European Patent Office

APPLICANT PANEL SURVEY 2003

OF INTENTIONS FOR FILING PATENT APPLICATIONS AT THE EUROPEAN PATENT OFFICE AND OTHER OFFICES

Controlling Office
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0 Summary

0.1 Introduction

In 2003, the Office organised its eighth annual exercise to question groups of Applicants on their intentions for future numbers of Patent Filings. As in the two previous surveys, a sample size of about 2 000 Applicants was used. The EPO designed the survey and analysed the results, while the interviews and data recording were carried out by the Consultant Roland Berger Market Research, Munich. The experience gained in the previous years by working with the same Consultant was profitably used in the current exercise.

0.2 The 2003 Survey

Applicants were selected in two groups: the Biggest Group (from a list of 441 of the biggest Applicants at the EPO in Year 2002), and the Random Group (from a random sample of 2 055 of all Applicants to the EPO in Year 2002). The total number of Applicants involved was 2 168, with most of the Biggest Group also appearing in the Random Group. The survey covered Applicants making about 37% of the Applications at the EPO (**Annex I**). In the first stage, valid addresses of 2 004 of the applicants could be found and contact details were established with 1 504 of the Applicants. A Questionnaire was sent out from mid June 2003, with interviews starting in July and terminating in early September. The Questionnaire contained a full matrix of questions on Patent Filings broken down by *First Filings* and *Subsequent Filings*, not only at the EPO but also in the other main world wide Patent Systems. Questions were also included to elicit information on R&D expenditures and *First Patent Filings* by *Technical Units* (roughly equivalent to Industrial Areas). Concomitant information was also collected on size and specialisation of the Applicants. The total useful response rate was 37.4% of the valid addresses (750 out of 2 004), up from 35% in the previous survey.

0.3 Analysis of results on Patent Filings

The survey involved an approach of building up forecasts from primordial Filing types (*Euro-direct* / *Euro-PCT-IP*, *First Filings* / *Subsequent Filings*) and Blocs of residence of the Applicants (EPC area, Japan, United States, Other countries). An analysis was first made of the specific responses on future expectations for filings at the EPO. For the Biggest Group, **Table III** shows that Growth Rates in *Total Filings*, compared to Year 2002, can be estimated as about 5% in 2003, 5% in 2004 and 8% in 2005. For the Random Group, **Table XI** shows that, after logarithmic transformation of the data and a number of corrections designed to improve the accuracy of the estimates, Growth Rates in *Total Filings* compared to Year 2002 can be estimated as about 0% in 2003, 5% in 2004 and 9% in 2005. There is thus a difference between the two groups regarding *Total Filings* in 2003, with actual available data confirming the forecast from the Random Group. For 2004 and 2005 the two groups give similar forecasts for *Total Filings*. Both methods suggest a maintenance of the proportion of filings using the PCT system around current levels.

An alternative approach was taken to analyse the data from the Random Group by building up forecasts from primordial Filing types and technical areas as defined by 14 *Joint Clusters* used for organisational planning purposes at the EPO (**Table XII**). Growth Rate estimates were derived per *Joint Cluster*, and also on an overall basis by combining results per *Joint Cluster*. The overall forecasts were more optimistic but not quite so accurate as those obtained in the traditional approach that takes into account the Blocs of residence of the Applicants.

Analysis could also be made of the matrix of questions on Patent Filings intentions in major world Patent Systems (**Annex II**). There seems to have been a small reduction *in World wide First Filings* in 2003 compared to 2002, but positive growth is expected in 2004 and 2005. Out to 2005, the Applicants from Japan are expecting to increase their filing activities at most offices, but applicants from US are not optimistic, keeping filings at levels no higher than in 2002. An increasing use of the PCT system for *Subsequent Filings* is indicated by applicants from EPC, Japan and Other countries, but not from Applicants from US.

A descriptive analysis was made of the data generated on R&D expenditures and *First Patent Filings* by *Technical Units* (**Fig. XII** and **XIII**). The amount of investment equivalent to a single *First Filing* was variable - some *Technical Units* attracted higher levels of investment but lower levels were also present in these *Technical Units*. The Average (median) amount of R&D expenditure that was equivalent to a single *First Patent Filing* was about EUR 580 000 in Year 2002, with about EUR 89 000 (15%) spent in the pre-patenting phase.

0.4 Forecasts of future filings at the EPO.

It is suggested that the results from the Random Group after appropriate corrections give appropriate forecasts for future filings at the EPO (**Table XI** and **Fig. V**), as long as uncertainty in the forecasts expressed by the 95% confidence limits is taken into consideration. A high level summary of **Table XI** appears in **Table XIV**.

The dependability of these forecasts can only be based on sentiments remaining unchanged within the Applicant population since the time that the survey was made. In fact the level of filings in 2003 has turned out to be less than the estimate made in the favoured scenario of the previous panel survey, and is only just above the lower 95% confidence limit of that estimate.

I Introduction

In 2003, the Office organised its eighth annual exercise to question groups of Applicants on their intentions for future numbers of Patent Filings. The survey was carried out by telephone interviews with pre-established contact persons. The interviews and data recording were done by the consultant Roland Berger Market Research, with whom the EPO could benefit from joint experience that was previously gained in similar surveys in 2001 and 2002. The design of the 2003 survey was similar to that of the previous two years, with a comparable sample size, although this year questions were added on the profiles of the applicant companies.

The main aim of the survey was to calculate quantitative forecasts of Patent Filings at the EPO and other Offices, by various Filing Routes and Blocs of residence of the Applicants. A subsidiary aim was to explore technological areas of patenting, both to make more detailed forecasts and to explore the relationship between R&D and Patent Applications. This has been carried out using *Technical Units* of the International Patent Classification (WIPO, 2000) and also on the basis of fourteen *Joint Clusters*, corresponding to the structure by which the EPO has organised its search, examination and opposition departments.

II The 2003 Survey

More than 2 000 Applicants received Questionnaires regarding their expectations on Patent Filings for the coming three years, in this case for 2003, 2004 and 2005.

Participating Applicants were selected, either for the Biggest Group from a list of 441 of the biggest Applicants at the EPO in Year 2002, or for the Random Group of 2 055 from all Applicants to the EPO in the same year. The Random Group was obtained from a simple random sample of Applications. This has the effect to over weight large Applicants in the sample, thus obtaining a large coverage of the population of Applications in order to enhance the ability to make statistical inferences about the population. There was a large overlap, so that most of the Applicants in the Biggest Group also appeared in the Random Group. The Questionnaire can be seen in **Annex VII**.

The Questionnaire was sent in English, French or German, depending on the procedural language previously used in Applications made to the EPO by the Applicants, as well as in Japanese for the Applicants resident in Japan. Questions asked about expected numbers of filings in various Patent Systems for Calendar Years 2003 to 2005 (Questionnaire **Section B**). These questions were identical to the Questionnaire in 2002 and encompassed "Patent Applications under the EPC (excluding PCT)" (*Euro-direct Filings*); "Patent Applications under the PCT" (*Overall PCT Filings*), "of which Designating EPO" (*Euro-PCT-IP Filings*) and designations of various major countries (Germany, Japan, United States); and finally "National Applications (excluding PCT)" (*National Filings*) at major Patent Offices (France, Germany, Japan, United Kingdom, United States). The total number of world wide *First Filings* for Patents was requested. Furthermore a breakdown was requested of all the above in terms of both *First* and *Subsequent Filings*.

A question was included on R&D usage and patenting intentions broken down by various technological areas, based on 29 of the 31 main *Technical Units* of the International Patent Classification (Questionnaire **Section C**).

To obtain a profile of the applicants, a question was included to determine to which *Joint Cluster* the company feels it belongs, the type of company, and its size measured by the number of employees and annual turnover. (Questionnaire **Section D**)

The option to make specific comments was given at the end of each Section, and a general comments section was also included (Questionnaire **Section E**). A selection of the comments received is shown in **Annex III**.

The main question (in **Section B**) asked for the numbers of filings already made in the Base Year (2002) together with estimates for future filings for the Years 2003, 2004 and 2005. An option was provided to give information in the form of Growth Rates rather than actual numbers. Growth Rates were requested on a year by year basis, because previous experience showed that the interviewees had difficulties when calculating Growth Rates from a single Base Year. However, for the results in this report, the convention is adopted that Growth Rates are given with respect to a Base Year (in this case 2002).

Screening interviews were carried out by telephone in the appropriate language (English, French, German or Japanese) with all identified Applicants. In each case, a contact person was found where possible to whom the Questionnaire was sent[1]. The telephone interviews took place from July to early September 2003. However substantive telephone interviews were only required for about 4% of the cases, because most participants preferred to fill in the Questionnaire themselves and return it to the Consultant.

III Response Rates

A full report of the execution of the survey appears in the *Methodenbericht* (*Methodology Report*), from which the following information has been extracted: Lists were provided by the EPO of a total of 2 168 selected Applicants (2 055 in the Random Group, 441 in the Biggest Group, with 328 overlaps). The Consultant strove to identify contact names, addresses and telephone numbers, and 2 004 Addresses were confirmed (1 892 in the Random Group, 439 in the Biggest Group, with 327 overlaps). From these, contact was established for survey purposes with 1 504 Applicants (1 413 in the Random Group, 350 in the Biggest Group, with 259 overlaps).

Table I shows the total numbers of Applicants that were picked for the survey, the numbers dropping out for various reasons, and the final numbers of answers received.

[1] A package was sent containing the Questionnaire together with a letter of recommendation from the EPO and a letter of explanation from the Consultant.

Table I: Sample and answers received

Item	Number	Percentage
Total sample	2 168	100.0
Addresses not found	164	7.6
Addresses confirmed	2 004	92.4
Addresses confirmed	2 004	100.0
Drop outs (1)	500	25.0
Contact established with Applicants	1 504	75.0
Drop outs (2)	754	37.6
Applicants answered	750	37.4

(1) Company could not be reached; Company was identical to another already identified in the sample; "No data available", "Reorganisation of company", Mailbox system which blocked further contact possibilities; "No patents filed" or "Company no longer exists"

(2) General refusal to participate; Questionnaire not returned though promised; Contact person not available; "No time available for dealing with the matter"; "Not participating in surveys on principle"; "No interest"; "Data are secret"; "Questionnaire has been forwarded to somebody else".

Table II shows the same information as given in **Table I**, but broken down additionally by the Blocs of residence of the Applicants and the sampled Groups. The table also shows the distribution of Applicants in the population in 2002. Compared to the previous survey, the response rate for the Biggest Group has increased and the response rate for the Random Group has also gone up slightly. The overall response rate (37.4%) shows a small increase compared to 35% achieved in the previous year 2002 survey. **Annex I**, which is the first part of the analysis carried out by the EPO, provides an alternative breakdown of the samples, showing the coverage proportions of the underlying populations both in terms of Applicants and Applications. It should however be noted that the numbers of applications reported in 2002 by the respondents are from their own records and may not be strictly comparable to the numbers of applications in 2002 as given for the overall sample from the EPO database.

The Consultant made a plausibility check of the received answers (**Annex VI**). In cases where possible difficulties were identified, a follow-up interview was made to verify the responses.

IV Respondents Profile

New questions were added to Section D of the Questionnaire in 2003, asking about the profile of the company, including the Company/Organisation type, the number of persons employed and the Annual Turnover. In addition to this, each Applicant was asked to indicate the *Joint Cluster* (EPO technical area) that was closest to their business area. The information obtained on Joint Clusters is discussed in **Section VI.3** below.

IV.1 All Respondents

These findings represent the totality of the responses to the survey, but they are nearly the same as the results for the Random Group. Since the Random Group represents a probabilistic sample from the applicant population, it is considered appropriate for the main forecasting exercise of this report to analyse and report results for the Biggest Group and the Random Group separately, and not to give combined results for All Respondents.

Table II: Population Sizes, Sample Sizes and Response Rates in Terms of Patent Applicants to the EPO

Bloc of residence	Population		Sample (All)					
	Applicants	%	Applicants selected	%	Valid addresses	Applicants established	Answers	Response rate %
EPC	20 809	46,1	1 111	51,2	1 034	821	448	43,3
JP	3 102	6,9	254	11,7	250	188	147	58,8
US	13 565	30,0	647	29,8	591	418	134	22,7
Others	7 670	17,0	156	7,2	129	77	21	16,3
All	45 146	100,0	2 168	100,0	2 004	1 504	750	37,4

Bloc of residence	Sample (Biggest Group)						Sample (Random Group)					
	Applicants selected	%	Valid addresses	Applicants established	Answers	Response rate %	Applicants selected	%	Valid addresses	Applicants established	Answers	Response rate %
EPC	194	44,0	194	160	110	56,7	1 065	51,8	988	783	421	42,6
JP	101	22,9	101	81	66	65,3	226	11,0	222	166	132	59,5
US	136	30,8	134	103	50	37,3	611	29,7	556	389	120	21,6
Others	10	2,3	10	6	1	10,0	153	7,4	126	75	21	16,7
All	441	100,0	439	350	227	51,7	2 055	100,0	1 892	1 413	694	36,7

Sample counts from the *Methodenbericht*
Population figures are Applicants for Euro-direct and Euro-PCT-IP, see Annex I

IV.2 Respondents from the Biggest Group (Fig. I)

Without much surprise, the distribution of the respondents according to type of *Company / Organisation Type* shows that the majority of the biggest applicants are Private Enterprises (88%), compared to the Public Sector (8%), Others (2%) and Educational Institutions (1%). No Individual Inventors were among the biggest applicants.

Regarding profiles of the biggest applicants in terms of *Numbers of Employees*, the majority has more the 250 Employees (97%), followed by 50 - 249 Employees (2%) and less than 1% for each of the other categories (10 - 49 and 1 - 9 Employees).

The expected relationship between the size of the company/organisation and the number of patent applications is also confirmed when looking at *Annual Turnover*, where 95% of the biggest applicants that responded indicated more than EUR 50m in *Annual Turnover*. Most of the remaining applicants in the Biggest Group (4%) have an *Annual Turnover* between EUR 10m and EUR 50m.

IV.3 Respondents from the Random Group (Fig. II)

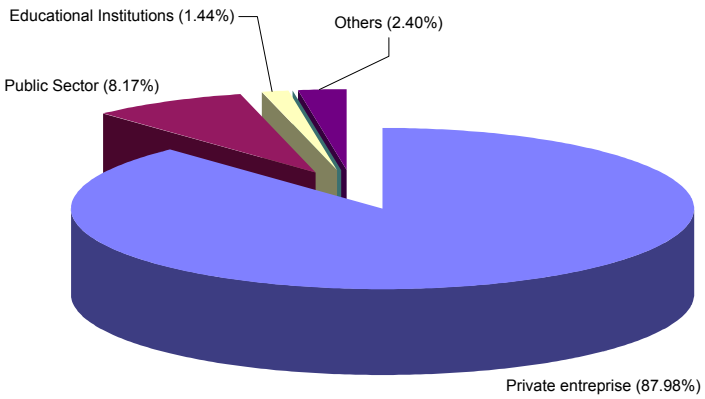
Concerning *Company / Organisation Type*, the respondents from the Random Group show an overwhelming majority of Private Enterprises (85%), followed by the Public Sector (7%), Educational Institutions (4%), Others (3%) and finally around 1% are Individual Inventors.

Regarding profiles of the random applicants in terms of *Numbers of Employees* , the majority has more than 250 Employees (71%), followed by 50 - 249 Employees (13%), 10 - 49 Employees (9%) and finally 1 - 9 Employees (7%). The Random Group therefore contains smaller companies than the Biggest Group does.

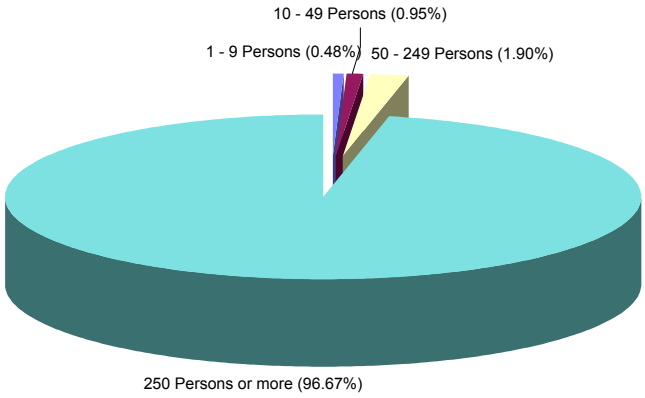
Finally, in terms of *Annual Turnover*, the majority of Applicants report more than EUR 50m *Annual Turnover* (66%), followed by EUR 10m - EUR 50m (13%), EUR 2m to EUR 10m (11%) and EUR 2m or less (10%).

It should be borne in mind that the Random Group is highly skewed towards larger Applicants, due to the sampling method that was used. Compared to the Random Group, the actual Applicant population contains a much larger proportion of small companies in terms of the numbers of patent applications filed, and presumably also in terms of *Numbers of Employees* and *Annual Turnover*.

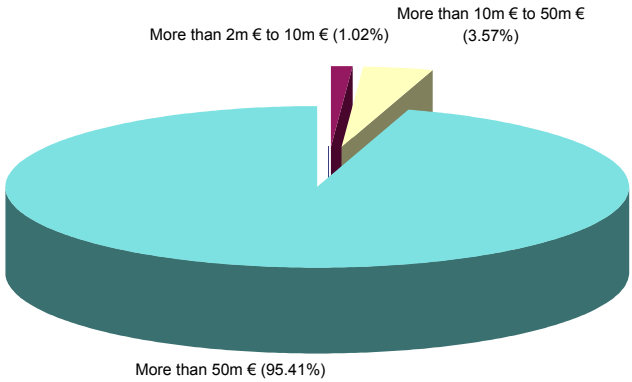
Group of Biggest Distributed According to Company/Organisation Type
208 Responses



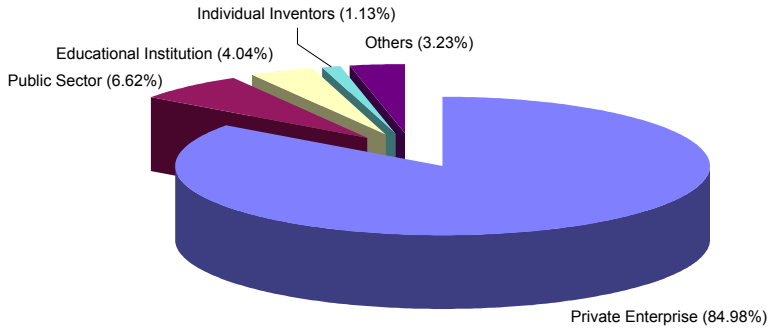
Group of Biggest Distributed According to Number of Employees
210 Responses



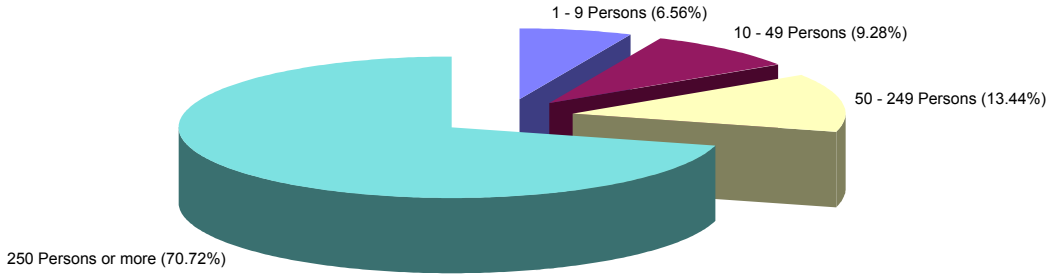
Group of Biggest Distributed According to Annual Turnover
196 Responses



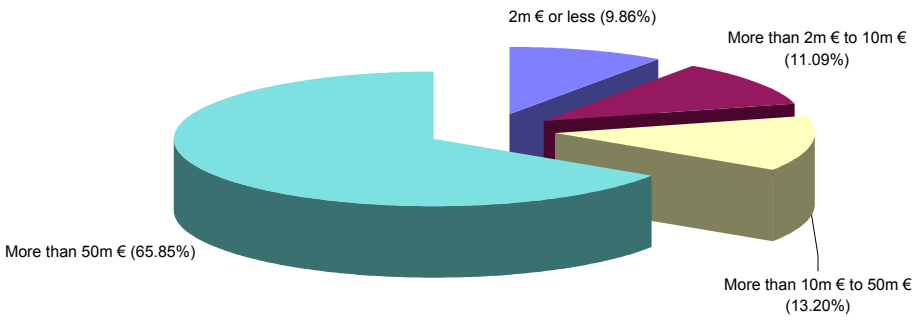
Group of Random Distributed According to Company/Organisation Type
619 Responses



Group of Random Distributed According to Number of Employees
625 Responses



Group of Random Distributed According to Annual Turnover
568 Responses



V Methodology

The survey was executed in the same way as in 2002. Please refer to the report *Applicant Panel Survey 2002* for a fuller description of the methodology. For the data generated by the main questions in **Section B** of the Questionnaire, a *Composite Index* is used to measure Patent Growth Rates in the Biggest Group (see *Applicant Panel Survey 2001: Annex III*), and a *Q-Index* to measure Patent Growth Rates in the Random Group (see *Applicant Panel Survey 2002: Section IV.1, Annex IV*).

As described in *Applicant Panel Survey 2002: Annex IV*, a natural logarithmic transformation was applied to the data before calculating the *Q-Index*. However, during the course of the current survey it was discovered that amalgamation of data produced unnaturally low estimates of variability (standard error) for the *Q-Index* growth estimates. Therefore a more realistic characterisation of the standard error has been sought and used to calculate approximate 95% confidence intervals. **Annex IV** shows the way that this was done.

In the survey, the principle questions of interest for the EPO concern forecasts of future *Euro-direct Filings*, *Euro-PCT-IP Filings*, and *Total Filings* (*Euro-direct* + *Euro-PCT-IP*). In **Section VI**, an analysis is presented of forecasted filings at the EPO from these response types. As in the previous survey, this has been done by calculating Growth Indices for each Bloc of residence of the Applicants, and then combining the results to make overall forecasts. But at the EPO it is important to make forecasts not just for Total Filings, but also for filings broken down by 14 technical work units known as *Joint Clusters*. The Random Group constitutes a simple random sample across Applications, and so the responses can be broken down by *Joint Clusters* as an alternative to Blocs of residence. It was decided not to split the responses by both factors simultaneously (4 x 14 = 56 combinations), because there would not have been enough data in the subdivided groups to allow for good Growth Rate estimates.

In the current survey each responding Applicant was assigned to one Joint Cluster, on the basis of the response to the question asked in **Section D** of the questionnaire. This was felt to be an improvement on the indirect method of assigning Joint Cluster by IPC codes that was used in the previous survey. Some respondents complained that it was difficult to classify themselves to any particular Joint Cluster, or that several Joint Clusters would be appropriate (Annex III). Nevertheless there was a good response rate to this question (89%) and an appropriate analysis could be carried out.

In many cases the consultant found it necessary to correct the responses to **Section B** of the questionnaire for one reason or another, often after a further conversation with the respondent for clarification. These cases were indicated in the data set that was subsequently analysed. Since some suspicion remained about these cases, analyses were performed of the data after excluding all the indicated cases as well as of the whole available data set. This *cleaning* was found to improve the precision of the resulting growth indices in some cases.

Another problem with these kinds of forecasts is the possibility of bias in the results due to non-response. Nearly 63% of the Applicants approached (with Valid Addresses in **Table II**) did not respond, and it is possible that a propensity not to respond may be correlated with a pessimistic outlook towards future filings. On the other hand, it can be argued that there are always new Applicants appearing in the population each year - these form a non-surveyed element of the population that acts as a source of extra Applications beyond the forecasts from the survey.

It is difficult to make an accurate correction for the effect of non-responses that are self-evidently unobserved. An attempt has been made to do this by isolating a subset of the responders that might be presumed to be similar to the non-responders, and assuming that their intentions can be projected across non-responding part of the sample. This subset was made up of those respondents who gave data for Year 2003 filings expectations only, with no estimates for Years 2004 or 2005. It was indeed found that the intentions towards filings in Year 2003 were somewhat less optimistic for the subset than for the overall sample. This is the same method that was developed in the previous survey and is discussed in **Annex V**.

Responses to the survey have also allowed Growth Indices to be calculated for intentions for Patent Filings by EPO clients using all the major world wide Patenting Systems (**Section VII**). **Annex II** gives a series of tables that show, for each question in **Section B** of the Questionnaire, the Growth Indices estimated from the members of the Random Group. Numbers of cases used for each comparison are given there together with standard errors of estimates.

The responses from **Section C** of the Questionnaire involve a breakdown of *First Patent Filings* in Year 2002 by *Technical Units*, together with R&D Budget expenditures per *Technical Unit*, including an indication of the proportion of the R&D Budget spent in the pre-patent phase. An estimation of the R&D Budget expenditure for Year 2003 was also requested. It is intended that these responses should be accumulated over several years, in order to explore the relationship between R&D and subsequent patenting at the microeconomic level. This is the sixth year that such data have been obtained. Results are presented in **Section VIII**.

VI Results 1: Forecasts for Patent Filings at the European Patent Office

VI.1 Biggest Group

*A group covering as far as possible the 441 Applicants who made at least 28 Applications (*Euro-direct Filings + Euro-PCT-RP*) in Year 2002 (227 respondents).*

Since the Biggest Group is not a random sample, it is considered appropriate to use the *Composite Index* (*CI*) in this case, as explained in *Applicant Panel Survey 2001: Annex III*. The analysis takes into account the blocs of residence of the applicants. The numerical values of the Indices obtained are shown in **Table III**, with the resulting forecasts and actual numbers of filings where available. Unfortunately the breakdown of *Euro-PCT-IP Filings* for Year 2003 is still approximate with regard to *First Filings* and *Subsequent Filings*. It should also be noted that the allocations of Actual *Euro-PCT-IP First Filings* for Year 2002 may include a few as-yet-undetermined cases that are in fact *Subsequent Filings*. **Fig. III** shows a plot of the forecasts. No confidence limits are given for the estimates, because this is as far as possible a census of the intentions of the largest Applicants.

The overall forecast for *Total Filings* made for Year 2003 from this group seems too optimistic (168 814 forecast vs. 161 500 observed). There is a small under prediction for *Euro-direct Filings* but a large over prediction for *Euro-PCT-IP Filings.* This leads to an overestimation in the estimated percentage of *Euro-PCT-IP Filings* among *Total Filings* in Year 2003 (67.9% predicted vs. 66.3% observed). The results per Bloc are more variable. There is only one observation from the Bloc "Others" and so the Growth Indices for this Bloc are not dependable and have been set to unity. *Euro-PCT-IP Filings* have been over estimated for all the trilateral Blocs, particularly EPC and USA. *Euro-direct Subsequent Filings* have been quite strongly over estimated for Japan and under estimated for USA.

This method predicts *Total Filings* of 168 814 in Year 2003, 169 550 in Year 2004, and 173 885 in Year 2005. The corresponding predictions from the Year 2002 Survey were 180 737 in Year 2003 and 192 407 in Year 2004.

