents By Year of Application:	3581	287	370	330	361	581	682	782	833	940	1180	1302	975	285	1	12490

---- Technology Assessment and Forecast Report ----

ALL TECHNOLOGIES REPORT (PARTS A1, A2, B)

Page B - 2

---- Organizational Patenting

(Granted: Jan 01, 1969 - Dec 31, 1998) ---- Ranked List of Organizations with 1000 or More Patents ----

Pre

	1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	TOTAL
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**MITSUBISHI DENKI KABUSHIKI KAISHA**

Patents By Year of Grant:	1255	364	360	518	543	770	868	940	959	926	972	973	934	892	1080	12354
Patents By Year of Application:	2021	386	484	623	897	959	969	1074	969	920	957	1038	772	282	3	12354

**WESTINGHOUSE ELECTRIC CORP.**

Patents By Year of Grant:	7524	372	398	652	434	452	436	354	358	276	248	170	132	72	81	11959
Patents By Year of Application:	8438	454	390	392	445	403	375	305	228	194	182	86	50	17	0	11959

**BAYER AKTIENGESELLSCHAFT**

Patents By Year of Grant:	6182	359	389	371	441	470	499	492	472	443	342	327	323	357	381	11848
Patents By Year of Application:	6877	420	408	385	448	518	482	392	413	345	328	366	333	132	1	11848

**GENERAL MOTORS CORPORATION**

Patents By Year of Grant:	6495	286	294	370	383	412	379	437	399	438	331	282	297	277	305	11385
Patents By Year of Application:	6963	273	375	341	395	406	396	451	440	339	323	307	280	96	0	11385

**UNITED STATES OF AMERICA, NAVY**

Patents By Year of Grant:	7572	248	216	170	103	125	265	381	297	344	378	330	285	288	341	11343
Patents By Year of Application:	8363	179	82	84	160	195	348	307	346	337	289	304	248	99	2	11343

**XEROX CORPORATION**

Patents By Year of Grant:	4834	272	219	227	258	283	252	354	473	561	611	551	703	606	769	10973
Patents By Year of Application:	5343	202	201	252	267	335	485	558	580	634	663	659	528	257	9	10973

**FUJI PHOTO FILM CO., LTD**

Patents By Year of Grant:	2712	380	448	494	589	892	768	733	641	632	545	504	510	467	547	10862
Patents By Year of Application:	3509	527	577	713	790	749	659	647	567	505	509	509	464	137	0	10862

**MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.**

Patents By Year of Grant:	2944	249	224	305	277	365	343	456	608	713	771	854	841	746	1034	10730
Patents By Year of Application:	3461	265	286	291	342	451	591	747	777	840	905	870	694	207	3	10730

**NEC CORPORATION**

Patents By Year of Grant:	1433	168	234	375	353	480	437	428	453	594	897	1005	1043	1095	1627	10622
Patents By Year of Application:	1961	307	311	360	461	469	420	609	883	772	1325	1150	1185	404	5	10622

**DOW CHEMICAL COMPANY**

Patents By Year of Grant:	5471	336	371	469	421	431	400	332	320	328	267	226	196	163	174	9905
Patents By Year of Application:	6066	505	451	363	400	387	313	287	270	260	223	211	131	37	1	9905

**SONY CORPORATION**

Patents By Year of Grant:	1997	238	227	332	303	320	238	299	419	565	656	754	855	859	1316	9378
Patents By Year of Application:	2536	274	275	260	295	300	385	556	709	704	867	1005	881	328	3	9378

## ---- Organizational Patenting

(Granted: Jan 01, 1969 - Dec 31, 1998) ---- Ranked List of Organizations with 1000 or More Patents ----

	Pre 1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	TOTAL
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## CIBA-GEIGY CORPORATION

Patents By Year of Grant:	4511	307	244	286	279	346	409	414	319	332	299	272	271	238	16	8543
Patents By Year of Application:	5036	274	294	324	384	359	351	317	288	290	308	277	40	1	0	8543

## MINNESOTA MINING AND MANUFACTURING COMPANY

Patents By Year of Grant:	2955	228	232	256	279	381	323	365	388	414	519	564	537	548	554	8543
Patents By Year of Application:	3386	261	265	320	360	320	402	412	449	527	621	665	423	131	1	8543

## TEXAS INSTRUMENTS, INCORPORATED

Patents By Year of Grant:	2824	194	178	277	195	400	285	373	394	369	479	527	600	607	611	8313
Patents By Year of Application:	3350	190	194	261	358	346	398	400	421	508	667	737	364	118	1	8313

## BASF AKTIENGESELLSCHAFT

Patents By Year of Grant:	3352	265	250	263	297	354	394	384	396	360	318	301	317	276	399	7926
Patents By Year of Application:	3839	270	248	328	389	388	383	344	313	322	319	361	263	156	3	7926

## RCA CORPORATION

Patents By Year of Grant:	6314	454	484	504	129	2	0	1	0	0	0	0	0	0	0	7888
Patents By Year of Application:	7218	394	237	38	0	1	0	0	0	0	0	0	0	0	0	7888

## FUJITSU LIMITED

Patents By Year of Grant:	944	183	204	241	245	283	261	358	412	452	592	724	869	903	1189	7860
Patents By Year of Application:	1412	184	194	242	261	356	434	541	592	662	973	1048	724	236	1	7860

## HOECHST AKTIENGESELLSCHAFT

Patents By Year of Grant:	3557	237	231	234	227	260	282	282	331	356	335	311	351	353	327	7674
Patents By Year of Application:	4003	249	237	233	298	299	282	295	365	328	363	463	178	79	2	7674

## PHILLIPS PETROLEUM COMPANY

Patents By Year of Grant:	5116	291	222	206	153	142	131	157	171	193	149	101	91	76	75	7274
Patents By Year of Application:	5608	240	147	116	126	127	181	169	169	114	92	114	52	19	0	7274

## UNITED STATES OF AMERICA, ARMY

Patents By Year of Grant:	4908	205	198	169	104	163	132	171	144	153	186	172	137	168	165	7175
Patents By Year of Application:	5358	136	113	93	124	155	139	148	178	178	174	183	143	51	2	7175

## MOBIL OIL CORP.

Patents By Year of Grant:	3176	351	341	292	248	376	355	366	299	284	286	202	167	91	67	6901
Patents By Year of Application:	3795	303	231	335	347	363	309	323	280	232	204	129	37	13	0	6901

## ROBERT BOSCH GMBH

Patents By Year of Grant:	2883	314	241	262	223	200	204	261	278	363	316	312	306	267	348	6778
Patents By Year of Application:	3422	243	208	186	165	249	285	332	372	298	336	294	286	102	0	6778

## Technology Assessment and Forecast Report

ALL TECHNOLOGIES REPORT (PARTS A1, A2, B)

Page B - 4

## Organizational Patenting

(Granted: Jan 01, 1969 - Dec 31, 1998) Ranked List of Organizations with 1000 or More Patents

	Pre 1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	TOTAL
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## UNITED STATES OF AMERICA, DEPARTMENT OF ENERGY

Patents By Year of Grant:	3762	293	234	236	224	215	223	195	242	172	199	114	71	68	61	6309
Patents By Year of Application:	4329	198	208	168	203	227	210	220	171	164	76	68	58	9	0	6309

## UNISYS CORPORATION

Patents By Year of Grant:	4515	285	181	136	97	95	82	99	85	51	80	112	133	109	122	6182
Patents By Year of Application:	5022	122	70	101	90	103	69	63	72	113	126	132	75	24	0	6182

## SHELL OIL COMPANY

Patents By Year of Grant:	3138	206	203	158	206	370	263	267	270	223	226	161	125	123	143	6082
Patents By Year of Application:	3477	196	189	262	292	255	272	244	233	195	166	144	119	36	2	6082

## NISSAN MOTOR COMPANY, LIMITED

Patents By Year of Grant:	2617	330	281	304	238	275	375	334	340	212	139	119	102	138	164	5968
Patents By Year of Application:	3276	252	254	212	326	348	317	283	159	109	118	149	128	37	0	5968

