

# **IP, Cross-licensing and Patent Pools: Similarities and Contrasts**

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# Introduction

- ◆ Describe the economics of field-of-use cross-licensing and draw comparisons with patent pools
- ◆ Stylized summary to draw broad comparisons
  - Individual cases need detailed factual analysis
- ◆ Focus on economic efficiency aspects
- ◆ Personal views only, may not be shared by LECG or its members

# Two main questions

- ◆ Should cross-licenses and pools be treated as equivalent for antitrust analysis or should they be assessed using different tools and criteria?
- ◆ Are there any lessons from cross-licensing that may help the analysis of pools?

# Issues addressed

- ◆ Review process of cross-licensing (field-of-use)
- ◆ Key characteristics of pools
- ◆ Factors in antitrust analysis of pools (economic efficiency)
- ◆ Contrasts between cross-licensing and pools
- ◆ Implications of cross-licensing for the analysis of pools

# Characteristics of cross-licensing (1)

## Motivation

- ◆ Freedom to invent without risk of patent suits
  - Technologically progressive industries likely to see multiple patent infringements in a field-of-use
  - Infringement by future innovations unpredictable
- ◆ Cross-licensing alleviates transactions costs of identifying and monitoring infringement
- ◆ Typically pro-competitive and pro-innovation
- ◆ Especially a feature of ICT industries

# Characteristics of cross-licensing (2)

## Features

- ◆ Between two parties – rarely if ever more
- ◆ Cross-license all patents within a field-of-use for a fixed period (e.g., 5 years)
  - Existing patents and those that issue during period
- ◆ Transfer of rights – not technology transfer
- ◆ Typically not royalty free
- ◆ Offered on non-discriminatory basis
- ◆ May also license patents singly

# Cross-licensing procedure

- ◆ Lengthy process with several steps \*
  - Technical and market analysis
  - Detailed royalty balancing calculations
  - Final negotiations of terms
- ◆ Monitoring of license simple, based on total sales

\* Peter Grindley and David Teece (1997), “Managing Intellectual Capital: Licensing and Cross-Licensing in Semiconductors and Electronics”, *California Management Review*, vol. 39.2, pp. 1-34.

# Typical cross-licensing steps

- Identify potential cross-licensing partner
- Lengthy preparatory patent and market analysis
- Valuation balancing process ('proud list')
  - Each party prepares list of main patents in field-of-use
  - Parties agree weights for value of each patent (e.g., validity, ease of invent around, economic value)
  - Multiply equivalent patents by target rate (e.g., 1%)
  - Especially strong patents may be at a fixed rate
  - Projected royalty payments for field-of-use sales
- Calculate equivalent royalty rates over total sales
- Further negotiation of final royalty terms

# Implications of cross-licensing

- ◆ Lengthy process, considerable effort (1½-2 years)
- ◆ Ability to conclude cross-license depends especially on a few strong patents
- ◆ Innovation enhanced by reduced transaction costs
  - May induce defensive innovation for IP portfolio
- ◆ Period of cross-license and residual rights reflect technology life cycle, also partly historical
- ◆ Royalty payments reflect IP balance and sales base

# Some characteristics of patent pools

- ◆ **Multiparty licenses**
  - Multiple IP owners, possibly third party licensees
- ◆ **Scope of IP content**
  - May include only essential (complementary) IP
  - May include grantbacks to ensure IP remains “current”
- ◆ **Motivation for pool**
  - Access to multiple source IP for product/standard
  - Reduces transactions costs versus separate licenses
- ◆ **Motivation of members**
  - IP owners – may be effective way to out-license
  - IP users – access to IP (facilitate product/standard)

# Factors in antitrust analysis of pools (1)

## Membership

- ◆ Multiparty membership
  - IP owners – technology market
  - IP users – product market
- ◆ Motivation of members – IP owners and users
- ◆ Greater numbers of IP owners and scope of IP implies more difficult to “administer” the pool
  - *e.g.*, co-ordination, negotiation, royalty allocation
  - Administration costs may offset transactions savings

# Factors in antitrust analysis of pools (2)

## Scope of IP

- ◆ Essential IP
  - Definition of essential IP may be subjective
  - Including (partial) substitutes may increase transactions efficiency, but may also increase administration costs and antitrust concerns
- ◆ Additional IP (partial substitutes)
  - Other IP for product/standard beyond essential IP
  - May be accessed by cross-licensing rather than pool
- ◆ Applicability of pool IP
  - Scope may extend to applications outside aim of pool
  - Some essential IP is basic to many products – should this be in pool?

# Factors in antitrust analysis of pools (3)

## Dynamics

- ◆ Typically include grantbacks to access newly developed essential IP
  - Keeps pool IP “current”
  - Reassures standards adopters that they will not be locked into future blocking and increased IP costs
  - Essentiality is a moving target
  - Tendency for “essential” IP to expand
- ◆ Duration of pool
  - Reflects technology and standards life cycle
    - Expect standards life cycle to extend across technology generations

# Comparing cross-licensing and pools (1)

- ◆ Basic purposes similar:
  - Transactions efficiency
  - Aim for IP access – no direct technology transfer
  - Royalties may be important
- ◆ Main differences
  - Pools are multiparty
  - Scope of pool likely to be narrow
  - Pools typically have standardized terms

# Comparing cross-licensing and pools (2)

- ◆ Implies that cross-licenses and pools serve similar needs but differ in the relative importance of key features
  - Focus on different aspects (multiple IP owners versus multiple patents within a field)
  - If focus similar, cross-licenses might be substituted for pool (e.g., few IP owners, licensees, patents)
  - If focus more divergent, cross-licensing and pools may be complementary, and coexist for different kinds of access

# Possible implications for pools analysis

- ◆ Although cross-licensing and pools differ, their economic analysis may be based on similar tools
- ◆ Increasing the scope of pool IP is likely to involve higher “administration” costs and offset transactions costs gains
- ◆ Complex coordination of interests may imply cross-licensing, perhaps coexisting with pool
- ◆ Duration of pool likely to reflect life cycle of standards, which overlap technology generations