

SMEs, IP and Enforcement

An Economics Seminar for the World
Intellectual Property Office

by

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Sources of material for this talk

Earlier reports used for background in slides 4-10 are by Rogers, Greenhalgh and Helmers (2007)

Two reports both concerning IP activity in SMEs available at:

- <http://www.ipo.gov.uk/pro-ipresearch/ipresearch-policy/ipresearch-policy-firm.htm>

Main part of talk focuses on a recent report (slides 11-40):

Intellectual Property Enforcement in Smaller UK Firms

by Greenhalgh, Phillips, Pitkethly, Rogers, Tomalin (released October 2010) available at:

- <http://www.ipo.gov.uk/pro-ipresearch/ipresearch-policy/ipresearch-policy-infringe.htm>
- Summary paper published in WIPO Journal, Issue 1, 2010

Issues addressed in our research

- Well known that IP is widely used by large firms and many studies of these large firms show benefits of both patents and trade marks
- Policy concern over whether small and medium enterprises (SMEs) are missing out in some way
- One hypothesis concerning SMEs is that they may *do less innovation* so obtain less IP
- SMEs may have a lower *propensity to protect* their innovation so acquire less IP and receive fewer gains from innovation
- SMEs may have difficulty in enforcing their IP rights particularly against larger firms

UK companies in FAME database (actively trading in 2005)

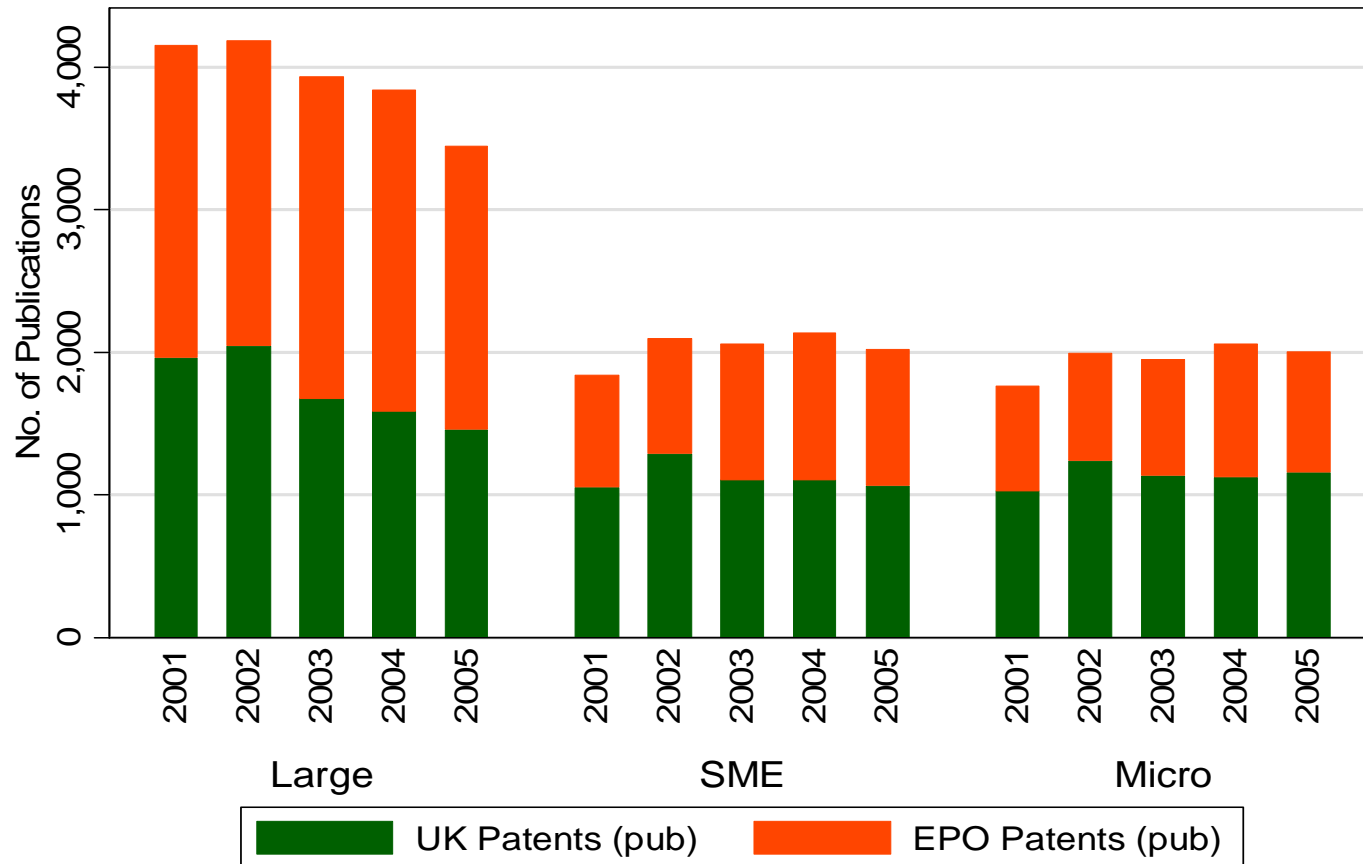
	Trading Companies
All companies	2,198,825
Large (> £28.7m total assets)	88,832
SMEs (£1.3m < assets < £28.7m)	159,399
Micro (assets ≤ £1.3m)	1,950,594

