

*The Dragon and the Elephant:
Understanding the Development of Innovation Capacity
in China and India*

Overview of Chinese Patent Law

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Outline

Ø Introduction

Ø Chinese Patent Law/System

Ø Statistics

Ø Patent Invalidation

Brief Profile of China

- § Area: 9.6 million square kilometers
- § History: 5,000 years
- § Population: 1.3 billion
- § 2001 GDP: \$1,100 billion
- § Currency: RMB (\$1 = 8 RMB)
- § Legal System: Civil Law
- § Legislature: National People's Congress and Standing Commission
- § Administrative: State Council and its Ministries
- § Judicial: Supreme People's Court; 31 Higher Courts; 334 Intermediary Courts; 2633 Basic Courts

Lilly China - 1918

Eli Lilly established her first overseas office in Shanghai, China in 1918 and re-entered China in 1993



Lilly China Today

- Ø Rep. offices in Shanghai, Beijing, Guangzhou - China headerquarter in Shanghai
- Ø Established Joint Venture in Suzhou in 1996 and wholly owned in 2002
- Ø Ranked as top 10 MNC in pharmaceutical industry in 2006
- Ø Over 1000 employees in more than 50 cities
- Ø Established one research collaboration in Pudong Shanghai in 2002





Development of Chinese Patent Law

§ 1985 – First Patent Law of the People’s Republic of China (the “Patent Law”)

Larger private enterprise were emerging.

§ 1992 – First Amendment to the Patent Law

After threats of sanctions by the US Trade Rep., China agreed to revamp its IP protection and signed a MOU on the protection of IP with the U.S. China’s patent law was then amended and implementing regulations were adopted.

§ 2000 – Second Amendment to the Patent Law in anticipation of China’s accession to the WTO; effective as of 7/1/2001

§ 2006 – Proposed Third Amendment to the Patent Law

Final draft was submitted to the State Council for final approval in December 2006, and the new law is expected to come into effect in 2008

Three Categories of Patents

	Invention	Utility Model	Design
Subject Matter	Any new technical solution relating to a product , a process , or improvement thereof	Any new technical solution relating the <i>shape</i> , the <i>structure</i> or <i>combination</i> of a product	New design of the <i>shape</i> , the <i>pattern</i> or their combination, or the combination of the <i>color with shape or pattern</i> of a product
Patent Term (years)	20	10	10
Examination	Substantive Examination	Formality Only	Formality Only
Pendency	22 months	9 months	6 months

Unpatentable Subject Matter

- § No patent protection for illegal/immoral/anti-public interest subject (Art. 5)
- § Excluded subject matter (Art. 25)
 - Scientific discoveries
 - Rules and methods for mental activities
 - Methods for diagnosis or for the treatment of diseases
 - Animal and plant varieties
 - Substance obtained by means of nuclear transformation

Patentability

§ Novelty

- Absolute novelty - publication
- Relative novelty - public use or make known

§ Inventiveness

- Invention to have “prominent” substantive features & “notable” progress
- Utility model to have substantive features and progress

§ Practical Applicability

- Invention or utility model that can be made or used and produce effective result

Patent Procurement in China

- § Foreign entity with no residence or business office in china must file patent application through a qualified patent agent
- § 18 month publication from the filing date
- § Examination request within 3 years from the filing date
- § Substantive examination of patent for invention
- § Final rejection and appeals (appeal to PRB; Beijing First Intermediate People's Court)
- § No continuation or CIP
- § No patent term extension

Software/Computer Related Invention

- § Patent protection is available if software/computer related invention constitutes a technical solution
- § To solve a **technical problem** by using **technical means** and can produce **technical results/effects**
- § Claim which merely relates to an algorithm or rules of mathematical computing not patentable because it falls into the category of rules/methods for mental activities

First File and Assignment

§ First Filing Requirement (Article 20)

- A patent application for an invention made in China by a Chinese entity/persons must be first filed in China before foreign filing