VI.2 Random Group

*A randomly sampled group of 2 055 Applicants to the EPO (*Euro-direct Filings + Euro-PCT-RP*) in 2002 (694 respondents).*

With the responses from the Random Group, it is appropriate to use the *Q-Index* method after logarithmic transformation of the data (**Annex IV**). Firstly an analysis was carried out without taking account of bloc of residence. The numerical values of the *Q-Indices* are shown with their standard errors in **Table IV**[2]. The resulting predicted filings are given together with 95% confidence limits for combined counts of *Total Filings*.

The overall forecast for *Total Filings* made for Year 2003 is 163 158, with approximate 95% confidence limits of 154 959 to 171 357. The estimated percentage of *Euro-PCT-IP Filings* among *Total Filings* in Year 2003 is 66.8% predicted vs. 66.3% observed.

[2] In this table and subsequent tables, the reported values of the Q-Index have been transformed back to the arithmetic scale, but the standard errors apply to the logarithmic scale. Annex IV shows how these standard errors are used to obtain approximate 95% confidence limits for filings forecasts on the arithmetic scale.

Table III: Forecasts from Specific Questions on Filings at the EPO

Biggest Group
Composite Indices
(Assumption: All forecasts of combined totals made by combining primordial terms)

			Year							
			2002		2003			2004	2005	
Filings Type	Filing route	Bloc of origin	Index	Actual"	Index	Predicted	Actual "	Index	Predicted	Index	Predicted
First	Euro-Direct	EPC	1	10 463	1,1245	11 766	11 542	1,1572	12 108	1,1810	12 356
		Japan	1	221	0,9364	207	196	1,1404	252	1,2157	269
		USA	1	1 161	1,0187	1 183	1 176	1,1367	1 320	1,1385	1 322
		Others	1	532	1,0000	532	735	1,0000	532	1,0000	532
		Total		12 377		13 687	13 649		14 212		14 479
	Euro-PCT-IP	EPC	1	1 656	1,1972	1 983	1 635	1,3936	2 308	1,3670	2 264
		Japan	1	1 334	1,5482	2 065	1 646	1,5654	2 088	1,8370	2 451
		USA	1	1 152	1,0042	1 157	1 023	1,3153	1 515	1,3901	1 601
		Others	1	3 197	1,0000	3 197	3 018	1,0000	3 197	1,0000	3 197
		Total		7 340		8 402	7 322		9 109		9 513
Subsequent	Euro-Direct	EPC	1	19 292	0,9463	18 256	18 239	0,9729	18 770	0,9891	19 081
		Japan	1	11 568	1,0125	11 713	10 227	1,0818	12 514	1,1360	13 141
		USA	1	8 530	1,0126	8 637	9 942	1,0459	8 922	1,0296	8 782
		Others	1	1 975	1,0000	1 975	2 443	1,0000	1 975	1,0000	1 975
		Total		41 365		40 581	40 851		42 180		42 979
	Euro-PCT-IP	EPC	1	39 746	1,0727	42 635	39 237	1,0579	42 049	1,0661	42 374
		Japan	1	11 035	1,1567	12 764	12 904	1,1928	13 162	1,2682	13 994
		USA	1	39 813	1,0393	41 378	38 371	0,9914	39 471	1,0343	41 178
		Others	1	9 367	1,0000	9 367	9 166	1,0000	9 367	1,0000	9 367
		Total		99 960		106 144	99 678		104 049		106 914
All	Euro-Direct	EPC		29 755		30 022	29 781		30 878		31 437
		Japan		11 789		11 920	10 422		12 766		13 410
		USA		9 691		9 820	11 118		10 242		10 104
		Others		2 507		2 507	3 178		2 507		2 507
		Total		53 742		54 269	54 500		56 392		57 458
	Euro-PCT-IP	EPC		41 402		44 617	40 872		44 357		44 638
		Japan		12 369		14 830	14 550		15 251		16 445
		USA		40 965		42 534	39 394		40 986		42 779
		Others		12 564		12 564	12 184		12 564		12 564
		Total		107 300		114 546	107 000		113 158		116 427
	Total	EPC		71 157		74 639	70 653		75 235		76 075
		Japan		24 158		26 749	24 972		28 017		29 855
		USA		50 656		52 354	50 512		51 227		52 884
		Others		15 071		15 071	15 363		15 071		15 071
	Grand Total			**161 042**		**168 814**	**161 500**		**169 550**		**173 885**
	% Growth from Year 2001			**0,0%**		**4,8%**	**0,3%**		**5,3%**		**8,0%**
	Implied % Euro-PCT-IP			**66,6%**		**67,9%**	**66,3%**		**66,7%**		**67,0%**

"EPAS390 VECTOR & DIRD390 Vector, January 2004, PCT data adjusted by information on record copies received from WIPO.

Fig. III

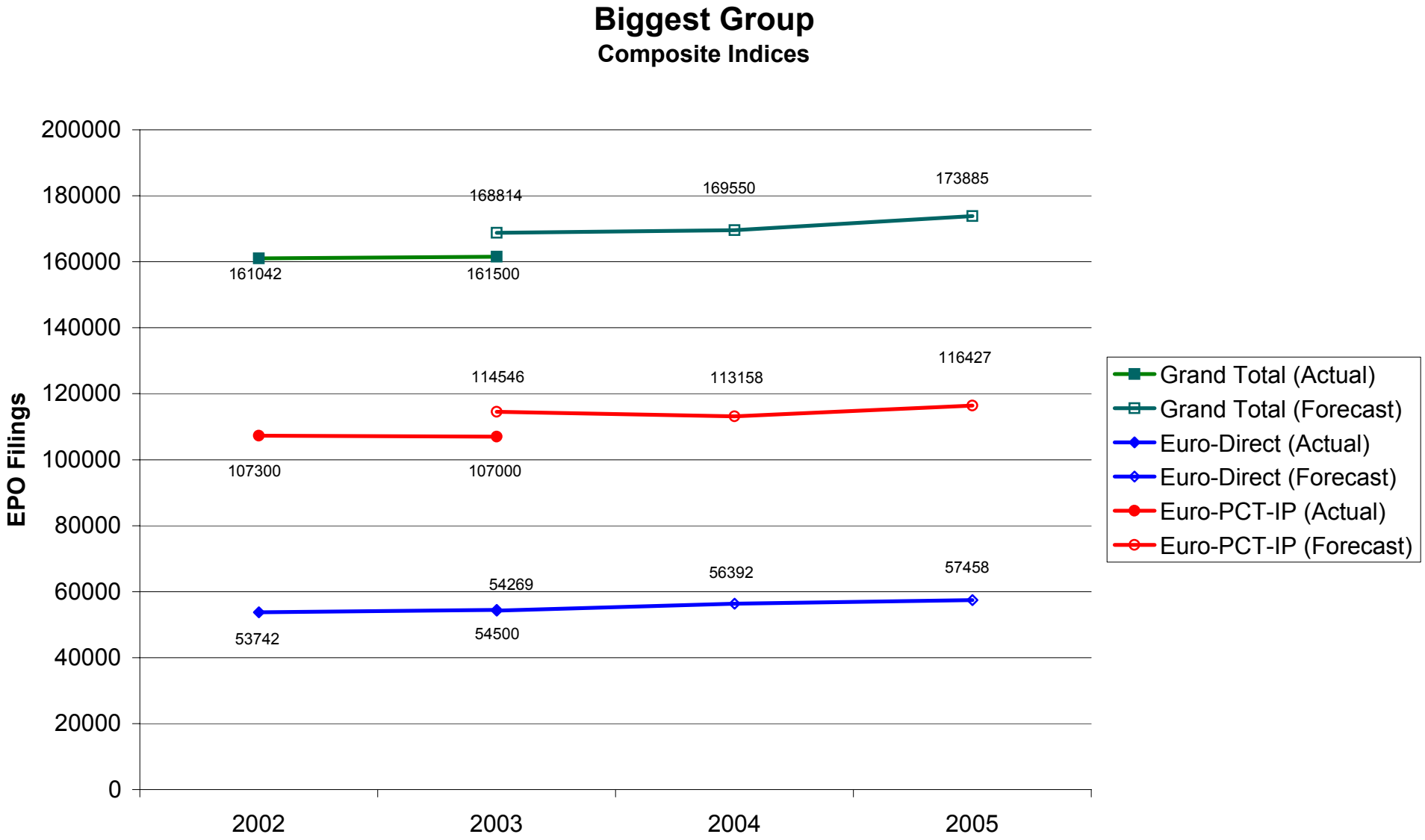

Biggest Group
Composite Indices
EPO Filings
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
2002
2003
2004
2005
161042
161500
168814
169550
173885
107300
107000
114546
113158
116427
53742
54500
54269
56392
57458
Grand Total (Actual)
Grand Total (Forecast)
Euro-Direct (Actual)
Euro-Direct (Forecast)
Euro-PCT-IP (Actual)
Euro-PCT-IP (Forecast)

Table IV. Applicant Panel 2003: Forecasts of EPO filings

Random Group
No Subsidiary Breakdown
Q Indices

S.E. indicates Standard Error of logarithn
LCL / **UCL** indicates Lower / Upper 95% Confidence Lim

			Year											
			2002		2003				2004			2005		
Filings Type	Filing route	Bloc of origin	Index	Actual"	Index		Predicted	Actual "	Index		Predicted	Index		Predicted
					Estimate	S.E.			Estimate	S.E.		Estimate	S.E.	
First	Euro-Direct	Total	1	12 377	1,1034	0,0796	13 656	13 649	1,1683	0,0946	14 460	1,1713	0,0954	14 498
		LCL (Total)					*11 473*				*11 705*			*11 712*
		UCL (Total)					*15 840*				*17 215*			*17 283*
	Euro-PCT-IP	Total	1	7 340	1,0285	0,1079	7 549	7 322	1,1411	0,1160	8 375	1,1474	0,1186	8 421
		LCL (Total)					*5 905*				*6 413*			*6 402*
		UCL (Total)					*9 192*				*10 337*			*10 440*
Subsequent	Euro-Direct	Total	1	41 365	0,9793	0,0428	40 509	40 851	1,0525	0,0488	43 537	1,0911	0,0539	45 132
		LCL (Total)					*37 038*				*39 283*			*40 257*
		UCL (Total)					*43 980*				*47 792*			*50 007*
	Euro-PCT-IP	Total	1	99 960	1,0148	0,0340	101 444	99 678	1,0560	0,0408	105 563	1,1047	0,0477	110 426
		LCL (Total)					*94 537*				*96 940*			*99 879*
		UCL (Total)					*108 350*				*114 186*			*120 973*
All	Euro-Direct	Total		53 742			54 165	54 500			57 998			59 630
		LCL (Total)					*50 064*				*52 929*			*54 015*
		UCL (Total)					*58 266*				*63 066*			*65 245*
	Euro-PCT-IP	Total		107 300			108 992	107 000			113 938			118 847
		LCL (Total)					*101 893*				*105 094*			*108 108*
		UCL (Total)					*116 092*				*122 782*			*129 585*
	Grand Total			**161 042**			**163 158**	**161 500**			**171 936**			**178 477**
	LCL (Grand Total)						*154 959*				*161 742*			*166 359*
	UCL (Grand Total)						*171 357*				*182 129*			*190 594*
	% Growth from Year 2001			**0,0%**			**1,3%**	**0,3%**			**6,8%**			**10,8%**
	Implied % Euro-PCT-IF			**66,6%**			**66,8%**	**66,3%**			**66,3%**			**66,6%**

"EPAS390 VECTOR & DIRD390 Vector, January 2004, PCT data adjusted by information on record copies received from WIPO.

This method predicts *Total Filings* of 171 936 in Year 2004 (approximate 95% confidence limits 161 742 and 182 129), and 178 477 in Year 2005 (approximate 95% confidence limits 166 359 and 190 594).

The next analysis takes into account the blocs of residence. Numerical values of the *Q-Indices* are shown with standard errors in **Table V** (see also **Annex II**, ***(a)*** and ***(c), All available Data***). **Fig. IV** shows a plot of the forecasts and 95% confidence limits. The overall forecast for *Total Filings* made for Year 2003 is now 161 783, close to the observed figure of 161 500, with approximate 95% confidence limits of 154 069 to 169 496. The estimated percentage of *Euro-PCT-IP Filings* among *Total Filings* in Year 2003 is 65.4% predicted vs. 66.3% observed. The primordial forecasts are fairly good, though there is a slight underestimation of *Euro-direct Filings*, from USA and a corresponding overestimation from Others, with a high standard error for the *Q-index* from Others.

This method predicts *Total Filings* of 170 462 in Year 2004 (approximate 95% confidence limits 160 786 and 180 138), and 177 649 in Year 2005 (approximate 95% confidence limits 165 849 and 189 449).

Since there are few responses available from Others, the next analysis is a repeat of the previous analysis by Blocs after combining Others with EPC. Numerical values of the *Q-Indices* are shown with standard errors in **Table VI**. The overall forecast for *Total Filings* made for Year 2003 is now 159 971, with approximate 95% confidence limits of 152 887 to 167 055. The estimated percentage of *Euro-PCT-IP Filings* among *Total Filings* in Year 2003 is 66.5% predicted vs. 66.3% observed. The forecasts and confidence limits are the same as in **Table V** wrt Japan and USA.

This method predicts *Total Filings* of 168 195 in Year 2004 (approximate 95% confidence limits 159 212 and 177 177), and 174 402 in Year 2005 (approximate 95% confidence limits 164 003 and 184 800). The widths of these confidence limits are smaller than those of the previous scenarios, suggesting that it was worthwhile to combine EPC with Others.

In the next analysis, the analysis by blocs after combining Others with EPC is repeated after applying a non-response correction. The numerical values of the Indices, together with predicted filings and approximate 95% confidence limits, are shown in **Table VII**. The method predicts a relatively large drop in *Total Filings* to 150 503 in Year 2003 (approximate 95% confidence limits 137 898 and 163 108), 157 685 in Year 2004 (approximate 95% confidence limits 152 171 and 163 200), and 163 497 in Year 2005 (approximate 95% confidence limits 156 994 and 170 001). The estimated percentage of *Euro-PCT-IP Filings* among *Total Filings* in Year 2003 is 67.6% predicted vs. 66.3% observed.

It is to be expected that this method delivers pessimistic forecasts. However the estimated figure for 2003 is markedly less than the observed value, and this casts some doubt on the applicability of the method, even though the upper confidence limit is slightly higher than the observed value.

An attempt was then made to clean the data from the random group by removing cases where the consultant had made qualifying comments. This reduced the overall sample size from 694 to 390.

Firstly the analysis without taking account of bloc of residence (**Table IV**) was repeated on the cleaned subset of the data. The numerical values of the *Q-Indices* are shown with their standard errors in **Table VIII**. The resulting predicted filings are given together with 95% confidence limits for combined counts of *Total Filings*.

Table V: Forecasts from specific questions on filings at the EPO

Random Group Broken down by Bloc of Residence

Q Indices

(Assumption: All forecasts of combined totals made by combining primordial terms)

S.E. indicates Standard Error

LCL / **UCL** indicates Lower / Upper 95% Confidence Limit

			Year											
			2002		2003				2004			2005		
Filings Type	Filing route	Bloc of origin	Index	Actual"	Index		Predicted	Actual"	Index		Predicted	Index		Predicted
					Estimate	S.E.			Estimate	S.E.		Estimate	S.E.	
First	Euro-Direct	EPC	1	10 463	1,0731	0,0424	11 228	11 542	1,1340	0,0476	11 865	1,1343	0,0457	11 868
		Japan	1	221	0,9645	0,0412	213	196	1,0349	0,0262	229	1,0330	0,0265	228
		USA	1	1 161	1,3183	0,2118	1 531	1 176	1,4101	0,2712	1 637	1,4323	0,2765	1 663
		Others	1	532	1,0298	0,0270	548	735	1,0667	0,0584	567	1,0944	0,0816	582
		Total		12 377			13 519	13 649			14 299			14 342
		LCL (Total)					*12 353*				*12 828*			*12 880*
		UCL (Total)					*14 686*				*15 769*			*15 803*
	Euro-PCT-IP	EPC	1	1 656	0,9863	0,1085	1 633	1 635	1,0862	0,1443	1 799	1,0679	0,1381	1 768
		Japan	1	1 334	1,2451	0,0986	1 661	1 646	1,2446	0,1006	1 660	1,2784	0,1156	1 705
		USA	1	1 152	0,9334	0,1419	1 075	1 023	1,1504	0,0723	1 325	1,1753	0,0779	1 354
		Others	1	3 197	1,0445	0,0329	3 340	3 018	1,1683	0,0985	3 736	1,3839	0,1613	4 425
		Total		7 340			7 710	7 322			8 520			9 253
		LCL (Total)					*7 092*				*7 531*			*7 650*
		UCL (Total)					*8 327*				*9 509*			*10 855*
Subsequent	Euro-Direct	EPC	1	19 292	0,9848	0,0418	18 999	18 239	1,0665	0,0584	20 574	1,0993	0,0652	21 207
		Japan	1	11 568	0,9598	0,0450	11 103	10 227	1,0422	0,0373	12 057	1,0851	0,0456	12 553
		USA	1	8 530	0,9921	0,0802	8 462	9 942	1,0345	0,0652	8 824	1,0830	0,0589	9 238
		Others	1	1 975	1,9792	0,5270	3 909	2 443	1,9983	0,6352	3 947	2,2158	0,6835	4 376
		Total		41 365			42 473	40 851			45 401			47 374
		LCL (Total)					*36 885*				*38 033*			*38 264*
		UCL (Total)					*48 060*				*52 770*			*56 483*
	Euro-PCT-IP	EPC	1	39 746	1,0149	0,0288	40 338	39 237	1,0501	0,0370	41 736	1,0903	0,0423	43 334
		Japan	1	11 035	1,1244	0,0418	12 408	12 904	1,1874	0,0458	13 103	1,2552	0,0563	13 851
		USA	1	39 813	0,9169	0,0591	36 503	38 371	0,9502	0,0658	37 830	1,0003	0,0742	39 823
		Others	1	9 367	0,9429	0,0651	8 832	9 166	1,0220	0,0269	9 573	1,0326	0,0324	9 673
		Total		99 960			98 081	99 678			102 242			106 681
		LCL (Total)					*92 930*				*96 226*			*99 501*
		UCL (Total)					*103 232*				*108 258*			*113 860*
All	Euro-Direct	EPC		29 755			30 226	29 781			32 439			33 075
		Japan		11 789			11 316	10 422			12 285			12 781
		USA		9 691			9 993	11 118			10 461			10 901
		Others		2 507			4 457	3 178			4 514			4 958
		Total		53 742			55 992	54 500			59 700			61 715
		LCL (Total)					*50 284*				*52 186*			*52 489*
		UCL (Total)					*61 700*				*67 214*			*70 941*
	Euro-PCT-IP	EPC		41 402			41 971	40 872			43 535			45 103
		Japan		12 369			14 069	14 550			14 763			15 556
		USA		40 965			37 578	39 394			39 155			41 177
		Others		12 564			12 172	12 184			13 309			14 098
		Total		107 300			105 791	107 000			110 762			115 934
		LCL (Total)					*100 603*				*104 665*			*108 577*
		UCL (Total)					*110 978*				*116 859*			*123 290*
	Total	EPC		71 157			72 198	70 653			75 975			78 178
		Japan		24 158			25 385	24 972			27 049			28 337
		USA		50 656			47 571	50 512			49 616			52 078
		Others		15 071			16 629	15 363			17 823			19 056
	Grand Total			**161 042**			**161 783**	**161 500**			**170 462**			**177 649**
	LCL (Grand Total)						*154 069*				*160 786*			*165 849*
	UCL (Grand Total)						*169 496*				*180 138*			*189 449*
	% Growth from Year 2001			**0,0%**			**0,5%**	**0,3%**			**5,8%**			**10,3%**
	Implied % Euro-PCT-IP			**66,6%**			**65,4%**	**66,3%**			**65,0%**			**65,3%**

"EPAS390 VECTOR & DIRD390 Vector, January 2004, PCT data adjusted by information on record copies received from WIPO.

Fig. IV

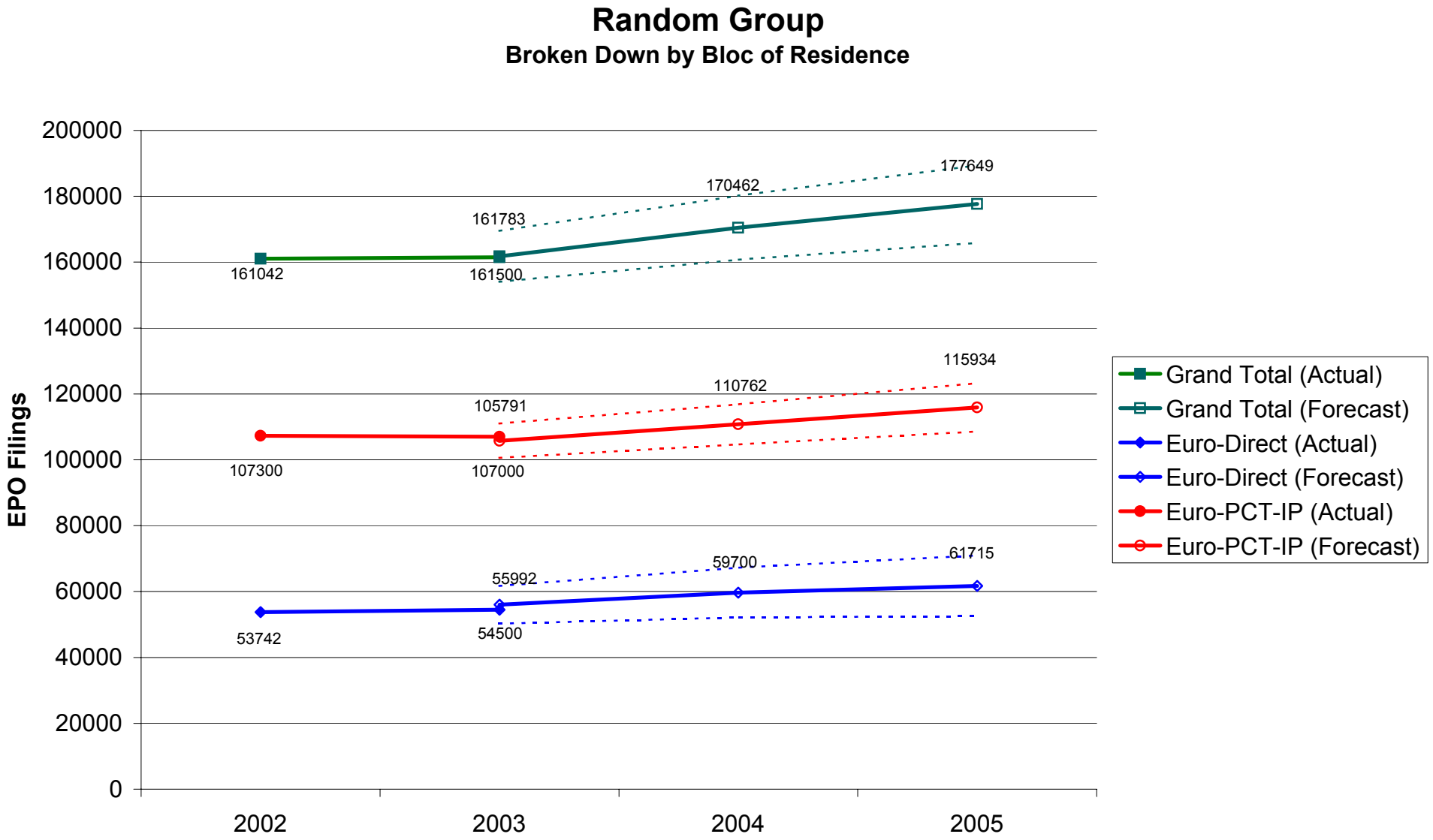

Random Group
Broken Down by Bloc of Residence
EPO Filings
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
2002
2003
2004
2005
161042
161500
161783
170462
177649
107300
107000
105791
110762
115934
53742
54500
55992
59700
61715
Grand Total (Actual)
Grand Total (Forecast)
Euro-Direct (Actual)
Euro-Direct (Forecast)
Euro-PCT-IP (Actual)
Euro-PCT-IP (Forecast)

Table VI: Forecasts from specific questions on filings at the EPO

Random Group Broken down by Bloc of Residence (Others incorporated into EPC)

Q Indices

(Assumption: All forecasts of combined totals made by combining primordial terms)

S.E. indicates Standard Error

LCL / **UCL** indicates Lower / Upper 95% Confidence Limit

			Year											
			2002		2003				2004			2005		
Filings Type	Filing route	Bloc of origin	Index	Actual"	Index		Predicted	Actual "	Index		Predicted	Index		Predicted
					Estimate	S.E.			Estimate	S.E.		Estimate	S.E.	
First	Euro-Direct	EPC + Others	1	10 995	1,0735	0,0614	11 803	12 277	1,1340	0,0687	12 468	1,1337	0,0658	12 465
		Japan	1	221	0,9645	0,0412	213	196	1,0349	0,0262	229	1,0330	0,0265	228
		USA	1	1 161	1,3183	0,2118	1 531	1 176	1,4101	0,2712	1 637	1,4323	0,2765	1 663
		Total		12 377			13 547	13 649			14 334			14 356
		LCL (Total)					*11 947*				*12 376*			*12 443*
		UCL (Total)					*15 147*				*16 292*			*16 268*
	Euro-PCT-IP	EPC + Others	1	4 854	0,9824	0,1619	4 768	4 653	1,0795	0,2150	5 240	1,0486	0,2002	5 090
		Japan	1	1 334	1,2451	0,0986	1 661	1 646	1,2446	0,1006	1 660	1,2784	0,1156	1 705
		USA	1	1 152	0,9334	0,1419	1 075	1 023	1,1504	0,0723	1 325	1,1753	0,0779	1 354
		Total		7 340			7 504	7 322			8 225			8 149
		LCL (Total)					*5 866*				*5 860*			*6 001*
		UCL (Total)					*9 142*				*10 590*			*10 297*
Subsequent	Euro-Direct	EPC + Others	1	21 267	0,9654	0,0534	20 532	20 683	1,0470	0,0775	22 267	1,0761	0,0862	22 885
		Japan	1	11 568	0,9598	0,0450	11 103	10 227	1,0422	0,0373	12 057	1,0851	0,0456	12 553
		USA	1	8 530	0,9921	0,0802	8 462	9 942	1,0345	0,0652	8 824	1,0830	0,0589	9 238
		Total		41 365			40 097	40 851			43 148			44 676
		LCL (Total)					*37 325*				*39 383*			*40 406*
		UCL (Total)					*42 869*				*46 913*			*48 946*
	Euro-PCT-IP	EPC + Others	1	49 113	1,0163	0,0418	49 912	48 403	1,0497	0,0536	51 555	1,0903	0,0617	53 547
		Japan	1	11 035	1,1244	0,0418	12 408	12 904	1,1874	0,0458	13 103	1,2552	0,0563	13 851
		USA	1	39 813	0,9169	0,0591	36 503	38 371	0,9502	0,0658	37 830	1,0003	0,0742	39 823
		Total		99 960			98 823	99 678			102 487			107 221
		LCL (Total)					*92 720*				*94 932*			*98 187*
		UCL (Total)					*104 926*				*110 043*			*116 255*
All	Euro-Direct	EPC + Others		32 262			32 335	32 959			34 735			35 350
		Japan		11 789			11 316	10 422			12 285			12 781
		USA		9 691			9 993	11 118			10 461			10 901
		Total		53 742			53 644	54 500			57 482			59 032
		LCL (Total)					*50 443*				*53 238*			*54 353*
		UCL (Total)					*56 844*				*61 726*			*63 711*
	Euro-PCT-IP	EPC + Others		53 966			54 680	53 056			56 795			58 637
		Japan		12 369			14 069	14 550			14 763			15 556
		USA		40 965			37 578	39 394			39 155			41 177
		Total		107 300			106 327	107 000			110 713			115 370
		LCL (Total)					*100 008*				*102 796*			*106 084*
		UCL (Total)					*112 647*				*118 630*			*124 656*
	Total	EPC + Others		86 228			87 015	86 016			91 530			93 987
		Japan		24 158			25 385	24 972			27 049			28 337
		USA		50 656			47 571	50 512			49 616			52 078
								0			0			0
	Grand Total			**161 042**			**159 971**	**161 500**			**168 195**			**174 402**
	LCL (Grand Total)						*152 887*				*159 212*			*164 003*
	UCL (Grand Total)						*167 055*				*177 177*			*184 800*
	% Growth from Year 2001			**0,0%**			**-0,7%**	**0,3%**			**4,4%**			**8,3%**
	Implied % Euro-PCT-IP			**66,6%**			**66,5%**	**66,3%**			**65,8%**			**66,2%**

"EPAS390 VECTOR & DIRD390 Vector, January 2004, PCT data adjusted by information on record copies received from WIPO.

