

Executive Summary

In each of the first five chapters of this volume, we summarize the current state of the law of patent remedies among leading jurisdictions, articulate the principal arguments for and against different remedies-related practices adopted in various countries, and provide consensus-based recommendations for improving (and generally harmonizing) the award of remedies for patent infringement. In addition, we identify areas where further research is needed. Below, we briefly summarize the principal recommendations made in each chapter.

CHAPTER 1: REASONABLE ROYALTIES

Chapter 1 addresses “reasonable royalty” damages.

BASIC PRINCIPLES FOR CALCULATING A REASONABLE ROYALTY:

Chapter 1 principally recommends that courts replace the so-called *Georgia-Pacific* factors used in the United States (and analogous factors used outside the United States) with the following three steps for calculating reasonable royalty damages:

- (1) ***Calculate the incremental value of the invention and divide it appropriately between the parties.*** A license for the use of a patented technology typically requires the licensee to share with the licensor some portion of the incremental value the licensee derives or expects to derive from the use of that technology. To ensure that a reasonable royalty for the unauthorized use of a patented technology accurately reflects this incremental value, ideally a court would (1) estimate the difference between the value the infringer derived from the use of the patented invention (as distinct from the value contributed by other features of the infringing end product), and the value the infringer would have derived by using the next-best available noninfringing alternative instead; (2) divide that differential value between the patent owner and the infringer; and (3) as an aid in carrying out this division, consider any relevant evidence, including possibly

the use of a rebuttable presumption that the parties would have agreed, *ex ante*, to an even (50/50) split.

- (2) **Assess market evidence.** In negotiating licenses for the use of patented technologies, parties often consider the rates and other terms disclosed in relevant comparable licenses (or, where applicable, the rates charged by relevant patent pools or disclosed in publications of industry standard rates). Courts also should consider such evidence for purposes of calculating reasonable royalties for the unauthorized use of patented technologies, albeit subject to appropriate adjustments and with due appreciation for the potential limitations of such evidence.
- (3) **Comparison.** When it is feasible and cost justified, courts should carry out both steps described above – each one acting as a “check” on the accuracy of the other – and then attempt to reconcile or adjust the results, as the evidence warrants. That said, one can expect only that courts do the best they can with the evidence available to them. Thus, when the evidence necessary to carry out step 2 is available but the evidence necessary to carry out step 1 is not – as will likely often be the case in litigation involving complex products – courts may need to rely exclusively on market evidence. (The converse will be true when the available evidence relates only to step 1, not 2.)

PATENTED ALTERNATIVES:

A conceptual difficulty with step 1 of the above framework arises if the next-best noninfringing alternative is, itself, also patented. It is not at all uncommon that the best substitutes for a patented technology are also patented, as several inventors devise different solutions to the same problem. One possibility is that in such a case the value of the patented invention is zero, on the view that the infringing user in the hypothetical negotiation should be imagined to play one patentee off against another until the patentee is haggled down to its minimum willingness to accept. By the same token, if the infringed technology was not quite as good as the patented alternative, the value of the infringed technology would be zero. Chapter 1 recommends that courts reject this approach, on the ground that although it makes sense from a static welfare perspective, it provides a facially inadequate incentive to invent (zero compensation) and therefore appears inconsistent with the conventionally understood purpose of the patent system.

DIVIDING INCREMENTAL VALUE:

Chapter 1 additionally recommends that, to the extent possible, a split of the incremental profit should reflect the value of any ancillary services (such as marketing) or risks that either the patent owner or the infringer, in fact, undertook. While courts should permit the parties to introduce any competent evidence on this issue,

a fact finder may also wish to consider empirical findings that people in Western societies generally view a 50/50 split of benefits as fair, and that economists often use the Nash Bargaining Solution in modeling bargaining behavior.

Moreover, when courts use a hypothetical bargaining construct to split incremental value, Chapter 1 recommends that courts adopt a “contingent *ex ante* approach” under which the hypothetical negotiation is generally assumed to take place before any sunk costs are incurred, but with the benefit of *ex post* information. The rationale for this approach is that the bargain must be assumed to take place *ex ante*, so that the patentee is not entitled to extract any holdup value; but at the same time, using *ex post* information more accurately reflects the true incremental value of the invention, and so provides a more accurate reward to the patentee.

In addition, courts should consider comparables and other market evidence with caution. Such evidence often may be the best that is available, and even when there is other evidence of the value of the technology over alternatives, it may still be useful to consider market evidence by way of comparison. But courts should be cognizant that there are significant practical and conceptual problems involved with using comparable licenses – even “established” ones – as evidence of a reasonable royalty.

EVIDENTIARY GATEKEEPING AND THE ENTIRE MARKET VALUE RULE:

Chapter 1 also recommends that in jurisdictions employing juries to decide patent cases, courts should require patentees to present royalty evidence using the smallest saleable patent-practicing unit, rather than the entire market value of a larger complex end product, as the royalty base. Framing damages by reference to the value of the entire accused product may have an undue influence on jurors (sometimes known as “anchoring”) in cases where the asserted patent covers just one of many components or features that comprise the entire product, and in such cases may lead to damages awards that are overcompensatory.

Finally, Chapter 1 recommends that courts consider whether individual pieces of expert evidence satisfy a basic threshold of quality in addition to separately examining the overall sufficiency of all relevant evidence. In the absence of a jury or other fact finder distinct from the trial-level adjudicator of questions of law, there is probably less significance to the distinction between (1) the ultimate assessment of the overall sufficiency of evidence to support a damages award and (2) gatekeeping for the relevance and reliability of expert testimony. But although the particular standard for expert testimony gatekeeping has been controversial within the United States, something like *Daubert*-style review might generally be useful even in jurisdictions that do not try patent cases to juries.