§ Assignment

- Must be in writing; should be recorded with the SIPO to be effective
- Assignment of patents or patent applications from a Chinese entity/person to a foreign entity/person is treated as technology export - needs to be recorded with or approved by the Ministry of Commerce (Article 10)

Patent Filing Strategy

- § File both invention and utility model (UM) patent applications directed to the same invention on the same day
- § Obtain UM patent before invention patent
- § Only one patent can be maintained - make a written statement abandoning previously granted UM patent and maintain the later granted invention patent
- § Divisional application can be filed within two months of patent grant – e.g., correct error, not satisfied with granted patent

Ownership of Invention

Chinese Patent Law, Article 6

- § Entity/company is the owner of invention if the invention is made by a person in execution of the tasks mainly using the material or technical resources of the entity (**Service Invention**)
- § Employee-inventor is the owner of invention if invention is made by a person without using any materials or technical resource and in no execution of the tasks of the entity (**Non-Service Invention**)

Inventor Compensation

§ Article 16 of Patent Law:

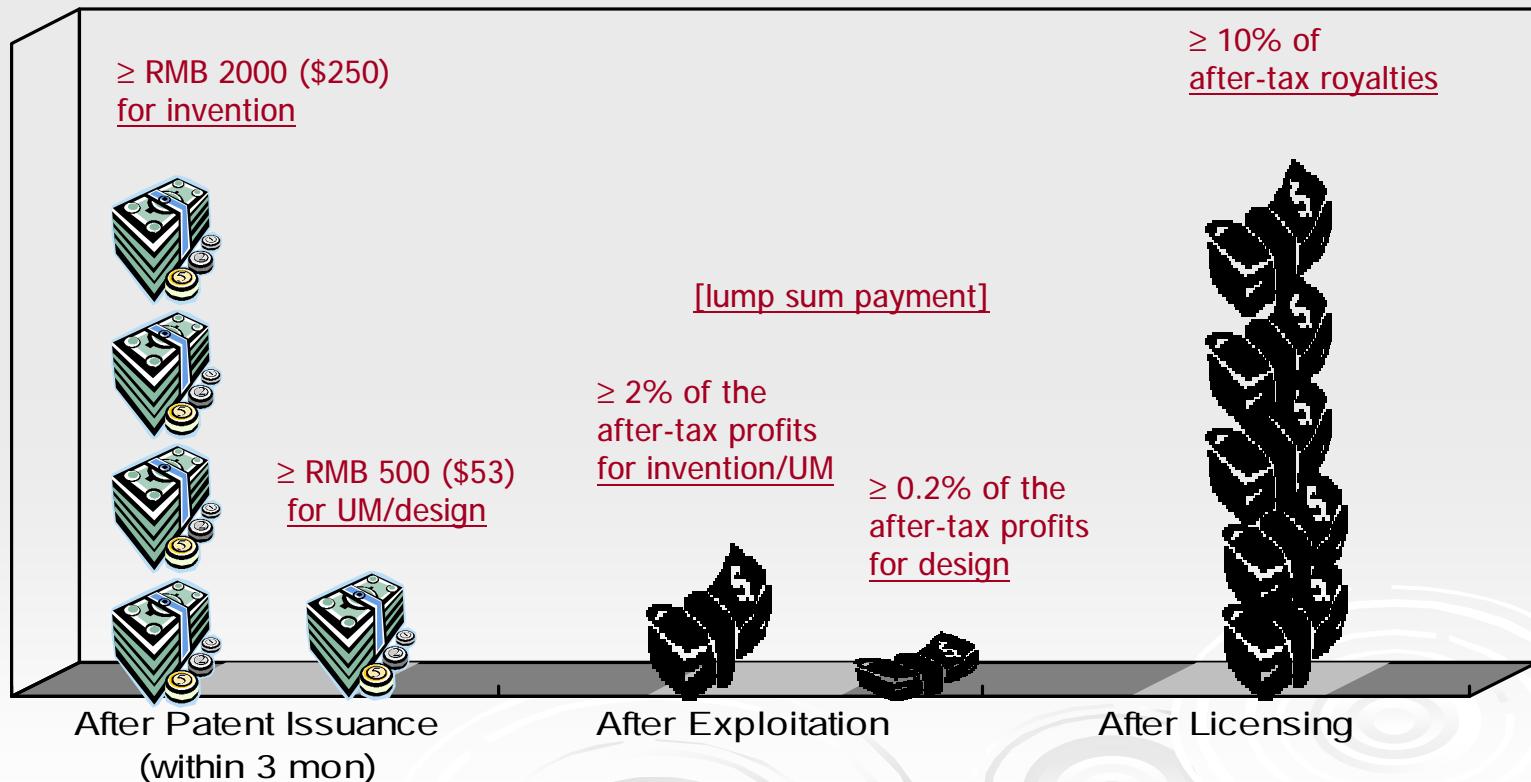
The entity that is granted a patent right shall award to the inventor or a creator of a service invention-creation a reward and, upon exploitation of the patented invention-creation, shall pay the inventor or creator a **reasonable remuneration** based on the extent the invention-creation is applied and the economic benefit it yields.