All SMEs and IP active SMEs 2001-05

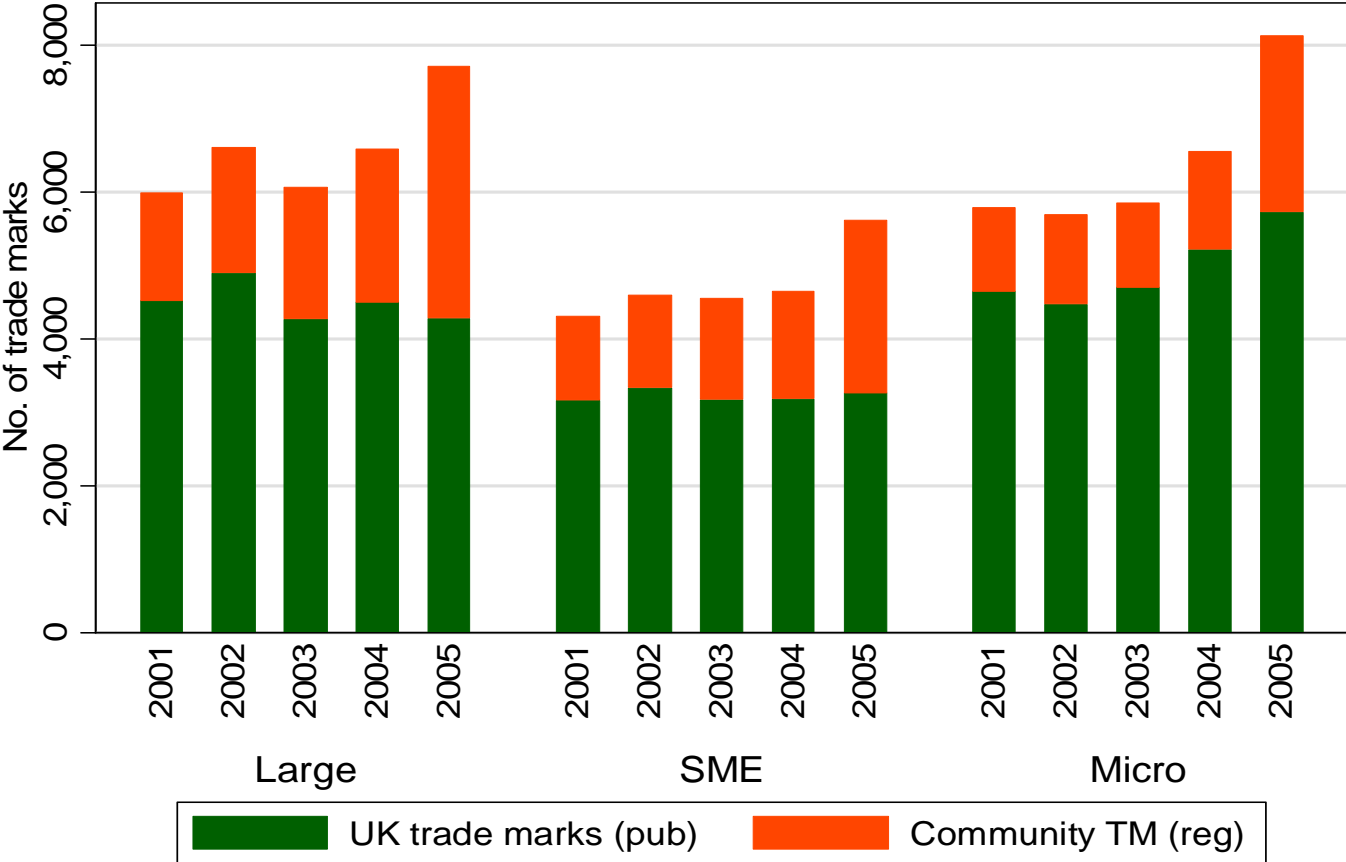
Year	All trading SMEs	IP active SMEs	%	Foreign owned IP active SMEs
2001	130,082	3,123	2.41%	574
2002	138,243	3,365	2.43%	577
2003	148,215	3,330	2.25%	547
2004	158,221	3,325	2.10%	506
2005	159,399	3,547	2.23%	514
2001-2005	213,855	10,269	4.80%	1,604

