What Are Standards?

- Typical EU handset – GSM (2G) and UMTS (3G)
  - GSM: > 5,000 patents declared essential by > 40 companies
  - UMTS: > 10,000 patents declared essential by > 60 companies
- Cannot manufacture a handset without infringing all essential patents
- Key issue: can holders of essential patents charge whatever they want?
- Should competition law intervene?

Current European Commission FRAND Disputes

Qualcomm (unreasonable royalties and discriminatory licensing terms)
- Complaints filed by Broadcom, Ericsson, NEC, Nokia (withdrawn July 2008), Panasonic and Texas Instruments in October 2005 (complaints also filed with KFTC and JFTC)
- Alleged breach of FRAND commitments and Article 81 and 82 EC in relation to patents claimed essential to WCDMA (3G)

Rambus (patent ambush)
- Statement of Objections sent to Rambus in August 2007
- Alleged intentional deception through non-disclosure of DRAM essential patents and claiming unreasonable royalties

IPCom (unreasonably royalties and ambulatory FRAND)
- Action filed in Germany by Nokia in December 2007 against Robert Bosch for failure to license on FRAND terms – IPCom joined to action following transfer of patents
- Nokia lodged a formal complaint against IPCom, January 2009
Standards Generate Important Consumer Benefits (In Particular Mandated Single Standards E.g. GSM)

- Interoperability (use your handset everywhere)
- Lower barriers to entry in downstream markets
- Lower costs and prices for downstream products (through economies of scale)
- Reduced risk for downstream customers (through elimination of inter-technology competition)
- Increased downstream competition (through reduced switching costs for consumers)
- Increased incentives to invest in R&D (through reduced risks)
- Increased network effects (more users, the greater the network’s value to consumers)

But Standards Can Create / Enhance Market Power

- Eliminate / reduce competition
  - Inter-technology (between competing technologies)
  - From future technologies (once implemented, locked into the standard for many years)
  - Undermine the ability of customers to wait and see - skip a technology generation

-增强了必要IPR持有者的市场权力，这可能被不公平地行使，导致“Hold-up”

  “Once an essential technology is included...in a standard...the owner of the IPR...occupies in most First at Situations a dominant position...via v-a-v manufacturers requiring licenses on that IPR.”

- Huge switching costs once operator has invested in infrastructure (“lock-in”)
- A mechanism is therefore required to prevent consumer harm while preserving the economic benefits of standardisation

Standard Setting Organisations – Promote FRAND / RAND Commitments

- ETSI IPR Policy
  - Companies claiming to own essential IPR are requested to notify these to ETSI in a timely fashion
  - Director-General of ETSI requests FRAND commitment

- Commitment to license subject to reciprocity. Licenses to be on fair, reasonable and non-discriminatory terms

- ETSI cannot enforce FRAND; its role is limited
### Alternative Approaches To FRAND

**Weak FRAND:**
- Essential IPR owners have the right to refuse to license
- But have the obligation to negotiate in good faith
- And the right to seek injunctive relief
- Have the right to charge whatever the market can bear

**Strong FRAND:**
- Essential IPR owners have the obligation to license subject to reciprocity
- No right to injunction where a licensee in good faith is willing to take a license on FRAND terms and conditions
- "Fair" and "reasonable" = a constraint on the amount of royalties

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### Weak FRAND – Patent Trolls’ Charter

- FRAND commitments are meaningless
- No constraints on royalties
- No system for allocation of royalties
- Trolls are a serious threat

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### Strong FRAND – Supported By Most Of The Telecoms Industry

- A FRAND commitment is a commitment not to exploit the market power obtained through standardisation
- FRAND is a compromise:
  - IPR owners get substantial benefits from inclusion of their IPR in a standard (enhancing the value of essential IPR)
  - IPR holders agree to moderate their behaviour – fair, reasonable and non-discriminatory royalty rates
- FRAND must be enforced by competition authorities and courts
Why Must FRAND Be Enforced? Substantial Public Interest

If FRAND commitments are not enforced:
- Substantial consumer harm of US$ billions
- E.g., Press reports on Qualcomm case:
  - Qualcomm's royalties for UMTS (3G) patents claimed to be 5%
  - Reasonable rate for Qualcomm's UMTS patents should be 1%
  - Consumers estimated to be overpaying by €4 billion+ 2004 - 2012

SLAUGHTER AND MAY

Why Must FRAND Be Enforced? Legal Framework Requires Enforcement

Legal Framework:
- Standardisation typically leads to infringement of Article 81 EC – exempt under Article 81(3) EC, provided it:
  - Contributes to economic progress
  - Allows a fair share of benefits to consumers (e.g., reasonably priced downstream products)
  - Does not allow undertakings the possibility of eliminating competition
  - Allows access to the standard… for third parties on fair, reasonable and non-discriminatory terms (Horizontal Cooperation Guidelines, para 174)
- Participation in standard setting organisations such as ETSI (GSM and UMTS) is likely to be illegal absent FRAND licensing

SLAUGHTER AND MAY

Why Must FRAND Be Enforced? Legal Framework Requires Enforcement

Legal Framework:
- Standardisation can make each essential patent a monopoly under Article 82 EC
  - Although a patent confer a lawful monopoly over the claimed invention, ... its value is
    limited when alternative technologies exist. The value becomes significantly     
    enhanced, however, when the patented technology becomes locked in to a standard...
    brand (Case 27/76 United Brands v. Commission)
- The patent holder’s IPRs, if unconstrained, may permit it to demand supracompetitive
  - Consumers estimated to be overpaying by €4 billion+ 2004 - 2012

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SLAUGHTER AND MAY
What Does Fair And Reasonable Mean?

- Competition authorities are well versed in interpreting what is "fair" and "reasonable"
- Workable benchmarks include:
  - Negotiated outcomes *ex ante*
  - Royalties charged by other essential IPR holders for the same standard
  - ART and proportionality
  - Effective *ex ante* auctions for off-the-shelf technologies with clear patent landscape

"Aggregated Reasonable Terms" (ART) And "Proportionality"

- Joint press release of 14 April 2008 by Alcatel-Lucent, Ericsson, NEC, NextWave Wireless, Nokia, Nokia Siemens Networks and Sony Ericsson:
  - Reasonable maximum aggregate royalty rates based on the value added by the technology in the end product (ART)
  - Flexible licensing according to the licensors' proportional share of all standard essential IPR for the relevant product category (Proportionality)
- A view of FRAND incorporating ART and proportionality is supported by many others in the telecoms industry (including Fujitsu, Panasonic; Mitsubishi; Siemens; BenQ; KPN; NTT DoCoMo; Orange/France Telecom; and Telefonica)

"Aggregated Reasonable Terms" (ART) And "Proportionality"

- Strengths include:
  - Can be applied *ex post* when patent ownership clearer
  - Preserves incentives to innovate *ex post*
  - Does not depend on availability of evidence of competitive rates pre-standardisation
  - Limits aggregate rate and therefore promotes market entry
  - Fair system of allocation between multiple patent owners
  - Could be readily applied by regulators / courts
Conclusion – The Way Forward

- FRAND works and can be strengthened through enforcement
- FRAND must be interpreted in a way which gives rise to clear, justiciable rules
- Competition law should be used to enforce FRAND commitments in the interests of consumers