## ALLIED-SIGNAL INC.

Patents By Year of Grant:	2434	303	249	285	245	274	246	250	319	245	270	196	189	119	140	5764
Patents By Year of Application:	3003	274	208	231	248	272	277	308	257	215	163	145	119	44	0	5764

## EXXON RESEARCH + ENGINEERING CO.

Patents By Year of Grant:	3733	268	223	178	106	125	126	136	111	109	127	89	72	73	105	5581
Patents By Year of Application:	4205	192	114	116	95	124	129	119	105	107	85	95	58	37	0	5581

## FORD MOTOR COMPANY

Patents By Year of Grant:	2493	186	121	138	139	163	155	180	229	286	320	334	381	265	147	5537
Patents By Year of Application:	2768	135	116	175	154	146	212	246	302	393	360	339	139	50	2	5537

## HEWLETT-PACKARD COMPANY

Patents By Year of Grant:	862	56	77	130	153	242	218	318	344	338	428	470	501	530	805	5472
Patents By Year of Application:	1022	81	156	206	221	332	336	393	411	444	527	584	591	166	2	5472

## SHARP KABUSHIKI KAISHA (SHARP CORPORATION)

Patents By Year of Grant:	642	123	189	284	237	339	350	385	393	373	454	388	352	395	560	5464
Patents By Year of Application:	1024	245	243	238	366	387	392	428	442	401	390	455	353	99	1	5464

## MONSANTO CO.

Patents By Year of Grant:	4048	100	111	91	76	88	84	129	129	103	76	75	82	97	77	5366
Patents By Year of Application:	4273	94	77	65	93	125	114	93	86	82	81	107	50	26	0	5366

## RICOH COMPANY, LTD.

Patents By Year of Grant:	1459	143	199	205	180	274	293	314	360	287	304	273	295	336	406	5328
Patents By Year of Application:	1808	181	183	184	306	333	382	306	316	290	331	339	284	84	1	5328

## ----- Technology Assessment and Forecast Report -----

ALL TECHNOLOGIES REPORT (PARTS A1, A2, B)

Page B - 5

## ----- Organizational Patenting

(Granted: Jan 01, 1969 - Dec 31, 1998) -----

	Ranked List of Organizations with 1000 or More Patents															
	Pre															
	1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	TOTAL
<b>UNITED TECHNOLOGIES CORPORATION</b>																
Patents By Year of Grant:	2722	168	191	206	189	232	152	164	235	205	203	214	159	123	116	5279
Patents By Year of Application:	3137	147	171	211	199	169	177	225	217	196	206	127	74	22	1	5279
<b>HUGHES AIRCRAFT COMPANY</b>																
Patents By Year of Grant:	1849	89	98	183	216	298	252	350	296	327	411	323	272	130	50	5144
Patents By Year of Application:	2106	156	220	218	277	289	309	347	411	344	251	166	48	2	0	5144
<b>IMPERIAL CHEMICAL INDUSTRIES PLC</b>																
Patents By Year of Grant:	3267	131	110	110	162	157	178	181	189	232	128	93	66	61	63	5128
Patents By Year of Application:	3530	119	138	151	172	208	158	193	168	89	70	80	42	10	0	5128
<b>HONDA GIKEN KOGYO KABUSHIKI KAISHA (HONDA MOTOR CO., LTD.)</b>																
Patents By Year of Grant:	879	309	280	395	365	352	366	245	195	243	223	248	293	341	389	5123
Patents By Year of Application:	1457	329	345	361	340	317	185	217	254	239	297	393	282	106	1	5123
<b>TOYOTA JIDOSHA K.K.</b>																
Patents By Year of Grant:	2039	256	228	376	306	274	152	149	149	145	132	156	158	211	387	5118
Patents By Year of Application:	2492	295	357	238	173	152	160	138	155	153	161	199	308	137	0	5118
<b>AMERICAN CYANAMID COMPANY</b>																
Patents By Year of Grant:	3225	115	92	107	101	114	136	106	126	135	148	98	106	107	112	4828
Patents By Year of Application:	3473	97	111	110	100	86	129	124	133	141	102	151	39	31	1	4828
<b>ROCKWELL INTERNATIONAL CORPORATION</b>																
Patents By Year of Grant:	2903	208	161	158	134	123	115	152	124	136	150	117	119	75	77	4752
Patents By Year of Application:	3313	128	128	110	118	148	126	146	137	132	109	112	36	9	0	4752
<b>UNION CARBIDE CORPORATION</b>																
Patents By Year of Grant:	3659	242	208	159	141	132	43	8	0	0	0	0	0	0	0	4592
Patents By Year of Application:	4070	181	138	107	64	32	0	0	0	0	0	0	0	0	0	4592
<b>CATERPILLAR INC.</b>																
Patents By Year of Grant:	3077	75	46	54	44	58	52	76	60	107	107	143	206	212	197	4514
Patents By Year of Application:	3183	49	53	44	44	54	86	83	117	130	200	224	197	50	0	4514
<b>UNITED STATES OF AMERICA, NATIONAL AERONAUTICS AND SPACE ADMINISTRATION</b>																
Patents By Year of Grant:	2646	144	93	122	93	127	128	151	151	166	160	122	104	96	95	4398
Patents By Year of Application:	2874	105	93	96	145	139	137	170	156	167	120	102	73	21	0	4398
<b>PROCTER + GAMBLE COMPANY</b>																
Patents By Year of Grant:	1627	93	75	127	92	143	127	146	156	155	205	226	346	406	454	4378
Patents By Year of Application:	1807	101	100	136	115	137	146	148	181	239	331	426	370	137	4	4378

## ----- Organizational Patenting

(Granted: Jan 01, 1969 - Dec 31, 1998) ----- Ranked List of Organizations with 1000 or More Patents -----

	Pre															
	1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	TOTAL

## UOP

Patents By Year of Grant:	3001	99	63	73	68	161	120	99	103	115	103	109	97	60	88	4359
Patents By Year of Application:	3143	67	80	127	137	94	99	98	124	95	127	82	61	25	0	4359

## HONEYWELL INC.

Patents By Year of Grant:	2210	133	154	169	147	213	167	162	137	139	167	173	126	100	123	4320
Patents By Year of Application:	2534	120	149	144	198	175	150	154	155	183	128	110	93	27	0	4320

## TEXACO INC.

Patents By Year of Grant:	2814	183	140	146	96	126	115	100	107	109	87	107	65	25	34	4254
Patents By Year of Application:	3110	131	128	111	104	95	113	110	101	94	83	42	24	8	0	4254

## MERCK + CO., INC.

Patents By Year of Grant:	2192	105	103	123	125	173	134	152	164	222	163	125	126	161	178	4246
Patents By Year of Application:	2420	126	108	138	123	134	163	200	223	125	157	150	124	54	1	4246

## UNITED STATES OF AMERICA, AIR FORCE

Patents By Year of Grant:	2470	143	180	186	115	137	101	135	139	132	131	80	99	86	79	4213
Patents By Year of Application:	2804	164	143	108	113	107	144	129	124	105	92	92	68	20	0	4213

## OLYMPUS OPTICAL CO., LTD.

Patents By Year of Grant:	1367	199	146	146	180	196	179	161	197	203	228	210	223	213	278	4126
Patents By Year of Application:	1731	129	132	170	182	176	204	223	221	272	253	230	140	61	2	4126

## SAMSUNG ELECTRONICS CO., LTD.

Patents By Year of Grant:	1	0	1	7	8	26	61	148	250	347	411	423	485	583	1304	4055
Patents By Year of Application:	2	8	5	22	48	182	231	376	402	406	477	618	1022	253	3	4055

## MINOLTA CAMERA CO., LTD.

Patents By Year of Grant:	1036	80	70	99	171	350	376	315	282	237	160	114	164	158	304	3916
Patents By Year of Application:	1186	100	113	256	400	382	290	266	184	135	163	164	175	99	3	3916