Table VII: Forecasts from specific questions on filings at the EPC

Random Group Broken down by Bloc of Residence (Others incorporated into EPC)

Combined analysis assuming that nonresponders behave like the respondents who gave information for 2003 only.

Q Indices

Assumption: All forecasts of combined totals made by combining primordial terms.

S.E. indicates Standard Error

LCL / UCL indicates Lower / Upper 95% Confidence Limit

			Year											
			2002		2003				2004			2005		
Filings Type	Filing route	Bloc of origin	Index	Actual"	Index		Predicted	Actual *	Index		Predicted	Index		Predicted
					Estimate	S.E.			Estimate	S.E.		Estimate	S.E.	
First	Euro-Direct	EPC + Others	1	10 995	0,9259	0,1423	10 181	12 277	0,9760	0,0331	10 731	0,9768	0,0317	10 740
		Japan	1	221	0,7029	0,2523	155	196	0,7463	0,0134	165	0,7449	0,0135	165
		USA	1	1 161	1,3626	0,1384	1 582	1 176	1,4592	0,2442	1 694	1,4824	0,2496	1 721
		Total		12 377			11 918	13 649			12 590			12 626
		LCL (Total)					*8 941*				*11 470*			*11 496*
		UCL (Total)					*14 895*				*13 710*			*13 755*
	Euro-PCT-IP	EPC + Others	1	4 854	0,8246	0,1137	4 002	4 653	0,9832	0,1196	4 772	0,9656	0,1154	4 687
		Japan	1	1 334	1,2451	0,0986	1 661	1 646	1,2446	0,1006	1 660	1,2784	0,1156	1 705
		USA	1	1 152	0,7710	0,1394	888	1 023	0,9467	0,0528	1 090	0,9660	0,0571	1 113
		Total		7 340			6 551	7 322			7 523			7 505
		LCL (Total)					*5 543*				*6 316*			*6 335*
		UCL (Total)					*7 559*				*8 731*			*8 675*
Subsequent	Euro-Direct	EPC + Others	1	21 267	0,8757	0,0920	18 624	20 683	0,9199	0,0402	19 563	0,9457	0,0454	20 113
		Japan	1	11 568	0,8541	0,1399	9 881	10 227	0,9190	0,0233	10 631	0,9539	0,0284	11 034
		USA	1	8 530	0,9799	0,0157	8 358	9 942	1,0215	0,0561	8 713	1,0693	0,0507	9 121
		Total		41 365			36 862	40 851			38 907			40 269
		LCL (Total)					*32 408*				*36 986*			*38 126*
		UCL (Total)					*41 317*				*40 828*			*42 411*
	Euro-PCT-IP	EPC + Others	1	49 113	0,9960	0,0888	48 915	48 403	1,0302	0,0293	50 598	1,0693	0,0339	52 516
		Japan	1	11 035	1,0166	0,0515	11 218	12 904	1,0685	0,0291	11 790	1,1267	0,0358	12 433
		USA	1	39 813	0,8801	0,1016	35 038	38 371	0,9112	0,0528	36 277	0,9582	0,0607	38 149
		Total		99 960			95 171	99 678			98 665			103 098
		LCL (Total)					*83 806*				*93 765*			*97 177*
		UCL (Total)					*106 537*				*103 565*			*109 019*
All	Euro-Direct	EPC + Others		32 262			28 804	32 959			30 294			30 853
		Japan		11 789			10 036	10 422			10 796			11 199
		USA		9 691			9 940	11 118			10 407			10 842
		Total		53 742			48 780	54 500			51 497			52 894
		LCL (Total)					*43 423*				*49 274*			*50 472*
		UCL (Total)					*54 138*				*53 721*			*55 317*
	Euro-PCT-IP	EPC + Others		53 966			52 918	53 056			55 370			57 203
		Japan		12 369			12 879	14 550			13 451			14 139
		USA		40 965			35 926	39 394			37 368			39 261
		Total		107 300			101 723	107 000			106 188			110 603
		LCL (Total)					*90 313*				*101 142*			*104 568*
		UCL (Total)					*113 133*				*111 235*			*116 638*
	Total	EPC + Others		86 228			81 722	86 016			85 664			88 056
		Japan		24 158			22 915	24 972			24 246			25 338
		USA		50 656			45 866	50 512			47 775			50 104
							0	0			0			0
	Grand Total			**161 042**			**150 503**	**161 500**			**157 685**			**163 497**
	LCL (Grand Total)						*137 898*				*152 171*			*156 994*
	UCL (Grand Total)						*163 108*				*163 200*			*170 001*
	% Growth from Year 2001			**0,0%**			**-6,5%**	**0,3%**			**-2,1%**			**1,5%**
	Implied % Euro-PCT-IP			**66,6%**			**67,6%**	**66,3%**			**67,3%**			**67,6%**

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Table VIII. Applicant Panel 2003: Forecasts of EPO filing

Random Group with no Subsidiary Breakdown (Excluding Companies with qualifying comments)
Q Indices

S.E. indicates Standard Erro
LCL / **UCL** indicates Lower / Upper 95% Confidence Lim

			Year											
			2002		2003				2004				2005	
Filings Type	Filing route	Bloc of origin	Index	Actual"	Index		Predicted	Actual"	Index		Predicted	Index		Predicted
					Estimate	S.E.			Estimate	S.E.		Estimate	S.E.	
First	Euro-Direct	Total	1	12 377	1,1392	0,0728	14 100	13 649	1,1811	0,0892	14 619	1,1998	0,0914	14 850
		LCL (Total)					*12 040*				*11 995*			*12 118*
		UCL (Total)					*16 160*				*17 243*			*17 582*
	Euro-PCT-IP	Total	1	7 340	0,9618	0,0962	7 059	7 322	1,0566	0,0953	7 755	1,0795	0,1026	7 923
		LCL (Total)					*5 692*				*6 266*			*6 284*
		UCL (Total)					*8 426*				*9 244*			*9 562*
Subsequent	Euro-Direct	Total	1	41 365	0,9562	0,0329	39 553	40 851	1,0541	0,0348	43 603	1,1031	0,0408	45 628
		LCL (Total)					*36 952*				*40 569*			*41 902*
		UCL (Total)					*42 155*				*46 636*			*49 354*
	Euro-PCT-IP	Total	1	99 960	1,0463	0,0277	104 588	99 678	1,0840	0,0332	108 360	1,1341	0,0394	113 370
		LCL (Total)					*98 796*				*101 161*			*105 487*
		UCL (Total)					*110 380*				*115 558*			*121 253*
All	Euro-Direct	Total		53 742			53 653	54 500			58 222			60 479
		LCL (Total)					*50 335*				*54 211*			*55 858*
		UCL (Total)					*56 972*				*62 233*			*65 099*
	Euro-PCT-IP	Total		107 300			111 647	107 000			116 115			121 293
		LCL (Total)					*105 696*				*108 764*			*113 241*
		UCL (Total)					*117 598*				*123 466*			*129 344*
	Grand Total			**161 042**			**165 300**	**161 500**			**174 337**			**181 771**
	LCL (Grand Total)						*158 486*				*165 963*			*172 488*
	UCL (Grand Total)						*172 114*				*182 710*			*191 054*
	% Growth from Year 2001			**0,0%**			**2,6%**	**0,3%**			**8,3%**			**12,9%**
	Implied % Euro-PCT-IP			**66,6%**			**67,5%**	**66,3%**			**66,6%**			**66,7%**

"EPAS390 VECTOR & DIRD390 Vector, January 2004, PCT data adjusted by information on record copies received from WIPO.

The overall forecast for *Total Filings* made for Year 2003 is now 165 300 (compared to 163 158 before cleaning), with approximate 95% confidence limits of 158 486 to 172 114. The estimated percentage of *Euro-PCT-IP Filings* among *Total Filings* in Year 2003 is 67.5% predicted vs. 66.3% observed.

This method predicts *Total Filings* of 174 337 in Year 2004 (approximate 95% confidence limits 165 963 and 182 710, compared to an estimate before cleaning of 171 936), and 181 771 in Year 2005 (approximate 95% confidence limits 172 488 and 191 054, compared to an estimate before cleaning of 178 477). The 95% confidence limits after cleaning are reduced to some extend compared to the uncleaned data, and the forecasts have increased to some degree.

Secondly the analysis taking into account the blocs of residence (**Table V**, **Fig. IV**) was repeated on the cleaned data. Numerical values of the *Q-Indices* are shown with standard errors in **Table IX** (see also **Annex II**, ***(a)*** and ***(c), Cleaned Data***). The overall forecast for *Total Filings* made for Year 2003 is now 158 856 (compared to 161 783 before cleaning), with approximate 95% confidence limits of 150 475 to 167 237. The estimated percentage of *Euro-PCT-IP Filings* among *Total Filings* in Year 2003 is 66.0% predicted vs. 66.3% observed. There were not enough data to predict *First Filings* from Others and so these indices have been set to unity.

This method predicts *Total Filings* of 171 307 in Year 2004 (approximate 95% confidence limits 161 344 and 181 270; compared to an estimate before cleaning of 170 462), and 180 679 in Year 2005 (approximate 95% confidence limits 168 541 and 192 816; compared to an estimate before cleaning of 177 649). The confidence limits are slightly wider than they were before cleaning the data, arguing against the efficacy of the method.

But it was argued above that most of the variability of the blocwise analysis arises from the small number of respondents from Others. Therefore the previous analysis by Blocs after combining Others with EPC (**Table VI**) was repeated on the cleaned data. Numerical values of the *Q-Indices* are shown with standard errors in **Table X**. The overall forecast for *Total Filings* made for Year 2003 is now 159 183 (compared to 159 971 before cleaning), with approximate 95% confidence limits of 150 936 to 167 430. The estimated percentage of *Euro-PCT-IP Filings* among *Total Filings* in Year 2003 is 65.6% predicted vs. 66.3% observed. The forecasts and confidence limits for Japan and USA are the same as in **Table IX**.

This method predicts *Total Filings* of 171 222 in Year 2004 (approximate 95% confidence limits 160 269 and 182 176, compared to an estimate before cleaning of 168 195), and 177 021 in Year 2005 (approximate 95% confidence limits 164 707 and 189 334; compared to an estimate before cleaning of 174 402). The confidence limits are again wider than those before cleaning.

Apparently therefore the scenario in **Table VI** shows the narrowest confidence limits. However closer comparative inspection of **Table VI** and **Table X** shows that it is the standard errors for growth indices of the combined bloc EPC + Others that are reduced by the cleaning process, while the standard errors for the growth indices of Japan and USA increase as expected with the lower sample size[3]. This therefore suggests a compromise scenario, combining cleaned indices from **Table X** for EPC + Others with uncleaned indices from **Table VI** for Japan and USA. The resulting numerical values of the *Q-Indices* are shown with standard errors in **Table XI**. **Fig. V** shows a plot of the forecasts and 95% confidence limits.

[3] The standard error for the growth index of Euro-PCT-IP first filings from Japan also decreases after cleaning, but this is a minor component of the overall forecast.

Table IX: Forecasts from specific questions on filings at the EPO

Random Group Broken down by Bloc of Residence (Excluding Companies with Qualifying Comments)

Q Indices

(Assumption: All forecasts of combined totals made by combining primordial terms)

S.E. indicates Standard Error

LCL / **UCL** indicates Lower / Upper 95% Confidence Limit

			Year											
			2002		2003				2004			2005		
Filings Type	Filing route	Bloc of origin	Index	Actual"	Index		Predicted	Actual"	Index		Predicted	Index		Predicted
					Estimate	S.E.			Estimate	S.E.		Estimate	S.E.	
First	Euro-Direct	EPC	1	10 463	1,0756	0,0264	11 254	11 542	1,1123	0,0344	11 638	1,1378	0,0427	11 904
		Japan	1	221	0,9025	0,1107	199	196	1,0967	0,0732	242	1,0861	0,0740	240
		USA	1	1 161	1,4927	0,3077	1 733	1 176	1,6666	0,4057	1 935	1,6666	0,4057	1 935
		Others	1	532	1,0000	0,0000	532	735	1,0000	0,0000	532	1,0000	0,0000	532
		Total		12 377			13 718	13 649			14 347			14 611
		LCL (Total)					*12 426*				*12 397*			*12 563*
		UCL (Total)					*15 010*				*16 296*			*16 659*
	Euro-PCT-IP	EPC	1	1 656	0,8771	0,0916	1 453	1 635	0,9267	0,1158	1 535	0,9317	0,1204	1 543
		Japan	1	1 334	1,0740	0,0405	1 433	1 646	1,1140	0,0551	1 486	1,1435	0,0671	1 526
		USA	1	1 152	0,8262	0,2165	952	1 023	1,1081	0,0578	1 276	1,1335	0,0629	1 306
		Others	1	3 197	1,0235	0,0189	3 273	3 018	1,2923	0,2084	4 132	1,9376	0,2988	6 195
		Total		7 340			7 110	7 322			8 429			10 570
		LCL (Total)					*6 578*				*6 601*			*6 584*
		UCL (Total)					*7 641*				*10 258*			*14 555*
Subsequent	Euro-Direct	EPC	1	19 292	0,9957	0,0375	19 208	18 239	1,0889	0,0637	21 007	1,1420	0,0758	22 031
		Japan	1	11 568	0,9898	0,0568	11 450	10 227	1,0588	0,0681	12 249	1,0973	0,0863	12 694
		USA	1	8 530	0,8711	0,1109	7 431	9 942	0,9984	0,0538	8 516	1,0406	0,0558	8 877
		Others	1	1 975	1,1106	0,1587	2 193	2 443	0,8576	0,1321	1 694	0,9351	0,0577	1 847
		Total		41 365			40 282	40 851			43 466			45 449
		LCL (Total)					*37 627*				*40 141*			*41 311*
		UCL (Total)					*42 938*				*46 790*			*49 587*
	Euro-PCT-IP	EPC	1	39 746	1,0402	0,0276	41 344	39 237	1,0740	0,0399	42 687	1,1155	0,0484	44 335
		Japan	1	11 035	1,0281	0,0700	11 344	12 904	1,1677	0,0800	12 885	1,2324	0,0984	13 600
		USA	1	39 813	0,9251	0,0950	36 831	38 371	0,9993	0,1004	39 787	1,0607	0,1072	42 230
		Others	1	9 367	0,8783	0,1182	8 227	9 166	1,0363	0,0317	9 707	1,0554	0,0491	9 885
		Total		99 960			97 746	99 678			105 065			110 049
		LCL (Total)					*89 920*				*96 062*			*99 556*
		UCL (Total)					*105 572*				*114 068*			*120 543*
All	Euro-Direct	EPC		29 755			30 462	29 781			32 645			33 935
		Japan		11 789			11 650	10 422			12 491			12 934
		USA		9 691			9 164	11 118			10 451			10 812
		Others		2 507			2 725	3 178			2 226			2 379
		Total		53 742			54 000	54 500			57 812			60 060
		LCL (Total)					*51 047*				*53 958*			*55 443*
		UCL (Total)					*56 954*				*61 667*			*64 677*
	Euro-PCT-IP	EPC		41 402			42 797	40 872			44 222			45 878
		Japan		12 369			12 777	14 550			14 371			15 125
		USA		40 965			37 783	39 394			41 063			43 535
		Others		12 564			11 499	12 184			13 839			16 081
		Total		107 300			104 856	107 000			113 495			120 619
		LCL (Total)					*97 012*				*104 308*			*109 394*
		UCL (Total)					*112 699*				*122 681*			*131 844*
	Total	EPC		71 157			73 259	70 653			76 866			79 813
		Japan		24 158			24 427	24 972			26 862			28 059
		USA		50 656			46 946	50 512			51 514			54 347
		Others		15 071			14 225	15 363			16 064			18 460
	Grand Total			**161 042**			**158 856**	**161 500**			**171 307**			**180 679**
	LCL (Grand Total)						*150 475*				*161 344*			*168 541*
	UCL (Grand Total)						*167 237*				*181 270*			*192 816*
	% Growth from Year 2001			**0,0%**			**-1,4%**	**0,3%**			**6,4%**			**12,2%**
	Implied % Euro-PCT-IP			**66,6%**			**66,0%**	**66,3%**			**66,3%**			**66,8%**

"EPAS390 VECTOR & DIRD390 Vector, January 2004, PCT data adjusted by information on record copies received from WIPO.

Table X: Forecasts from specific questions on filings at the EPO

Random Group. Others Incorporated into EPC. Excluding Companies with Qualifying Comments.

Q Indices

(Assumption: All forecasts of combined totals made by combining primordial terms)

S.E. indicates Standard Error

LCL / **UCL** indicates Lower / Upper 95% Confidence Limit

			Year											
			2002		2003				2004			2005		
Filings Type	Filing route	Bloc of origin	Index	Actual"	Index		Predicted	Actual "	Index		Predicted	Index		Predicted
					Estimate	S.E.			Estimate	S.E.		Estimate	S.E.	
First	Euro-Direct	EPC + Others	1	10 995	1,0750	0,0262	11 819	12 277	1,1118	0,0342	12 224	1,1372	0,0424	12 503
		Japan	1	221	0,9025	0,1107	199	196	1,0967	0,0732	242	1,0861	0,0740	240
		USA	1	1 161	1,4927	0,3077	1 733	1 176	1,6666	0,4057	1 935	1,6666	0,4057	1 935
		Total		12 377			13 752	13 649			14 402			14 678
		LCL (Total)					*12 449*				*12 437*			*12 607*
		UCL (Total)					*15 055*				*16 366*			*16 749*
	Euro-PCT-IP	EPC + Others	1	4 854	1,0370	0,0271	5 033	4 653	1,0734	0,0392	5 210	1,1142	0,0472	5 408
		Japan	1	1 334	1,0740	0,0405	1 433	1 646	1,1140	0,0551	1 486	1,1435	0,0671	1 526
		USA	1	1 152	0,8262	0,2165	952	1 023	1,1081	0,0578	1 276	1,1335	0,0629	1 306
		Total		7 340			7 417	7 322			7 972			8 239
		LCL (Total)					*6 898*				*7 508*			*7 664*
		UCL (Total)					*7 937*				*8 437*			*8 815*
Subsequent	Euro-Direct	EPC + Others	1	21 267	1,0432	0,0373	22 185	20 683	1,1288	0,0702	24 006	1,1573	0,0791	24 613
		Japan	1	11 568	0,9898	0,0568	11 450	10 227	1,0588	0,0681	12 249	1,0973	0,0863	12 694
		USA	1	8 530	0,8711	0,1109	7 431	9 942	0,9984	0,0538	8 516	1,0406	0,0558	8 877
		Total		41 365			41 066	40 851			44 771			46 184
		LCL (Total)					*38 379*				*40 885*			*41 587*
		UCL (Total)					*43 752*				*48 656*			*50 781*
	Euro-PCT-IP	EPC + Others	1	49 113	0,9931	0,0264	48 773	48 403	1,0467	0,0547	51 406	1,0606	0,0568	52 090
		Japan	1	11 035	1,0281	0,0700	11 344	12 904	1,1677	0,0800	12 885	1,2324	0,0984	13 600
		USA	1	39 813	0,9251	0,0950	36 831	38 371	0,9993	0,1004	39 787	1,0607	0,1072	42 230
		Total		99 960			96 948	99 678			104 078			107 919
		LCL (Total)					*89 278*				*94 037*			*96 700*
		UCL (Total)					*104 618*				*114 118*			*119 138*
All	Euro-Direct	EPC + Others		32 262			34 004	32 959			36 230			37 117
		Japan		11 789			11 650	10 422			12 491			12 934
		USA		9 691			9 164	11 118			10 451			10 812
		Total		53 742			54 817	54 500			59 172			60 862
		LCL (Total)					*51 832*				*54 818*			*55 820*
		UCL (Total)					*57 803*				*63 526*			*65 905*
	Euro-PCT-IP	EPC + Others		53 966			53 806	53 056			56 616			57 498
		Japan		12 369			12 777	14 550			14 371			15 125
		USA		40 965			37 783	39 394			41 063			43 535
		Total		107 300			104 366	107 000			112 050			116 158
		LCL (Total)					*96 678*				*101 999*			*104 925*
		UCL (Total)					*112 053*				*122 102*			*127 392*
	Total	EPC + Others		86 228			87 810	86 016			92 846			94 614
		Japan		24 158			24 427	24 972			26 862			28 059
		USA		50 656			46 946	50 512			51 514			54 347
								0			0			0
	Grand Total			**161 042**			**159 183**	**161 500**			**171 222**			**177 021**
	LCL (Grand Total)						*150 936*				*160 269*			*164 707*
	UCL (Grand Total)						*167 430*				*182 176*			*189 334*
	% Growth from Year 2001			**0,0%**			**-1,2%**	**0,3%**			**6,3%**			**9,9%**
	Implied % Euro-PCT-IP			**66,6%**			**65,6%**	**66,3%**			**65,4%**			**65,6%**

"EPAS390 VECTOR & DIRD390 Vector, January 2004, PCT data adjusted by information on record copies received from WIPO.

Table XI: Forecasts from specific questions on filings at the EPO

Random Group. Others incorporated into EPC. For EPC only, Excluding Companies with Qualifying Comments

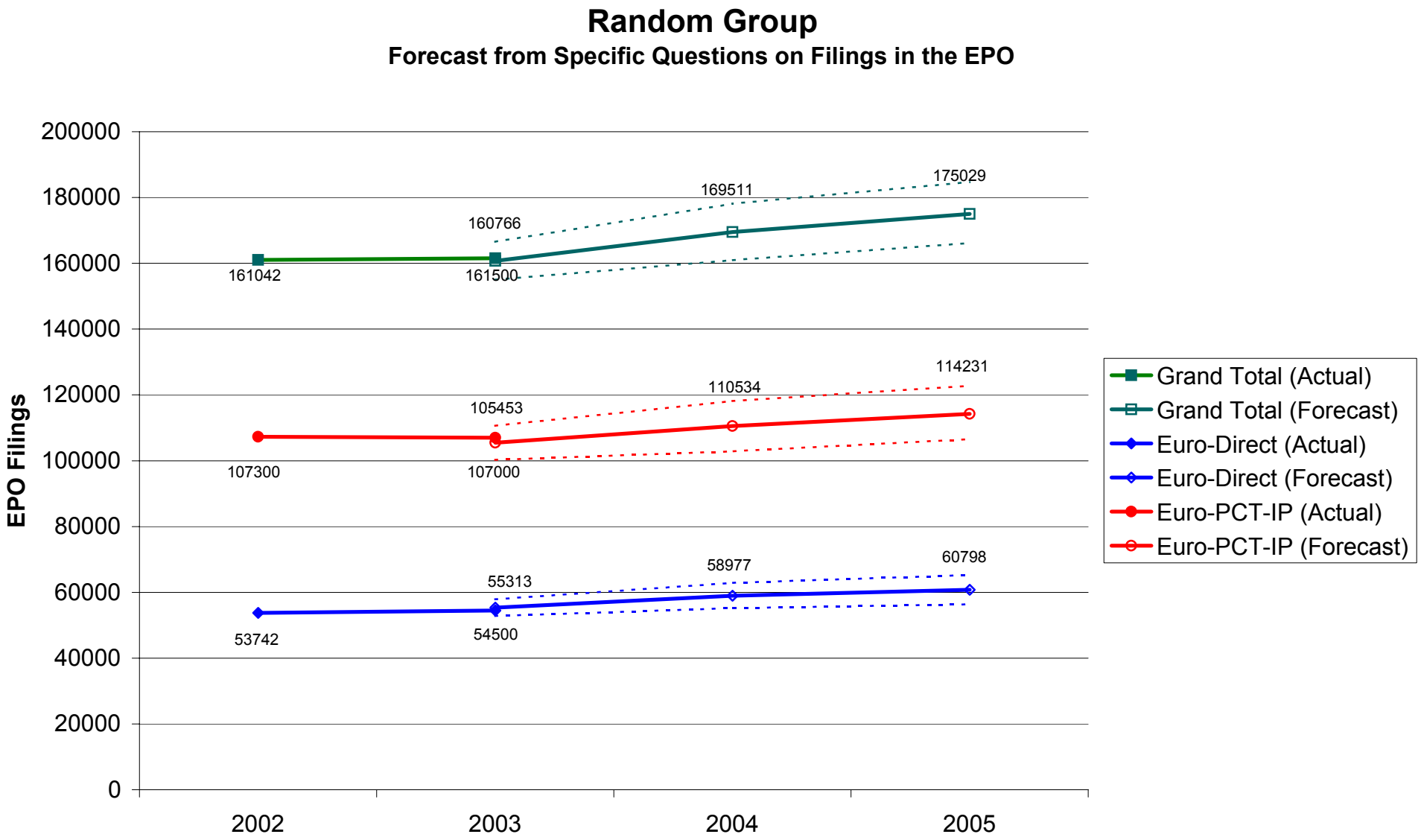
Q Indices — **S.E.** indicates Standard Error

(Assumption: All forecasts of combined totals made by combining primordial terms) — **LCL** / **UCL** indicates Lower / Upper 95% Confidence Limit