- Chinese entities/universities (private/state-owned) pay remuneration to their employee-inventors
- Payments made at three stages: 1) filing of patent application, 2) granting of patent, and 3) commercialization
- Money compensation varies depending on the type of invention
- Chinese entities have their own payment scheme as a matter of internal policy - lifetime of the product, profit generated by invention, level of contribution

Inventor Compensation

Remuneration by State-Owned Companies

Chapter VI (Rules 74-77) of Implementing Regulations of the Patent Law



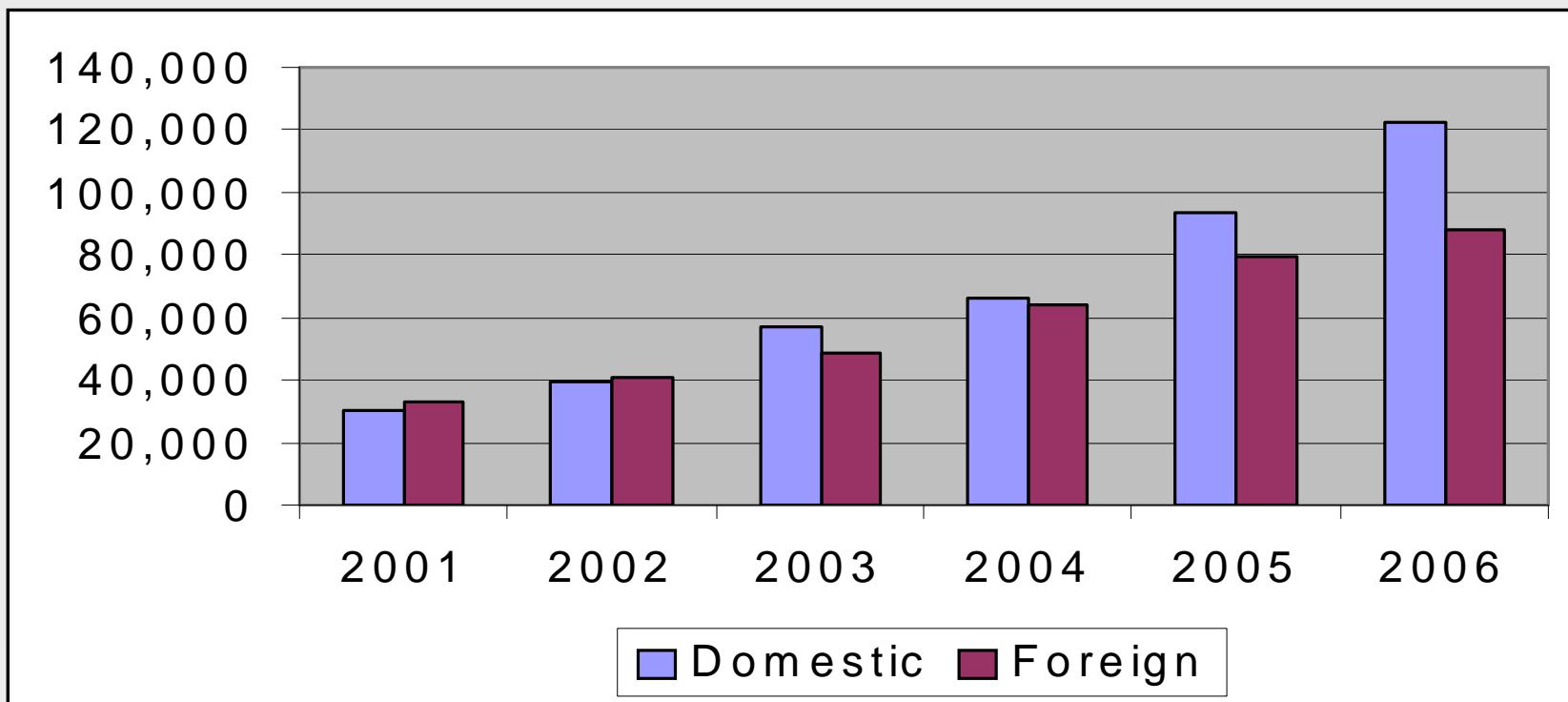
Patent Filing: 2000 - 2006

- Ø From 2000 to 2006, patent applications filed in China have grown at a rate of over 20% each year
- Ø Patent applications filed by Chinese nationals have 12% higher increase rate than those filed by foreign applicants
- Ø The number of invention patent applications filed by Chinese nationals has 20% higher increase rate than those filed by foreign nationals
- Ø Patent applications filed by entities (service inventions) have 28% growth rate, which is 9% higher rate than those filed by individual inventors
- Ø Chinese nationals, companies/enterprises are the main applicants for patents

2006 Patent Filing/Grant

- Ø SIPO received 573,178 patent applications (20.3% increase over 2005)
 - | 470,342 filed by Chinese nationals (22.8 % increase)
 - | 102,836 filed by foreign applicants (10.4 % increase)
- Ø SIPO granted 268,002 patents (25% increase compared with 214,003 in 2005)
- Ø Among non-individual applicants:
 - | 82% filed by companies/enterprises
 - | 11.3% filed by universities
 - | 4.8% filed by research institutions
- Ø 43.3 % domestic applications were filed by companies, universities and other research institutions
 - | 31% increase for companies/enterprises
 - | 15.2 % increase for universities