For comparison, during 2001-2005, 5.4% of large firms and 0.8% of micro firms were IP active in one or more IP types

Numbers of patents by year and size class of firm



Numbers of trade marks by year and size class of firm



The facts so far

- UK has a large number of SMEs and even larger number of micro firms
- A small but significant proportion of both classes were actively seeking patents and trade marks during 2001-05
- The absolute number of patents by SME plus micro firms stands comparison in scale with the total for all large firms over the period
- By 2005 the within-year total for SME plus micro firms' patents *exceeded* that for large firms
- The absolute number of trade mark applications by SME plus micro firms *exceeded* that of large firms in each year of the study

Median IP intensity of firms without foreign parents by size (IP intensity per £1m assets)

Firm size by assets	UK trade marks	CTM trade marks	UK patents	EPO patents
Large	0.030	0.022	0.036	0.029
SME	0.413	0.331	0.390	0.366
Micro	9.174	5.291	7.477	7.576

Findings on intensity of IP use

- SME and micro firms that use IP are *more IP intensive relative to their asset base* than are large firms
- *Declining* IP intensity with size is confirmed in multivariate regressions controlling for many firm characteristics (including industry and region)
- Older firms are *more* IP intensive
- Firms with foreign parents are *more* IP intensive
- Regional differences are insignificant once industrial composition is controlled for
- No trends exist in IP intensity over 5 years

The gap in primary research for UK IP infringement and enforcement

“We still know relatively little about the extent of infringement and use of enforcement procedures. ...Statistically sound studies ... that attempt to quantify the amount and seriousness of infringement ...have not been performed in the UK...”

Weatherall, K.et al.(2009). *IP Enforcement in the UK and Beyond: A Literature Review*, SABIP Report EC001, May.

Purpose and design of the study

- Perception that small firms are disadvantaged in enforcing IP rights particularly against larger firms
- No evidence on this for UK so we were commissioned to do an on-line survey and follow up interviews
- Q'aire asked SME and Micro firms about their experiences of IP disputes in last five years
- Follow up via structured telephone interviews
- Further follow up with analysis of cases listed in the Patents Court

Sampling

- UK population of firms – Oxford Firm Level IP database
- Database 2000 to 2007 using FAME for company data
 - 1.9m Micro firms
 - 0.2m SMEs
 - SME and Micro Firms were classified by no. employees/assets
- IP active and non-IP active Firms
 - OFLIP has matched UK, WIPO and EPO patents and UK and OHIM trademarks to firms
- 5 different groups included:
 - Patentees
 - Trade Markers
 - Non-Patentees (from patent intensive industries)
 - Non-Trade Markers (from TM intensive industries)
 - Firms in Copyright/Design intensive industries

Target Groups

- Patentees : 500 selected to get 300 addresses
 - Patent publication in 2002 (3364 Firms)
- Trade Markers : 500 selected to get 300 addresses
 - TM registered in 2002 (1993 Firms)
- Non-Patentees (from patent intensive industries) : 500 for 300
 - 2 digit SIC industries with > 0.02 patents/firm
200 SME + 200 Micro : Allocation on basis of firm size
 - SIC 24 Chemicals & SIC 73 R&D- high patent intensity industry : 100
- Non-Trade Markers (from TM intensive industries) : 500 for 300
 - 2 digit SIC industries with > 0.02 TMs/firm
 - 250 SME + 250 Micro : Allocation on basis of firm size
- Firms in Copyright/Design intensive inds: 1000 for 600
 - 4 digit SIC industries in DCMS
 - 500 SME + 500 Micro : Allocation on basis of firm size