			Year											
			2002		2003				2004			2005		
Filings Type	Filing route	Bloc of origin	Index	Actual"	Index		Predicted	Actual "	Index		Predicted	Index		Predicted
					Estimate	S.E.			Estimate	S.E.		Estimate	S.E.	
First	Euro-Direct	EPC + Others	1	10 995	1,0750	0,0262	11 819	12 277	1,1118	0,0342	12 224	1,1372	0,0424	12 503
		Japan	1	221	0,9645	0,0412	213	196	1,0349	0,0262	229	1,0330	0,0265	228
		USA	1	1 161	1,3183	0,2118	1 531	1 176	1,4101	0,2712	1 637	1,4323	0,2765	1 663
		Total		12 377			13 563	13 649			14 090			14 394
		LCL (Total)					*12 649*				*13 246*			*13 323*
		UCL (Total)					*14 476*				*15 347*			*15 836*
	Euro-PCT-IP	EPC + Others	1	4 854	1,0370	0,0271	5 033	4 653	1,0734	0,0392	5 210	1,1142	0,0472	5 408
		Japan	1	1 334	1,2451	0,0986	1 661	1 646	1,2446	0,1006	1 660	1,2784	0,1156	1 705
		USA	1	1 152	0,9334	0,1419	1 075	1 023	1,1504	0,0723	1 325	1,1753	0,0779	1 354
		Total		7 340			7 769	7 322			8 195			8 467
		LCL (Total)					*7 241*				*7 632*			*7 806*
		UCL (Total)					*8 298*				*8 759*			*9 150*
Subsequent	Euro-Direct	EPC + Others	1	21 267	1,0432	0,0373	22 185	20 683	1,1288	0,0702	24 006	1,1573	0,0791	24 613
		Japan	1	11 568	0,9598	0,0450	11 103	10 227	1,0422	0,0373	12 057	1,0851	0,0456	12 553
		USA	1	8 530	0,9921	0,0802	8 462	9 942	1,0345	0,0652	8 824	1,0830	0,0589	9 238
		Total		41 365			41 750	40 851			44 887			46 404
		LCL (Total)					*39 381*				*41 200*			*42 072*
		UCL (Total)					*44 119*				*48 574*			*50 623*
	Euro-PCT-IP	EPC + Others	1	49 113	0,9931	0,0264	48 773	48 403	1,0467	0,0547	51 406	1,0606	0,0568	52 090
		Japan	1	11 035	1,1244	0,0418	12 408	12 904	1,1874	0,0458	13 103	1,2552	0,0563	13 851
		USA	1	39 813	0,9169	0,0591	36 503	38 371	0,9502	0,0658	37 830	1,0003	0,0742	39 823
		Total		99 960			97 684	99 678			102 339			105 764
		LCL (Total)					*92 541*				*94 715*			*98 140*
		UCL (Total)					*102 826*				*109 963*			*114 296*
All	Euro-Direct	EPC + Others		32 262			34 004	32 959			36 230			37 117
		Japan		11 789			11 316	10 422			12 285			12 781
		USA		9 691			9 993	11 118			10 461			10 901
		Total		53 742			55 313	54 500			58 977			60 798
		LCL (Total)					*52 774*				*55 194*			*56 336*
		UCL (Total)					*57 852*				*62 872*			*65 257*
	Euro-PCT-IP	EPC + Others		53 966			53 806	53 056			56 616			57 498
		Japan		12 369			14 069	14 550			14 763			15 556
		USA		40 965			37 578	39 394			39 155			41 177
		Total		107 300			105 453	107 000			110 534			114 231
		LCL (Total)					*100 284*				*102 889*			*106 579*
		UCL (Total)					*110 622*				*118 179*			*122 790*
	Total	EPC + Others		86 228			87 810	86 016			92 846			94 614
		Japan		24 158			25 385	24 972			27 049			28 337
		USA		50 656			47 571	50 512			49 616			52 078
								0			0			0
	Grand Total			**161 042**			**160 766**	**161 500**			**169 511**			**175 029**
	LCL (Grand Total)						*155 007*				*160 982*			*166 171*
	UCL (Grand Total)						*166 525*				*178 091*			*184 680*
	% Growth from Year 2001			**0,0%**			**-0,2%**	**0,3%**			**5,3%**			**8,7%**
	Implied % Euro-PCT-IP			**66,6%**			**65,6%**	**66,3%**			**65,2%**			**65,3%**

"EPAS390 VECTOR & DIRD390 Vector, January 2004, PCT data adjusted by information on record copies received from WIPO.

Fig. V


Random Group
Forecast from Specific Questions on Filings in the EPO
EPO Filings
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
2002
2003
2004
2005
161042
160766
161500
169511
175029
107300
105453
107000
110534
114231
53742
55313
54500
58977
60798
Grand Total (Actual)
Grand Total (Forecast)
Euro-Direct (Actual)
Euro-Direct (Forecast)
Euro-PCT-IP (Actual)
Euro-PCT-IP (Forecast)

The overall forecast for *Total Filings* made for Year 2003 is now 160 766, with approximate 95% confidence limits of 155 007 to 166 525. The estimated percentage of *Euro-PCT-IP Filings* among *Total Filings* in Year 2003 is 65.6% predicted vs. 66.3% observed.

This method predicts *Total Filings* of 169 511 in Year 2004 (approximate 95% confidence limits 160 982 and 178 091), and 175 029 in Year 2005 (approximate 95% confidence limits 166 171 and 184 680). The confidence limits here are narrower than those in **Table VI**, as expected from the construction of the compromise scenario.

VI.3 Random Group Broken Down by *Joint Clusters*

All applicants in the survey were asked to declare themselves in terms of membership of one (and only one) of the EPO *Joint Clusters* (questionnaire **Section D**). **Fig. VI** shows the distribution of the population of applications in the population by *Joint Clusters* as obtained from the EPO database. The distributions of respondents (applicants) in terms of *Joint Clusters* are shown in **Fig. VII** (Biggest Group) and **Fig. VIII** (Random Group). The distributions in **Fig. VII** and **Fig. VIII** are fairly similar to the distribution in **Fig. VI**, though it can be seen that the sample contains an over representation of Vehicles & General Technology and Human Necessities, with an under representation in Biotechnology and Computers. The distribution for All Respondents was almost the same as that for the Random Group (no *Joint Cluster* differs by more than 1% wrt its proportion of the total).

In the Biggest Group, representing applicants with at least a total number of 28 Euro-direct and PCT Regional Phase applications in 2002, dominant *Joint Clusters* are Vehicles and General Technology (19%); Electricity and Electrical Machines (16%); Industrial Chemistry (14%) and Pure & Applied Organic Chemistry (12%)[4]. These major *Joint Clusters* are followed by Electronics (9%); Telecommunication (7%) and Biotechnology (6%). The *Joint Clusters* with smaller representation in the sample are Polymers (4%); Computers (3%); Human Necessities (3%); Measuring and Optics (3%); Audio, Video and Media (2%); Civil Engineering and Thermodynamics (1%) and Handling and Processing (0.5%).

In the Random Group, the dominant *Joint Clusters* are Vehicles and General Technology (16%); followed by Electricity and Electrical Machines (14%); Pure & Applied Organic Chemistry (12%); Industrial Chemistry (10%) and Biotechnology (10%). These major *Joint Clusters* are followed by Human Necessities (7%); Electronics (6%) and Telecommunication (5%). Finally, the remaining Joint Clusters like Audio, Video and Media; Civil Engineering and Thermodynamics; Computers, Handling and Processing; Measuring and Optics and finally Polymers each represent less than five percent of all respondents.

The forecasts provided for EPO filings by the Random Group from **Section B** of the questionnaire were analysed with primordial breakdowns by *Joint Clusters* rather than Blocs of residence, and the *Q-Index* method was again applied after transformation of the Indices to natural logarithms. **Table XII** shows the results of this exercise. **Fig. IX** shows a plot of the overall forecasts obtained by aggregating forecasts per *Joint Cluster* [5].

[4] This *Joint Cluster* is also sometimes known as Pharmacy and Food.

[5] No cleaning of the data or correction for non-response has been applied The ordering of Joint Cluster names in Table XII differs from that given in the previous *Applicant Panel Survey 2002* report.

Fig. VI

Filings 2003 by Clusters in the Population of Applications
(Euro-direct + Euro-PCT-IP)

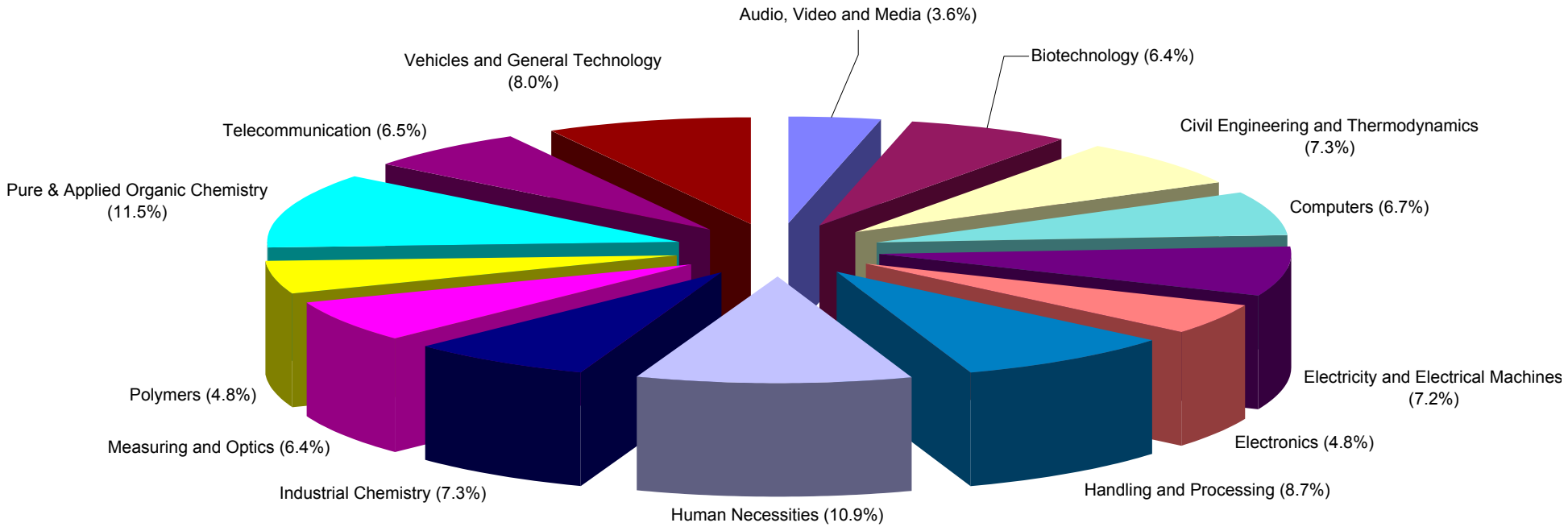


Fig. VII

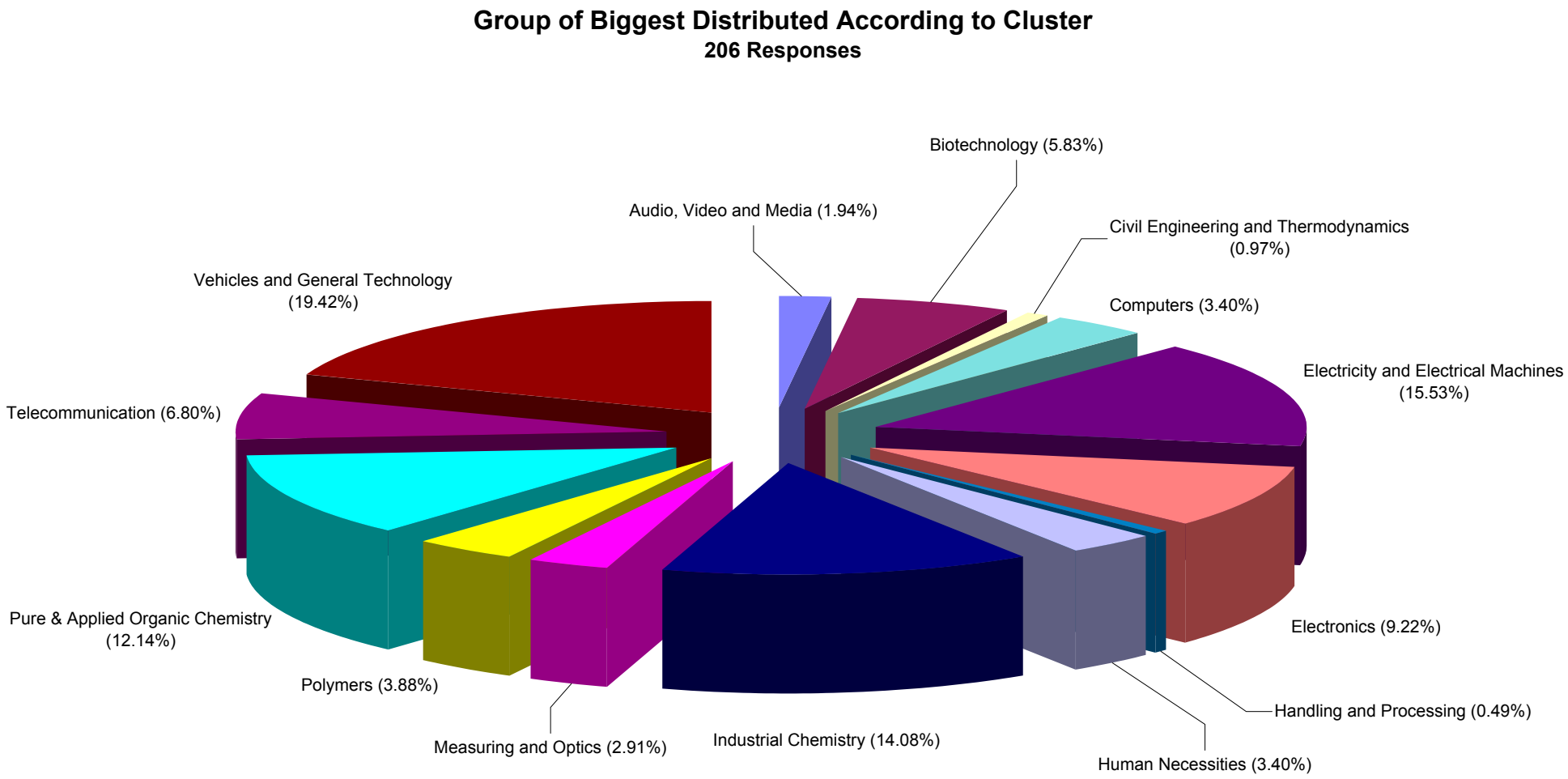

Group of Biggest Distributed According to Cluster
206 Responses
Biotechnology (5.83%)
Audio, Video and Media (1.94%)
Civil Engineering and Thermodynamics (0.97%)
Vehicles and General Technology (19.42%)
Computers (3.40%)
Electricity and Electrical Machines (15.53%)
Telecommunication (6.80%)
Pure & Applied Organic Chemistry (12.14%)
Electronics (9.22%)
Polymers (3.88%)
Handling and Processing (0.49%)
Measuring and Optics (2.91%)
Industrial Chemistry (14.08%)
Human Necessities (3.40%)

Fig. VIII

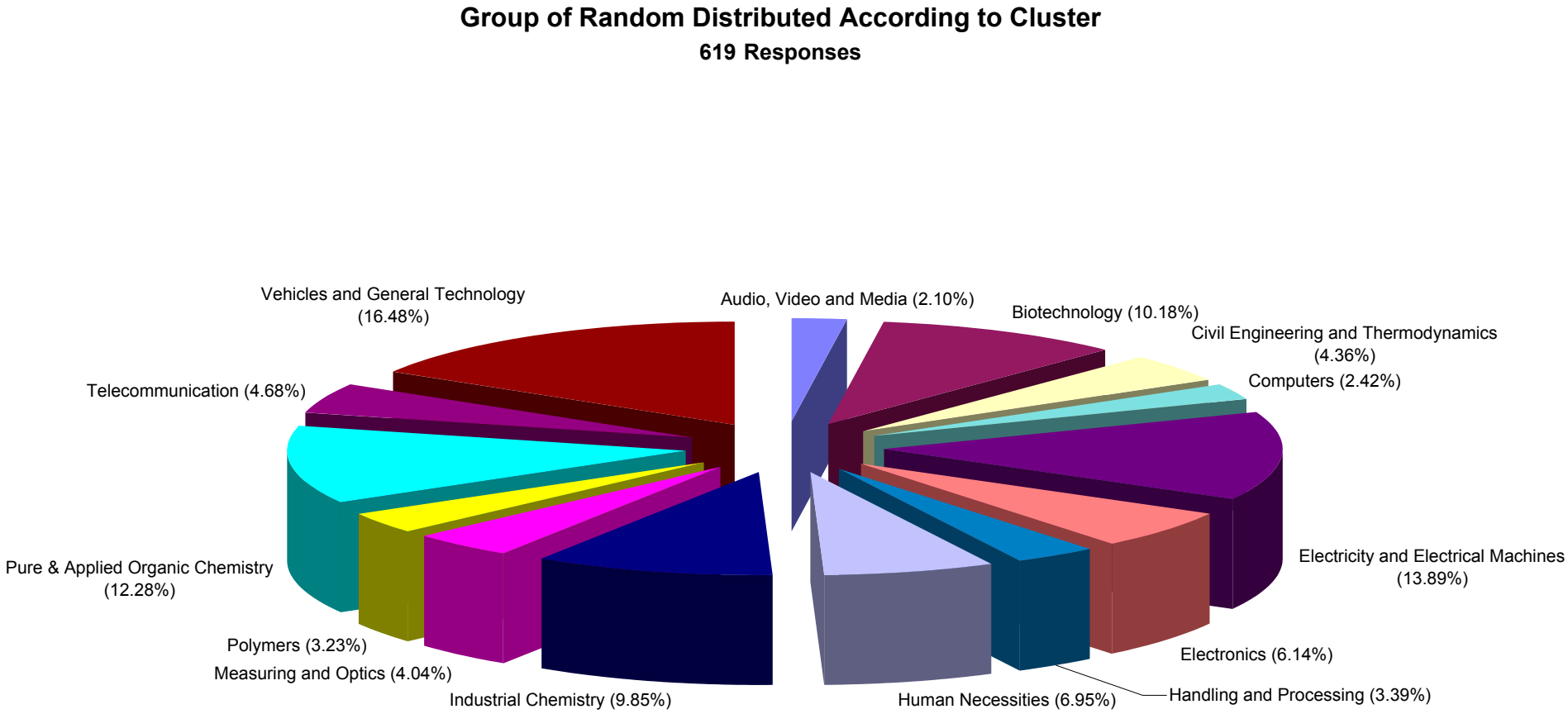

Group of Random Distributed According to Cluster
619 Responses
Vehicles and General Technology (16.48%)
Audio, Video and Media (2.10%)
Biotechnology (10.18%)
Civil Engineering and Thermodynamics (4.36%)
Computers (2.42%)
Telecommunication (4.68%)
Pure & Applied Organic Chemistry (12.28%)
Electricity and Electrical Machines (13.89%)
Polymers (3.23%)
Measuring and Optics (4.04%)
Electronics (6.14%)
Handling and Processing (3.39%)
Industrial Chemistry (9.85%)
Human Necessities (6.95%)

Table XII: Forecasts from specific questions on filings at the EPO

Random Group Broken down by EPO Clusters

Q Indices

(Assumption: All forecasts of combined totals made by combining primordial terms)