## PPG INDUSTRIES INC.

Patents By Year of Grant:	2501	128	124	118	118	112	100	94	69	83	60	52	51	74	97	3781
Patents By Year of Application:	2711	124	130	121	103	88	85	81	47	63	66	76	64	22	0	3781

## AMP INCORPORATED

Patents By Year of Grant:	1890	132	126	216	204	243	224	267	231	129	2	0	1	0	0	3665
Patents By Year of Application:	2130	164	196	179	201	246	225	212	111	0	1	0	0	0	0	3665

## BRISTOL-MYERS SQUIBB COMPANY

Patents By Year of Grant:	1885	110	105	125	120	116	123	124	129	119	100	96	102	134	137	3525
Patents By Year of Application:	2098	128	110	116	105	120	145	111	119	126	109	122	82	32	2	3525

## ---- Organizational Patenting

(Granted: Jan 01, 1969 - Dec 31, 1998) ---- Ranked List of Organizations with 1000 or More Patents ----

	Pre 1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	TOTAL
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## GTE PRODUCTS CORPORATION

Patents By Year of Grant:	2347	106	129	133	142	168	125	148	94	79	35	8	2	0	3	3519
Patents By Year of Application:	2546	130	137	125	165	136	111	99	61	7	2	0	0	0	0	3519

## HOFFMANN-LA ROCHE INC.

Patents By Year of Grant:	2265	74	84	86	59	93	78	78	72	87	89	103	106	79	72	3425
Patents By Year of Application:	2427	80	70	72	93	85	79	60	92	89	118	94	47	18	1	3425

## NIKON CORPORATION

Patents By Year of Grant:	775	71	69	119	79	69	73	84	104	132	113	224	423	479	575	3389
Patents By Year of Application:	924	86	77	54	65	90	85	138	121	171	379	602	414	183	0	3389

## EATON CORPORATION

Patents By Year of Grant:	1368	152	126	123	103	140	143	114	141	134	148	165	182	145	164	3348
Patents By Year of Application:	1632	109	89	132	127	121	134	133	153	185	184	140	154	55	0	3348

## SUMITOMO CHEMICAL COMPANY, LIMITED

Patents By Year of Grant:	1533	103	87	97	123	147	114	146	130	147	164	139	138	123	148	3339
Patents By Year of Application:	1724	95	114	133	130	140	121	134	156	144	175	144	99	30	0	3339

## BOEING COMPANY

Patents By Year of Grant:	1299	121	138	169	168	214	192	197	182	106	80	93	97	114	157	3327
Patents By Year of Application:	1649	150	138	168	206	202	157	129	86	87	66	181	90	18	0	3327

## FMC CORPORATION

Patents By Year of Grant:	2214	102	70	74	68	68	76	78	77	80	71	53	70	71	97	3269
Patents By Year of Application:	2376	69	77	63	67	79	72	94	58	72	71	72	67	31	1	3269

## NIPPONDENSO CO., LTD.

Patents By Year of Grant:	893	137	122	184	124	116	76	76	86	123	161	183	311	312	308	3212
Patents By Year of Application:	1139	173	125	113	82	82	74	107	162	201	263	375	293	23	0	3212

## CHEVRON RESEARCH &amp; TECHNOLOGY CO.

Patents By Year of Grant:	2164	146	161	133	92	75	59	77	85	73	64	24	5	5	0	3163
Patents By Year of Application:	2472	115	108	79	44	62	101	64	71	36	8	2	1	0	0	3163

## ITT CORPORATION

Patents By Year of Grant:	2284	84	99	73	33	56	57	59	62	61	79	81	62	34	22	3146
Patents By Year of Application:	2489	60	22	46	44	58	66	71	69	88	70	49	12	2	0	3146

## KONICA CORPORATION

Patents By Year of Grant:	731	150	117	105	124	173	211	226	203	222	228	177	155	125	166	3113
Patents By Year of Application:	972	118	111	152	181	197	248	223	196	186	187	154	138	50	0	3113

## ---- Organizational Patenting

(Granted: Jan 01, 1969 - Dec 31, 1998) ---- Ranked List of Organizations with 1000 or More Patents ----

	Pre 1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	TOTAL
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## UPJOHN COMPANY

Patents By Year of Grant:	2637	66	66	26	15	30	26	23	31	30	23	23	33	21	1	3051
Patents By Year of Application:	2766	32	24	21	21	25	24	30	27	30	26	23	2	0	0	3051

## POLAROID CORPORATION

Patents By Year of Grant:	2172	112	83	91	66	87	51	36	39	39	40	55	59	60	60	3050
Patents By Year of Application:	2384	71	61	74	61	41	32	50	30	45	71	64	50	16	0	3050

## ELI LILLY AND COMPANY

Patents By Year of Grant:	1456	107	82	85	68	75	73	66	63	79	77	147	245	222	180	3025
Patents By Year of Application:	1671	92	62	52	64	60	67	64	98	150	150	342	85	67	1	3025

## DAIMLER-BENZ AKTIENGESELLSCHAFT

Patents By Year of Grant:	1331	80	77	93	100	134	107	107	97	120	95	104	129	159	241	2974
Patents By Year of Application:	1480	71	97	100	114	116	101	104	111	105	140	171	183	80	1	2974

## GOODYEAR TIRE + RUBBER COMPANY

Patents By Year of Grant:	1749	92	67	80	82	83	83	88	64	82	82	64	70	93	108	2887
Patents By Year of Application:	1899	82	70	73	81	86	82	74	79	60	71	95	84	49	2	2887

## BENDIX CORPORATION(NOW ALLIED-SIGNAL INC.)

Patents By Year of Grant:	2800	25	0	0	0	0	0	0	0	0	0	0	0	0	0	2825
Patents By Year of Application:	2825	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2825

## TRW INC.

Patents By Year of Grant:	1691	59	68	77	56	74	52	40	50	82	104	96	98	101	144	2792
Patents By Year of Application:	1829	59	57	61	63	46	43	84	111	87	79	123	114	35	1	2792

## THOMSON-CSF

Patents By Year of Grant:	1333	174	121	131	129	104	114	138	107	90	84	90	52	52	66	2785
Patents By Year of Application:	1707	85	99	92	104	131	120	99	94	73	65	66	37	13	0	2785

## W. R. GRACE &amp; CO.-CONN.

Patents By Year of Grant:	1499	45	43	44	61	111	105	121	129	122	116	86	85	73	56	2696
Patents By Year of Application:	1584	42	57	97	117	116	114	135	100	109	69	109	33	14	0	2696

## CORNING INCORPORATED

Patents By Year of Grant:	1612	73	47	54	74	55	83	59	82	102	104	72	85	78	72	2652
Patents By Year of Application:	1719	61	54	61	65	76	72	90	107	94	100	89	34	30	0	2652

## HOECHST CELANESE CORPORATION

Patents By Year of Grant:	1244	67	66	71	109	134	188	128	133	113	93	78	72	75	68	2639
Patents By Year of Application:	1353	92	107	128	141	148	136	120	98	77	79	91	51	18	0	2639

---- Technology Assessment and Forecast Report ----

ALL TECHNOLOGIES REPORT (PARTS A1, A2, B)

Page B - 9

---- Organizational Patenting

(Granted: Jan 01, 1969 - Dec 31, 1998) ---- Ranked List of Organizations with 1000 or More Patents ----

	Pre															
	1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	TOTAL

INTEL CORPORATION

Patents By Year of Grant:	162	16	15	24	33	49	45	56	73	125	203	271	423	405	701	2601
Patents By Year of Application:	190	22	25	52	49	50	74	111	206	308	433	517	439	125	0	2601

OLIN CORPORATION

Patents By Year of Grant:	1592	117	81	58	60	80	74	105	114	72	74	47	56	28	21	2579
Patents By Year of Application:	1778	75	57	61	61	92	119	83	73	64	52	44	12	7	1	2579

SUMITOMO ELECTRIC INDUSTRIES CO., LTD.