Survey Application

- Identification of Email address
- Initial Email invitation
- 1st Reminder Email invitation
- 2nd Reminder Email invitation
- Telephone follow-up
- If still refused: Asked could you answer with a simple 'yes' or 'no' to the question "has your firm been involved in an IP dispute in the last five years?" or resent email with same Qn.

Response Rates

Table 1 **Response rates**

Sample	Survey size	Survey response	Response rate	Answered dispute question in survey	Telephone response on dispute	Total responses for dispute question	Response rate to dispute question
Patentees	318	43	13.5%	36	43	79	24.8%
Trademarkers	326	33	10.1%	31	57	88	27.0%
Non-patentee: SME	153	9	5.9%	8	25	33	21.6%
Non-patentee: Micro	95	3	3.2%	3	24	27	28.4%
Non-patentee: 24+73	66	7	10.6%	5	9	14	21.2%
No-trademarks: SME	169	7	4.1%	4	6	10	5.9%
No-trademarks: Micro	126	4	3.2%	4	7	11	8.7%
Creative Indust: SME	302	39	12.9%	37	31	68	22.5%
Creative Indust: Micro	303	25	8.3%	20	23	43	14.2%
Total	1858	170	9.1%	148	225	373	20.1%

The figures in this table are best estimates given the survey data. Estimates from survey data will always contain uncertainty.

Actions and responses

- Online survey to 1858 firms -> 170 replies
- This is 9.1% response rate (fairly typical)
- These respondents filled out the survey which contained a number of questions
- Non-respondents then contacted by phone
- This follow-up asked only whether firm had experience of IP dispute in last five years
- Phone calls -> 225 more replies (yes or no)
- Total response on incidence of dispute 20.1%

Responses

- Response bias
 - Would firms assume a narrow definition of “dispute”?
 - Would bias down the response
 - Would firms with a story to tell be more likely to reply?
 - Would bias up the response
 - Email: ‘Innovation and intellectual property at your firm’
not ‘IP enforcement’.
 - Firms replying to Survey 33% have experienced IP disputes
Firms replying to Phone Call 19% have experienced IP disputes

Percentage of respondents with IP dispute

Group		No	Yes	Total	95% Confidence Intervals for % with dispute	
Patentees		49	32	81		
	%	60.5	39.5	100	28.8	50.2
Non-patentees		63	5	68		
	%	92.7	7.4	100	1.1	13.6
Trademarkers		59	31	90		
	%	65.6	34.4	100	24.6	44.3
Non-trademarkers		18	1	19		
	%	94.7	5.3	100	0.00	15.6
Creative industries		90	21	111		
	%	81.1	18.9	100	11.6	26.2
Total		279	90	369		
	%	75.6	24.4	100	20.0	28.8

Relative size of parties in dispute

Size of other party	Patent dispute	Trademark dispute	Copyright dispute
Much smaller	1	2	0
%	5.6	13.3	0.0
Smaller	2	5	5
%	11.1	33.3	45.5
Same size	5	2	2
%	27.8	13.3	18.2
Larger	5	2	4
%	27.8	13.3	36.4
Much larger	5	4	0
%	27.8	26.7	0.0
No. of disputes	18	15	11
%	100	100	100

Methods of dealing with disputes - patents

	High level negotiation	Exchange of letters	Request UKIPO	Media- tion	Small claim court	Patent county court	Patent high court
Total responses	16	16	16	16	16	16	16
Number of cases used in	7	15	1	0	0	0	5
Of these, ended dispute in	3	5	0	0	0	0	4
Success rate	42.9%	33.3%	0	na	na	na	80.0%

Methods of dealing with disputes - trademarks

	High level negotiation	Exchange of letters	Request UKIPO	Mediation	Small claim court	Patent county court	Patent high court
Total responses	15	15	15	15	15	15	15
Number of cases used in	4	14	3	1	1	1	1
Of these, ended dispute in	1	5	1	1	0	1	1
Success rate	25.0%	35.7%	33.3%	100%	0%	100%	100%