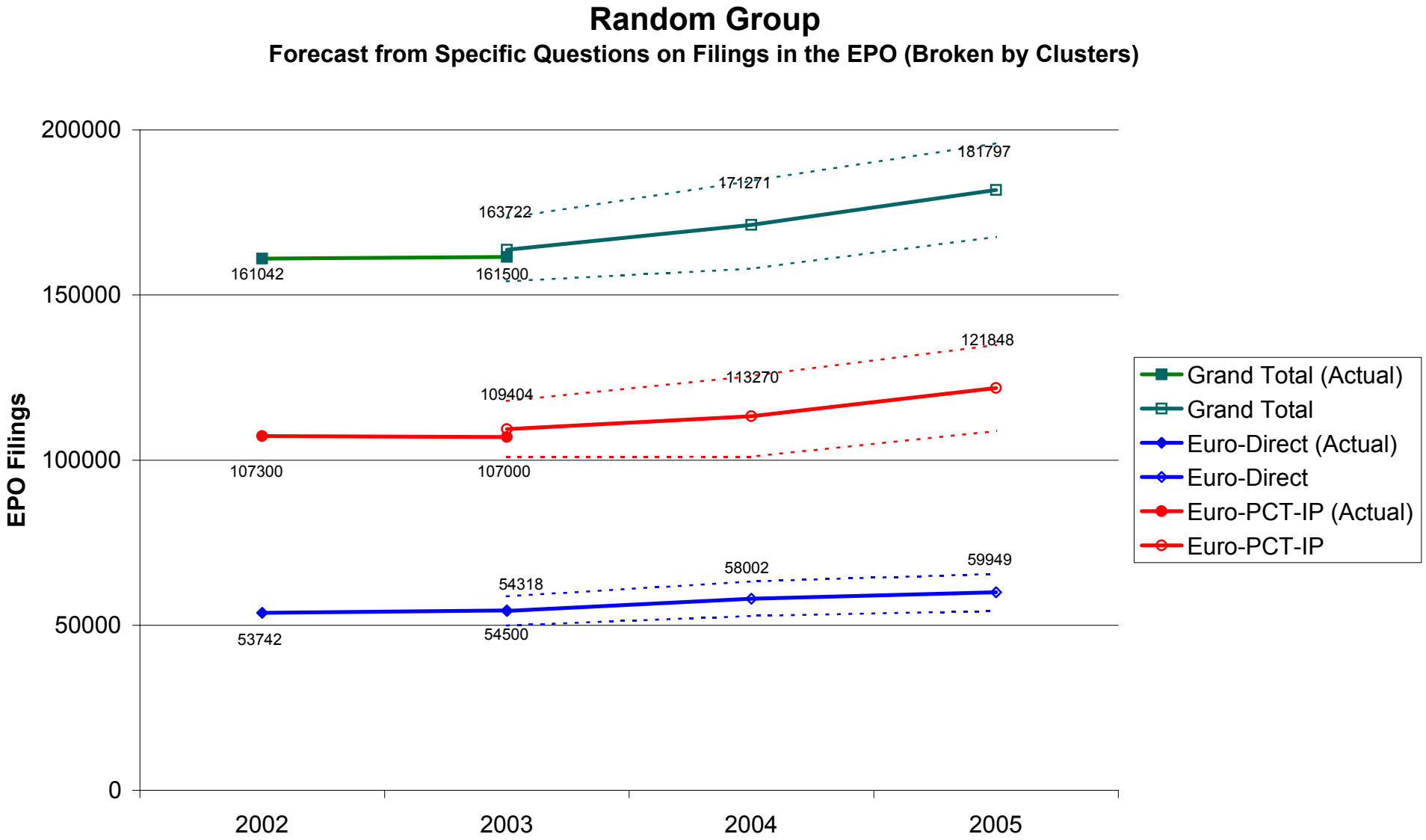
S.E. indicates Standard Error

LCL / **UCL** indicates Lower / Upper 95% Confidence Limit

			Year											
			2002		2003				2004			2005		
Filings Type	Filing route	Cluster	Index	Actual"	Index		Predicted	Actual "	Index		Predicted	Index		Predicted
					Estimate	S.E.			Estimate	S.E.		Estimate	S.E.	
First	Euro-Direct	1. Audio, Video & Media	1	669	1,0418	0,0047	697	654	1,0425	0,0038	697	1,0425	0,0038	697
		2. Biotechnology	1	1 085	1,0822	0,1067	1 174	1 184	1,0888	0,1145	1 181	1,1152	0,1066	1 210
		3. Civil Engineering & Thermodynamics	1	768	1,2093	0,2254	928	838	0,2254	0,2254	173	0,2254	0,2254	173
		4. Computers	1	909	1,0940	0,1152	995	957	1,1091	0,1369	1 009	1,1609	0,1852	1 056
		5. Electricity & Electrical Machines	1	1 007	1,1208	0,0531	1 129	1 024	1,1246	0,0590	1 132	1,1414	0,0657	1 149
		6. Electronics	1	909	1,0751	0,0667	978	913	1,0899	0,0798	991	1,0932	0,0904	994
		7. Handling and Processing	1	904	1,0000	0,0000	904	1 123	1,0000	0,0000	904	1,0000	0,0000	904
		8. Human Necessities	1	862	1,1379	0,1597	981	1 059	1,0721	0,0632	924	1,0667	0,0602	920
		9. Industrial Chemistry	1	676	0,9283	0,2478	628	728	0,9813	0,2429	664	0,9980	0,2407	675
		10. Measuring; Optics	1	713	0,7701	0,1998	549	794	0,7206	0,2237	514	0,7025	0,2270	501
		11. Polymers	1	622	0,9322	0,1008	579	604	1,0638	0,1132	661	1,0293	0,1452	640
		12. Pure & Applied Organic Chemistry	1	1 305	1,0544	0,1235	1 376	1 629	1,2328	0,1104	1 609	1,2448	0,1152	1 625
		13. Telecommunications	1	1 336	1,0199	0,0737	1 362	1 398	1,1681	0,1397	1 560	1,2098	0,1396	1 616
		14. Vehicles & General Technology	1	612	1,5377	0,5259	941	744	1,8489	0,6198	1 132	1,9442	0,6305	1 190
		Total		12 377			13 221	13 649			13 152			13 349
		LCL (Total)					*11 718*				*11 088*			*11 118*
		UCL (Total)					*14 724*				*15 215*			*15 580*
	Euro-PCT-IP	1. Audio, Video & Media	1	274	1,0000	0,0000	274	254	1,0000	0,0000	274	1,0000	0,0000	274
		2. Biotechnology	1	311	1,0805	0,1592	337	322	1,1830	0,1670	368	1,2591	0,1711	392
		3. Civil Engineering & Thermodynamics	1	549	1,1780	0,1982	647	556	1,3233	0,2181	727	1,5055	0,4466	827
		4. Computers	1	614	1,4212	0,2545	872	598	1,3360	0,1471	820	1,3416	0,1481	823
		5. Electricity & Electrical Machines	1	494	0,8341	0,1527	412	472	0,8392	0,1603	414	0,8418	0,1657	416
		6. Electronics	1	408	1,2514	0,3367	511	373	1,4789	0,4618	604	1,5455	0,5574	631
		7. Handling and Processing	1	678	1,4177	0,3466	961	721	2,1265	0,3466	1 442	2,8353	0,3466	1 922
		8. Human Necessities	1	876	1,0205	0,0131	894	1 012	1,0730	0,0431	940	1,0947	0,0456	959
		9. Industrial Chemistry	1	558	1,1956	0,2719	667	570	1,3595	0,3168	758	1,4946	0,3501	834
		10. Measuring; Optics	1	473	1,2362	0,2968	584	462	1,3359	0,3859	631	1,3359	0,3859	631
		11. Polymers	1	237	1,0471	0,0489	248	238	1,0892	0,0902	258	1,1276	0,1259	268
		12. Pure & Applied Organic Chemistry	1	708	1,1842	0,1147	838	754	1,2214	0,1302	864	1,2332	0,1372	873
		13. Telecommunications	1	690	1,0936	0,1222	755	609	1,4489	0,3626	1 000	1,5074	0,3823	1 040
		14. Vehicles & General Technology	1	469	0,7633	0,3568	358	518	1,0944	0,0899	513	1,1765	0,1198	552
		Total		7 340			8 359	7 458			9 616			10 443
		LCL (Total)					*7 165*				*7 854*			*8 132*
		UCL (Total)					*9 552*				*11 377*			*12 753*
Subsequent	Euro-Direct	1. Audio, Video & Media	1	1 937	1,0737	0,0794	2 080	1 801	1,2541	0,0462	2 430	1,3494	0,0606	2 614
		2. Biotechnology	1	801	1,1046	0,1344	885	628	1,2274	0,1705	983	1,2480	0,1689	1 000
		3. Civil Engineering & Thermodynamics	1	4 468	0,8776	0,1623	3 921	4 410	1,1371	0,2481	5 080	1,1681	0,2014	5 219
		4. Computers	1	2 250	0,7229	0,2315	1 626	1 933	0,9646	0,1746	2 170	1,0432	0,1947	2 347
		5. Electricity & Electrical Machines	1	3 873	0,9634	0,0582	3 731	3 604	0,9836	0,0972	3 809	1,0067	0,1105	3 899
		6. Electronics	1	2 572	1,0075	0,0961	2 592	2 400	1,0432	0,1293	2 683	1,0444	0,1544	2 686
		7. Handling and Processing	1	4 466	1,2641	0,1422	5 645	4 616	1,1918	0,1409	5 322	1,2016	0,1396	5 366
		8. Human Necessities	1	4 072	1,0076	0,0987	4 103	4 523	1,1110	0,0795	4 524	1,1475	0,0811	4 673
		9. Industrial Chemistry	1	2 665	0,9476	0,0663	2 525	2 530	0,9058	0,0901	2 414	0,9738	0,0732	2 595
		10. Measuring; Optics	1	2 683	1,0670	0,0862	2 863	2 721	1,1453	0,1581	3 073	1,1402	0,2065	3 059
		11. Polymers	1	1 815	1,2026	0,1669	2 183	1 702	1,1927	0,1853	2 165	1,2173	0,1827	2 210
		12. Pure & Applied Organic Chemistry	1	2 002	0,9081	0,1438	1 818	1 982	1,0480	0,0914	2 098	1,0940	0,1069	2 190
		13. Telecommunications	1	2 636	0,8872	0,5059	2 339	2 558	1,1525	0,3882	3 038	1,3544	0,4089	3 570
		14. Vehicles & General Technology	1	5 124	0,9339	0,1211	4 785	5 443	0,9873	0,1464	5 059	1,0091	0,1584	5 171
		Total		41 365			41 097	40 851			44 850			46 600
		LCL (Total)					*36 969*				*40 068*			*41 436*
		UCL (Total)					*45 225*				*49 632*			*51 765*
	Euro-PCT-IP	1. Audio, Video & Media	1	3 463	1,0820	0,0536	3 747	3 141	1,1302	0,1236	3 914	1,1741	0,1646	4 066
		2. Biotechnology	1	8 090	0,8508	0,2145	6 883	8 171	0,8959	0,2513	7 248	0,9137	0,2829	7 392
		3. Civil Engineering & Thermodynamics	1	5 984	0,8938	0,1805	5 349	5 919	1,2451	0,2566	7 451	1,3025	0,3535	7 795
		4. Computers	1	7 779	1,4788	0,2350	11 503	7 408	1,2364	0,3040	9 618	1,2464	0,3162	9 696
		5. Electricity & Electrical Machines	1	7 040	0,9962	0,0461	7 013	6 585	0,9918	0,0745	6 982	1,0115	0,0874	7 120
		6. Electronics	1	4 588	0,9131	0,0970	4 189	4 094	0,8803	0,1179	4 039	0,9035	0,1155	4 145
		7. Handling and Processing	1	7 304	0,8889	0,1177	6 492	7 599	0,5088	0,6038	3 716	0,9202	0,2256	6 722
		8. Human Necessities	1	9 750	1,0666	0,0857	10 399	11 009	1,1506	0,1198	11 218	1,2129	0,1187	11 825
		9. Industrial Chemistry	1	7 896	1,0488	0,0713	8 282	7 887	1,0581	0,0947	8 355	1,0923	0,1055	8 625
		10. Measuring; Optics	1	6 601	0,7548	0,1173	4 982	6 307	0,7938	0,1579	5 240	0,7976	0,1627	5 265
		11. Polymers	1	5 315	1,0540	0,0897	5 603	5 204	1,0562	0,0961	5 614	1,1430	0,1054	6 076
		12. Pure & Applied Organic Chemistry	1	13 593	1,0975	0,0766	14 919	14 153	1,2778	0,0912	17 370	1,3721	0,0984	18 652
		13. Telecommunications	1	6 841	0,8310	0,2292	5 685	5 902	0,9606	0,2237	6 572	1,0711	0,2338	7 328
		14. Vehicles & General Technology	1	5 715	1,0498	0,1396	6 000	6 165	1,1053	0,1637	6 317	1,1721	0,1941	6 699
		Total		99 960			101 046	99 542			103 654			111 405
		LCL (Total)					*92 607*				*91 576*			*98 596*
		UCL (Total)					*109 484*				*115 732*			*124 215*
All	Euro-Direct	1. Audio, Video & Media		2 606			2 777	2 455			3 127			3 312
		2. Biotechnology		1 886			2 059	1 812			2 164			2 210
		3. Civil Engineering & Thermodynamics		5 235			4 849	5 248			5 253			5 392
		4. Computers		3 159			2 621	2 890			3 179			3 403
		5. Electricity & Electrical Machines		4 880			4 860	4 628			4 942			5 048
		6. Electronics		3 482			3 569	3 313			3 675			3 681
		7. Handling and Processing		5 370			6 549	5 739			6 226			6 270
		8. Human Necessities		4 934			5 084	5 582			5 448			5 592
		9. Industrial Chemistry		3 341			3 153	3 258			3 077			3 270
		10. Measuring; Optics		3 396			3 412	3 515			3 587			3 560
		11. Polymers		2 437			2 762	2 306			2 826			2 849
		12. Pure & Applied Organic Chemistry		3 307			3 194	3 611			3 707			3 815
		13. Telecommunications		3 972			3 701	3 956			4 598			5 186
		14. Vehicles & General Technology		5 736			5 727	6 187			6 191			6 361
		Total		53 742			54 318	54 500			58 002			59 949
		LCL (Total)					*49 925*				*52 793*			*54 324*
		UCL (Total)					*58 711*				*63 210*			*65 575*
	Euro-PCT-IP	1. Audio, Video & Media		3 737			4 021	3 395			4 188			4 340
		2. Biotechnology		8 402			7 220	8 493			7 616			7 784
		3. Civil Engineering & Thermodynamics		6 534			5 996	6 474			8 178			8 622
		4. Computers		8 392			12 375	8 005			10 438			10 519
		5. Electricity & Electrical Machines		7 533			7 425	7 058			7 397			7 536
		6. Electronics		4 996			4 700	4 466			4 643			4 776
		7. Handling and Processing		7 982			7 453	8 320			5 158			8 644
		8. Human Necessities		10 626			11 293	12 022			12 159			12 785
		9. Industrial Chemistry		8 454			8 949	8 457			9 113			9 459
		10. Measuring; Optics		7 073			5 566	6 769			5 871			5 896
		11. Polymers		5 553			5 851	5 441			5 873			6 343
		12. Pure & Applied Organic Chemistry		14 301			15 757	14 906			18 235			19 525
		13. Telecommunications		7 532			6 440	6 511			7 572			8 368
		14. Vehicles & General Technology		6 184			6 358	6 683			6 831			7 251
		Total		107 300			109 404	107 000			113 270			121 848
		LCL (Total)					*100 882*				*101 064*			*108 832*
		UCL (Total)					*117 927*				*125 475*			*134 864*
	Total	1. Audio, Video & Media		6 344			6 798	5 850			7 315			7 652
		2. Biotechnology		10 288			9 279	10 305			9 781			9 994
		3. Civil Engineering & Thermodynamics		11 769			10 845	11 722			13 431			14 014
		4. Computers		11 552			14 996	10 896			13 616			13 922
		5. Electricity & Electrical Machines		12 413			12 285	11 685			12 338			12 584
		6. Electronics		8 478			8 269	7 780			8 317			8 457
		7. Handling and Processing		13 352			14 002	14 059			11 384			14 914
		8. Human Necessities		15 560			16 377	17 603			17 607			18 377
		9. Industrial Chemistry		11 795			12 101	11 715			12 191			12 729
		10. Measuring; Optics		10 470			8 978	10 284			9 458			9 456
		11. Polymers		7 990			8 613	7 747			8 699			9 193
		12. Pure & Applied Organic Chemistry		17 608			18 951	18 517			21 942			23 340
		13. Telecommunications		11 503			10 141	10 467			12 170			13 554
		14. Vehicles & General Technology		11 921			12 084	12 870			13 022			13 612
	Grand Total			**161 042**			**163 722**	**161 500**			**171 271**			**181 797**
	LCL (Grand Total)						*154 134*				*158 001*			*167 617*
	UCL (Grand Total)						*173 311*				*184 542*			*195 977*
	% Growth from Year 2001			**0,0%**			**1,7%**	**0,3%**			**6,4%**			**12,9%**
	Implied % Euro-PCT-IP			**66,6%**			**66,8%**	**66,3%**			**66,1%**			**67,0%**

"EPAS390 VECTOR & DIRD390 Vector, January 2004, PCT data adjusted by information on record copies received from WIPO.

Fig. IX


Random Group
Forecast from Specific Questions on Filings in the EPO (Broken by Clusters)
EPO Filings
200000
150000
100000
50000
0
2002
2003
2004
2005
161042
163722
171271
181797
161500
107300
109404
113270
121848
107000
53742
54318
58002
59949
54500
Grand Total (Actual)
Grand Total
Euro-Direct (Actual)
Euro-Direct
Euro-PCT-IP (Actual)
Euro-PCT-IP

The aggregate forecasts for *Total Filings* seem to be reasonable, but the associated approximate 95% confidence intervals are wider than those found with a breakdown by Blocs of residence (**Table V**), and are in fact also wider than those found with no breakdown other than product type (**Table IV**). The overall forecast for *Total Filings* made for Year 2003 is 163 722, with approximate 95% confidence limits of 154 134 to 173 311.

The estimated percentage of *Euro-PCT-IP Filings* among *Total Filings* in Year 2003 is 66.8% predicted vs. 66.3% observed.

This method predicts *Total Filings* of 171 271 in Year 2004 (approximate 95% confidence limits 158 001 and 184 542), and 181 797 in Year 2005 (approximate 95% confidence limits 167 617 and 195 977).

Since the breakdown of the sample into 14 sub-groups gives rather few observations per group, the individual *Q-Indices* per *Joint Cluster* have rather large standard errors. Most of the forecasts trend upwards for 2004 and 2005, with notably large increases in filings predicted for Computers and Pure and Applied Organic Chemistry.

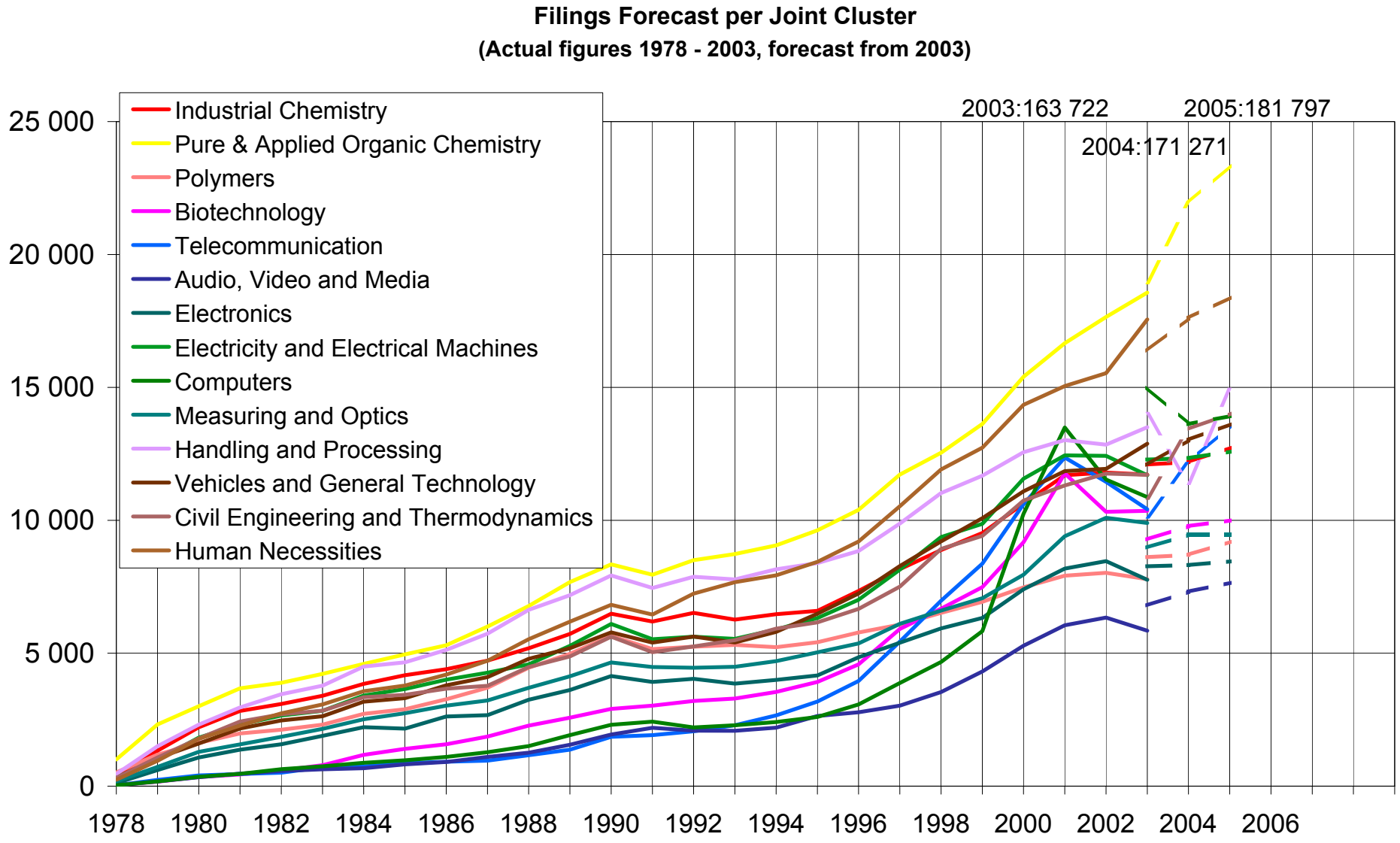
The *Joint Cluster*-wise breakdown gives higher forecasts for Total Filings than the Bloc-wise approach. But, since the confidence limits on the Total Filings forecasts by this method are wider than with no breakdown at all, it is not suggested that these Total Filings forecasts should be adopted. It appears to be better to use a Bloc-wise breakdown rather than a *Joint Cluster*-wise breakdown. But the *Joint Cluster*-wise approach does provide forecasts for individual *Joint Clusters* of the various primordial combinations (*First Filings* / *Subsequent Filings*, *Euro-direct / Euro-PCT-IP*).

Fig. X shows the time trends of historical and forecasted filings per *Joint Cluster*. It is an unfortunate consequence of the sampling errors that the match up between forecasted and actual filings in Year 2003 is in some cases not too good, but this information could still be useful for planning purposes at the EPO. However it should be realised that the EPO *Joint Cluster* breakdown is an operational one, subject to change and essentially designed to create a roughly equal workflow of dossiers arriving in each department. EPO Directorates can be reassigned to new *Joint Clusters* at any time and it is even possible for new *Joint Clusters* to be created. In these cases the historical data need to be reworked to agree with the new definitions. Thus the analyst who seeks to forecast *Joint Cluster* totals could be said to actually face the problem of estimating the number of *Joint Clusters* that will exist at the forecast point - it may be assumed that all of these will receive roughly equal numbers of filings and these can perhaps be more usefully reallocated from the forecast for *Total Filings*.

VI.4 Comparison of Results

There is a reasonable degree of agreement between the results given by the Biggest Group (**Table III**), and the Random Group under the compromise scenario of **Table XI** and **Fig. V**. Analysis of the variations indicates that the breakdown by Blocs gave more accurate results than the breakdown by *Joint Clusters*. Regarding the proportion of *Euro-PCT-IP Filings* in *Total Filings* for Year 2003, the Biggest Group slightly overestimates this proportion while the Random Group underestimates the proportion. Despite these discrepancies, which are presumably due to the sampling errors, there seems to be an indication that the proportion of *Euro-PCT-IP Filings* in *Total Filings* may stabilise in the future after a long period of growth.

Fig. X


Filings Forecast per Joint Cluster
(Actual figures 1978 - 2003, forecast from 2003)
2003:163 722
2005:181 797
2004:171 271
Industrial Chemistry
Pure & Applied Organic Chemistry
Polymers
Biotechnology
Telecommunication
Audio, Video and Media
Electronics
Electricity and Electrical Machines
Computers
Measuring and Optics
Handling and Processing
Vehicles and General Technology
Civil Engineering and Thermodynamics
Human Necessities
25 000
20 000
15 000
10 000
5 000
0
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006

The results from the Random Group can be corrected downwards to take account of a possible non-response bias. The results reported in **Table VII** show a possible way to do this. However the forecast for 2003 is then set lower than the observed level. The growth rate in the forecasts from 2003 to 2005 that is predicted by this model (8.6%) is similar to that indicated by the compromise scenario of **Table XI** (8.9%). Therefore if the 2003 forecast in **Table VII** was to be adjusted to the observed level, the forecasts for 2005 would be somewhat similar by both methods.

The forecasts for 2003 and 2004 that were reported in *Applicant Panel Survey 2002* were higher than the forecasts from the current survey, although the lower 95% confidence limit for the 2003 forecasts of Total Filings for the favoured scenario in *Applicant Panel Survey 2002* was in fact slightly below the observed Total Filings for 2003. It is likely that there was a slight reduction in enthusiasm towards filings expectations among the applicant population between the time periods of the two surveys (summer 2002 and summer 2003).

VII Results 2: Forecasts for Patent Filings in the Major World Wide Patenting Systems

Intentions towards future Patent Filings were obtained for all the questions ***(a)*** to ***(l)*** in Section B of the Questionnaire. Further investigations were carried out, using the results from the Random Group, and applying the *Q-Index* method after transformation of the data into natural logarithms[6]. **Annex II** shows a series of tables that present the resulting Growth Index estimates for each question ***(a)*** to ***(l)***, with breakdowns by Bloc of residence and by *First Filings / Subsequent Filings*. Standard errors of the logarithms of the Growth Indices and numbers of cases considered are shown. Results are also given for *Combined Filings* (= *First Filings* + *Subsequent Filings)*, but this is restricted to respondents that gave information on both *First Filings* and *Subsequent Filings.* At the time of writing, figures for the Base Year (Year 2002) by *First Filings* / *Subsequent Filings* and Blocs of residence are not known for most of the Patent Systems outside the EPO. For this reason the results are presented in terms of Growth Rate estimates only.

Since it was established (in **Part VI** above) that the variability of the estimates could be reduced in some cases by cleaning the data, results are given twice, once for the whole set of available data and again after removing cases where the consultant had made qualifying comments. In many cases the reason that the consultant made qualifying comments on responses involved problems in assessing the *Worldwide Total First Filings* ***(l)***. However the growth indices for ***(l)*** show little variation between cleaned and uncleaned data sets, perhaps for the very reason that it was these responses often were the ones that were cleaned. The effect of the cleaning process on responses ***(a)*** and ***(c)*** has already been discussed in **Part VI** above. In general the process of cleaning seems not to have had a great on the results obtained from the other questions ***(b)***, ***(d)***, ***(e)***, ***(f)***, ***(g)***, ***(h)***, ***(i)***, ***(j)***, ***(k)*** and ***(l)***.

The most interesting tables are perhaps the two last ones that show intentions towards *Worldwide Total First Filings* ***(l)***. These suggest that fewer *First Filings* would be applied for in Year 2003 than in Year 2002 for EPC and USA Blocs of residence, with only limited growth expected for Japan and Others. This is potentially bad news for filings in Year 2004 in Supranational Systems, such as EPO and PCT Systems, that get most volume from *Subsequent Filings*. But the intentions for *Worldwide Total First Filings* turn to positive growth for Years 2004 and 2005, for all Blocs of residence except the United States.

[6]This approach was taken because of the success found with it for the EPO applications data analysed in Section VI. above.

This suggests the possibility of a further growth in filings for EPO and PCT Systems from Year 2004 to Year 2005. A high rate of growth is estimated for Applicants in the Others Bloc, but this is based on a small number of responses and may reflect a sampling bias.

The results for *Patent Applications under the PCT **(b)*** show that, for the Blocs of Residence excluding US, there is an intention to increase numbers of *Subsequent Filings* via this system, at least by 2005. The responses for *Designations under the PCT **(c)**, **(d)**, **(e)***, and ***(f)*** are rather similar to those from ***(b)*** - except in the case of designations of Germany by Others, which can probably be explained by the small sample size for this bloc. After the Questionnaire was designed, it became known that the structure of the PCT system would change as from January 2004 so that all countries and systems would be automatically designated within the PCT international phase (WIPO, 2003). The similarity in growth rates for the various questions may indicate that most applicants were already designating all the countries and systems

EPC resident Applicants are fairly positive about increasing their *Subsequent Filings* under the *PCT **(b)*** and *Euro-direct **(a)*** Systems. They also intend to make more *Subsequent National Applications* by 2005 at the Offices that were surveyed, except for the *United Kingdom and France Patent Offices **(h), (i)***, which appear to be going to receive slightly less applications in the future than in 2002. They have fairly neutral intentions towards *Subsequent National Applications in Japan **(j)*** and *US **(k)***.

The Applicants from Japan that responded to the survey are quite positive regarding *Subsequent Filings* in all systems except for *National Applications (excluding PCT) in United Kingdom **(h)***, and even there the prospective drop is not large. However in most cases the indication is for a steady application stream at a somewhat higher level, rather than for dramatic year to year increases. The positive expectations from Japan presumably reflect the recovery of the economy after a long period of stagnation. The number of responses for the Japan based applicants has increased considerably in comparison to the previous survey, which may reflect the utilisation for the first time of a Japanese language version of the questionnaire.

A rather pessimistic attitude was discovered among US based Applicants in the previous survey and this is maintained towards *Subsequent Filings* in most systems in the current survey. Some marginal increases in filings are however indicated, at least by 2005, for *Designations of EPC under the PCT **(c)*** and *National Applications (excluding PCT) in France **(i)***. The recovery of ***(c)*** may be related to the removal of certain restrictions previously imposed on US resident applicants regarding Euro-PCT Applications.

Interpretation of the results for filings at world wide Patent Offices should be made with care, because the sampling frame covered only Applicants that had previously applied at the EPO. No conclusions should be made about the intentions of those Applicants that did not also apply to the EPO in Year 2002.[7]

[7] The *Trilateral Statistical Report (2002 Edition)* gives some information on the relative sizes of the pools of Applications that do or do not flow abroad from each Bloc of residence.

VIII Results 3: Breakdown of Patents by *Technical Units* and R&D Budgets

Applicants were asked about the level of their R&D Budgets and the numbers of *First Filings* in Year 2002, broken down by the *Technical Units* of the *International Patent Classification* (*IPC*) (2000). **Annex VII Section C** shows the questions and identifies the *Technical Units* concerned. 28 out of the 31 available *Technical Units* were included on the Questionnaire. In addition a 29th class was included for inventions not otherwise falling within a *Technical Unit*.

Responses were received on this part of the Questionnaire from 480 Applicants[8]. Attention is restricted here to the respondents that gave information about at least some of their activities in the 28 specific *Technical Units*, and only to the responses given for those Units. Responses were obtained from 306 Applicants on breakdowns of *First Filings* in 2002 by *Technical Units* (64% of respondents who tackled **Section C**), 331 respondents on their R&D Budgets for Year 2002 (69% of respondents who tackled **Section C**), and from 122 respondents on amounts of their R&D spend for Year 2002 that took place prior to patenting (25% of respondents who tackled **Section C**). R&D Budgets data were collected in National currency and converted to EUR using exchange rates quoted on 6th February 2004. **Table XIII** shows some more details of these responses, including estimates of average R&D expenditures per respondent (as medians). The information in the table has been pooled across all 480 respondents and 28 *Technical Units*.

Table XIII Patents and R&D Budgets

	Intentions for First Filings by Technical Units	R&D Budget Year 2002		First Filing intentions by technical groupings **and** R&D Budget - Year 2002		R&D Total Budget Year 2003
		Total Budget	Pre-Patent Budget	Total Budget	Pre-patent Budget	
No. of respondents	306	331	122	279	109	307
No. of Technical Units	751	678	163	473	144	616
Average No. of *Technical Units* per respondent	2.5	2.0	1.3	1.7	1.3	2.0
Median R&D spend per Applicant (EUR)		19 000 000	700 500	15 000 000	900 000	12 000 000

Fig. XI shows a breakdown of the responses regarding 751 *Technical Unit* assignments given by 306 respondents. It appears that, on average, respondent companies seem to innovate in two or three of the 28 named *Technical Units*. When the data for individual estimates of R&D per *First Filing* are examined on a Unit by Unit basis, a wide degree of variability can be seen. **Fig. XII** shows these data for Average (mean) *Year 2002 Total Budget* per *First Filing*, while **Fig. XIII** shows the data for Average (mean) *Year 2002 Pre-patent Budget* per *First Filing*. It is apparent that, for some *Technical Units*, it is possible for R&D spend per *First Filing* to be high, but in these groups there are also instances of a low spend. In these cases the data are more variable than for other *Technical Units* where only small amounts are spent. There are many reasons for patenting and the data indicate

[8] These responses are from All Applicants, no distinction is made here between the Biggest Group and the Random Group.

Fig.XI. Patent filing intentions by Technical Units. Numbers of responses per Technical Unit.

