

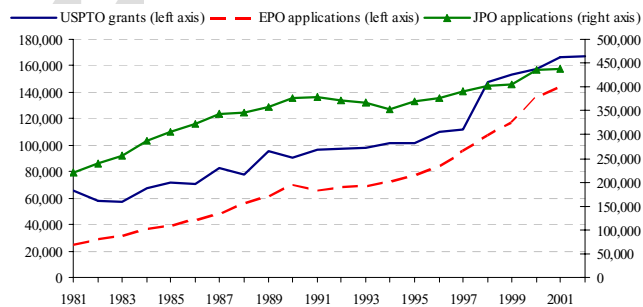
Overview of recent trends in patent regimes in United States, Japan and Europe

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OECD
IPR, Innovation and Economic Performance
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Growing number of patents



Note: USPTO grants sorted by grant year (1980-2002); EPO applications (including PCT) sorted by application year (1980-2001), only partial information available for 2002. JPO applications by application year (1981-2001).

Source: JPO 2002 annual report and OECD patent database, July 2003. OECD  OCDE

What has determined this increase in patenting?

Explaining factors may include

- surge in number of inventions;
- emergence of new technologies;
- changes in market structure;
- increasing importance of patent portfolios;
- strategic patenting...

...and **changes in patent regimes**

reflecting a pro-patent view among policy makers

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Pro-patent view

"the growth in patent applications is a boon for America's economy, as well as contributing to our genius for innovation."

(JAMES E. ROGAN, Director of USPTO, Hearings on Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy, February 6, 2002)

"The government and industry must therefore consider intellectual property to be the source of industrial competitiveness and establish an intellectual property based strategy immediately."

(METI, Task Force on Industrial Competitiveness and Intellectual Property Policy, 2002)

A Community patent *"is considered to be an essential tool if we are to succeed in transforming research results and the new technological and scientific know-how into industrial and commercial success stories."*

(European Commission, COM 2000, 412 Final, p.6) - March 2003, common political approach reached.

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Changes have been supported by

The emergence of new IP governing bodies

- 1967, WIPO: PCT filing / SPLT negotiations
- 1977, EPO: centralised granting procedure / standard rules
- 1982, CAFC: specialised court
- 1994, WTO: enforcement power

World-wide upward harmonisation

- 1994, minimum standards (TRIPS)

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Main trends

Most changes have gone in the direction of 'expanding' and 'strengthening' protection in the past two decades

Expanding:

- Fields
- Breadth
- Incentives to file

Strengthening:

- Patent Offices
- Courts

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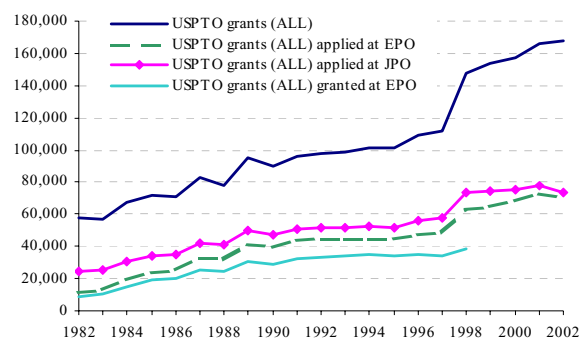
Expanding coverage

- **Extension of patent protection to new fields:**
 - Services (e.g. software and business methods)
 - Closer to basic research (e.g. research tools in biotechnology)
- **Increasing number of patents for publicly funded inventions**
 - 1980 Bayh-Dole Act in the US and similar measures in other countries
- **Broader scope of protection**
 - Broader forward protection in emerging fields (e.g. reach through claims in biotechnology)
 - Extended application of the doctrine of equivalents
 - 1988 multi-claim reform in Japan

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USPTO grants also applied at EPO and JPO

(All technology fields, sorted by USPTO grant date)

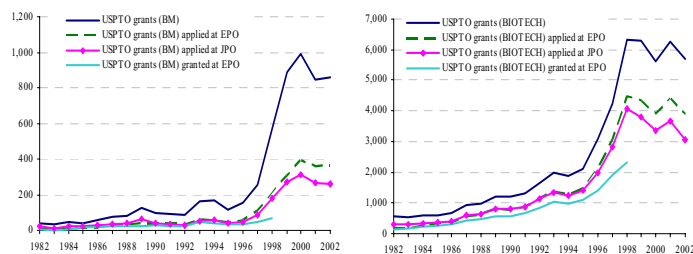


Note: Data on recent EPO grants is still partial.
Source: OECD patent database, July 2003.