Methods of dealing with disputes - copyright and design

	High level negotiation	Exchange of letters	Request UKIPO	Mediation	Small claim court	Patent county court	Patent high court
Total responses	12	12	12	12	11	11	12
Number of cases used in	4	8	0	0	0	0	0
Of these, ended dispute in	2	5					
Success rate	50.0%	62.5%	na	na	na	na	na

Satisfaction with outcome of dispute

	Complainant	Defendant	Total
Dispute is on-going	6	4	10
%	18.2	36.4	22.7
Not satisfied with outcome	7	0	7
%	21.2	0	15.9
Yes satisfied with outcome	20	7	27
%	60.6	63.6	61.4
Total	33	11	44
	100	100	100

Interviewee Selection

- Primary aim was to interview those who had replied to the questionnaire
- Firms could indicate whether they were prepared to be interviewed – if they did they were selected
- Additionally – if firms had not indicated unwillingness to be interviewed and had been involved in an IP dispute they were selected
- Finally if a firm indicated (whether publicly or in reply) that it considered IP essential to its business it was selected
- On average each interview required about 3 or 4 calls to arrange

Interviews

- Duration : from a few minutes to an hour
- Generally with CEO/MD or CTO/Technical Director
- Based on common interview outline including :
 1. understanding costs spent on enforcing their IP or defending against others' enforcing IP against them.
 2. hearing detailed descriptions of the dispute(s)
 3. understanding how any dispute fitted into the firm's overall approach to managing IP including marshalling the resources needed to obtain and defend IPRs
 4. asking about overall views about the challenges SME and Micro firms faced in enforcing IPRs

Interview Conclusions : Patents I

Problems

- **Financial costs** are the major issue – can be sufficient to cause non-use of IP system
- **Other incidental costs** – management time and distraction of resources from core business
- **Damage to reputation** and commercial costs of failure in enforcement
- **Opinion that size matters** - resignation that larger company with greater resources will win
- **Overseas infringement** is a significant problem for many firms

Interview Conclusions : Patents - II

Solutions – small firm v big firm

- **Recruitment of ally** who does have resources – may be drastic if requires takeover
- **Licensing or cross-licensing** can provide a solution – bargain with predator
- **Outsourcing disputes** to others, including what one interviewee referred to as a ‘patent troll’ (an emotive term which means different things to different people; despite this such parties may have a role to play)

Solutions – small firm v small firm

- **Insurance** is either dismissed as too expensive on investigation or simply not known about (one interviewee noted a decline in offers of insurance)
- **Low-cost notifications of IPRs** are often sufficient to resolve disputes between small firms , since neither side can afford/wants to get involved in a major dispute

Interview Conclusions: Trade Marks I

- **Variety** - large variety of types of dispute (trade mark, patent, design) in firms using trade marks and variation of parties in dispute

Factors affecting choice of IPR enforcement strategy

- **Risks and reputation factors matter** - court judgments seen as hard to predict, so litigation carries risks (as if they lose this can open the floodgates to competitors)
- **Firm's reputation** is at stake (businesses want to be seen as firm and fair through solicitors' letters, but not to gain reputation for being litigious)
- **Direct costs of enforcement can be high** - Several people railed against high fees charged by specialist IP lawyers and likened lawyers to financiers and accountants, who are 'out of touch with reality'
- **Indirect costs of enforcement are significant** - Management time recognized as a very significant cost in addition to legal fees, but in successful cases the work of a senior manager was often crucial
- **Higher costs and risks exist for overseas protection** - Dealings in foreign courts have more pitfalls

Interview Conclusions: Trade Marks II

- **Widespread caution about using courts** to enforce IPRs - reasons given include not only costs, but also preferences for compromise
- **IPR monitoring strategy varies** - Monitoring of infringement activity varies with nature and size of product range:
 - in niche markets expect to hear about infringement automatically
 - firms with larger product ranges did more systematic searching
- **Insurance for litigation is not a high priority** - very little used and across the interviewees little general interest, even if became subsidized
- **Would government grants for IPR litigation be useful?** Divided opinions:
 - some thought may be useful where an SME faces an expensive case
 - others considered the paperwork of applications too burdensome
 - one queried whether an appropriate use of government funds
- **Other government policy** to support the use and reach of IPR
 - suggestions on how to improve systems of communication and advice
 - using focus groups to assess and improve websites
 - more public advertising