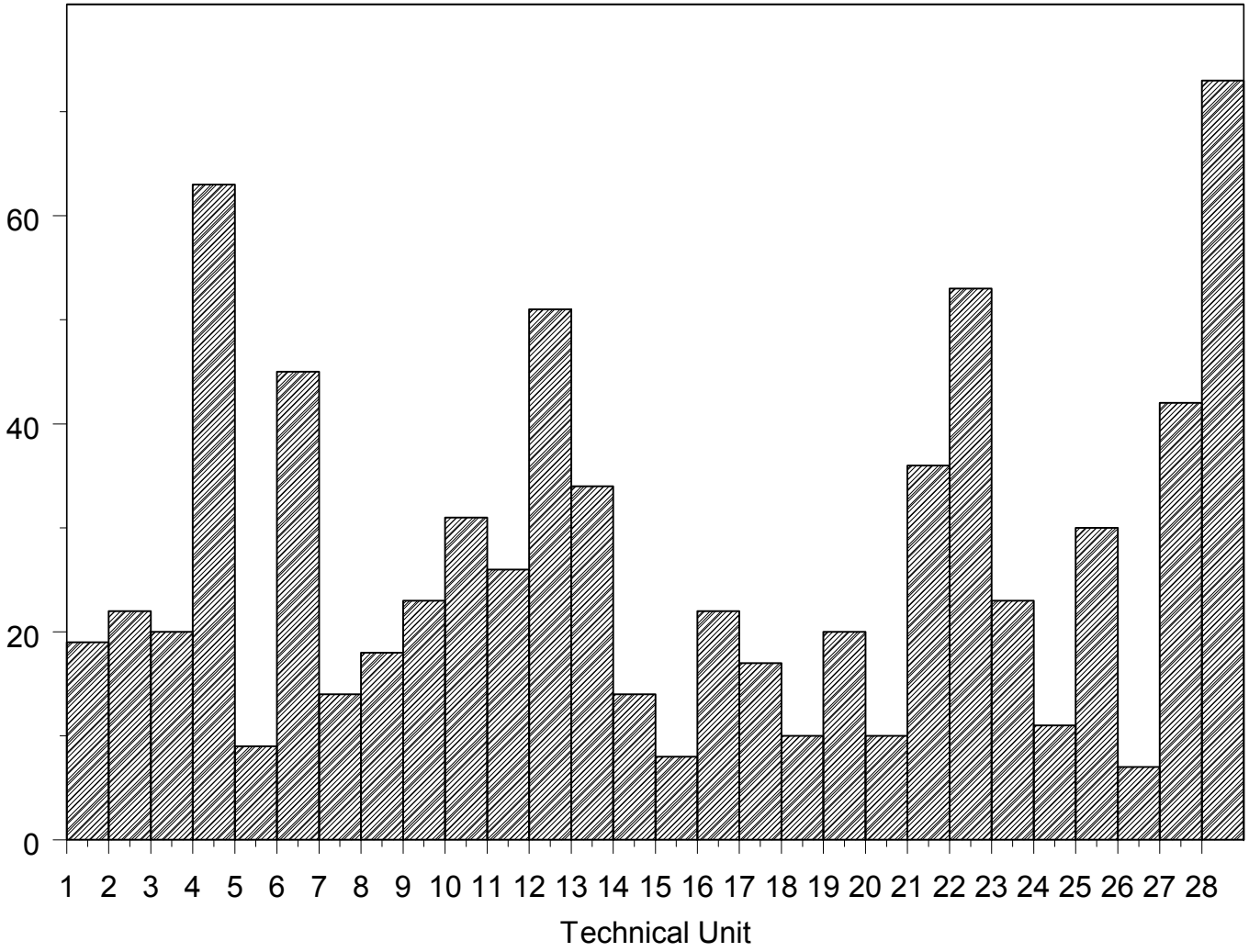


Fig. XII. First Patent Filings in Year 2002 by Technical Units.
Average R&D Budget Year 2002 per First Patent Filing.

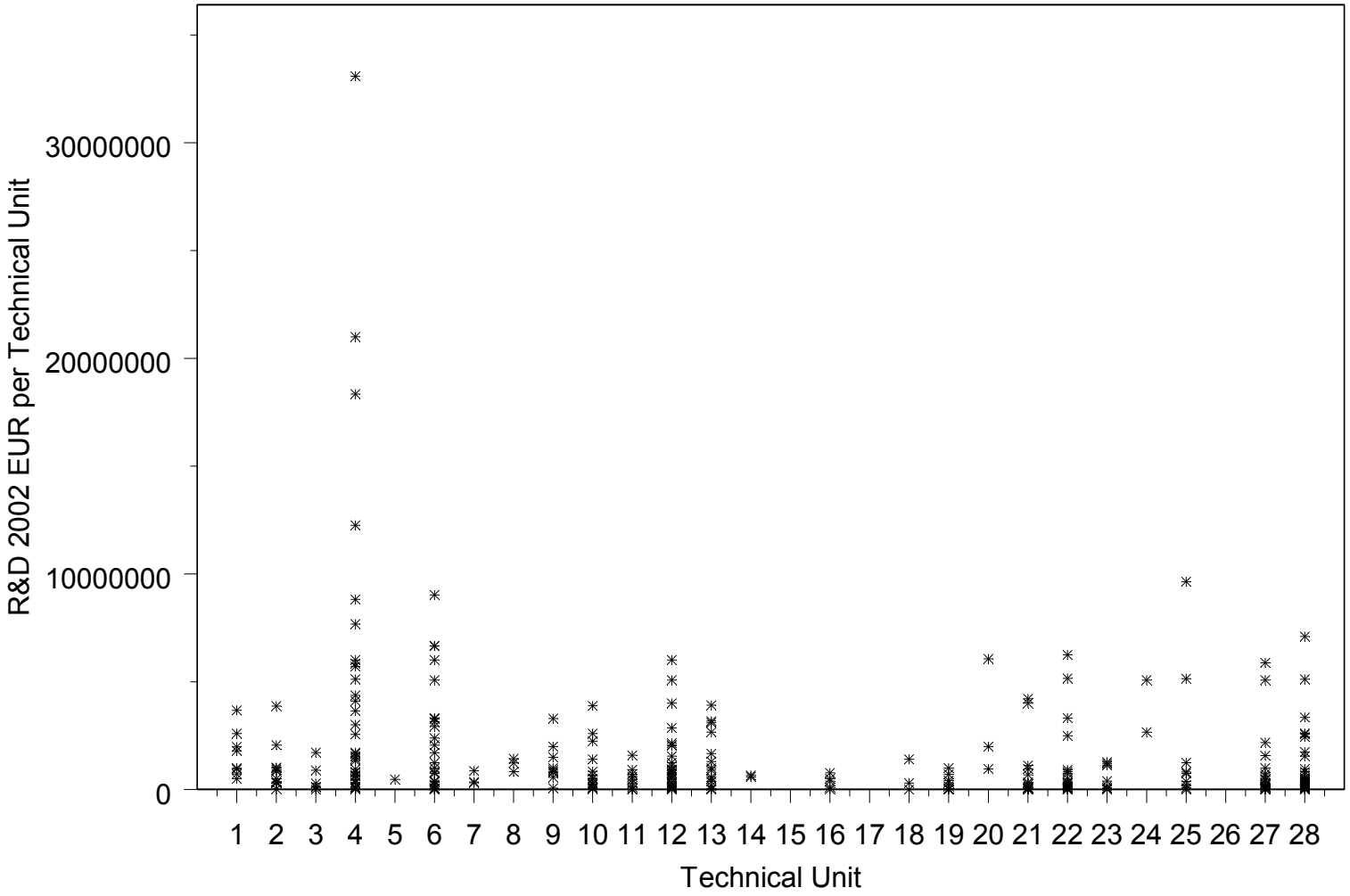
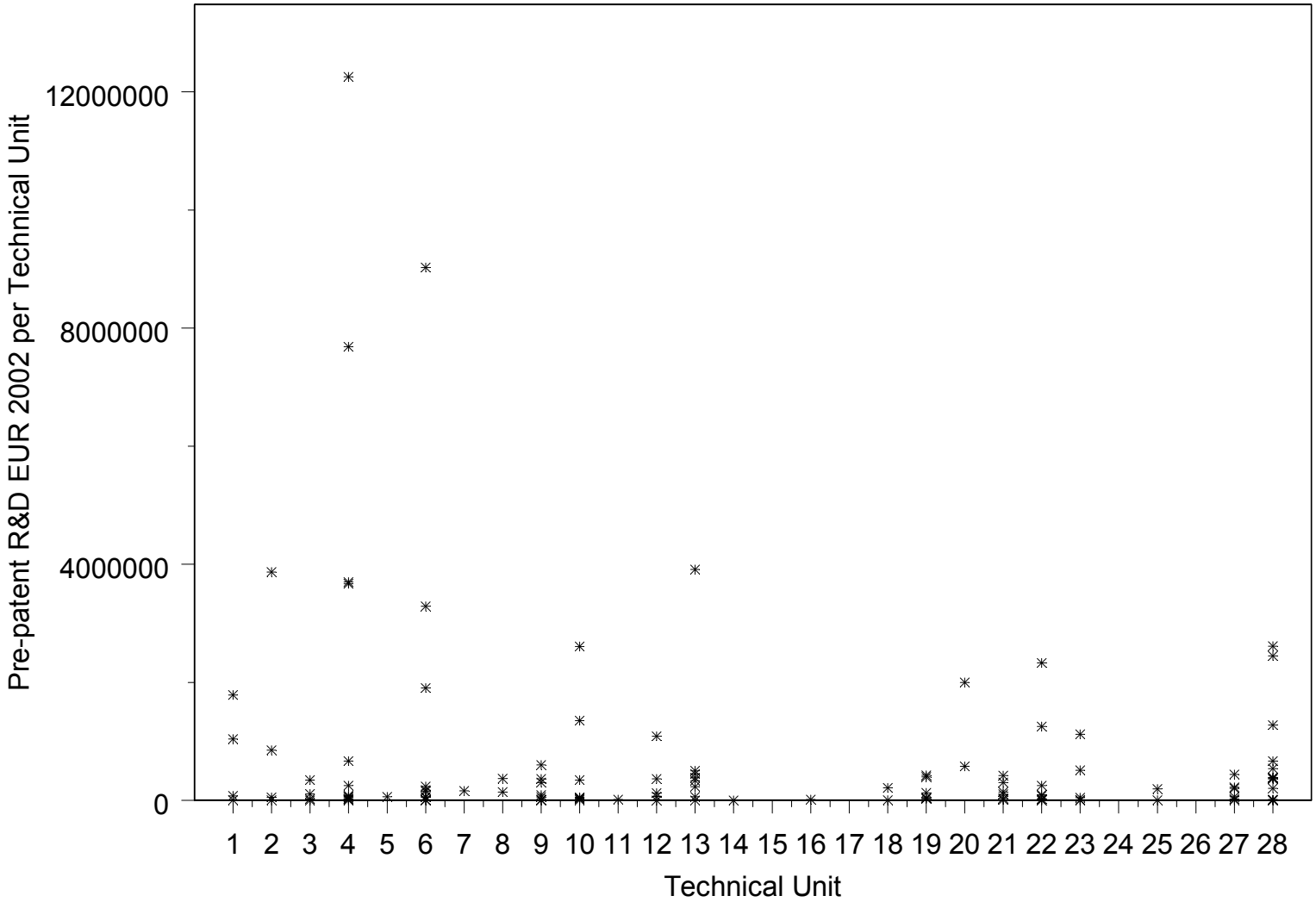


Fig. XIII. First Patent Filings in Year 2002 by Technical Units.
Average Pre-patent application phase R&D Budget Year 2002 per first Patent Filing.



the variability in costs of Patent Applications in terms of the investment equivalent to achieving an Application. The R&D investment figures can probably also be used as proxies for assessing the values of the resulting Patents, since it would be irrational to invest in obtaining Patents if their Average Value is less than their Average Cost[9].

Due to this variability, the overall Average R&D spending per *First Filing* is better assessed using Medians rather than Means. On average EUR 581 818 *Total R&D Budget 2002* was equivalent to each *First Filing* in Year 2002. From this, an average of EUR 88 902 was spent in the pre-patenting phase, representing about 15% of the *Total R&D Budget 2002* per *First Filing*. On average EUR 500 000 *Total R&D Budget 2003* was equivalent to each *First Filing* in Year 2003. The reduction in the average from 2002 to 2003 may have been caused by the tendency to file patents at some lag after investing in R&D (Hingley, 1997), with current R&D budgets being constrained by bad economic circumstances while patenting reflects higher R&D budgets in earlier years. It seems necessary that these data should be collected over a number of years before such relationships can be properly established at the microeconomic level. Mean values (not reported) of R&D Budgets per patent are higher than the medians because of small numbers of very high valued Patents.

Comparing the results to the previous survey, the apparent average Total R&D Budget spend per *First Filing* increased by about 40% from 2001 to 2002. On the other hand the proportion spent in the pre-patent phase dropped from 26% in 2001 to 15% in 2002. While some of this change reflects statistical sampling errors, it does seem possible that R&D spending has moved away from the pre-patenting phase to some degree. The overall median R&D spend per Applicant is far higher in the current survey than in the previous one (EUR 19 m here for 2002, in the previous survey EUR 5.4 m for 2002 and EUR 6.8 m for 2001), so an increased proportion of responses from bigger applicants may be a reason for the changes in the results between the two surveys.

[9] However a more sophisticated analysis would be required to obtain the added value of a Patent above the value of the R&D investment in the absence of patenting.

IX Conclusions

The recommended forecasts are those from the Random Group under the compromise scenario (**Table XI** and **Fig.V**), because of good agreement between forecast and actual data for 2003 and narrower 95% confidence limits than for the other methods. **Table XIV** summarises these forecasts.

Table XIV: Summary of results

Year	Euro-direct Filings	Euro-PCT-IP Filings	Total Filings	Euro-PCT-IP in % of Total Filings
2003 actual	53 742	107 300	161 042	66.6
2003 forecast	55 313 (52 774 - 57 852)	105 453 (100 284 - 110 622)	160 766 (155 007 - 166 525)	65.6
2004 forecast	58 977 (55 194 - 62 872)	110 534 (102 889 - 118 179)	169 511 (160 982 - 178 091)	65.2
2005 forecast	60 798 (56 336 - 65 257)	114 231 (106 579 - 122 790)	175 029 (166 171 - 184 680)	65.3

95% confidence limits in brackets

A new method has been introduced to obtain the 95% confidence limits. The limits are narrower than those obtained from the comparable recommended forecasts in the previous survey.

There is a reasonable degree of agreement between the results given by the Biggest Group and the Random Group in **Table XIV**. The forecasts for the compromise scenario for 2003 and 2004 are lower than those given for the same years in the previous survey. It is proposed that there was a genuine change in sentiment towards filings expectations among the applicant population between the time period of the two surveys (mid-year 2002 and mid-year 2003).

The applicants responding to the survey in 2003 represented an appreciable percentage of applications from the total population (**Annex I**). The Biggest Group represented 26.3% and the Random Group 28.9% of *Total Filings* in 2002, although the groups do in fact largely overlap. Thus the result should be fairly representative of future filings intentions. However there is always the possibility that intentions are different for those applicants that did not respond, since there is a risk that the non-respondents might have given a more negative answer than those responding.

The percentage of *Euro-PCT-IP Filings* in EPO filings seems, as in previous surveys, to be slightly underestimated in the current survey. It is possible that the cause for this is that data restrictions led to the necessity to use a proxy variable, *Euro-PCT Regional Phase Filings*, in the sampling scheme rather than *Euro-PCT-IP Filings*.

The survey provides an estimate of the intentions towards future filing in all major patent systems by existing clients of the EPO. Increasing numbers of *Worldwide Total First Filings* are predicted for 2004 and 2005, except by clients residing in the United States, with most optimism expressed by clients residing in Japan. Concerning the *Patent Applications under the PCT*, an expected increase in *Subsequent Filings* may be due to a change in the PCT system as from January 2004, so that all member countries and systems of the PCT are automatically designated.

The analysis of R&D Budgets suggests an Average Total R&D Budget for Year 2002 of EUR 19 m per respondent and EUR 12 m in Year 2003. On average, about EUR 580 000 was equivalent to each *First Filing* in Year 2002, and from this about EUR 89 000 was spent in the pre-patenting phase.

This survey was made in mid-2003, so it is necessary to assume that Filing intentions currently remain similar in order for the forecasts to be valid. The intentions expressed in this survey are considerably more modest than those expressed in the previous survey that was carried out in mid-2002. However intentions do seem in place for steadily increasing usage of European and other patent systems throughout the world in 2004 and 2005.

X References

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Sizes of Populations and Samples for the EPO Applicant Panel Survey 2003.

		Euro- Applications in 2002			Euro- Applicants in 2002		
		-direct	-PCT- IP	All	-direct	-PCT- IP	All
1. Population (2002)		53 743*	106 222*	160 365*	13 872*	34 707*	45 146*
Sample group A: Largest applicants							
2.	Number asked	25 790*	28 552*	54 342*	414*	408*	441*
	as % of 1.	48,0%	26,9%	33,9%	3,0%	1,2%	1,0%
	Number of quantitative responses	20 443	21.732	42.175	207	200	227
	as % of 1.	38,0%	20,5%	26,3%	1,5%	0,6%	0,5%
	as % of 2.	79,3%	76,1%	77,6%	50,0%	49,0%	51,5%
Sample group B1: Random sample.							
3.	Number asked	27 746*	32 004*	59 750*	1 277*	1 080*	2 055*
	as % of 1.	51,6%	30,1%	37,3%	9,2%	3,1%	4,6%
	Number of quantitative responses	22 926	23.470	46.396	503	473	693
	as % of 1.	42,7%	22,1%	28,9%	3,6%	1,4%	1,5%
	as % of 3.	82,6%	73,3%	77,7%	39,4%	43,8%	33,7%

* From database Other Numbers are based on figures given by the respondents

Sample sizes summarised from responses analysed by EPO, which differ slightly from numbers given in the *Methodenbericht*.

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
Total number of identified addresses in random sample:	1892
Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: Euro-direct: Patent applications under the EPC (excluding PCT) (a)

All available data (used in Table V).

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : Euro direct applications (a) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	214	1,0731	0,0424	175	195	1,1340	0,0476	164	180	1,1343	0,0457	157	171
Subsequent	220	0,9848	0,0418	190	201	1,0665	0,0584	167	179	1,0993	0,0652	157	169
Combined	127	1,0089	0,0554	100	110	1,0841	0,0693	90	100	1,1046	0,0720	84	90

Japan resident applicants
Case : Euro direct applications (a) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	69	0,9645	0,0412	60	60	1,0349	0,0262	57	57	1,0330	0,0265	57	57
Subsequent	98	0,9598	0,0450	85	85	1,0422	0,0373	79	79	1,0851	0,0456	77	77
Combined	57	0,9326	0,0709	47	47	1,0037	0,0430	46	46	1,0584	0,0427	46	46

US resident applicants
Case : Euro direct applications (a) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	77	1,3183	0,2118	69	70	1,4101	0,2712	57	58	1,4323	0,2765	56	58
Subsequent	68	0,9921	0,0802	61	62	1,0345	0,0652	54	55	1,0830	0,0589	53	54
Combined	58	0,9847	0,0918	51	52	1,0116	0,0689	47	48	1,0794	0,0507	46	47

OTHERS resident applicants
Case : Euro direct applications (a) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	6	1,0298	0,0270	6	6	1,0667	0,0584	5	5	1,0944	0,0816	5	5
Subsequent	9	1,9792	0,5270	8	8	1,9983	0,6352	7	7	2,2158	0,6835	7	7
Combined	4	1,0596	0,0472	4	4	1,2689	0,1323	4	4	1,2689	0,1323	4	4

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
Total number of identified addresses in random sample:	1892
Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: Euro-direct: Patent applications under the EPC (excluding PCT) (a)

Cleaned data: Cases with qualifying comments excluded (used in Table IX).

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : Euro direct applications (a) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	115	1,0756	0,0264	99	109	1,1123	0,0344	93	100	1,1378	0,0427	89	95
Subsequent	124	0,9957	0,0375	106	113	1,0889	0,0637	99	108	1,1420	0,0758	94	103
Combined	74	1,0434	0,0376	60	64	1,1297	0,0709	57	62	1,1584	0,0798	55	58

Japan resident applicants
Case : Euro direct applications (a) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	28	0,9025	0,1107	24	24	1,0967	0,0732	22	22	1,0861	0,0740	22	22
Subsequent	45	0,9898	0,0568	36	36	1,0588	0,0681	31	31	1,0973	0,0863	31	31
Combined	20	0,9982	0,0042	14	14	0,9385	0,0646	14	14	1,0058	0,0056	14	14

US resident applicants
Case : Euro direct applications (a) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	51	1,4927	0,3077	48	48	1,6666	0,4057	38	39	1,6666	0,4057	38	39
Subsequent	46	0,8711	0,1109	40	41	0,9984	0,0538	34	35	1,0406	0,0558	34	35
Combined	38	0,9327	0,1387	34	35	1,0531	0,0833	30	31	1,0923	0,0751	30	31

OTHERS resident applicants
Case : Euro direct applications (a) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	2	1,0000	0,0000	2	2	1,0000	0,0000	1	1	1,0000	0,0000	1	1
Subsequent	4	1,1106	0,1587	4	4	0,8576	0,1321	3	3	0,9351	0,0577	3	3
Combined	1	1,0000	0,0000	1	1	1,0000	0,0000	1	1	1,0000	0,0000	1	1

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
Total number of identified addresses in random sample:	1892
Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: Patent applications under the PCT (b)

All available data.

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : Pat. appl. under PCT (b) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	99	1,0817	0,1806	74	83	1,2432	0,2482	66	75	1,2571	0,2752	63	72
Subsequent	210	1,0010	0,0538	184	191	1,0335	0,0661	166	174	1,0646	0,0745	157	167
Combined	72	1,0291	0,0678	55	57	1,0802	0,1161	49	52	1,1202	0,1358	47	50

Japan resident applicants
Case : Pat. appl. under PCT (b) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	65	1,2592	0,1330	55	57	1,2481	0,1347	53	55	1,2825	0,1536	53	55
Subsequent	95	1,1033	0,0544	83	85	1,1678	0,0592	79	80	1,2448	0,0723	78	78
Combined	55	1,1733	0,1175	45	46	1,1666	0,0891	44	45	1,2097	0,0956	44	44

US resident applicants
Case : Pat. appl. under PCT (b) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	77	0,9318	0,1688	63	65	1,1127	0,0835	51	54	1,1415	0,0907	49	51
Subsequent	83	0,9022	0,0819	76	79	0,9475	0,0901	68	71	0,9861	0,0979	62	62
Combined	59	0,9140	0,1165	49	51	0,9509	0,1239	42	44	0,9975	0,1280	41	41

OTHERS resident applicants
Case : Pat. appl. under PCT (b) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	12	1,1364	0,1141	8	8	1,1506	0,1934	9	9	1,2739	0,2755	8	8
Subsequent	11	0,9325	0,0835	11	13	1,0279	0,0349	10	12	1,0368	0,0416	11	11
Combined	7	0,7428	0,3007	4	4	0,8704	0,1085	4	5	0,8704	0,1085	4	4

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
Total number of identified addresses in random sample:	1892
Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: Patent applications under the PCT (b)

Cleaned data: Cases with qualifying comments excluded.

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : Pat. appl. under PCT (b) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	64	0,9028	0,1153	52	56	0,9691	0,1279	48	52	0,9912	0,1428	47	52
Subsequent	131	1,0354	0,0473	118	119	1,0557	0,0663	110	113	1,0959	0,0788	106	110
Combined	49	1,0134	0,0783	38	39	1,0496	0,1300	36	38	1,0834	0,1457	36	38

Japan resident applicants
Case : Pat. appl. under PCT (b) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	42	1,3299	0,1824	35	35	1,2946	0,1885	34	35	1,3291	0,2171	34	35
Subsequent	54	1,1418	0,0676	49	50	1,1371	0,0667	48	49	1,2032	0,0796	47	47
Combined	37	1,2192	0,1523	31	31	1,1732	0,1137	30	31	1,1958	0,1137	30	30

US resident applicants
Case : Pat. appl. under PCT (b) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	46	0,8466	0,2488	38	39	1,0703	0,0436	31	33	1,0963	0,0551	31	32
Subsequent	53	0,8982	0,1336	47	48	0,9727	0,1388	43	43	1,0230	0,1467	40	40
Combined	35	0,8390	0,1807	31	32	0,9011	0,1903	27	27	0,9464	0,1932	27	27

OTHERS resident applicants
Case : Pat. appl. under PCT (b) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	6	1,2927	0,2554	3	3	1,4408	0,2579	4	4	1,9391	0,4222	3	3
Subsequent	5	0,8792	0,1661	5	7	1,0359	0,0446	4	5	1,0549	0,0689	5	5
Combined	3	1,0000	0,0000	1	1	1,0000	0,0000	1	1	1,0000	0,0000	1	1

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
Total number of identified addresses in random sample:	1892
Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: Euro-PCT-IP: Patent applications under the PCT and designating E.P.O. (c)

All available data (used in Table V).

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : EPO PCT designations (c) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	111	0,9863	0,1085	76	89	1,0862	0,1443	69	83	1,0679	0,1381	64	75
Subsequent	235	1,0149	0,0288	200	218	1,0501	0,0370	183	202	1,0903	0,0423	173	189
Combined	62	1,0129	0,0286	45	48	1,0651	0,0541	44	50	1,0730	0,0573	41	45

Japan resident applicants
Case : EPO PCT designations (c) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	58	1,2451	0,0986	48	52	1,2446	0,1006	46	50	1,2784	0,1156	46	50
Subsequent	91	1,1244	0,0418	77	80	1,1874	0,0458	73	75	1,2552	0,0563	71	72
Combined	49	1,2695	0,0769	39	40	1,2495	0,0602	38	39	1,2860	0,0673	38	38

US resident applicants
Case : EPO PCT designations (c) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	57	0,9334	0,1419	45	49	1,1504	0,0723	39	42	1,1753	0,0779	37	40
Subsequent	81	0,9169	0,0591	75	78	0,9502	0,0658	68	71	1,0003	0,0742	60	62
Combined	49	0,8838	0,0911	40	41	0,9326	0,0940	35	36	0,9768	0,0981	33	34

OTHERS resident applicants
Case : EPO PCT designations (c) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	10	1,0445	0,0329	8	8	1,1683	0,0985	8	8	1,3839	0,1613	8	8
Subsequent	11	0,9429	0,0651	10	13	1,0220	0,0269	9	11	1,0326	0,0324	10	10
Combined	5	0,9557	0,0370	4	4	1,1215	0,1599	4	5	1,1215	0,1599	4	4

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
Total number of identified addresses in random sample:	1892
Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: Euro-PCT-IP: Patent applications under the PCT and designating E.P.O. (c)

Cleaned data: Cases with qualifying comments excluded (used in Table IX).

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : EPO PCT designations (c) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	62	0,8771	0,0916	44	50	0,9267	0,1158	41	47	0,9317	0,1204	39	45
Subsequent	145	1,0402	0,0276	122	129	1,0740	0,0399	114	124	1,1155	0,0484	108	116
Combined	44	0,9930	0,0267	31	32	1,0471	0,0553	31	33	1,0612	0,0575	30	31

Japan resident applicants
Case : EPO PCT designations (c) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	23	1,0740	0,0405	18	21	1,1140	0,0551	17	19	1,1435	0,0671	17	19
Subsequent	43	1,0281	0,0700	34	35	1,1677	0,0800	31	31	1,2324	0,0984	30	30
Combined	18	1,1008	0,0496	13	14	1,1735	0,0913	13	13	1,2532	0,1345	13	13

US resident applicants
Case : EPO PCT designations (c) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	32	0,8262	0,2165	27	29	1,1081	0,0578	23	25	1,1335	0,0629	23	25
Subsequent	50	0,9251	0,0950	45	46	0,9993	0,1004	41	41	1,0607	0,1072	38	38
Combined	28	0,8135	0,1464	25	26	0,9103	0,1527	22	23	0,9597	0,1551	22	23

OTHERS resident applicants
Case : EPO PCT designations (c) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	4	1,0235	0,0189	3	3	1,2923	0,2084	3	3	1,9376	0,2988	3	3
Subsequent	5	0,8783	0,1182	5	7	1,0363	0,0317	4	5	1,0554	0,0491	5	5
Combined	1	1,0000	0,0000	1	1	1,0000	0,0000	1	1	1,0000	0,0000	1	1

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
Total number of identified addresses in random sample:	1892
Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: **Euro-PCT-IP: Patent applications under the PCT and designating U.S.A. (d)**
All available data.