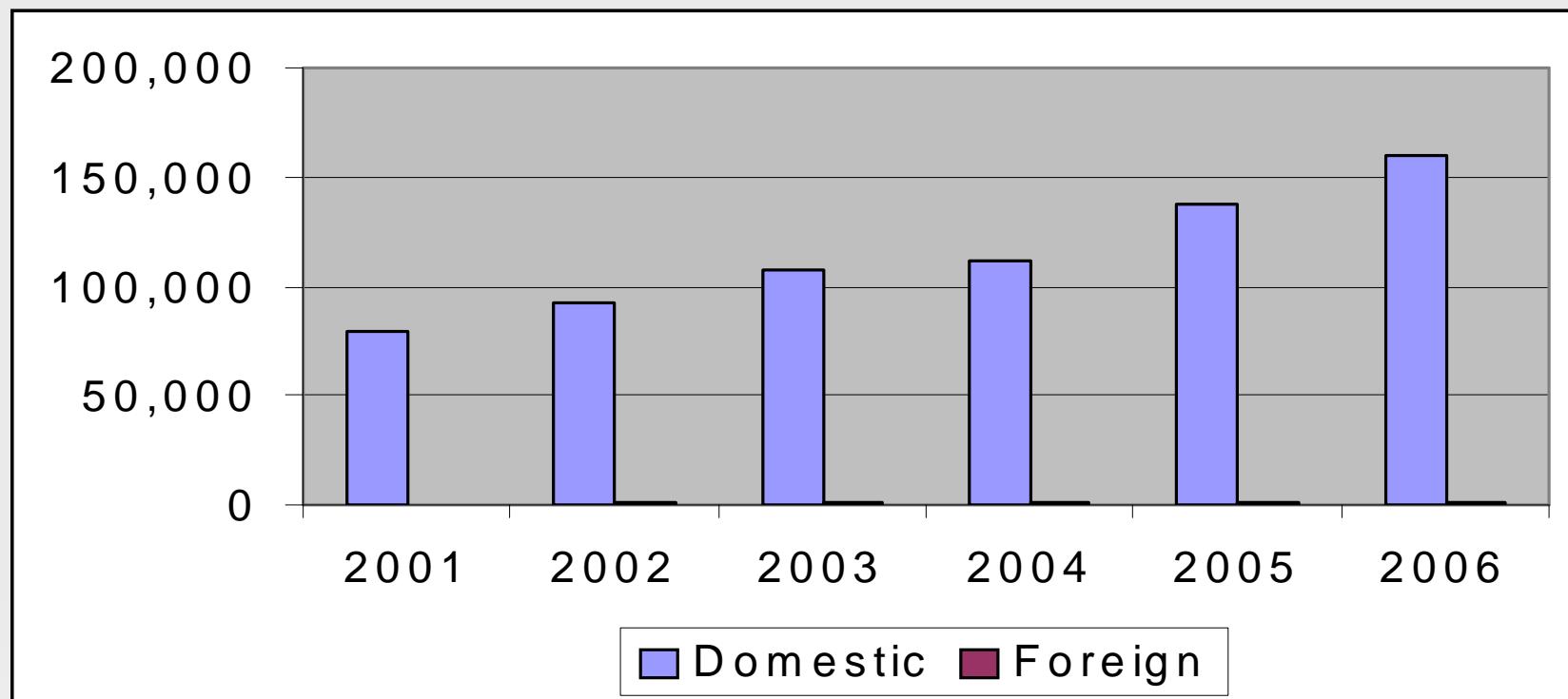
Statistics Invention Patent Filing 01 – 06



Year	Domestic	Foreign	Year	Domestic	Foreign
2001	29,962	33,254	2004	65,786	64,347
2002	39,662	40,571	2005	93,485	79,842
2003	56,769	48,549	2006	122,318	88,172