Interview Conclusions: ©/Designs

- **Cost of enforcement** via legal routes is prohibitively high
- **Legal, financial and social contexts** all influence a firm's intellectual property strategy
- **Infringement disruptive** - Copyright and design right infringement has major disruption effects on some sectors within the creative industries
- **International dimension** - significant problem enforcing copyrights and design rights
- **Digital technology**, especially the internet, poses a very large problem for the enforcement of copyrights
- **Monitoring difficulties** - strategies and associated costs and importance differ widely between sectors
- **Information** - Many firms felt that there was inadequate information available for both themselves and potential users of their copyright

Interview Conclusions: Main themes

- **Financial Costs**

Financial costs of IP litigation are a significant deterrent to all but the most determined smaller firms

Costs complained of were primarily not official fees but the costs of professional advice

- **Incidental Costs**

Almost all interviewees who had been involved in some degree of litigation mentioned a range of other costs, especially management time

- **Insurance**

Respondents tended to dismiss insurance as either too expensive or as something of which they were unaware

- **Overseas infringement**

Many firms felt compelled to discuss their problems in dealing with infringers in overseas markets

Patents Court Litigation - 1

This additional element of the research aimed:

- To determine how many cases have ended up listed in the Patents Court in recent years.
- To assess which industry sectors those cases involve,
- To find out the mix between cases involving SMEs vs. Large companies, SMEs vs. SMEs and Large vs. Large companies.
- As far as possible, to assess the overall success rate for these cases.
- To contact representatives of parties involved in two or three cases which have passed through the patents court.

Patents Court Litigation - 2

The number of cases listed is low

Table 21 **Number of cases by year, 2003 to 2009**

Year	Freq.	Percent
2003	41	15.7
2004	32	12.3
2005	30	11.5
2006	34	13.0
2007	47	18.0
2008	32	12.3
2009	45	17.2
Total	261	100

Table 22 **Number of parties involved in each case**

Number of parties involved	Freq.	Percent
2	182	69.7
3	45	17.2
4	14	5.4
5	8	3.1
6	6	2.3
7	1	0.4
8	2	0.8
9	3	1.2
Total	261	100

& almost 70% are two party cases.

Patents Court Litigation - 3

The majority of cases involved UK and foreign-based firms:

Table 24 **Composition of parties involved in case, by year**

Composition of parties	2003	2004	2005	2006	2007	2008	2009	Total
UK firms only	9	4	7	7	3	8	5	43
Foreign firms only	9	5	4	7	10	5	9	49
UK vs. foreign firms	15	21	15	17	20	12	21	121
Mixed, includes gov. indiv. and univer.	8	2	4	3	14	7	10	48
Total	41	32	30	34	47	32	45	261

Note: Foreign universities – of which there are four – are classified as foreign firms. The sole British university – Southampton – is classified as a UK firm.

(This is a conservative estimate of the extent of foreign involvement in litigation as many of the UK registered firms involved are subsidiaries acquired by foreign firms, supported by the legal departments of the parent company).

Patents Court Litigation - 5

Cases involving only foreign firms showed a slightly higher tendency to settle before trial than those involving only UK firms.

Table 26 **Composition of parties and outcomes**

Case outcomes	Composition of parties				Total
	UK firms only	Foreign firms only	UK vs. foreign firms	Mixed	
Settled	18	24	49	7	98
%	41.9	49.0	40.5	14.6	37.6
Judgment given	20	19	61	35	135
%	46.5	38.8	50.4	72.9	51.7
Other/unknown	5	6	11	6	28
%	11.6	12.2	9.1	12.5	10.7
Total	43	49	121	48	261
	100	100	100	100	100

Patents Court Litigation - 6

Table 29 Size of UK registered firms 2003-2009 and numbers of cases per firm

Firm size	no. of cases			Total
	1	2	3	
Large	96	22	0	118
SME	96	14	0	110
Micro	69	4	3	76
Total	261	40	3	304

Smaller firms, though less common as litigants, may be more likely to be involved in multiple cases.

It should be remembered that micro firms comprise approximately 89%, SMEs just 10% and large firms only about 0.5% of all UK-registered firms.

Proportionately therefore large firms are very much more likely to be involved in litigation overall.