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Business Methods and Biotechnology

(sorted by USPTO grant date)



Note: Business method patents defined as those classified in USPC 705.
Biotechnology patents following OECD definition based on IPC classes. Data on EPO grants is still partial.

Source: OECD patent database, July 2003.

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Incentives to file

Filing time / flexibility

- PCT 'option to patent'
- Several paths in the national/regional phase:
provisional (USPTO) / national office / EPO / Community Patent (under discussion)

Filing cost

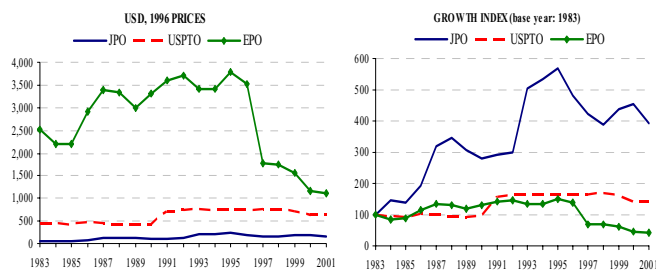
- Decreasing fees, especially internationally
- 50% fees for small entities since 1985 in the US (individual inventors, small businesses and non-profit organisations)
- Electronic filing

Patentability requirements in emerging fields?

- Lack of databases of prior art (novelty / obviousness)
- Vague & broad claims (enablement / industrial application)
 - 1998 US State Street Bank: 'useful, concrete and tangible' result (BM)
 - 2001 US examination guidelines: 'specific, substantial and credible utility' (genes)

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Application fees

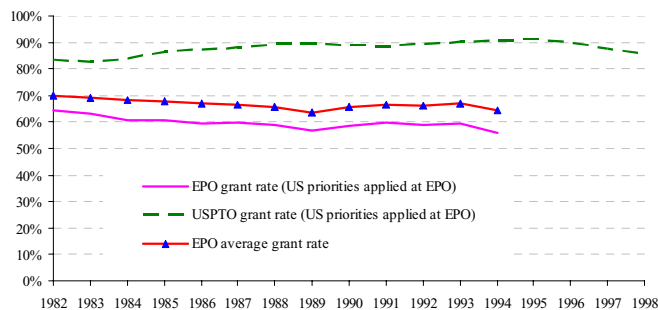


Note: EPO standard application costs include designation fees for 8 states and search fees, in addition to filing fees. USPTO (large entities) and JPO comprise filing fees only.

Source: JPO, USPTO and EPO.

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EPO average grant rate v. EPO and USPTO grant rates for US priorities also applied at EPO (sorted by EPO application dates)



Note: Grant rate is defined as number of grants divided by number of applications sorted by EPO application dates. Data on recent EPO grants is still partial.

Source: OECD patent database, July 2003.

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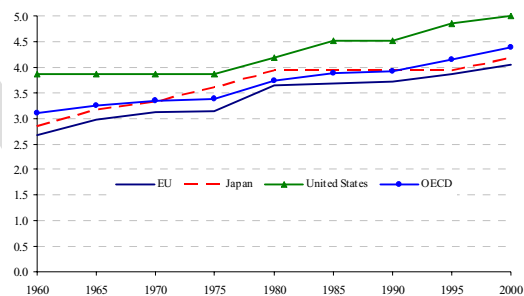
Reinforcing patent holders rights

- **Lower uncertainty about validity of grants**
 - EPO centralised examination (inexistent in a number of EPC national offices) and post-grant opposition procedures.
 - Japan 3 years limit to request examination (7 before 2001) and post-grant opposition (pre-grant until 1996).
- **Stronger rights in court**
 - Lower rates of invalidation in the US since creation of CAFC (1982)
 - Higher damage awards in patent litigation (US, Japan)
 - European Patent Litigation Agreement (EPLA) and Community patent under discussion
- **More stringent conditions for research exemptions?**
 - *Madey v Duke University* (US CAFC Oct. 2002); not to be reviewed by US Supreme Court

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Park's Index of Patent Strength

(extent of coverage, international agreements, loss of rights, enforcement, duration)



Note: OECD and EU weighted average of country values of the index using GDP 2000 PPP\$.
Source: OECD, based on data from Ginarte and Park (1997), Park (2001, 2002).

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Conclusions

Overall trend towards broader and stronger patent rights with some country differences.

Are all these changes good for innovation and diffusion of technology?

They have been implemented without much reference to their economic impacts.

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