

# **The macro-economic effects of intensive patenting industries**

*Or: Why we could be all better off with  
less patenting*

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- Patenting has a history dating back to the 15th century
- Two main motives intellectual property systems: a moral one and an economic one
- Key economic reasoning: inventions have public good characteristics (non-rivalling and, often, non-excludable). Patents address the market failure that arises from this. As such patent systems attempt to strike a balance between creation on the one hand, and utilization on the other
- Up to about a decade ago, most economists took it for granted that the net effect of patent systems are positive. Recently, some doubt was shed on this

An analysis may compare costs and benefits of patent system

- Direct costs, such as those of drafting, applying, defending and litigation
- (Non) access to technologies, by potentially harmful strategies (minefield patenting, creating a so-called patent thicket, and patenting to falsely suggest technical trajectories)
  - Results in ‘tragedy of the anti-commons’
  - Amplified as technologies increasingly have a cumulative nature →
  - Amplified as more and more industries are network-based
- Increasing uncertainty.
  - Only after a patent is infringed and found valid (or invalid if you want), the real value may be assessed
  - Market reacts turbulently: (e.g. Texas Instrument’s/Fujitsu case, former lost \$ 500 million of stock value; Rambus lost \$ 2.5 billion after a signal that a judge might interpret some of Rambus claims in a narrow fashion)

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- Sheer number of patents in some sectors: average mobile phone several hundreds of essential patents, a PC approx. 70.000 patents. This may induce transaction problems
- The problems sketched above are increasing over time:
  - (1) the scope of patenting is widened and more and more countries are introducing software patents and business method patents
  - (2) increasingly, the threshold for granting patents is lowered and the real test shifts to the litigation phase (partly because patent offices are not able to deal with the flood of patents in areas such as software)
  - (3) more and more industries are network-based

How do regulators deal with such issues?

- And all of these issues have indeed been recognized by the EU, for instance
- Still, several lobbies have been instrumental in convincing governments to strengthen and widen patent regimes
- The relation between property law and competition law is seen as a very complex one and in general, property law overrules competition law, despite several attempts to change that

Part of the problem is of course the difference between private interests and public interests. While for any firm it is advantageous to patent, for the society as a whole it could be harmful

So called patent pools may relieve some of the pain

- Industries bring together all essential patents for a technology or standard and license them as a package
- Regulators are interested in these.
- Apart from pro-competitive effects, patent pools may also have serious anticompetitive effects, depending on their exact design. That's why regulators are looking carefully which pools allow and which not.

Final thoughts: this position statement sketched a rather black picture on patents. I do believe, however, that patents do have a useful function in our society. And it might still be true that balance tips to the side of net positive effects, in favour of patents. Still, there are worrying signs and we better not ignore them and get trapped in the rat race.

*(The full position paper is available from [www.tm.tue.nl/medewerk/rbekkers](http://www.tm.tue.nl/medewerk/rbekkers))*