Patents By Year of Grant:	394	60	81	91	95	142	126	131	178	232	233	233	209	172	158	2535
Patents By Year of Application:	546	87	79	110	145	134	145	203	270	204	253	218	109	32	0	2535

AMOCO CORPORATION

Patents By Year of Grant:	867	84	90	110	165	199	188	149	185	141	87	56	67	55	67	2510
Patents By Year of Application:	1054	128	117	171	198	178	171	151	88	68	63	71	38	14	0	2510

AGFA-GEVAERT, AG

Patents By Year of Grant:	1903	45	55	31	44	64	52	53	33	36	40	39	19	39	50	2503
Patents By Year of Application:	1982	48	33	62	55	46	36	35	42	33	38	48	30	15	0	2503

AISIN SEIKI KABUSHIKI KAISHA

Patents By Year of Grant:	860	95	113	134	140	158	133	162	131	94	71	62	91	73	116	2433
Patents By Year of Application:	1061	116	114	150	150	131	156	112	80	72	81	85	93	32	0	2433

PIONEER ELECTRONIC CORPORATION

Patents By Year of Grant:	438	84	85	100	96	166	154	180	235	220	173	148	101	110	141	2431
Patents By Year of Application:	629	102	59	131	179	177	231	206	190	147	122	109	111	37	1	2431

ASAHI KOGAKU KOGYO KABUSHIKI KAISHA

Patents By Year of Grant:	608	56	45	32	42	53	104	151	172	209	204	136	168	151	270	2401
Patents By Year of Application:	717	22	29	45	87	153	191	200	208	149	183	166	158	93	0	2401

PFIZER INC.

Patents By Year of Grant:	1227	72	72	67	63	79	82	91	81	66	76	75	83	102	117	2353
Patents By Year of Application:	1360	62	68	57	82	92	96	66	83	79	113	96	58	41	0	2353

ATLANTIC RICHFIELD COMPANY

Patents By Year of Grant:	1324	138	110	142	78	74	65	61	57	66	68	60	37	27	34	2341
Patents By Year of Application:	1563	100	110	58	65	69	66	61	66	68	45	40	24	6	0	2341

UNIVERSITY OF CALIFORNIA, THE REGENTS OF

Patents By Year of Grant:	385	42	54	65	59	79	63	83	79	113	161	213	266	275	395	2332
Patents By Year of Application:	516	56	62	65	67	89	92	114	128	240	300	359	200	44	0	2332

## Technology Assessment and Forecast Report

ALL TECHNOLOGIES REPORT (PARTS A1, A2, B)

Page B - 10

## Organizational Patenting

(Granted: Jan 01, 1969 - Dec 31, 1998) Ranked List of Organizations with 1000 or More Patents

Pre

1985 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 TOTAL

## DEERE + COMPANY

Patents By Year of Grant:	1190	109	73	106	85	101	89	91	62	85	57	67	64	55	70	2304
Patents By Year of Application:	1362	68	103	82	81	83	80	76	77	72	61	69	60	30	0	2304

## NCR CORPORATION

Patents By Year of Grant:	1066	59	61	107	79	112	84	92	86	98	90	50	39	80	167	2270
Patents By Year of Application:	1196	86	77	87	98	110	100	110	90	59	31	93	104	29	0	2270

## DOW CORNING CORPORATION

Patents By Year of Grant:	821	55	69	58	82	105	122	135	144	93	131	106	107	88	108	2224
Patents By Year of Application:	906	64	84	83	111	145	139	113	106	119	117	102	95	40	0	2224

## ABBOTT LABORATORIES

Patents By Year of Grant:	814	36	29	30	39	39	64	80	128	127	144	116	182	189	164	2181
Patents By Year of Application:	879	27	43	47	59	93	86	136	128	137	148	251	117	30	0	2181

## COMMISSARIAT A L'ENERGIE ATOMIQUE

Patents By Year of Grant:	1074	96	91	126	90	82	70	49	69	51	62	40	69	79	88	2136
Patents By Year of Application:	1287	94	76	73	92	46	61	61	54	51	70	79	76	16	0	2136

## LUCAS INDUSTRIES PUBLIC LTD. COMPANY

Patents By Year of Grant:	1256	95	75	83	65	90	72	74	40	40	33	48	50	54	58	2133
Patents By Year of Application:	1419	58	74	80	77	67	60	44	35	39	56	59	51	13	1	2133

## OWENS-ILLINOIS INC.

Patents By Year of Grant:	1962	64	60	37	1	0	0	0	0	0	0	1	0	0	0	2125
Patents By Year of Application:	2056	52	16	0	0	0	0	0	1	0	0	0	0	0	0	2125

## AMERICAN HOME PRODUCTS CORPORATION

Patents By Year of Grant:	1314	49	38	46	69	78	66	46	56	66	31	58	96	34	50	2097
Patents By Year of Application:	1384	47	63	72	48	66	44	61	58	43	72	91	32	14	2	2097

## MAZDA MOTOR CORPORATION

Patents By Year of Grant:	370	69	86	138	149	141	133	200	203	173	133	108	59	62	66	2090
Patents By Year of Application:	506	111	132	142	137	158	212	208	146	130	106	48	42	12	0	2090

## SINGER COMPANY

Patents By Year of Grant:	1911	77	37	32	23	1	0	0	0	0	0	0	0	0	0	2081
Patents By Year of Application:	2016	29	24	9	3	0	0	0	0	0	0	0	0	0	0	2081

## BROTHER KOGYO KABUSHIKI KAISHA

Patents By Year of Grant:	114	32	32	66	81	156	178	261	217	165	155	117	133	149	209	2065
Patents By Year of Application:	180	51	74	138	156	192	272	181	174	129	162	149	157	50	0	2065

## Technology Assessment and Forecast Report

ALL TECHNOLOGIES REPORT (PARTS A1, A2, B)

Page B - 11

---- Organizational Patenting (Granted: Jan 01, 1969 - Dec 31, 1998) ---- Ranked List of Organizations with 1000 or More Patents ----

	Pre 1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	TOTAL
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## WARNER-LAMBERT COMPANY

Patents By Year of Grant:	760	73	101	118	113	117	108	120	92	85	79	81	66	87	62	2062
Patents By Year of Application:	903	125	128	108	110	99	108	81	68	83	94	100	32	23	0	2062

## SMITHKLINE BECKMAN CORPORATION

Patents By Year of Grant:	1579	43	28	54	56	62	29	13	31	19	27	36	27	21	24	2049
Patents By Year of Application:	1661	47	47	57	31	29	17	30	34	22	28	31	8	7	0	2049

## COLGATE-PALMOLIVE COMPANY

Patents By Year of Grant:	1152	47	46	48	54	90	60	69	53	52	52	65	71	66	110	2035
Patents By Year of Application:	1242	47	68	61	68	75	55	57	41	60	85	54	80	39	3	2035

## DIGITAL EQUIPMENT CORPORATION

Patents By Year of Grant:	125	20	25	22	45	123	125	141	220	264	269	189	164	133	164	2029
Patents By Year of Application:	185	17	33	132	134	217	195	216	263	206	169	139	100	23	0	2029

## UNITED STATES OF AMERICA, DEPARTMENT OF AGRICULTURE

Patents By Year of Grant:	1403	33	32	29	35	43	49	46	53	54	38	49	41	46	75	2026
Patents By Year of Application:	1466	33	33	39	43	57	56	58	34	44	45	54	49	15	0	2026

## NORTHERN TELECOM LIMITED

Patents By Year of Grant:	696	99	84	117	98	98	75	78	68	73	84	82	103	64	199	2018
Patents By Year of Application:	881	99	81	90	76	91	80	66	66	112	91	97	150	38	0	2018

## MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Patents By Year of Grant:	692	35	45	63	64	101	109	101	125	112	99	104	119	102	138	2009
Patents By Year of Application:	790	68	78	84	102	130	110	106	93	114	135	110	68	21	0	2009