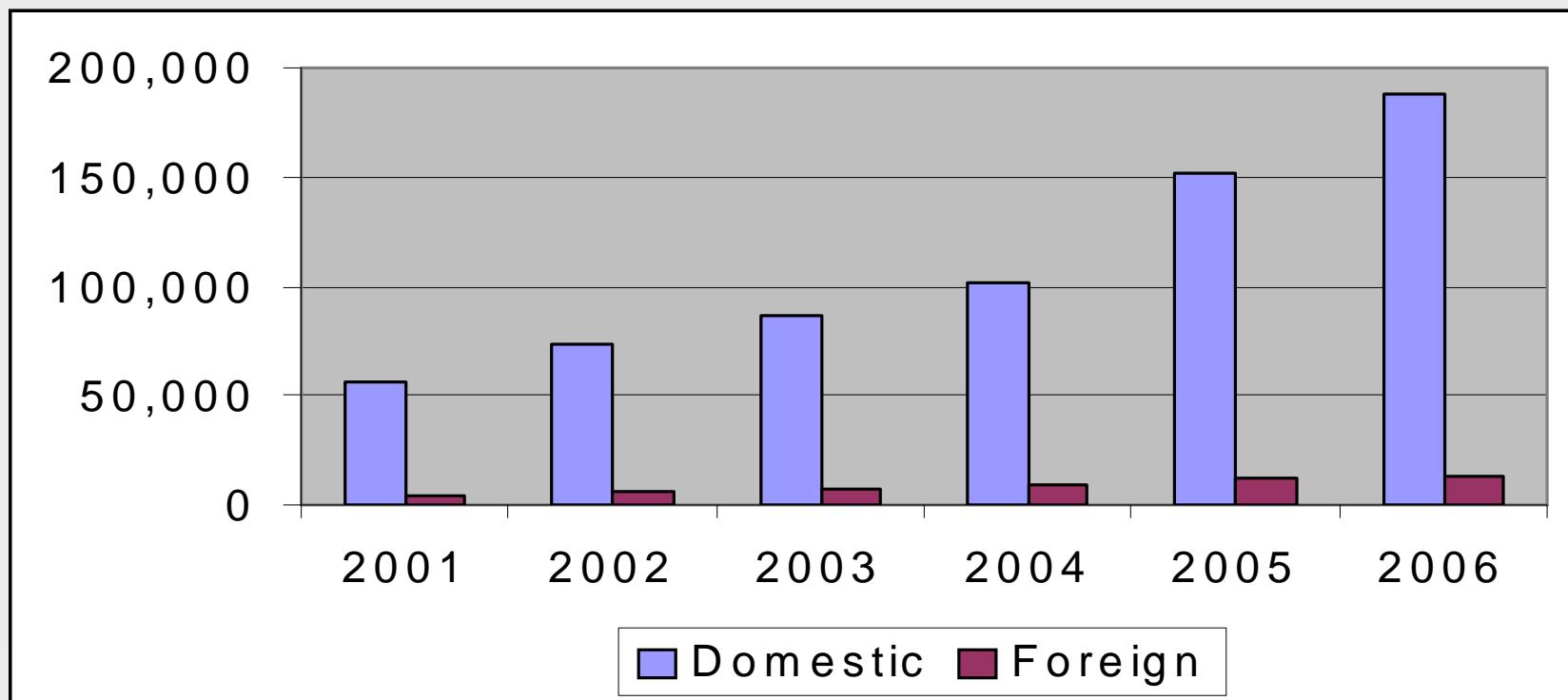
Statistics

Utility Model Patent Filing 01 – 06



Year	Domestic	Foreign	Year	Domestic	Foreign
2001	79,275	448	2004	111,578	1,247
2002	92,162	977	2005	138,085	1,481
2003	107,842	1,273	2006	159,997	1,369

Statistics Design Patent Filing 01 – 06



Year	Domestic	Foreign	Year	Domestic	Foreign
2001	56,460	4,187	2004	101,579	9,270
2002	73,572	5,688	2005	151,587	11,784
2003	86,627	7,427	2006	188,027	13,295

Top 10 Foreign Countries in Patent Filing 2006

Rank	Country	Number *
1	Japan	37848
2	USA	23494
3	Korea	10596
4	Germany	8676
5	Netherlands	3721
6	France	3614
7	Switzerland	2370
8	UK	1813
9	Italy	1699
10	Sweden	1492