Patents Court Litigation - 7

Table 31 Size of UK registered firms 2003-2009 and Industry Sector

Sector	Large	SME	Micro	Total
Agric., forestry	0	1	1	2
Mining	1	5	0	6
Manufacturing	74	51	17	142
Construction	1	0	3	4
Wholesale, retail	18	29	15	62
Communications	2	2	1	5
Finance	1	1	0	2
Computer related	2	2	7	11
Bus. Services	16	15	22	53
<u>Health,educ,cult,nie</u>	3	4	4	11
Missing in FAME	0	0	6	6
Total	118	110	76	304

IP litigation reaching the Patents Court is unsurprisingly concentrated in the manufacturing, wholesale/retail and business services sectors

Examination of 2 digit SIC codes shows that the sector most frequently involved in litigation which reaches court is the manufacture of chemicals and chemical products, which includes the pharmaceutical industry.

Patents Court Litigation - 8

Table 36 Case resolution if at least one of parties is of a given Firm Size

Firm size	Judgment		Settled		Other		Total	
	Claimant	Defendant	Claimant	Defendant	Claimant	Defendant	Claimant	Defendant
Large	75		36		7		118	
	37	38	20	16	4	3	61	57
SME	66		29		15		110	
	37	29	12	17	7	8	56	54
Micro	40		31		5		76	
	15	25	15	16	1	4	31	45
Total	181		96		27		304	
	89	92	47	49	12	15	148	156

If one of the parties is a micro firm, there is a slightly higher incidence of settlement being agreed, though almost the same number of such cases involve the micro firm as a claimant as a defendant.

Where the outcome of a case involving a micro firm is a court judgment, the micro firm is more likely to be the defendant and SMEs are more likely to be the claimant

Patents Court Litigation - 9

Table 37 Whether party is on winning or losing side where Judgment occurs

Firm size	Win		Lose		Total	
	Claimant	Defendant	Claimant	Defendant	Claimant	Defendant
Large	47		71		118	
	26	21	35	36	61	57
SME	40		70		110	
	21	19	35	35	56	54
Micro	18		58		76	
	4	14	27	31	31	50
Total	105		199		304	
	51	54	97	107	148	161

Overall, a lower proportion of micro firms involved in litigation wins than is the case for large firms or SMEs.

This suggests that whilst there appears to be a reasonably level playing field between SMEs and large firms in terms of likelihood of success, micro firms are less likely to succeed, particularly as claimants.

It should be noted, though, that a smaller proportion of micro firms are claimants than is the case with SMEs or large firms.

Patents Court Litigation - 10

- Four case study interviews were conducted with UK based SMEs who were not part of a larger or overseas group, so reliant on firm's own resources
-

Conclusions of extra interviews and analysis of Patents Court listings:

- Cases reaching Patents Court lists disproportionately involve large firms
- Once listed all firms should have an equal chance of success before the courts
- SMEs and large companies do win or lose cases in equal proportions

- Micro firms have less success
- Factors affecting micro firms:
 - lower resources of micro firms
 - greater need to avoid negotiated agreements in order to survive
 - lower proportion of cases pursued as a claimant
 - inherent strategic differences in use of IP

Implications for policy

- Policy must consider how to improve system of IP enforcement particularly for smaller and especially micro firms
- Any public subsidy to IP enforcement must be cost effective for society
- Lawyers fees are set in a broader market for all kinds of litigation; they are not specific to IP enforcement but are affected by fixed supply
- Need to focus on cheaper enforcement procedures that can work for smaller firms
- Mediation services, arbitration and local courts are underutilised on evidence of this survey
- Jackson report made some useful recommendations on courts

Some recommendations of the Jackson Review relating to IP cases

- Introduction of small claims and fast-track procedures for resolving disputes; rename Patents County Court to signal all types of IP
- Small claims track in the Intellectual Property County Court would be for IP claims with a monetary value of less than £5,000
- Fast track for IP claims with a monetary value of between £5,000 and £25,000.
- Recovery of costs in the Intellectual Property County Court should be at a fixed rate
- Clear guidance on the requirements for statements of case, illustrated by model pleadings
- One or more district judges, deputy district judges, or recorders with specialist patent experience should be available to sit in the Intellectual Property County Court to deal with small claims and fast track cases