Abstract

This article analyses the ex-ante benchmark, a method used to determine the reasonable price of a technology before it becomes essential to a standard. It explains that the ex-ante benchmark itself is not faulty. Rather, the fault is in the *timing*. In the "standard" ex-ante benchmark, the price is determined *after* the innovator has sunk its costs. As such, it cannot walk away from a negotiation, even where the price achieved is little or none. The double ex-ante benchmark cures this deficit by allowing parties to negotiate the price *before* the innovator incurs investment costs. The double ex-ante benchmark provides incentives for innovation but also establishes important guideposts of how the price of standard essential patent licences should be set.

Keywords: ex-ante, benchmark, negotiations, value, standard

Key takeaways

I. Ex ante competition is key to creating more value

Standards compete in the market for consumers in two respects: (i) as to the benefits of the functionality they enable, and (ii) as to the extent implementers choose to coordinate around the standard. However, once a standard is established, it may be protected from competition. This may hinder the emergence of superior technology. Standard Development Organisations overcome this hurdle by coordinating ex-ante competition whereby rival technologies compete to become the standard. Ex-ante competition promotes two values (i) the value of co-ordination, since implementer demand is consolidated around a single technology, and (ii) market contestability which promotes the quality of technologies that compete for standards.

II. The challenges of negotiating licences for standard essential patents

The relationship between value and price is at the centre of disputes regarding licensing of standard essential patents ("SEP"). The pricing of SEP licences occurs ex-post i.e., after the technology has been adopted in the standard, implemented and value has been derived. Ex-ante competition allows innovators to compete for the inclusion of their technology in the standard. However, there is a risk that they might engage in bidding wars, and drive the price of the technology to zero or little value. This diminishes

the possibility of recouping investment costs and reduces incentives for innovation.

Ex-ante competition also distorts parties' bargaining positions. Since only the best technology is incorporated into the standard, the implementer cannot switch to alternative technologies without incurring huge costs. Equally, the SEP licensor cannot decline to negotiate since it committed to license on fair, reasonable and non-discriminatory ("FRAND") terms.

Courts are instrumental in determining the status of the parties' positions by allowing or refusing certain conduct. In patent hold-up (where the SEP licensor leverages its position to place the implementer at a disadvantage), courts may decline to grant an injunction against a good faith licensee. In patent hold-out (where the implementer uses the SEP without paying royalties), the court may require the implementer to pay global portfolio rates, thus reducing the burden the licensor would incur in enforcing the SEP jurisdiction by jurisdiction. Although courts may calibrate the parties' bargaining power and determine what constitutes FRAND terms, the methodologies applied by courts are problematic. For instance, comparable agreements may be inaccessible, contain unclear terms or fail to indicate prices that are fair and reasonable. The ex-ante benchmark may help us to determine licensing prices.

III. Ex-ante benchmark: its promises and challenges

In the ex-ante benchmark, the reasonable price of the licence is "the competitive price that the licensee would have paid immediately before the technology's inclusion in the standard." The price is the incremental value of the best technology vis-à-vis the next best alternative technology, plus the price of the next best available technology. The ex-ante benchmark indirectly influences the price expectation of parties. This benchmark expects the competitive price of the licence to be either too low or nil based on the following logic: had there been negotiations before the standard was adopted, licensors would outbid each other, drive the competitive price to zero and, in turn, write off their investment costs. The licensor expects to earn zero or little return, and the licensee expects to pay zero or low prices. Thus, the ex-ante benchmark may fail to provide incentives for innovation.

IV. How can we correct the ex-ante benchmark?

The flaw in the ex-ante benchmark is in the *timing*. In the "standard" ex-ante benchmark, the negotiation is entered into *before* standardisation *but after* the licensor has incurred development costs. Since the innovator expects to get little or no reward as explained in (iii) above, it would only compete ex-ante in two scenarios: (i) where the incremental value would be more than its costs either because the rival technologies are of no value, or because the value of its technology is way above its competitors, and (ii) where the firm is vertically integrated and does not rely on licensing to recoup its investment costs. As such, the "standard" ex-ante benchmark discourages standardisation and reduces competition.

The remedy for this flaw is the double ex-ante benchmark whereby parties negotiate *before* innovators commit their sunk costs. This benchmark provides the right incentives. First, in the event that the reward is less than the likely development costs, the licensor can walk away from the negotiations. And, although the innovators in a double ex-ante benchmark would forego profits, they would not completely write off the incentive to innovate because the reward cannot be less than the development costs. Second, since the licensee would be unwilling to pay more than the value of the technology, the innovators are reluctant to incur losses to provide "extra" benefits. This compels innovators to devise cheaper ways to deliver those benefits.

V. What the double ex-ante principle tells us about reasonable prices

(i) The competitive price falls in a range. This range has a ceiling (because licensors cannot demand more than the economic value of the technology) and a floor (because the licensee cannot pay less than the minimum price innovators would have accepted before incurring the development costs). The competitive price is somewhere between the floor and the ceiling.

(ii) The competitive price that the licensee is willing to pay is influenced by the product market, not the licensing level. For instance, since the value that cellular technology adds to a phone differs from that of a fridge, the price depends on the value the technology adds to the individual products.

(iii) The economic value that the technology adds is not pegged to the licensing level.