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : US design. (d) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	75	0,9953	0,1600	51	60	1,1437	0,1700	46	54	1,1100	0,1410	43	51
Subsequent	194	0,9923	0,0633	162	176	1,0341	0,0729	146	159	1,0618	0,0802	138	152
Combined	49	1,0447	0,1013	35	39	1,1033	0,1184	34	40	1,1147	0,1257	32	37

Japan resident applicants
Case : US design. (d) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	63	1,2215	0,1391	53	56	1,2331	0,1384	50	53	1,2673	0,1583	50	53
Subsequent	90	1,1399	0,0649	76	79	1,2014	0,0684	72	74	1,2843	0,0860	70	71
Combined	49	1,2482	0,1155	40	41	1,2308	0,0865	39	40	1,2658	0,0951	39	39

US resident applicants
Case : US design. (d) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	60	0,9113	0,1994	48	51	1,1133	0,0972	41	46	1,1302	0,1039	39	41
Subsequent	70	0,8930	0,1007	59	60	0,9595	0,1057	52	54	0,9907	0,1145	46	46
Combined	49	0,8351	0,1416	39	40	0,9221	0,1281	36	38	0,9462	0,1330	34	35

OTHERS resident applicants
Case : US design. (d) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	10	1,0446	0,0465	8	8	1,1488	0,1261	9	9	1,3361	0,2086	9	9
Subsequent	10	0,8927	0,1024	9	11	1,0506	0,0673	7	9	1,0609	0,0696	8	8
Combined	5	0,7599	0,1697	4	4	0,9549	0,0528	4	5	0,9549	0,0528	4	4

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
Total number of identified addresses in random sample:	1892
Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: Euro-PCT-IP: Patent applications under the PCT and designating U.S.A. (d)

Cleaned data: Cases with qualifying comments excluded.

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : US design. (d) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	48	0,8984	0,1162	35	41	0,9982	0,0904	33	38	1,0152	0,1024	32	37
Subsequent	124	1,0448	0,0570	104	111	1,0760	0,0685	98	104	1,1137	0,0807	93	99
Combined	37	1,0335	0,1120	26	28	1,0877	0,1257	27	30	1,1004	0,1302	26	28

Japan resident applicants
Case : US design. (d) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	37	1,3548	0,1912	32	32	1,3184	0,1993	31	32	1,3573	0,2300	31	53
Subsequent	48	1,1761	0,0771	43	45	1,1691	0,0685	42	44	1,2348	0,0816	41	71
Combined	31	1,3409	0,1448	26	26	1,2734	0,1076	25	26	1,2859	0,1086	25	39

US resident applicants
Case : US design. (d) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	32	0,8268	0,3213	26	28	1,0723	0,0559	23	26	1,1046	0,0679	23	25
Subsequent	43	0,8502	0,1562	37	37	0,9128	0,1702	33	33	0,9592	0,1778	31	31
Combined	28	0,7766	0,2172	24	25	0,8528	0,2142	22	23	0,8890	0,2147	22	23

OTHERS resident applicants
Case : US design. (d) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	4	1,0357	0,0345	2	2	1,2927	0,2949	3	3	1,9391	0,4222	3	3
Subsequent	5	0,8197	0,1691	5	7	1,0533	0,0596	3	4	1,0749	0,0883	4	4
Combined	1	1,0000	0,0000	1	1	1,0000	0,0000	1	1	1,0000	0,0000	1	1

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
Total number of identified addresses in random sample:	1892
Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: Euro-PCT-IP: Patent applications under the PCT and designating Japan (e)

All available data.

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : JP design. (e) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	67	0,9634	0,2230	46	54	1,0034	0,2587	43	52	0,9606	0,2272	40	49
Subsequent	184	0,9774	0,0809	151	160	1,0137	0,0909	135	145	1,0428	0,0983	128	138
Combined	46	1,0111	0,0533	33	36	1,0589	0,0877	33	38	1,0710	0,0943	31	35

Japan resident applicants
Case : JP design. (e) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	62	1,1895	0,1460	51	51	1,2182	0,1432	50	50	1,2496	0,1625	50	50
Subsequent	77	1,1268	0,0911	63	66	1,2243	0,1194	62	63	1,2869	0,1384	60	61
Combined	49	1,2257	0,1206	40	40	1,2754	0,0931	39	39	1,3078	0,0974	39	39

US resident applicants
Case : JP design. (e) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	55	1,0604	0,0830	45	49	1,1401	0,1035	38	42	1,1655	0,1122	36	40
Subsequent	76	0,8881	0,0848	71	73	0,9198	0,0943	63	65	0,9715	0,1054	55	56
Combined	49	0,8711	0,1306	40	41	0,9370	0,1320	35	36	0,9810	0,1384	33	34

OTHERS resident applicants
Case : JP design. (e) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	9	1,0085	0,0112	8	8	1,0085	0,0112	8	8	1,1370	0,1194	8	8
Subsequent	9	0,9311	0,1110	8	9	1,0240	0,0422	8	10	1,0395	0,0557	8	8
Combined	5	0,9549	0,0528	4	4	0,9549	0,0528	4	5	0,9549	0,0528	4	4

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
Total number of identified addresses in random sample:	1892
Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: **Euro-PCT-IP: Patent applications under the PCT and designating Japan (e)**

Cleaned data: Cases with qualifying comments excluded.

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : JP design. (e) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	44	0,8279	0,1557	33	38	0,8640	0,1877	32	38	0,8769	0,2004	31	37
Subsequent	118	1,0373	0,0443	99	103	1,0756	0,0641	91	97	1,1171	0,0780	87	92
Combined	35	0,9867	0,0481	25	27	1,0429	0,0863	26	29	1,0579	0,0903	25	27

Japan resident applicants
Case : JP design. (e) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	34	1,3341	0,2027	29	29	1,3119	0,2101	28	28	1,3463	0,2426	28	28
Subsequent	46	1,1068	0,0613	42	43	1,1994	0,0749	41	42	1,2512	0,0812	40	41
Combined	30	1,3057	0,1589	26	26	1,3409	0,1109	25	25	1,3625	0,1087	25	25

US resident applicants
Case : JP design. (e) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	29	1,0495	0,0567	25	28	1,0883	0,0754	22	25	1,1158	0,0867	22	25
Subsequent	47	0,8942	0,1387	43	43	0,9497	0,1463	39	39	1,0211	0,1564	36	36
Combined	28	0,7764	0,2063	25	26	0,8883	0,2155	22	23	0,9375	0,2206	22	23

OTHERS resident applicants
Case : JP design. (e) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	4	1,0235	0,0267	3	3	1,0235	0,0267	3	3	1,4242	0,2298	3	3
Subsequent	4	0,8533	0,2005	4	5	1,0359	0,0446	4	5	1,0680	0,0832	4	4
Combined	1	1,0000	0,0000	1	1	1,0000	0,0000	1	1	1,0000	0,0000	1	1

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
Total number of identified addresses in random sample:	1892
Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: **Euro-PCT-IP: Patent applications under the PCT and designating Germany (f)**
All available data.

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : DE design. (f) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	59	1,1670	0,1608	41	52	1,2931	0,2165	35	44	1,1636	0,0967	33	40
Subsequent	126	1,0329	0,0574	107	115	1,0275	0,0956	96	103	1,0528	0,1055	91	98
Combined	35	1,0173	0,0615	28	31	1,0608	0,0939	27	31	1,0594	0,0640	24	28

Japan resident applicants
Case : DE design. (f) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	54	1,5014	0,4539	43	44	1,5230	0,4581	42	43	1,5299	0,4573	42	43
Subsequent	75	1,0694	0,0419	61	62	1,1198	0,0584	57	58	1,1695	0,0756	55	56
Combined	48	1,4885	0,3436	37	37	1,5108	0,3501	36	36	1,5374	0,3488	36	36

US resident applicants
Case : DE design. (f) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	54	1,0431	0,0773	43	45	1,0934	0,0943	37	39	1,1113	0,1005	35	37
Subsequent	69	0,9298	0,0888	62	64	0,9607	0,0992	55	58	0,9861	0,1096	47	49
Combined	49	0,9118	0,1223	39	40	0,9293	0,1266	35	36	0,9461	0,1316	33	34

OTHERS resident applicants
Case : DE design. (f) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	9	1,0085	0,0112	8	8	0,9265	0,1146	8	8	1,0446	0,0579	8	8
Subsequent	9	0,9968	0,0446	6	8	0,9968	0,0446	6	8	0,9968	0,0446	6	6
Combined	5	0,9549	0,0528	4	4	0,9549	0,0528	4	5	0,9549	0,0528	4	4

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
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Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: Euro-PCT-IP: Patent applications under the PCT and designating Germany (f)

Cleaned data: Cases with qualifying comments excluded.

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : DE design. (f) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	36	0,9654	0,0660	27	33	1,0102	0,0631	25	29	1,0526	0,0737	24	27
Subsequent	82	1,0170	0,0651	70	71	0,9880	0,1031	64	66	1,0154	0,1132	62	63
Combined	27	1,0041	0,0856	21	22	1,0743	0,1339	21	22	1,0905	0,0848	20	21

Japan resident applicants
Case : DE design. (f) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	32	1,7520	0,5912	28	28	1,7784	0,5998	27	27	1,7784	0,5998	27	27
Subsequent	45	1,0740	0,0405	40	41	1,1047	0,0613	39	40	1,1426	0,0822	38	39
Combined	30	1,6552	0,4204	26	26	1,6477	0,4366	25	25	1,6393	0,4386	25	25

US resident applicants
Case : DE design. (f) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	29	1,0200	0,0353	24	26	1,0437	0,0376	22	24	1,0664	0,0494	22	24
Subsequent	41	0,9036	0,1475	37	37	0,9527	0,1583	34	34	0,9837	0,1694	31	31
Combined	28	0,8433	0,2026	24	25	0,8773	0,2092	22	23	0,9101	0,2111	22	23

OTHERS resident applicants
Case : DE design. (f) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	4	1,0235	0,0267	3	3	0,8104	0,2829	3	3	1,1276	0,1380	3	3
Subsequent	4	1,0000	0,0000	3	5	1,0000	0,0000	3	4	1,0000	0,0000	3	3
Combined	1	1,0000	0,0000	1	1	1,0000	0,0000	1	1	1,0000	0,0000	1	1

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
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Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: **National applications (excluding PCT) in Germany (g)**

All available data.

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : Nat. appl. in DE (g) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	194	0,9972	0,0458	166	178	1,0511	0,0569	144	153	1,0646	0,0605	139	147
Subsequent	85	0,9760	0,1172	68	77	1,0762	0,1565	63	66	1,1134	0,1685	60	63
Combined	69	0,9637	0,0725	55	60	1,0228	0,0671	52	55	1,0448	0,0761	49	52

Japan resident applicants
Case : Nat. appl. in DE (g) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	59	1,2647	0,2807	50	51	1,2788	0,2874	48	48	1,2815	0,2871	48	49
Subsequent	70	1,0712	0,0842	58	59	1,0547	0,0861	56	57	1,0575	0,0876	55	56
Combined	52	1,0827	0,1543	42	42	1,1043	0,1528	41	41	1,1052	0,1527	41	42

US resident applicants
Case : Nat. appl. in DE (g) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	64	0,9144	0,0987	54	55	0,7978	0,2968	47	50	0,7997	0,3087	44	46
Subsequent	56	0,9918	0,0940	47	48	1,0418	0,0541	42	43	1,0519	0,0596	40	41
Combined	49	0,9501	0,1087	43	43	0,8112	0,3358	39	39	0,8113	0,3477	37	37

OTHERS resident applicants
Case : Nat. appl. in DE (g) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	6	0,6772	0,4701	5	6	0,6619	0,3162	5	6	0,7287	0,2274	5	6
Subsequent	8	1,0255	0,0971	7	7	0,9975	0,0490	6	6	0,9975	0,0490	6	6
Combined	4	0,8033	0,2505	4	4	0,8385	0,2015	4	4	0,8782	0,1486	4	4

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
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Intentions of Applicants regarding filings: National applications (excluding PCT) in Germany (g)

Cleaned data: Cases with qualifying comments excluded.

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : Nat. appl. in DE (g) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	107	0,9895	0,0561	91	97	1,0289	0,0591	83	89	1,0391	0,0638	79	84
Subsequent	52	0,9766	0,1482	44	48	1,1192	0,2090	42	43	1,1490	0,2216	40	41
Combined	45	0,9392	0,0870	37	39	0,9810	0,0401	35	37	1,0024	0,0476	34	36

Japan resident applicants
Case : Nat. appl. in DE (g) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	37	1,3901	0,3778	33	33	1,3995	0,3833	32	32	1,4001	0,3832	32	32
Subsequent	42	1,1014	0,1149	37	37	1,0745	0,1178	36	36	1,0777	0,1208	35	35
Combined	34	1,1502	0,1886	30	30	1,1636	0,1909	29	29	1,1649	0,1906	29	29

US resident applicants
Case : Nat. appl. in DE (g) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	39	0,9020	0,1870	30	31	0,6734	0,5944	26	29	0,6821	0,6074	25	27
Subsequent	33	0,9454	0,1497	29	30	0,9788	0,0349	26	27	0,9866	0,0389	26	27
Combined	29	0,9134	0,2070	26	26	0,6443	0,6359	23	23	0,6499	0,6382	23	23

OTHERS resident applicants
Case : Nat. appl. in DE (g) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	2	1,0000	0,0000	2	3	0,6903	0,3449	2	3	0,6903	0,3449	2	3
Subsequent	4	1,1598	0,1832	3	3	1,0000	0,0000	2	2	1,0000	0,0000	2	2
Combined	1	1,0000	0,0000	1	1	1,0000	0,0000	1	1	1,0000	0,0000	1	1

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
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Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: National applications (excluding PCT) in United Kingdom (h)

All available data.

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : Nat. appl. in GB (h) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	98	0,8373	0,0735	77	82	0,8591	0,0859	62	66	0,8589	0,1125	58	61
Subsequent	73	0,9084	0,0838	57	66	0,9592	0,0893	52	55	0,9536	0,1137	49	52
Combined	54	0,7829	0,1064	41	45	0,8778	0,1081	35	37	0,8467	0,1368	34	36

Japan resident applicants
Case : Nat. appl. in GB (h) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	59	0,9765	0,0336	50	50	0,9868	0,0396	47	47	0,9887	0,0407	47	48
Subsequent	70	0,9821	0,1756	58	58	0,9861	0,1823	55	55	0,9868	0,1862	54	54
Combined	51	1,0197	0,2059	41	41	1,0200	0,2092	40	40	1,0200	0,2092	40	40

US resident applicants
Case : Nat. appl. in GB (h) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	67	0,9754	0,0881	55	57	1,0006	0,0430	48	51	1,0366	0,0490	46	49
Subsequent	57	0,9311	0,1572	47	48	1,0492	0,0546	42	43	1,0648	0,0576	40	41
Combined	48	0,9385	0,1186	41	42	1,0051	0,0805	38	39	1,0497	0,0882	36	37

OTHERS resident applicants
Case : Nat. appl. in GB (h) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	6	1,0000	0,0000	4	5	1,0000	0,0000	4	5	1,0000	0,0000	4	5
Subsequent	6	0,9237	0,0762	6	6	0,9620	0,0903	6	6	0,9620	0,0903	6	6
Combined	5	0,9041	0,1153	4	4	0,9041	0,1153	4	4	0,9041	0,1153	4	4

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
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Intentions of Applicants regarding filings: National applications (excluding PCT) in United Kingdom (h)

Cleaned data: Cases with qualifying comments excluded.

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : Nat. appl. in GB (h) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	61	0,8326	0,0725	49	52	0,8247	0,0764	44	48	0,8243	0,1048	43	46
Subsequent	49	0,8851	0,0986	37	41	0,9607	0,1053	36	37	0,9486	0,1451	35	36
Combined	38	0,8194	0,1203	29	31	0,8804	0,1229	27	29	0,8488	0,1524	27	29

Japan resident applicants
Case : Nat. appl. in GB (h) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	36	0,9634	0,0428	33	33	0,9730	0,0487	32	32	0,9730	0,0487	32	32
Subsequent	41	0,9598	0,2510	37	37	0,9592	0,2547	36	36	0,9580	0,2621	35	35
Combined	33	1,0336	0,2670	30	30	1,0343	0,2727	29	29	1,0343	0,2727	29	29

US resident applicants
Case : Nat. appl. in GB (h) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	41	0,9174	0,1486	32	34	1,0194	0,0193	28	31	1,0626	0,0572	28	31
Subsequent	33	0,8217	0,2584	29	30	0,9771	0,0440	26	27	0,9997	0,0547	26	27
Combined	28	0,8723	0,1860	25	26	1,0121	0,0128	22	23	1,0698	0,0615	22	23

OTHERS resident applicants
Case : Nat. appl. in GB (h) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	1	1,0000	0,0000	1	2	1,0000	0,0000	1	2	1,0000	0,0000	1	2
Subsequent	2	1,0000	0,0000	2	2	1,0000	0,0000	2	2	1,0000	0,0000	2	2
Combined	1	1,0000	0,0000	1	1	1,0000	0,0000	1	1	1,0000	0,0000	1	1

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
Total number of identified addresses in random sample:	1892
Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: National applications (excluding PCT) in France (i)

All available data.

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : Nat. appl. in FR (i) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	97	0,9633	0,1181	75	79	0,9735	0,1335	64	68	0,9866	0,1533	60	63
Subsequent	71	0,8969	0,0935	57	67	0,9227	0,0860	52	55	0,9166	0,0861	48	51
Combined	49	0,9322	0,0805	39	42	0,9082	0,1110	34	35	0,9046	0,1152	32	33

Japan resident applicants
Case : Nat. appl. in FR (i) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	58	1,0031	0,0044	49	50	1,0101	0,0108	47	47	1,0120	0,0134	47	48
Subsequent	67	1,1166	0,1016	55	55	1,1133	0,1036	53	53	1,1117	0,1058	52	52
Combined	51	1,1065	0,1404	41	41	1,1083	0,1427	40	40	1,1083	0,1427	40	40

US resident applicants
Case : Nat. appl. in FR (i) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	59	1,0136	0,0333	50	51	1,0069	0,0282	44	46	0,9649	0,0383	42	44
Subsequent	56	1,0679	0,0757	45	46	1,0764	0,0789	41	42	1,0820	0,0835	39	40
Combined	47	1,1033	0,0886	41	41	1,0915	0,0817	38	38	1,0979	0,0866	36	36

OTHERS resident applicants
Case : Nat. appl. in FR (i) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	5	1,0000	0,0000	4	5	1,0000	0,0000	4	5	1,0000	0,0000	4	5
Subsequent	6	0,8779	0,3668	6	6	0,7867	0,3413	5	5	0,7867	0,3413	5	5
Combined	4	0,7057	0,3986	4	4	0,7057	0,3986	4	4	0,7057	0,3986	4	4

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
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Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: National applications (excluding PCT) in France (i)

Cleaned data: Cases with qualifying comments excluded.

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : Nat. appl. in FR (i) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	56	0,9304	0,1607	45	49	0,9392	0,1683	43	46	0,9578	0,1951	41	44
Subsequent	49	0,9547	0,0810	37	40	0,9937	0,0329	36	36	0,9828	0,0565	34	34
Combined	37	0,9782	0,0790	28	29	0,9510	0,1238	26	27	0,9525	0,1249	25	26

Japan resident applicants
Case : Nat. appl. in FR (i) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	36	1,0000	0,0000	33	33	1,0044	0,0064	32	32	1,0044	0,0064	32	32
Subsequent	41	1,1302	0,1402	36	36	1,1211	0,1411	35	35	1,1174	0,1454	34	34
Combined	33	1,1391	0,1797	30	30	1,1423	0,1833	29	29	1,1423	0,1833	29	29

US resident applicants
Case : Nat. appl. in FR (i) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	34	0,9966	0,0284	27	28	1,0163	0,0232	24	26	1,0163	0,0232	24	26
Subsequent	33	1,0516	0,0935	28	29	1,0630	0,0965	26	27	1,0669	0,0992	26	27
Combined	27	1,0688	0,0987	25	25	1,0884	0,1009	23	23	1,0926	0,1038	23	23

OTHERS resident applicants
Case : Nat. appl. in FR (i) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	1	1,0000	0,0000	1	2	1,0000	0,0000	1	2	1,0000	0,0000	1	2
Subsequent	2	1,5811	0,4581	2	2	1,0000	0,0000	1	1	1,0000	0,0000	1	1
Combined	1	1,0000	0,0000	1	1	1,0000	0,0000	1	1	1,0000	0,0000	1	1

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
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Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: National applications (excluding PCT) in Japan (j)

All available data.

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : Nat. appl. in JP (j) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	67	0,9633	0,0284	50	53	0,9797	0,0229	44	47	0,9813	0,0240	42	46
Subsequent	108	0,8696	0,0927	90	98	0,9953	0,0872	83	87	1,0039	0,1023	78	82
Combined	49	0,8795	0,0804	41	42	0,9383	0,0845	37	37	0,9252	0,0998	35	36

Japan resident applicants
Case : Nat. appl. in JP (j) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	121	1,0129	0,0504	106	107	1,0694	0,0360	99	100	1,1057	0,0362	98	99
Subsequent	66	1,0486	0,0339	53	53	1,1380	0,0717	51	52	1,1030	0,0407	51	52
Combined	64	0,9756	0,0980	51	51	1,0710	0,0636	49	49	1,1145	0,0518	49	49

US resident applicants
Case : Nat. appl. in JP (j) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	65	1,0597	0,0875	53	55	1,0816	0,0985	46	49	1,0840	0,1020	44	47
Subsequent	59	0,9286	0,1097	49	52	0,9867	0,1136	44	46	0,9588	0,0995	42	44
Combined	50	0,9501	0,1200	42	43	1,0187	0,1186	39	39	0,9872	0,1034	37	37

OTHERS resident applicants
Case : Nat. appl. in JP (j) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	8	1,0000	0,0000	6	6	1,0000	0,0000	5	5	1,1414	0,1695	5	5
Subsequent	7	1,1363	0,1617	6	6	1,6385	0,4536	6	6	1,6385	0,4536	6	6
Combined	5	1,2308	0,2376	4	4	1,2308	0,2376	4	4	1,2308	0,2376	4	4

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
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Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: National applications (excluding PCT) in Japan (j)

Cleaned data: Cases with qualifying comments excluded.

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : Nat. appl. in JP (j) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	46	0,9767	0,0235	35	37	0,9932	0,0137	33	35	0,9954	0,0156	32	34
Subsequent	68	0,9445	0,0903	57	59	1,0100	0,1086	54	55	1,0222	0,1351	50	51
Combined	37	0,8933	0,0881	31	31	0,9396	0,0967	29	29	0,9392	0,1251	28	28

Japan resident applicants
Case : Nat. appl. in JP (j) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	63	0,9975	0,0871	57	57	1,0745	0,0571	56	56	1,1296	0,0524	55	55
Subsequent	43	1,0549	0,0356	36	36	1,0943	0,0453	35	35	1,1170	0,0545	35	35
Combined	42	0,9676	0,1373	35	35	1,0757	0,0909	34	34	1,1446	0,0745	34	34

US resident applicants
Case : Nat. appl. in JP (j) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	40	1,1208	0,1672	31	32	1,1407	0,1836	27	29	1,1394	0,1835	27	29
Subsequent	34	0,7977	0,1858	30	32	0,8564	0,1625	28	29	0,8856	0,1606	28	29
Combined	29	0,8357	0,2115	25	26	0,9008	0,1825	23	23	0,9312	0,1786	23	23

OTHERS resident applicants
Case : Nat. appl. in JP (j) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	3	1,0000	0,0000	3	3	1,0000	0,0000	2	2	1,4219	0,3465	2	2
Subsequent	2	1,0000	0,0000	2	2	1,0000	0,0000	2	2	1,0000	0,0000	2	2
Combined	1	1,0000	0,0000	1	1	1,0000	0,0000	1	1	1,0000	0,0000	1	1

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
Total number of identified addresses in random sample:	1892
Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: National applications (excluding PCT) in United States (k)

All available data.

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : Nat. appl. in US (k) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	124	0,8688	0,1430	97	108	0,9537	0,1826	83	92	0,9605	0,1885	80	89
Subsequent	149	0,9034	0,1084	127	139	0,9943	0,1085	112	121	1,0084	0,1140	107	116
Combined	83	0,9350	0,0683	69	75	1,0586	0,0563	60	63	1,0589	0,0559	58	61

Japan resident applicants
Case : Nat. appl. in US (k) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	68	1,2500	0,2233	57	58	1,3429	0,2528	55	56	1,3900	0,2694	54	55
Subsequent	91	0,9625	0,0748	77	77	1,0843	0,0430	71	71	1,1335	0,0451	70	70
Combined	55	0,9813	0,1191	45	46	1,1386	0,0662	44	45	1,1900	0,0644	43	44

US resident applicants
Case : Nat. appl. in US (k) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	95	0,9166	0,0727	88	91	0,9519	0,0789	75	81	0,9766	0,0836	70	74
Subsequent	62	0,9248	0,0818	58	61	0,9370	0,0911	50	52	0,9358	0,0914	49	50
Combined	61	0,9454	0,0741	56	58	0,9618	0,0818	48	49	0,9749	0,0855	47	47

OTHERS resident applicants
Case : Nat. appl. in US (k) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	14	1,0199	0,0968	12	12	1,2103	0,1133	13	13	1,3763	0,1724	12	12
Subsequent	10	0,9997	0,1474	8	8	0,8833	0,2478	8	8	1,0605	0,1946	7	7
Combined	8	1,0076	0,1111	6	6	0,9854	0,1535	7	7	1,0691	0,1529	6	6

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
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Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: National applications (excluding PCT) in United States (k)

Cleaned data: Cases with qualifying comments excluded.

