



LCII Conference

# Calculating FRAND Royalty Payments in Practice

Regulating Patent "Hold Up"?

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# HUAWEI V ZTE, COURT OF JUSTICE EU, 2015

## SEP holders must

- alert the alleged infringer to the infringement, designating the SEPs concerned and specifying the manner in which they have been infringed.
- make a written licensing offer on FRAND terms, including the proposed royalty and the way in which it is calculated.

The CJEU noted that the parties may “by common agreement” request that the FRAND royalty be “determined by an independent third party, by decision without delay”.

## The alleged infringer

- is obliged to respond “diligently” to the SEP holder’s offer “in accordance with recognized commercial practices in the field” and “in good faith”.
- may only allege that an action for a prohibitory injunction is an abuse of a dominant position once it has submitted a “specific counter-offer that corresponds to FRAND terms”.
- should the SEP holder reject such a counter-offer, then the infringer is obliged to provide appropriate security (such as a bank guarantee or deposit) in respect of past and future infringement and render an account.
- retains the right of the infringer to challenge the validity and/or the essentiality of the SEPs in question or to reserve the right to do so in future.

# THE MEANING OF FRAND

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- But what is FRAND?
- In theory ...
  - FRAND royalties should be determined by reference to a hypothetical counterfactual situation in which this market power does not exist. This counterfactual is the situation that would exist if the standardisation process had not eliminated the competitive constraints that existed before the adoption of the standard.
  - A FRAND royalty should reflect:
    - Number and quality of ex ante substitutes
    - The incremental value of the technology over other alternatives as revealed ex post (once the standard has been implemented)
    - Technological contribution to the standard (complements)
  - The incremental value rule may induce important distortions in the decisions of firms to innovate and participate in the SSO and may contribute to worsen the patent hold up problem that it was meant to resolve.

# CALCULATING FRAND RATES

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- In practice ...
  - The incremental value rule is impossible to implement in practice.
  - The use of “comparables” is not without challenges:
    - Out-licenses v cross-licenses v in-licenses.
    - Per unit v ad valorem rates.
    - Need to take into account differences across portfolios.
    - Need to account for asymmetries in bargaining power.
    - Need to account for other asymmetries: volumes, ASPs, etc.
    - Accounting for potential hold up and hold out biases in benchmark rates.
  - The so-called “top down” approach used in *Innovatio* is flawed as a matter of economics.

# DIFFICULT QUESTIONS FACED BY ARBITRATORS (1)

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- Should FRAND royalties should be determined assuming that SEPs are probabilistic?
  - Problematic if licensee is entitled to challenge validity once FRAND royalty is determined
  - Licensee obtains a free option
    - FRAND rate is determined assuming that patent is valid with probability  $\theta$ .
    - If the patent is found to be invalid then the rate is adjusted downwards.
  - This may cause the licensor to be undercompensated
    - Interestingly, this would be the case even if the royalty rate is adjusted upwards following a finding of validity

## DIFFICULT QUESTIONS FACED BY ARBITRATORS (2)

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- What is the right royalty base?
  - The royalty payment often comprises two components: a royalty base and a royalty rate. The royalty base is the unit-base on which the royalty rate is applicable. The royalty rate is the percentage which determines the proportion of the royalty base the licensor will receive.
  - The appropriate royalty base can be determined in two main ways:
    - First, by the value of the sales of the entire final product incorporating the patented technology - ad-valorem royalties.
    - Second, by the value of the product components incorporating the patented technology - per-unit royalties.

# CHOOSING THE ROYALTY BASE

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- The distinction between the two types of royalties is to some extent arbitrary: Since the royalty rate can easily adjust upwards or downwards, the final royalty payment can be mathematically identical irrespective of the royalty base.
- Licensees and others have advocated for using a smaller royalty base without changing the royalty rate. That is simply a request for lower total royalties rather than a principled position as to the better method of calculation.
- There are a number of practical circumstances that make ad-valorem royalties easier to apply and prone to fewer errors and subjective decisions than royalties based on the price or the value of components (or portions thereof) implementing a particular patented technology.
- Ad-valorem royalties lead to higher consumer welfare than component value royalties (and hence per-unit royalties), because they reduce the final product price, encourage investment and, therefore, lead to more output and innovation.

# THANK YOU!

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# DISCLAIMER

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- Jorge Padilla is an economist at Compass Lexecon. He has represented several patent holders and implementers in competition law and arbitration disputes. The opinions in this presentation are the author's sole responsibility. They do not necessarily represent the views of his clients or other Compass Lexecon's experts.