## STAUFFER CHEMICAL COMPANY

Patents By Year of Grant:	1620	104	75	94	69	36	0	2	0	1	0	0	0	0	0	2001
Patents By Year of Application:	1796	80	72	39	12	1	1	0	0	0	0	0	0	0	0	2001

## ETHYL CORPORATION

Patents By Year of Grant:	1118	105	77	48	51	87	109	118	95	88	51	8	12	14	10	1991
Patents By Year of Application:	1268	82	49	52	100	118	97	93	69	26	6	16	9	5	1	1991

## LUCENT TECHNOLOGIES INC.

Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	0	0	0	289	768	928	1985
Patents By Year of Application:	0	0	0	0	0	0	1	6	8	54	369	808	579	159	1	1985

## RAYTHEON COMPANY

Patents By Year of Grant:	1089	56	45	81	46	60	80	85	85	72	51	45	10	20	117	1942
Patents By Year of Application:	1242	58	51	52	65	87	64	89	39	48	21	22	72	32	0	1942

## ---- Organizational Patenting

(Granted: Jan 01, 1969 - Dec 31, 1998) ---- Ranked List of Organizations with 1000 or More Patents ----

	Pre 1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	TOTAL
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## ADVANCED MICRO DEVICES, INC.

Patents By Year of Grant:	37	32	53	92	82	87	83	83	71	85	86	129	179	271	556	1926
Patents By Year of Application:	138	92	93	54	74	93	100	55	89	125	187	341	345	139	1	1926

## SANYO ELECTRIC CO., LTD.

Patents By Year of Grant:	270	36	73	96	80	96	111	133	117	119	123	115	130	164	251	1914
Patents By Year of Application:	368	95	72	82	113	127	135	112	104	141	156	167	186	56	0	1914

## B. F. GOODRICH CO.

Patents By Year of Grant:	1143	68	52	60	75	78	57	73	69	59	46	29	33	17	29	1888
Patents By Year of Application:	1258	62	54	71	75	96	51	43	59	38	29	26	18	8	0	1888

## ROHM AND HAAS COMPANY

Patents By Year of Grant:	1007	31	33	22	18	32	32	49	65	117	129	117	97	63	71	1883
Patents By Year of Application:	1083	23	26	20	23	48	73	97	108	120	97	89	53	22	1	1883

## AIR PRODUCTS AND CHEMICALS, INC.

Patents By Year of Grant:	602	80	61	85	70	119	98	119	90	110	124	73	78	71	80	1860
Patents By Year of Application:	718	66	87	94	114	99	103	101	124	88	90	76	62	36	2	1860

## FUJI XEROX CO., LTD.

Patents By Year of Grant:	231	103	52	34	41	43	57	73	116	137	159	182	172	182	277	1859
Patents By Year of Application:	391	30	26	54	62	66	137	127	159	179	158	221	191	58	0	1859

## NATIONAL SEMICONDUCTOR CORPORATION

Patents By Year of Grant:	369	35	35	41	34	60	59	95	103	119	149	186	201	188	178	1852
Patents By Year of Application:	443	32	27	51	58	85	110	110	155	155	215	243	115	53	0	1852

## VICTOR COMPANY OF JAPAN, LIMITED

Patents By Year of Grant:	668	137	130	144	88	62	54	91	82	79	68	48	61	63	77	1852
Patents By Year of Application:	977	85	95	56	55	85	98	73	73	50	63	69	57	16	0	1852

## PITNEY-BOWES, INC.

Patents By Year of Grant:	632	67	66	65	49	111	86	74	100	90	82	91	70	84	120	1787
Patents By Year of Application:	784	65	56	80	83	77	97	90	85	84	115	94	66	11	0	1787

## L'OREAL S.A.

Patents By Year of Grant:	593	40	32	51	47	92	74	85	71	79	70	72	126	165	182	1779
Patents By Year of Application:	695	40	53	72	80	68	67	75	70	78	126	198	126	31	0	1779

## NATIONAL RESEARCH DEVELOPMENT CORPORATION

Patents By Year of Grant:	1205	70	77	84	48	83	59	57	59	17	3	1	0	1	1	1765
Patents By Year of Application:	1367	60	72	61	64	57	54	25	2	1	1	1	0	0	0	1765

---- Technology Assessment and Forecast Report ----

ALL TECHNOLOGIES REPORT (PARTS A1, A2, B)

Page B - 13

---- Organizational Patenting

(Granted: Jan 01, 1969 - Dec 31, 1998) ---- Ranked List of Organizations with 1000 or More Patents ----

	Pre															
	1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	TOTAL

**CHRYSLER MOTORS CORPORATION**

Patents By Year of Grant:	469	19	38	77	65	89	113	89	49	66	101	116	152	139	166	1748
Patents By Year of Application:	501	54	70	65	112	92	84	54	89	116	153	157	156	45	0	1748

**INTERNATIONAL STANDARD ELECTRIC CORPORATION(ITT CORP. UNIT)**

Patents By Year of Grant:	1539	72	80	46	3	0	1	0	0	0	0	0	0	0	0	1741
Patents By Year of Application:	1711	27	3	0	0	0	0	0	0	0	0	0	0	0	0	1741

**TAKEDA CHEMICAL INDUSTRIES LTD.**

Patents By Year of Grant:	750	55	57	57	58	79	87	50	66	92	68	70	99	77	72	1737
Patents By Year of Application:	884	49	57	69	73	85	61	72	71	82	91	83	53	7	0	1737

**BAXTER INTERNATIONAL INC.**

Patents By Year of Grant:	796	41	44	67	63	87	64	70	59	65	75	61	70	66	96	1724
Patents By Year of Application:	907	44	71	68	70	72	57	62	66	80	78	87	47	15	0	1724

**HALLIBURTON CO.**

Patents By Year of Grant:	634	81	94	120	69	68	53	60	61	74	162	88	94	38	25	1721
Patents By Year of Application:	786	97	86	49	67	68	50	76	131	131	82	65	27	6	0	1721

**LEVER BROS. CO., DIVISION OF CONOPCO, INC.**

Patents By Year of Grant:	912	68	56	50	47	48	59	59	59	44	58	70	58	53	64	1705
Patents By Year of Application:	1024	61	34	51	58	64	58	52	38	74	57	67	53	13	1	1705

**INSTITUT FRANCAIS DU PETROLE**

Patents By Year of Grant:	696	44	35	55	63	64	72	82	56	71	89	73	69	86	142	1697
Patents By Year of Application:	783	60	58	52	69	71	68	64	84	84	71	107	91	35	0	1697

**HARRIS CORP.**

Patents By Year of Grant:	645	51	54	89	51	73	73	58	59	62	66	69	91	115	124	1680
Patents By Year of Application:	770	71	53	57	65	64	59	73	81	52	111	112	83	29	0	1680

**TEKTRONIX INC.**

Patents By Year of Grant:	472	88	91	137	173	143	91	80	66	59	39	60	61	50	66	1676
Patents By Year of Application:	674	96	164	119	111	96	66	65	59	50	60	64	41	11	0	1676

**ZENITH ELECTRONICS CORPORATION**

Patents By Year of Grant:	959	54	66	90	80	59	55	56	60	42	34	28	32	31	26	1672
Patents By Year of Application:	1089	71	66	71	51	52	58	55	48	26	28	30	22	5	0	1672

**CONOCO, INC.**

Patents By Year of Grant:	1157	54	42	30	62	52	52	55	49	37	19	13	11	7	7	1647
Patents By Year of Application:	1255	26	39	46	63	41	53	52	28	15	13	7	6	3	0	1647

## Technology Assessment and Forecast Report

ALL TECHNOLOGIES REPORT (PARTS A1, A2, B)

Page B - 14

## Organizational Patenting

(Granted: Jan 01, 1969 - Dec 31, 1998) Ranked List of Organizations with 1000 or More Patents

