



# Standards and Intellectual Property Rights

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## IP, Standards and Antitrust

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- Open Standards and interoperability
- The relationship between intellectual property rights ("IPRs") and standards
- The problem of patent abuse
- Suggested solutions for minimising risk of patent abuse
  - Intellectual Property Law
  - Antitrust enforcement
  - Standardisation rules

## Open Standards and interoperability

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- Open standards should be the basis for ensuring interoperability in the ICT industry
  - Standards-based development allows focus to be put on developing innovative new features, and not in reverse-engineering for the purpose of enabling interoperability
  - Open standards based interoperability permits
    - new players to enter the market
    - competition on the merits
    - consumer choice and robust competition
- Experience demonstrates the damage which can result when vendors fail to support or abuse open standards
- A key area where there is cause of concern is the interplay between standards and IPRs

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IPRs and standards



## IPRs and Standards

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- Patents are the key intellectual property right in the area of modern ICT standards
- However, the patent system was designed for an era when a patent covered a machine, and a machine was a fairly basic thing
- The kinds of things patents applied to were fairly uniform in character
- That uniformity is gone: the patent system is unitary, but it has to accommodate technologies as varied as pharmaceuticals and biotechnology, mechanical devices, computer software, communications hardware and the Internet

## IPRs and Standards

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- In the IT sector one regularly has to deal with 50, 100, even 1000 patents on a single product.
  - Intel, for example, says that 10,000 different patent rights cover a single core microprocessor
- Many of those patents might actually be invalid as not being novel or inventive, but one cannot count on them being weeded out by the patent system
- Any company operating in the IT or similar sectors faces a great multiplicity of patents, both good and bad
- The issue of patents becomes particularly relevant in the context of standards where implementation is dependent on patent licences being obtained
  - Creates a risk for patent abuse

## The problem of patent abuse

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- Standard-setting is all about the creation of irreversible investments
  - In case of GSM for example, many industry participants invested hugely and irreversibly in products complying with the GSM standard. And the same is true of the 3G standard.
- If a patent holder shows up and demands excessive royalties for standardized products *after irreversible investments have been made*, the impact on the whole industry is significant
  - Because of industry dependence on a standard, a patent holder can attempt to extort revenue far exceeding the actual proportion of their inventive contribution
- How then to ensure that the system is not abused while also ensuring that innovators are compensated for their contributions?

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Suggested solutions



## Suggested solutions

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- Modernising Intellectual Property Law
- Antitrust enforcement
- Transparency in standard-setting via ex ante obligations

## Modernising IP law

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- Some of the solutions might be found in the realm of IP law
- One has to be careful not to go too far:
  - Patent protection per se is not a hindrance to innovation
  - Royalty free licensing is not always the right approach in standardisation (in some industries FRAND is necessary to ensure innovation is sustained)
- But there are nonetheless some parts of the solution that might be found within IP law

## Modernising IP law

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- One partial solution would be to ensure that injunctions are not necessarily available upon a finding of patent infringement.
  - Sometimes an appropriate remedy is a reasonable royalty without any injunction. In the U.S., exactly this course was taken recently by the U.S. Supreme Court in the E-Bay case.
- Another important solution would be to improve the quality of patents.
  - Easier said than done, but there ARE a lot of bad patents out there, and something *should* be done.
  - The Commission is becoming active on this topic – it's appropriately becoming a bit of a thorn in the side of the EPO.

## Antitrust enforcement

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- Interesting issues in applying Art 82
  - What if non-disclosure was in good faith?
  - What if patent holder was not dominant when disclosure was due?
- Appropriate remedies?
  - Compulsory FRAND licence
  - Unenforceability of patent for standard
  - Nullity of standard
  - Exclusion from standard

## Art 82 issues

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- Relevant product market
  - Market for licensing all patents essential to a standard – manufacturers need a license for the full package of essential patents
  - Some argue no; essential patents are not substitutes but instead are complementary
  - So each essential patent constitutes a separate market

## Dominance

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- If each essential patent falls in separate market, patent holder has 100% market share; each essential patent has equal blocking power
- Not end of inquiry
  - Switch readily to competing standard?
  - Does patent holder produce downstream product?
  - Countervailing license power
  - Mutual moderation to ensure success of standard and make market grow

## Abuse

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- Two types of abuses: exploitative and exclusionary
- Exploitative: excessive pricing
- Interesting issues
  - Of course basis in case law, but as policy matter want CEC to police royalties
  - If so, how determine what is an excessive price?
    - What market will bear? Not make sense because bargaining power derives not from inherent value of technology but from the fact that the standard covers the patent and the patent holder can inflict huge pain in light of irreversible investments
    - Intrinsic value of patented inventions?
    - Proportion held of total number of essential patents?
    - Reasonable aggregate royalty in view of industry practice?

## Exclusionary abuses

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- Refusal to license
  - Magill, IMS – essential facility style analysis
- Raising rivals' costs
- Exclusionary use of asymmetrical:
  - Non-assertion of patent clauses
  - Pass-through rights
  - Grant-backs
- Royalty discounts to downstream customers
- Bundling of non-essential patents into licenses

## Transparency obligations

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- All this is about ex post situations, that is, where problems of alleged abuse arise after a standard has been adopted
- Many of the problems can be solved by ensuring that the standardisation process itself becomes more transparent
  - Need to ensure that the process is open and allows full participation by all interested parties
  - Need to consider the viability of an ex ante approach to standard-setting disclosures
    - That is, early disclosure not only of patents, but also of key licensing terms, including price, and enforceable obligations actually to licence on such terms
- When the process is transparent, the resulting standard is one that can be supported by a wider community, and choices of technology can be based on knowledge of license terms

## Conclusion

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- Open standards are a key driver of innovation in the ICT sector
- Certain elements of the patent system act as a hindrance to the development of the sector as they encourage patent abuse
- The hindrance can be overcome by a combination of various means, including modernisation of the patent system, antitrust enforcement and changes to the procedural rules of standard setting organisations



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