*UM, Design, Invention

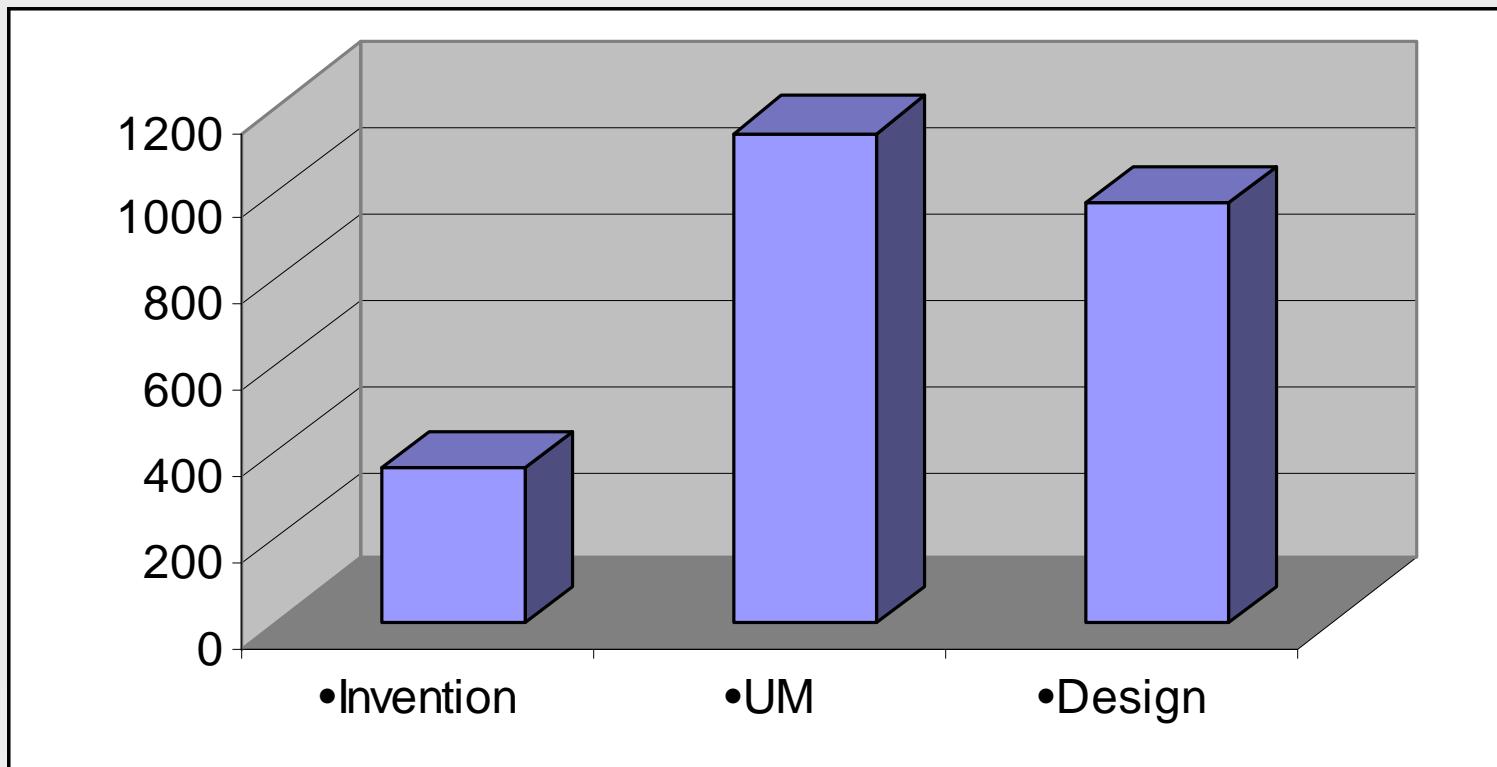
Top 10 Foreign Entities in Invention Patent Filing in 2006

Rank	Company	Number
1	Samsung Electronics (KR)	3770
2	Panasonic Industrial (JP)	2679
3	Knoinklike Philips (NE)	2369
4	Sony (JP)	1441
5	IBM (US)	1435
6	LG Electronic (KR)	1230
7	Toshiba (JP)	1117
8	Seiko Epson (JP)	1089
9	Simens (GE)	872
10	Samsung SDI (GE)	818

Patent Invalidation

- § Any third party may challenge the validity of patent by filing an invalidation request with the PRB (Patent Reexamination Board at the SIPO)
- § PRB decision can be appealed to Beijing No. 1 Intermediate People's Court, whose decision can be further appealed to Beijing Higher People's Court (final)
- § Invalidation petition shall state the grounds for filing the request and indicate the evidence on which the grounds are based
- § PRB review is a different level of review from the examiner, so more or less the same issues could be reviewed at PRB
- § No presumption of validity (no heightened burden of prove)
- § Average time for decision: 13 months