Pre

1985 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 TOTAL

## SANDOZ LTD.

Patents By Year of Grant:	966	45	42	51	53	60	35	52	41	47	43	44	84	57	20	1640
Patents By Year of Application:	1066	44	49	48	48	44	46	49	39	47	64	80	15	1	0	1640

## SEIKO EPSON CORPORATION

Patents By Year of Grant:	0	0	27	41	33	46	55	92	133	169	148	146	179	225	312	1606
Patents By Year of Application:	33	32	31	42	55	105	135	153	167	180	201	257	171	44	0	1606

## DRESSER INDUSTRIES, INC.

Patents By Year of Grant:	1088	84	65	69	49	40	25	36	28	20	22	12	14	24	24	1600
Patents By Year of Application:	1227	64	45	44	36	18	39	24	18	13	22	21	22	7	0	1600

## MICRON TECHNOLOGY, INC.

Patents By Year of Grant:	1	0	0	0	0	11	34	77	114	172	105	63	125	318	579	1599
Patents By Year of Application:	1	0	0	0	27	37	109	143	173	72	89	343	414	189	2	1599

## OWENS-CORNING FIBERGLAS CORPORATION

Patents By Year of Grant:	1271	93	57	46	35	37	17	15	15	2	1	0	0	1	0	1590
Patents By Year of Application:	1410	53	36	29	30	10	16	4	1	0	0	1	0	0	0	1590

## NIPPON STEEL CORP.

Patents By Year of Grant:	610	42	53	48	54	78	57	62	74	80	79	84	72	89	94	1576
Patents By Year of Application:	696	44	55	58	61	49	96	89	77	79	78	97	73	24	0	1576

## HENKEL KOMMANDITGESELLSCHAFT AUF AKTIEN(HENKEL KGAA)

Patents By Year of Grant:	361	68	58	89	103	130	117	65	44	68	101	100	108	71	85	1568
Patents By Year of Application:	476	90	90	125	129	87	34	59	91	88	119	84	78	18	0	1568

## ALUMINUM COMPANY OF AMERICA

Patents By Year of Grant:	732	62	75	80	74	61	60	67	52	64	57	44	53	31	53	1565
Patents By Year of Application:	853	83	78	67	63	63	54	61	46	55	50	46	40	6	0	1565

## BRIDGESTONE CORPORATION

Patents By Year of Grant:	476	49	53	51	79	90	83	75	90	98	93	92	73	74	85	1561
Patents By Year of Application:	565	58	58	92	90	83	91	97	103	66	81	95	70	12	0	1561

## SHIN ETSU CHEMICAL CO., LTD.

Patents By Year of Grant:	221	28	40	50	63	52	63	113	134	166	160	142	134	97	96	1559
Patents By Year of Application:	269	45	60	49	61	105	144	123	155	144	160	139	83	22	0	1559

## ILLINOIS TOOL WORKS INC.

Patents By Year of Grant:	770	47	40	37	37	21	39	44	53	72	34	56	72	92	120	1534
Patents By Year of Application:	855	27	33	29	24	36	59	51	59	51	80	96	85	49	0	1534

## ---- Organizational Patenting

(Granted: Jan 01, 1969 - Dec 31, 1998) ---- Ranked List of Organizations with 1000 or More Patents ----

	Pre 1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	TOTAL
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## HERCULES INCORPORATED

Patents By Year of Grant:	985	41	43	50	32	47	35	63	38	30	33	25	41	35	31	1529
Patents By Year of Application:	1058	42	45	43	50	49	47	37	31	20	44	31	27	4	1	1529

## ALPS ELECTRIC CO., LTD.

Patents By Year of Grant:	276	64	100	152	198	138	90	83	78	46	36	42	39	76	99	1517
Patents By Year of Application:	460	89	174	152	102	94	70	60	46	40	51	65	87	26	1	1517

## KIMBERLY-CLARK CORPORATION

Patents By Year of Grant:	537	30	60	93	76	91	69	42	58	47	65	80	141	101	21	1511
Patents By Year of Application:	624	83	92	78	63	56	63	43	59	80	120	124	24	2	0	1511

## UNION OIL COMPANY OF CALIFORNIA

Patents By Year of Grant:	735	69	69	59	70	75	57	91	88	54	47	27	11	15	14	1481
Patents By Year of Application:	876	78	63	54	72	79	71	64	50	34	18	15	3	4	0	1481

## YAZAKI CORP.

Patents By Year of Grant:	22	0	5	11	34	76	99	65	112	124	119	115	171	238	290	1481
Patents By Year of Application:	27	3	25	50	72	91	73	143	116	142	187	214	264	74	0	1481

## UNITED STATES OF AMERICA, HEALTH &amp; HUMAN SERVICES

Patents By Year of Grant:	432	35	28	34	27	34	37	48	76	85	107	96	117	150	169	1475
Patents By Year of Application:	509	29	34	37	55	67	78	91	116	118	149	139	40	13	0	1475

## CARRIER CORPORATION

Patents By Year of Grant:	752	61	36	33	44	48	48	72	56	51	57	59	50	40	65	1472
Patents By Year of Application:	835	38	45	40	43	53	63	62	46	62	63	53	52	17	0	1472

## ASAHI KASEI KOGYO KABUSHIKI KAISHA

Patents By Year of Grant:	838	69	48	51	53	52	38	33	34	57	54	34	29	29	50	1469
Patents By Year of Application:	954	52	50	48	41	48	33	52	40	33	41	26	34	17	0	1469

## MURATA MANUFACTURING CO., LTD.

Patents By Year of Grant:	145	41	48	52	69	62	69	90	83	66	103	118	151	150	217	1464
Patents By Year of Application:	228	43	63	55	76	79	81	70	97	119	166	159	167	61	0	1464

## BECTON, DICKINSON AND COMPANY

Patents By Year of Grant:	435	32	40	61	38	74	54	62	58	56	82	66	99	133	157	1447
Patents By Year of Application:	530	50	41	54	60	44	64	51	71	94	108	117	120	43	0	1447

## COMBUSTION ENGINEERING INC.

Patents By Year of Grant:	918	71	60	59	44	35	21	18	19	48	59	26	19	15	35	1447
Patents By Year of Application:	1053	46	45	36	28	16	18	22	65	45	29	16	18	10	0	1447

## ---- Organizational Patenting

(Granted: Jan 01, 1969 - Dec 31, 1998) ---- Ranked List of Organizations with 1000 or More Patents ----

	Pre 1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	TOTAL
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## SCHLUMBERGER TECHNOLOGY CORPORATION

Patents By Year of Grant:	711	53	39	43	38	68	63	58	50	57	66	49	56	47	45	1443
Patents By Year of Application:	827	33	34	40	44	68	70	61	52	54	63	50	33	14	0	1443

## SUNDSTRAND CORPORATION

Patents By Year of Grant:	247	53	80	89	82	132	157	196	120	66	57	30	45	29	45	1428
Patents By Year of Application:	375	84	87	98	156	226	130	70	48	50	37	27	30	10	0	1428

## MITSUI TOATSU CHEMICALS INC.

Patents By Year of Grant:	302	36	28	44	64	78	94	88	130	139	118	95	79	72	45	1412
Patents By Year of Application:	366	38	61	77	81	115	119	107	118	104	85	97	38	6	0	1412

## MITSUBISHI JUKOGYO KABUSHIKI KAISHA

Patents By Year of Grant:	510	27	51	88	59	59	65	62	85	85	69	65	61	57	58	1401
Patents By Year of Application:	577	70	72	54	53	79	60	101	80	58	60	70	57	10	0	1401

## USX CORPORATION

Patents By Year of Grant:	1289	25	23	12	5	5	1	3	4	4	2	3	10	3	7	1396
Patents By Year of Application:	1331	13	6	4	6	1	1	7	4	1	8	6	5	3	0	1396

## INTERNATIONAL FLAVORS + FRAGRANCES INC

Patents By Year of Grant:	868	104	76	38	24	31	40	38	25	25	30	25	19	12	17	1372
Patents By Year of Application:	999	65	35	25	30	34	31	31	16	35	28	18	18	7	0	1372