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : Nat. appl. in US (k) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	76	0,8242	0,1635	62	69	0,8705	0,1891	56	61	0,8850	0,1960	55	60
Subsequent	88	0,9635	0,0966	75	80	1,0591	0,0725	69	72	1,0786	0,0805	66	69
Combined	57	0,9612	0,0630	47	49	1,0559	0,0637	42	43	1,0670	0,0677	42	43

Japan resident applicants
Case : Nat. appl. in US (k) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	42	1,3503	0,3177	35	36	1,4792	0,3528	34	35	1,5208	0,3690	34	35
Subsequent	48	0,9319	0,1182	43	43	1,0746	0,0588	42	42	1,1364	0,0610	41	41
Combined	36	0,9460	0,1585	30	31	1,1679	0,0961	29	30	1,2292	0,0862	29	30

US resident applicants
Case : Nat. appl. in US (k) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	60	0,9238	0,1165	53	55	0,9618	0,1302	46	51	0,9983	0,1389	44	48
Subsequent	37	0,8796	0,1227	34	36	0,9205	0,1316	30	32	0,9287	0,1327	30	31
Combined	36	0,9430	0,1406	32	33	0,9608	0,1508	28	29	0,9933	0,1590	28	28

OTHERS resident applicants
Case : Nat. appl. in US (k) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	7	0,9396	0,1574	6	6	1,2414	0,1584	7	7	1,6546	0,3090	6	6
Subsequent	5	1,1693	0,1343	4	4	0,8249	0,4424	4	4	1,3299	0,1665	3	3
Combined	3	1,0970	0,0911	2	2	0,9343	0,2692	3	3	1,2346	0,2074	2	2

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
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Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
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Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: Worldwide Total First filings (I)

All available data.

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : Worldwide Total First Filings (I) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	331	0,9945	0,0367	309	321	1,0700	0,0431	281	291	1,0995	0,0485	268	274
Subsequent													
Combined													

Japan resident applicants
Case : Worldwide Total First Filings (I) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	131	1,0294	0,0348	121	121	1,0845	0,0296	115	115	1,1189	0,0327	113	113
Subsequent													
Combined													

US resident applicants
Case : Worldwide Total First Filings (I) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	114	0,9357	0,0606	110	112	0,9796	0,0628	100	103	0,9831	0,0721	94	95
Subsequent													
Combined													

OTHERS resident applicants
Case : Worldwide Total First Filings (I) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	21	1,0351	0,0762	20	20	1,1570	0,0995	20	20	1,2810	0,1406	18	18
Subsequent													
Combined													

European Patent Office Applicant Panel Survey 2003.

Random Sample of applicants to the EPO in 2002.
Simple random sampling by applications (Euro-direct and Euro-PCT regional phase)
Survey sampling carried out from May to September 2003.

Total number of applicants in random sample:	2055
Total number of identified addresses in random sample:	1892
Total number of response questionnaires in random sample:	694

Intentions of Applicants regarding filings: Worldwide Total First filings (I)

Cleaned data: Cases with qualifying comments excluded.

Q Index estimates should be multiplied by the number of flings in the base year (year 2002) to give forecasts of filings for years 2003, 2004 and 2005.
Analysis based on natural logarithms of individual growth indices per applicant. S.E. (log Q) is the standard error of the natural logarithm of the Q Index.

EPC resident applicants
Case : Worldwide Total First Filings (I) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	185	0,9913	0,0319	176	185	1,0703	0,0456	162	169	1,1007	0,0570	155	160
Subsequent													
Combined													

Japan resident applicants
Case : Worldwide Total First Filings (I) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	67	1,0297	0,0571	63	63	1,0913	0,0437	62	62	1,1406	0,0440	60	60
Subsequent													
Combined													

US resident applicants
Case : Worldwide Total First Filings (I) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	69	0,9451	0,0983	65	65	0,9894	0,1053	60	61	1,0256	0,1138	58	58
Subsequent													
Combined													

OTHERS resident applicants
Case : Worldwide Total First Filings (I) Q INDICES

Filings	Year												
	2002	2003				2004				2005			
	#cases 2002	Q Index	S.E. (log Q)	#cases considered	#cases 2003	Q Index	S.E. (log Q)	#cases considered	#cases 2004	Q Index	S.E. (log Q)	#cases considered	#cases 2005
First	10	1,0997	0,1242	9	9	1,2296	0,1332	10	10	1,5494	0,2466	8	8
Subsequent													
Combined													

Comments received from participating members of the applicant panel

General comments to Part B

- Difficult to provide precise figures for forecasts, data are estimates;
- First filings also made in countries not listed;
- Forecasts for 2002, 2003 and/or 2004 not yet possible, partly because level of research fluctuates widely, partly because licensees and customers have to be found (dependent on marketing);
- Development expected to remain at same level (at least);
- Rise in number of applications expected, partly because patents play increasingly important role for companies.

Individual comments to Part B

- Kindly note that Company X will be merging with Company Y. We are not sure how to estimate their/our patents for the future;
- In 2004/2005 more first filings will be with EPO rather than German Patent and Trademark Office
- I would suggest a blank line for national applications that are not in DE, GB, FR, JP or US. For example, we often file in US and CA;
- In 2002 we started to file PCT applications as first filings;
- We are moving more and more towards filing priority applications via the European rather than the French route, since this enables us to file first in English and thus helps us exploit our inventions with foreign partners;
- China should be included in the statistics;
- At a certain point one might consider filing dozens of priority applications in one family (or not). The numbers are based on our yearly growth, increasing size and growing number of applications;
- We generally file priority applications in US, then PCT, EPO and Japan;
- Our policy is not to file a provisional application when the priority document is a PCT application in English, designating US;
- Our usual practice is to file US, then PCT within 12 months, electing Chapter II, unless we license the patent to a party who wants to file worldwide earlier and in more countries than we otherwise would;
- European patents too expensive, need to rationalise down to one European patent in English;
- Most of our filings designate Canada and US. We only file international applications if the technology is licensed and the licence and market warrant filing internationally;
- We validate granted patents in approx. 50% of the designated states;
- All patents are filed first in the US and then in Europe.

General comments to Part C

- Detailed breakdown according to specific fields not possible/very difficult.

Individual comments to Part C

- No substantial amounts spent on pre-patent application phase;
- R&D budget and percentage of budget in pre-patent application phase difficult to estimate;
- Since the international patent classifications were used for several applications, a specific figure cannot be calculated.

General comments to Part E

- Questionnaire difficult to understand because complicated, unclear (obscure abbreviations etc) and poorly structured;
- Questionnaire not geared towards patent attorneys, universities (incl. faculties), national research institutes;
- Questions not suitable for small companies, start-up companies, my own company;
- Proposal: gather data electronically or by e-mail.

Individual comments to Part E

- Development phase completed. If licensee cannot be found, activity will be terminated;
- Recommendation: provide list of terms (EPC, PCT etc);
- We have essentially stopped asking for PCT preliminary searches because they no longer return quality results;
- Terrible classification list! What on earth do civil engineering and thermodynamics have in common? The first is a company classification, yes, but the latter is a topic from physics! Try to make a better list next time!;
- Our company is engaged almost exclusively in the research and development of pharmaceutical products, predominantly for human use (although we do sell some animal health products). We apply for international patents using the PCT as the exclusive vehicle for all countries where this is possible. In this survey it was difficult to follow the purpose of some questions, such as the one on the “pre-patent application phase” of research. We file patent applications based on development during all phases of research;
- It is very noticeable that the response time from the EPO on searches and examination is getting longer and longer. This is in contrast to the USPTO which has speeded up the time to issue very considerably. This is a disincentive to file for protection through the EPO;

- We have more and more problems with patents granted by the EPO to third parties where the distance to the prior art is very small or known features are put forward as new by simply using unconventional terminology. Defending oneself against such patents is very expensive (attorney costs start at EUR 10 000 per opposition) and difficult, particularly when the case involves simple features rarely described in the literature;
- The survey's questions do not really capture what we do as a business. We broker technological innovation and ideas and have historically spent up to 30% of our revenue on generating intellectual capital. Not all of this is covered under current patent laws but should be, to allow protection for companies like ours who have made the effort;
- The 14 categories to choose from are "a joke";
- Very happy with EPO. Consider EPO communication as fantastic and find the website extremely practical;
- Patent applications should be more international from the outset. To be covered in several countries, a lot of money has to be spent on translations (EUR 40 000-50 000). We therefore only choose the most common languages and try to pick groups of countries;
- There is a need for: (a) high-quality patents, (b) quick grants, (c) no unnecessary translation costs;
- We are not happy with the amount of time it takes to examine applications and hear appeals. This is not causing us major problems with our patent filings but is affecting our analysis of competitors. We would like the processing period to get shorter so that we can make an early assessment of our competitors;
- It should be explained on the first page of the questionnaire why the company in question has been selected;
- It would be helpful to have an example of how the questionnaire should be completed.

Logarithmic transformation for Calculation of Growth Indices

The method that is used for calculating an average Index of Growth for the Random Group was described in the report *Applicant Panel Survey 2003, Annex IV*. This is called the *Q-Index* and is given by a formula operating on the logarithm of the individual growth indices obtained from each respondent.

$$Q = \exp\left[\frac{\sum_{i=1}^{n} q_i \, \mathrm{Log}(I_i)}{\sum_{i=1}^{n} q_i}\right]$$

where $\mathrm{Log}(I_i)$ is the natural logarithm of the individual index I_i, defined as $I_i = x_i / A_i$.

x_i is the intended number of Filings reported by the ith sampled Applicant in the year of interest (2003, 2004 or 2005 in the current survey).

A_i is the known number of Applications reported by the i^{th} sampled Applicant in the Base Year (2002 in the current survey).

n is the number of Applicants in the sample[1], and summation is taken over the sample members i = 1, ..., n.

A normal distribution can be assumed (on the logarithmic scale) for $\mathrm{Log}(I_i)$. The variability of Log(Q) is given by its variance, written as follows.

$$\mathrm{Var}[\mathrm{Log}(Q)] = \frac{\sum_{i=1}^{n} (\mathrm{Log}(I_i) - \mathrm{Log}(Q))^2 q_i^2}{\left(\sum_{i=1}^{n} q_i\right)^2}$$

The Standard Error of Log(Q) is given as $\mathrm{S.E.}[\mathrm{Log}(Q)] = \sqrt{\mathrm{Var}[\mathrm{Log}(Q)]}$. On the arithmetic scale, Q is assumed to have a Lognormal distribution (Johnson et al., 1994).

Following *Applicant Panel Survey 2001, Annex IV*, consider a set of Growth indices $\{Q_r\}$ collected over **s** primordial combinations (*Bloc of residence / Euro-Direct* vs

[1] For the sample in the 2003 survey, , $n^+ = 3\,000$ and $n = 2\,055$. For an explanation of n^+, see the report *Applicant Panel Survey 2001, Annex III* .

Euro-PCT-IP / First Filings vs *Subsequent Filings*). Say that the number of Filings in the Base Year for combination **r** is A_{rb}. Then the forecasts in a later year for the number of Filings for combination **r** ($\hat{A}_r$), and for numbers of *All Filings* ($\hat{A}$), are:

$$\hat{A}_r = A_{rb} \times Q_r \quad ; \qquad \hat{A} = \sum_{r=1}^{s} A_{rb} \times Q_r$$

In order to make approximate 95% confidence limits for $\hat{A}$, it is necessary to take account of the fact that this is a linear combination of quantities that themselves follow Lognormal distributions. On the Logarithmic scale

$$\text{Log}(\hat{A}_r) = \text{Log}(A_{rb}) + \text{Log}(Q_r) \ ,$$

So, since $\text{Log}(A_{rb})$ is known and has no variability,

$$\text{Var}[\text{Log}(\hat{A}_r)] = \text{Var}[\text{Log}(Q_r)]$$

The following method for estimating the variance of the forecasts differs from that previously suggested in *Applicant Panel Survey 2002, Annex IV*.

A formula for $\text{Var}[Q_r]$ is given by Johnson et al. (1994).

$$\text{Var}[Q_r] = Q_r^2 \exp(\text{Var}[\text{Log}(Q_r)]) \, [\exp(\text{Var}[\text{Log}(Q_r)]) - 1]$$

Then

$$\text{Var}[\hat{A}_r] = A_{rb}^2 \times \text{Var}[Q_r]$$

$$= A_{rb}^2 \times Q_r^2 \exp(\text{Var}[\text{Log}(Q_r)]) \, [\exp(\text{Var}[\text{Log}(Q_r)]) - 1]$$

$$\text{Var}[\hat{A}] = \sum_{r=1}^{s} A_{rb}^2 \times (\text{Var}[Q_r])$$

$$= \sum_{r=1}^{s} A_{rb}^2 \times Q_r^2 \exp(\text{Var}[\text{Log}(Q_r)]) \, [\exp(\text{Var}[\text{Log}(Q_r)]) - 1]$$

Since $\text{S.E.}[\hat{A}] = \sqrt{\text{Var}[\hat{A}]}$, approximate 95% confidence limits for $\hat{A}$ are given by

$$\hat{A} \pm \{2 \times \text{S.E.}[\hat{A}]\}.$$

Correction for the effects of non-response biases on Growth Indices.

It is not known what the expectations for Filings are for the Random Group members that did not respond to the survey. It is possible that they are less optimistic than the responders, so their exclusion may lead to upwardly biased *Q-Indices*. A subset of the responders (to be termed the *quasi-responders*) provided information for Years 2002 (the Base Year) and 2003 only, and no information for either Years 2004 or 2005. If an assumption is made that the quasi-responders are just as pessimistic as the non-responders, then the effect of the non-response bias can be estimated. In this analysis the natural logarithmic transformation is used before calculating the *Q-Index*, as discussed in **Section VI.2** and **Annex IV**.

The set of quasi-responders is slightly different wrt each question on European filings (*Euro-direct* vs. *Euro-PCT-IP / First Filings* vs. *Subsequent Filings*). From 694 responses, there were 152 that made no response at all to the questions for Years 2004 and 2005. This leaves 542 responders for Years 2004 and 2005, but some of these can not be included for a particular question because they did not answer for the Base Year. For example, for the 132 Japan residents that made responses regarding *Euro-direct Subsequent Filings*, there are only 85 that can be used for the comparison wrt Year 2003.

Table AV.I shows the results of the analysis of the quasi-responders, and a comparison with **Table VI** shows that the overall filing intentions for Year 2003 were more pessimistic than for the sampled group as a whole. For example, for *Japan Residents* responses regarding *Euro-direct Subsequent Filings*, the *Q-Index* for the responders (Q_{r2003}) was 0.9598 (S.E.[Log(Q_{r2003})] = 0.0450), while the *Q-Index* for the quasi-responders (Q_{qr2003}) was 0.7433 (S.E.[Log(Q_{qr2003})] = 0.2827). A *non-response corrected Growth Index* ($Q_{nrc2003}$) is given by

$$Q_{nrc2003} = \frac{(Q_{r2003} \times n^{\#}_{2003}) + (Q_{qr2003} \times n^{*}_{2003})}{n^{\#}_{2003} + n^{*}_{2003}}$$

where $n^{\#}_{2003}$ is the number of responders, and n^{*}_{2003} is the number of applicants that were asked but did not respond. For present purposes, let the total number of Applicants considered ($n^{\#}_{2003} + n^{*}_{2003}$) be the number of *Applicants Established* as reported in **Table II**. Continuing the example of *Japan Residents* responses regarding *Euro-direct Subsequent Filings*, this gives

$$Q_{nrc2003} = \frac{(0.9598 \times 85) + (0.7433 \times 81)}{85 + 81} = 0.8541$$

An approximate standard error is given by S.E.[Log($Q_{nrc2003}$)] = $\sqrt{\text{Var}[\text{Log}(Q'_{nrc2003})]}$, where

Table AV.I: Forecasts from specific questions on filings at the EPO

Random Group
Q Indices
Respondents who gave information for 2002 only.
Analysis using logarithmic transform of indices. Approximate confidence intervals
(Assumption: All forecasts of combined totals made by combining primordial terms)
S.E. indicates Standard Error
LCL / UCL indicates Lower / Upper 95% Confidence Limit

			Year					
			2002		2003 those that did not report for 2004 or 2005			
Filings Type	Filing route	Bloc of origin	Index	Actual"	Index		Predicted	Actual "
					Estimate	S.E.		
First	Euro-Direct	EPC + Others	1	10 995	0,8882	0,1785	9 766	12 277
		Japan	1	221	0,5548	0,3944	123	196
		USA	1	1 161	1,3722	0,1619	1 593	1 176
		Total		12 377			11 482	13 649
		LCL (Total)						
		UCL (Total)						
	Euro-PCT-IP	EPC + Others	1	4 854	0,8846	0,1243	4 294	4 653
		Japan	1	1 334	1,0000	0,0000	1 334	1 646
		USA	1	1 152	0,7497	0,1565	864	1 023
		Total		7 340			6 491	7 322
		LCL (Total)						
		UCL (Total)						
Subsequent	Euro-Direct	EPC + Others	1	21 267	0,8447	0,1176	17 964	20 683
		Japan	1	11 568	0,7433	0,2827	8 598	10 227
		USA	1	8 530	0,9776	0,0111	8 339	9 942
		Total		41 365			34 901	40 851
		LCL (Total)						
		UCL (Total)						
	Euro-PCT-IP	EPC + Others	1	49 113	0,9902	0,1154	48 633	48 403
		Japan	1	11 035	0,9233	0,0891	10 189	12 904
		USA	1	39 813	0,8713	0,1251	34 688	38 371
		Total		99 960			93 510	99 678
		LCL (Total)						
		UCL (Total)						
All	Euro-Direct	EPC + Others		32 262			27 730	32 959
		Japan		11 789			8 721	10 422
		USA		9 691			9 932	11 118
		Total		53 742			46 382	54 500
		LCL (Total)						
		UCL (Total)						
	Euro-PCT-IP	EPC + Others		53 966			52 927	53 056
		Japan		12 369			11 523	14 550
		USA		40 965			35 552	39 394
		Total		107 300			100 001	107 000
		LCL (Total)						
		UCL (Total)						
	Total	EPC + Others		86 228			80 657	86 016
		Japan		24 158			20 243	24 972
		USA		50 656			45 484	50 512
								0
	Grand Total			**161 042**			**146 384**	**161 500**
	LCL (Grand Total)							
	UCL (Grand Total)							
	% Growth from Year 2001			**0,0%**			**-9,1%**	**0,3%**
	Implied % Euro-PCT-IP			**66,6%**			**68,3%**	**66,3%**

"EPAS390 VECTOR & DIRD390 Vector, PCT data adjusted by information on record copies received from WIPO.

$$\text{Var}[\text{Log}(Q_{nrc2003})] =$$

$$\frac{(\text{Var}[\text{Log}(Q_{r2003})] \times n^{\#2}_{2003}) + (\text{Var}[\text{Log}(Q_{nrc2003})] \times n^{*2}_{2003})}{(n^{\#}_{2003} + n^{*}_{2003})^2}$$

For the above example, this gives $\text{Var}[Q_{nrc2003}] =$

$$\frac{(0.0450^2 \times 85^2) + (0.2827^2 \times 81^2)}{(85 + 81)^2} = 0.1399^2$$

Continuing now to present formulae together with the example for *Japan Residents Subsequent Filings*:- To correct the response index for Year 2004 (or Year 2005), it will be assumed that a *Correction Factor* for the effect of non-response is

$$Q_{qr2003} / Q_{r2003} = 0.7433 / 0.9598 = 0.7744.$$

The growth index estimate for Year 2004[1] is then modelled as

$$Q_{nrc2004} = \frac{(Q_{r2004} \times n^{\#}_{2004}) + ((Q_{qr2003} / Q_{r2003}) \times Q_{r2004} \times n^{*}_{2004})}{n^{\#}_{2004} + n^{*}_{2004}} =$$

$$\frac{(1.0422 \times 79) + (0.7744 \times 1.0422 \times 87)}{166} = 0.9190$$

As before, $\text{S.E.}[\text{Log}(Q_{nrc2004})] = \sqrt{\text{Var}[\text{Log}(Q_{nrc2004})]}$,

where $\text{Var}[\text{Log}(Q_{nrc2004})] =$

$$\frac{(\text{Var}[\text{Log}(Q_{r2004})] \times n^{\#2}_{2004}) + ((Q_{qr2003} / Q_{r2003})^2 \times \text{Var}[\text{Log}(Q_{r2004})] \times n^{*2}_{2004})}{(n^{\#}_{2004} + n^{*}_{2004})^2}$$

$$\frac{(0.0373^2 \times 79^2) + (0.7744^2 \times 0.0373^2 \times 87^2)}{166^2} = 0.0233^2$$

This quantity may however be an under-estimate because it takes no account of the variability of the *Correction Factor* (Q_{qr2003} / Q_{r2003}).

The results obtained using this approach are given in **Table VII** of the main report.

[1] A similar expression can be written for $Q_{nrc2005}$, using the same Correction Factor.

Plausibility Checks and Interpretation Rules

Plausibility Checks

To ensure that the answers given to **Section B** of the Questionnaire (**Annex VII**) were logical and consistent, a number of plausibility rules were set up. Firstly the *Worldwide Total First Filings **(l)*** was compared to the sum of the *First Filings* reported for *Euro-direct: Patent applications under the EPC (excluding PCT) **(a)***, *Patent applications under the PCT **(b)*** and the *National applications **(g)***, ***(h)***, ***(i)***, ***(j)*** and ***(k)***. Secondly the numbers in any cell under *Subsequent filings* should be comparable (say not more than double) the number under *Worldwide Total First Filings **(l)*** for the previous year.

Interpretation Rules for the Integration of Answers in the Electronic Data Base

A set of rules was developed, together with the consultant, to ensure that the answers given to the questions were correctly transcribed and interpreted in the electronic data base. In cases where percentage Growth Rates were given instead of real figures, a method was given for converting these into equivalent filings figures on which the analyses could be based. Rules were given concerning the interpretation of zero, to ensure correct interpretation where zero is given either as a figure or an indicator of no change compared to the Base Year. Finally, it was specified that *Combined Filings* counts should only be given where real data (0 or higher) was given by the respondent for all underlying primordial filing types in the combination.

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Questionnaire

for Applicant Panel Survey on Patent Filings

Please respond only in respect of the company/company part mentioned to you over the phone by Roland Berger Market Research, e.g. your branch or subsidiary.

If, however, this is not possible, we would welcome your responses in respect of whatever larger corporate entity you can speak for.

A. Contact Details

Should the information given above on your company details be incorrect, please provide us with corrected information below:

Contact Name: _____

Phone Number: _____

E-mail-Address: _____

Organisation Name: _____

Organisation Address: _____

_____

_____

_____

«APPR» GROUP FA

B. Estimation of levels of patenting activity

Please indicate the numbers of **first filings** (priority forming) and **subsequent filings** (claiming priority of an earlier application) with break downs by patent types and countries, that you filed last calendar year and that you expect to file in present and future calendar years.

Only if you are unable to give actual figures, please indicate anticipated yearly growth rates as percentages (i.e. 2003 compared with 2002; 2004 compared with 2003; 2005 compared with 2004).

			Filed		Expected		Expected		Expected	
			2002		**2003**		**2004**		**2005**	
			First filings[1]	**Subsequent filings**	**First filings[1]**	**Subsequent filings**	**First filings[1]**	**Subsequent filings**	**First filings[1]**	**Subsequent filings**
Patent applications under the EPC (excluding PCT)		**(a)**								
Patent applications under the PCT		**(b)**								
of which	Designating EPO	**(c)**								
	Designating USA	**(d)**								
	Designating Japan	**(e)**								
	Designating Germany	**(f)**								
National applications (excluding PCT) in	Germany	**(g)**								
	United Kingdom	**(h)**								
	France	**(i)**								
	Japan	**(j)**								
	United States[2]	**(k)**								
Worldwide Total [3]		**(l)**								

[1] A **first filing** is a patent application that, according to the Paris Convention for the Protection of Industrial Property, confers a right of priority for a period of twelve months for the purpose of filing patent applications in other countries or systems, in respect of the same invention.

[2] Including provisional filings under the columns for first filings.

[3] **Worldwide Total** for first filings in row **(l)** should be the sum of **all your first filings** (in worldwide patent systems), and will therefore be **at least** as great as the sum of first filings that you have reported above, given in rows **(a)** to **(k)**, but **excluding** designations in rows **(c)**, **(d)**, **(e)** and **(f)**.

Do you have any specific comments to make regarding the above section B of the questionnaire?

_____

_____

_____

C. Your activities in various sectors based on the International Patent Classification.

	Please indicate the approximate size of your **R&D budget** in each area mentioned below (in your national currency).		Please, if possible, indicate the percentage of your R&D budget in each of the below mentioned areas for **2002** in the **pre-patent application phase** of your work.	Please indicate the number of **first filings** made in each of the below mentioned areas in **2002**.
	Actual 2002	**Expected 2003**		
1. Agriculture				
2. Foodstuffs; tobacco				
3. Personal or domestic articles				
4. Health				
5. Amusement				
6. Preparations for medical, dental or toilet purposes				
7. Separating; mixing				
8. Shaping				
9. Printing				
10. Transporting				
11. Inorganic chemistry				
12. Organic chemistry				
13. Organic macromolecular compounds				
14. Dyes, petroleum, animal and vegetable oils				
15. Fermentation, sugar, skins				
16. Metallurgy				
17. Textiles or flexible materials				
18. Paper				
19. Building				
20. Earth drilling; mining				
21. Machines or pumps				
22. Engineering in general				
23. Lighting; heating				
24. Weapons; blasting				
25. Instruments				
26. Nucleonics				
27. Electricity				
28. Electronics and electric communication technique				
29. Others, please specify: _____				
Total				

Do you have any specific comments to make regarding the above section C of the questionnaire?

D. Company Details

We are interested in classifying your company/organisation to one of the main areas used for examinations at the European Patent Office. Please indicate which of the following you believe most closely describes your business. **Tick <u>one</u> box only!**

European Patent Office Joint Cluster

1. Audio, Video and Media ..... ☐
2. Biotechnology ..... ☐
3. Civil Engineering and Thermodynamics ... ☐
4. Computers ..... ☐
5. Electricity and Electrical Machines ..... ☐
6. Electronics ..... ☐
7. Handling and Processing ..... ☐
8. Human Necessities ..... ☐
9. Industrial Chemistry ..... ☐
10. Measuring and Optics ..... ☐
11. Pharmacy and Food ..... ☐
12. Polymers ..... ☐
13. Telecommunication ..... ☐
14. Vehicles and General Technology ..... ☐

If possible, please indicate the nature of your company/organisation: **Tick appropriate boxes!**

Company/Organisation Type	**Persons Employed**	**Annual Turnover**[1]
Private enterprise ..... ☐	1 – 9 ..... ☐	2m EUR or less ..... ☐
Public sector ..... ☐	10 – 49 ..... ☐	More than 2m to 10m EUR ..... ☐
Educational institution .... ☐	50 – 249 ..... ☐	More than 10m to 50m EUR ... ☐
Individual inventor ..... ☐	250 or more ..... ☐	More than 50m EUR ..... ☐
Other ..... ☐		

[1] Exchange rates: 1m EUR = 1.2m USD = 136.3m JPY = 0.71m GBP

E. General comments and results of the survey

Please comment further on general matters arising from this questionnaire. Use a separate sheet for extended comments.

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A summary of the results of the survey will be published on the Web in early 2004 under **www.european-patent-office.org/aps/**.
We will remind you of this if you leave your E-mail address under Section A of this questionnaire.