Patent Invalidation, 2006



- ∅ 2468 Invalidation requests were received by PRB in 2006
 - 356 - Invention
 - 1136 - UM
 - 976 - Design

Patent Invalidation

- § The number of patents that have been challenged at the Patent Reexamination Board (PRB) is growing
- § Invalidation request is often filed in response to patent enforcement action as a tactic rather than on the merits
- § Threshold standard for initiating invalidation is too low
- § Even if one wins, no bar for the party to file a second invalidation action
- § No finality - actual practice raises uncertainty in the law

Acknowledgements

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Beijing, China

Thank You



Additional Information on Patent Filing

Top 10 Domestic Entities in Invention Patent Filing in 2006

No.	Entity	Volume
1	Huawei Technologies Ltd., Co.	5593
2	ZTE Corporation	2322
3	Hon Hai Precision Industry Co. Ltd.	1223
4	Hong Fu Jin Precision Industry (Shenzhen) Co. Ltd.	1220
5	Zhejiang University	1209
6	Shanghai Jiao Tong University	841
7	Tsinghua University	817
8	Shenzhen Ocean Power Corporation	760
9	Inventec Corporation	677
10	China Petroleum & Chemical Corporation	619

Top 10 IPC Subclasses of Foreign Invention Patent Filing

No	Subclass	Content of Subclass	Volume
1	H01L	Semiconductor devices; electric solid state devices not otherwise provided for	5282
2	G06F	Electric digital data processing	4546
3	H04L	Transmission of digital information	3624
4	H04N	Pictorial communication	3312
5	A61K	Preparations for medical, dental, or toilet purposes	2879
6	G11B	Information storage based on relative movement between record carrier and transducer	2686
7	C07D	Heterocyclic compounds	1881
8	G02F	Devices or arrangement, the optical operation of which is modified by changing the optical properties of the medium of the devices or arrangements for the control of the intensity, color, phase, polarization or direction of light	1646
9	G02B	Optical elements, systems, or apparatus	1553
10	H04B	transmission	1458

Top 10 IPC Subclasses of Domestic Invention Patent Filing

No	Subclass	Description	Volume
1	A61K	Preparations for medical, dental, or toilet purposes	14318
2	H04L	Transmission of digital information	6232
3	G06F	Electric digital data processing	4751
4	H04Q	Selecting (switches, relays, selectors; electronic switches)	3182
5	H01L	Semiconductor devices; electric solid state devices not otherwise provided for	2938
6	A23L	Foods, foodstuffs, or non-alcoholic beverages, not covered by subclasses A21D or A23B-A23J; their preparation or treatment; preservation of foods or foodstuffs, in general	2712
7	H04N	Pictorial communication	2685
8	G01N	Investigating or analyzing materials by determining their chemical or physical properties	2661
9	C12N	Micro-organisms or enzymes; compositions thereof; propagating, preserving, or maintaining micro-organisms	1943
10	E04B	General building constructions; walls	1776

Top 10 IPC Subclasses of Domestic Utility Model Patent Filing

No.	Subclass	Content of Subclass	Volume
1	B65D	Containers for storage or transport of articles or materials	3907
2	A47G	Household or table equipment	2822
3	H01R	Electrically-conductive connections; structural associations of a plurality of mutually-insulated electrical connecting elements; coupling divides; current collectors	2712
4	A47J	Kitchen equipment; coffee mills; spice mills; apparatus for making beverages	2475
5	A61B	Diagnosis; surgery; identification	2464
6	F16K	Valves; taps; cocks; actuating-floating; devices for venting or aerating	2242
7	A61M	Devices for introducing media into, or onto, the body	2226
8	G06F	Electric digital data processing	2093
9	E21B	Earth or rock drilling; obtaining oil, gas, water, soluble or meltable materials or a slurry of minerals from wells	2059
10	G01N	Investigating or analyzing materials by determining their chemical or physical properties	1864