## MCDONNELL DOUGLAS CORP.

Patents By Year of Grant:	810	23	30	30	31	22	34	44	33	38	26	39	43	52	111	1366
Patents By Year of Application:	876	24	24	22	35	33	48	41	27	21	51	49	82	33	0	1366

## NALCO CHEMICAL COMPANY

Patents By Year of Grant:	658	32	26	50	52	55	54	49	69	59	71	69	30	34	33	1341
Patents By Year of Application:	703	33	42	70	57	52	50	66	65	73	46	44	29	10	1	1341

## BORG-WARNER CORPORATION

Patents By Year of Grant:	1174	70	35	26	5	4	2	4	0	0	0	0	0	0	0	1320
Patents By Year of Application:	1284	20	9	3	1	2	1	0	0	0	0	0	0	0	0	1320

## VARIAN ASSOCIATES, INC.

Patents By Year of Grant:	888	55	53	34	38	35	25	21	23	18	21	26	9	35	34	1315
Patents By Year of Application:	985	40	31	33	35	26	20	21	17	20	17	24	36	10	0	1315

## FANUC LTD.

Patents By Year of Grant:	22	68	76	104	78	135	125	129	122	101	87	70	73	51	71	1312
Patents By Year of Application:	173	86	80	97	125	163	125	99	83	64	85	81	32	19	0	1312

---- Technology Assessment and Forecast Report ----

ALL TECHNOLOGIES REPORT (PARTS A1, A2, B)

Page B - 17

---- Organizational Patenting

(Granted: Jan 01, 1969 - Dec 31, 1998) ---- Ranked List of Organizations with 1000 or More Patents ----

	Pre															
	1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	TOTAL

**ROLLS-ROYCE PLC**

Patents By Year of Grant:	719	48	36	44	34	54	33	48	67	45	41	47	35	33	26	1310
Patents By Year of Application:	825	38	30	46	31	47	51	48	26	52	43	40	24	9	0	1310

**TELEFONAKTIEBOLAGET LM ERICSSON**

Patents By Year of Grant:	395	22	38	38	33	28	24	28	36	46	66	80	151	113	204	1302
Patents By Year of Application:	465	23	35	20	25	25	52	56	55	93	132	185	107	29	0	1302

**ROBERTSHAW CONTROLS COMPANY**

Patents By Year of Grant:	978	11	19	31	21	24	33	29	36	23	34	26	18	12	6	1301
Patents By Year of Application:	1001	28	19	17	31	30	33	27	29	30	37	13	5	1	0	1301

**OKI ELECTRIC INDUSTRY CO., LTD.**

Patents By Year of Grant:	151	25	31	58	64	115	82	96	111	113	101	80	78	67	120	1292
Patents By Year of Application:	207	55	45	85	110	96	97	142	86	81	92	99	64	32	1	1292

**AGENCY OF INDUSTRIAL SCIENCE & TECHNOLOGY**

Patents By Year of Grant:	307	64	54	60	80	96	92	96	72	62	49	57	57	73	71	1290
Patents By Year of Application:	421	46	78	91	95	94	74	66	50	51	65	72	65	22	0	1290

**AGFA-GEVAERT N.V.**

Patents By Year of Grant:	503	16	20	18	23	34	19	40	36	54	67	95	104	114	141	1284
Patents By Year of Application:	535	18	23	26	29	22	45	52	49	81	107	122	131	43	1	1284

**G. D. SEARLE & CO.**

Patents By Year of Grant:	571	30	23	32	34	33	34	40	47	92	58	90	64	75	60	1283
Patents By Year of Application:	622	36	31	31	40	39	34	67	85	73	82	99	34	10	0	1283

**YAMAHA CORPORATION**

Patents By Year of Grant:	0	0	0	0	8	87	104	98	101	150	113	133	149	140	198	1281
Patents By Year of Application:	1	1	8	71	90	136	137	107	118	138	137	145	151	40	1	1281

**NAVISTAR INTERNATIONAL TRANSPORTATION CORP.**

Patents By Year of Grant:	1081	17	8	12	10	13	22	22	15	18	13	11	10	11	13	1276
Patents By Year of Application:	1108	11	4	10	22	17	22	12	18	12	12	11	16	1	0	1276

**ELF ATOCHEM NORTH AMERICA, INC.**

Patents By Year of Grant:	782	40	34	41	53	43	49	35	54	34	26	23	22	13	25	1274
Patents By Year of Application:	849	33	50	54	45	50	40	34	21	28	19	32	10	9	0	1274

**WHIRLPOOL CORPORATION**

Patents By Year of Grant:	695	37	27	54	57	46	45	56	38	41	41	32	41	18	35	1263
Patents By Year of Application:	752	36	69	44	54	36	58	24	31	57	39	24	22	17	0	1263

## Technology Assessment and Forecast Report

ALL TECHNOLOGIES REPORT (PARTS A1, A2, B)

Page B - 18

## Organizational Patenting

(Granted: Jan 01, 1969 - Dec 31, 1998) Ranked List of Organizations with 1000 or More Patents

Pre

1985 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 TOTAL

## CIBA-GEIGY AG

Patents By Year of Grant:	1127	28	21	28	18	16	7	4	1	2	1	2	2	4	1	1262
Patents By Year of Application:	1171	21	27	15	12	1	3	2	0	1	5	3	1	0	0	1262

## YOSHIDA KOGYO KABUSHIKI KAISHA

Patents By Year of Grant:	538	69	86	70	62	70	56	73	58	43	64	53	10	2	1	1255
Patents By Year of Application:	674	54	71	53	56	66	71	54	45	79	26	6	0	0	0	1255

## SCHERING AKTIENGESELLSCHAFT

Patents By Year of Grant:	593	43	48	36	39	52	75	41	54	40	31	49	31	44	52	1228
Patents By Year of Application:	681	46	53	45	57	53	57	37	37	44	40	51	22	5	0	1228

## MORTON THIOKOL, INC.

Patents By Year of Grant:	802	37	31	43	56	41	29	23	12	15	26	38	33	19	17	1222
Patents By Year of Application:	879	33	46	44	32	27	22	14	26	36	33	18	12	0	0	1222

## MEDTRONIC INC.

Patents By Year of Grant:	310	30	23	15	17	12	32	32	67	61	111	89	77	90	243	1209
Patents By Year of Application:	371	17	12	14	17	38	55	58	86	114	90	105	156	75	1	1209

## MITA INDUSTRIAL COMPANY LTD.

Patents By Year of Grant:	162	42	43	41	30	46	50	84	97	120	93	82	86	73	154	1203
Patents By Year of Application:	236	40	36	43	42	81	109	92	111	96	73	103	88	53	0	1203

## ALLIS-CHALMERS CORPORATION

Patents By Year of Grant:	1157	31	12	2	0	0	0	0	0	0	0	0	0	0	0	1202
Patents By Year of Application:	1198	3	1	0	0	0	0	0	0	0	0	0	0	0	0	1202

## NGK INSULATORS LTD.

Patents By Year of Grant:	137	44	30	57	64	116	84	79	92	111	73	64	67	81	92	1191
Patents By Year of Application:	207	58	51	87	88	102	88	97	94	68	72	89	66	24	0	1191

## MILES INC.

Patents By Year of Grant:	524	43	33	49	48	52	43	34	95	105	86	60	6	7	0	1185
Patents By Year of Application:	612	65	42	49	32	41	59	100	82	65	33	5	0	0	0	1185

## GAF CHEMICALS CORPORATION

Patents By Year of Grant:	971	23	12	15	23	51	42	40	0	0	0	0	0	0	0	1177
Patents By Year of Application:	1005	6	15	38	41	43	29	0	0	0	0	0	0	0	0	1177

## BABCOCK &amp; WILCOX COMPANY

Patents By Year of Grant:	455	55	45	59	42	59	44	43	45	69	42	53	71	56	38	1176
Patents By Year of Application:	565	41	45	37	44	49	41	58	56	49	79	64	37	11	0	1176

## ---- Organizational Patenting

(Granted: Jan 01, 1969 - Dec 31, 1998) ---- Ranked List of Organizations with 1000 or More Patents ----

	Pre 1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	TOTAL
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## GULF RESEARCH AND DEVELOPMENT COMPANY

Patents By Year of Grant:	1153	15	6	1	0	0	0	0	0	0	0	0	0	0	0	1175
Patents By Year of Application:	1174	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1175

## EMERSON ELECTRIC CO.

Patents By Year of Grant:	597	28	30	38	26	46	56	41	44	46	42	31	47	39	57	1168
Patents By Year of Application:	642	32	36	30	56	37	44	50	43	49	56	33	44	16	0	1168

## STANDARD OIL COMPANY

Patents By Year of Grant:	614	75	66	78	66	70	47	33	41	20	11	9	7	15	10	1162
Patents By Year of Application:	742	92	61	60	54	34	37	30	11	3	10	15	10	3	0	1162

## NIPPON GAKKI SEIZO KABUSHIKI KAISHA

Patents By Year of Grant:	881	54	50	81	67	12	7	2	1	0	0	0	0	0	0	1155
Patents By Year of Application:	990	65	64	26	6	3	0	1	0	0	0	0	0	0	0	1155

## BRUNSWICK CORPORATION

Patents By Year of Grant:	586	38	21	36	66	108	85	28	38	14	22	25	13	22	45	1147
Patents By Year of Application:	641	35	30	70	115	71	22	29	9	31	22	19	29	24	0	1147

## YAMAHA HATSUDOKI KABUSHIKI KAISHA, YAMAHA MOTOR CO., LTD.

Patents By Year of Grant:	248	43	41	52	38	24	64	75	88	85	53	54	72	74	129	1140
Patents By Year of Application:	328	49	45	28	34	72	90	76	82	60	77	81	92	25	1	1140

## NIPPON TELEGRAPH &amp; TELEPHONE CORP.

Patents By Year of Grant:	403	54	46	33	47	46	41	42	48	54	47	53	61	66	88	1129
Patents By Year of Application:	503	39	39	34	51	34	49	49	52	53	71	73	68	13	1	1129

## TORAY INDUSTRIES INC.

Patents By Year of Grant:	501	58	46	41	51	40	40	38	39	41	41	44	37	62	48	1127
Patents By Year of Application:	601	36	43	50	44	39	40	34	41	52	50	44	39	14	0	1127

## CASIO COMPUTER CO. LTD.

Patents By Year of Grant:	197	24	36	80	71	55	58	98	83	71	69	61	94	54	74	1125
Patents By Year of Application:	270	72	62	46	54	105	90	72	77	66	93	64	41	13	0	1125

## KUREHA CHEMICAL INDUSTRY CO., LTD.

Patents By Year of Grant:	515	51	47	53	62	56	55	34	35	33	32	40	44	37	25	1119
Patents By Year of Application:	607	59	57	53	53	35	37	33	29	38	45	49	17	7	0	1119

## MEAD CORPORATION

Patents By Year of Grant:	587	51	51	30	36	59	65	44	34	33	31	19	16	28	31	1115
Patents By Year of Application:	677	26	24	54	64	57	40	31	32	28	19	28	17	18	0	1115

## ---- Organizational Patenting

(Granted: Jan 01, 1969 - Dec 31, 1998) ---- Ranked List of Organizations with 1000 or More Patents ----

	Pre 1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	TOTAL
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## EXXON CHEMICALS PATENTS INC.

Patents By Year of Grant:	0	0	9	28	33	67	74	115	93	115	113	124	103	115	119	1108
Patents By Year of Application:	0	29	49	56	87	87	120	80	96	135	104	159	65	41	0	1108

## BOEHRINGER MANNHEIM G.M.B.H.

Patents By Year of Grant:	405	24	24	35	38	64	51	53	54	47	60	58	53	61	80	1107
Patents By Year of Application:	480	27	41	54	63	54	45	53	43	55	67	63	48	14	0	1107

## RAYCHEM CORPORATION

Patents By Year of Grant:	356	60	53	83	58	96	57	57	53	39	35	39	32	34	50	1102
Patents By Year of Application:	477	86	51	56	90	51	54	38	46	36	29	45	32	11	0	1102

## TEIJIN LIMITED

Patents By Year of Grant:	585	37	25	28	38	34	37	26	29	53	44	43	38	47	37	1101
Patents By Year of Application:	647	32	44	32	26	28	38	41	34	38	56	55	22	7	1	1101

## TEXTRON INC.

Patents By Year of Grant:	860	23	8	14	13	18	24	13	20	20	21	14	14	13	19	1094
Patents By Year of Application:	893	9	10	14	23	17	16	26	16	23	9	18	13	7	0	1094

## FUJI ELECTRIC CO., LTD.

Patents By Year of Grant:	140	26	30	46	48	60	70	67	70	64	77	91	123	93	87	1092
Patents By Year of Application:	196	35	44	57	65	70	62	79	74	97	114	115	71	13	0	1092

## ROUSSEL-UCLAF

Patents By Year of Grant:	581	35	26	31	24	42	32	40	45	40	40	57	34	26	39	1092
Patents By Year of Application:	646	28	29	35	40	32	47	27	48	44	43	41	27	5	0	1092

## OUTBOARD MARINE CORPORATION

Patents By Year of Grant:	544	43	49	53	42	55	46	58	38	41	22	31	29	14	21	1086
Patents By Year of Application:	641	55	22	47	45	48	57	32	33	32	26	28	15	5	0	1086

## DYNAMIT NOBEL AKTIENGESELLSCHAFT

Patents By Year of Grant:	857	37	31	39	26	15	15	9	8	16	9	9	6	1	4	1082
Patents By Year of Application:	928	34	29	16	8	11	11	15	8	7	9	4	1	1	0	1082

## WHITAKER CORPORATION

Patents By Year of Grant:	0	0	0	0	0	0	0	0	0	61	193	199	211	198	216	1078
Patents By Year of Application:	0	0	0	0	0	0	3	11	115	228	244	215	207	55	0	1078

## KABUSHIKI KAISHA KOMATSU SEISAKUSHO

Patents By Year of Grant:	396	64	46	46	22	25	26	34	60	82	72	55	77	42	29	1076
Patents By Year of Application:	518	29	27	21	27	39	51	73	79	52	69	74	14	3	0	1076

----- Technology Assessment and Forecast Report -----

## ALL TECHNOLOGIES REPORT (PARTS A1, A2, B)

Page B - 21

#### ----- Organizational Patenting

(Granted: Jan 01, 1969 - Dec 31, 1998) ---- Ranked List of Organizations with 1000 or More Patents ----

---- Technology Assessment and Forecast Report ----

ALL TECHNOLOGIES REPORT (PARTS A1, A2, B)

Page B - 22

---- Organizational Patenting

(Granted: Jan 01, 1969 - Dec 31, 1998) ---- Ranked List of Organizations with 1000 or More Patents ----

Pre

	1985	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	TOTAL
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**NORTH AMERICAN PHILIPS CORPORATION**

Patents By Year of Grant:	294	35	36	54	45	80	87	102	91	73	55	32	20	6	1	1011
Patents By Year of Application:	369	46	46	60	94	102	80	74	76	35	16	13	0	0	0	1011

**BELL + HOWELL COMPANY**

Patents By Year of Grant:	891	20	20	16	9	10	12	4	14	8	0	1	4	0	0	1009
Patents By Year of Application:	930	14	14	9	8	6	4	16	3	0	5	0	0	0	0	1009

**Other Organizations (166306)**

Patents By Year of Grant:	467317	32323	32324	38149	36354	44426	41825	44877	45717	46392	48401	49075	53890	57964	77868	1116902
Patents By Year of Application:	532634	32876	35111	38244	42012	44701	46258	46480	49010	51899	58926	67189	52745	18579	238	1116902