CHAPTER 2: LOST PROFITS AND DISGORGEEMENT

Chapter 2 addresses remedies that either (1) award as damages the profits that the patent owner would have earned absent infringement (lost profits), or (2) award to the patent owner the profits earned by the infringing party (disgorgement).

AVAILABILITY OF LOST PROFITS:

Chapter 2 recommends that a patentee's lost profits (including from lost sales and price erosion) should be the preferred measure of damages when a patentee can establish harm in a product market due to the infringement.

CAUSATION AND NONINFRINGEMENT ALTERNATIVES:

Chapter 2 additionally recommends that lost profits should generally be available whenever a practicing patentee can demonstrate "but for" causation by a preponderance of the evidence, rather than only when the patentee can satisfy more detailed standards or requirements, such as the *Panduit* factors presently used in the United States. This chapter further recommends that courts should consider the availability and substitutability of noninfringing alternatives when analyzing "but for" causation, and overrule decisions (such as *United Horse-Shoe* in the UK) that hold to the contrary. If the infringer could have competed with the patentee by offering a noninfringing alternative to the patented invention, the patentee would have lost fewer sales (and thus profits) absent the infringement. Even an imperfect substitute that provides some, but not all, of the functionality of the patented invention can affect both the price of the patented product and consumer choice.

LOST PROFITS FOR UNPATENTED PRODUCTS:

In addition to profits on lost sales of patented products, Chapter 2 recommends that patentees should be permitted to recover losses associated with (1) sales of products that incorporate both infringing and noninfringing components, (2) additional contemporaneous sales of distinct but related items, and (3) anticipated future sales of replacement or repair parts, provided that the patentee can demonstrate that such sales were reasonably foreseeable by an infringing competitor in the relevant market.

AVAILABILITY OF DISGORGEEMENT:

In jurisdictions where disgorgement is an available remedy, Chapter 2 recommends that the grant of accounting be within the discretion of the court, rather than automatic, given the potential burden on the infringer in taking an accounting.

Courts also should require patentees to elect between an accounting and damages; they should not be permitted to pursue both simultaneously.

DIFFERENTIAL PROFIT METHOD:

Chapter 2 additionally recommends that jurisdictions permitting disgorgement adopt a differential profit approach to calculating the infringer's profits. Rather than requiring the infringer to disgorge the entire profit made on an infringing product, courts should limit disgorgement recoveries to the difference between the infringer's actual profits and the profits it would have made had it used the best noninfringing alternative. A contrary rule – such as the accounting profit approach or the U.S. approach in design patent cases – can result in disgorgement of profits that are not causally attributable to the infringement, and thus will put the patentee in a better position than it would have been but for the infringement.

CHAPTER 3: ENHANCED DAMAGES, LITIGATION COST RECOVERY, AND INTEREST

Chapter 3 addresses remedies beyond reasonable royalties and profits.

ENHANCED DAMAGES:

Chapter 3 recommends that when enhanced (or “punitive”) damages are awarded, they should be calculated consistent with the objectives of the patent system – for example, by weighing the ability of such awards to deter opportunistic infringement against their countervailing tendency to discourage the dissemination of technological information via patent disclosures – rather than on the basis of subjective notions of retributive punishment.

LITIGATION COST RECOVERY:

Chapter 3 additionally recommends that when litigation costs are awarded to prevailing parties, such awards should aim to compensate for the reasonable and proportionate costs actually incurred by the prevailing party in a meaningful manner unless equity prescribes otherwise, rather than only partially (as is often the case in practice). Moreover, in countries in which fee shifting is not presently the norm, legislatures and courts should consider experimenting with more generous fee shifting rules, as well as discovery reforms designed to reduce the risk that the stronger party will make unnecessary and excessive expenditures with the expectation of reimbursement.

INTEREST:

Chapter 3 recommends that courts be required to award pre- and post-judgment compound interest, nominally at rates that reflect the infringer's cost of borrowing. To the extent such reforms would be difficult to implement in the short run, legislatures should (as a second-best solution) periodically reconsider statutory interest rates to ensure that they do not differ substantially from market rates.

CHAPTER 4: INJUNCTIVE RELIEF

Chapter 4 addresses the law and policy of injunctive relief, focusing primarily on permanent injunctions.

BASIC PRINCIPLES FOR INJUNCTIVE RELIEF:

Chapter 4 principally recommends that courts should not automatically issue injunctive relief in all cases in which a patentee prevails in a suit for infringement. Instead, courts should have and, in appropriate circumstances, exercise discretion to deny injunctive relief when issuance of an injunction would otherwise generate costs or burdens for others that are disproportionate to the nature of the adjudged infringement and to the noncompensable harms the patentee would suffer in the absence of an injunction. Further, courts should be afforded the flexibility and discretion to tailor injunctive relief in appropriate circumstances to avoid imposing unnecessary hardship on infringers or the general public.

PROPORTIONALITY:

In assessing whether the negative effects of the injunction on enjoined parties would be disproportionate to the nature of the infringement and any noncompensable harm that the patentee will experience without injunctive relief, Chapter 4 additionally recommends that: (1) courts consider only those relevant negative effects on enjoined parties or the general public that have some reasonable likelihood of actually occurring if adjudged infringers and third parties take reasonable mitigating measures in relation to an injunction; and (2) courts consider only the relative, as opposed to absolute, sizes of the patentee's harm and an injunction's negative effects.

TAILORING INJUNCTIVE RELIEF:

Chapter 4 additionally recommends that courts consider whether tailoring injunctive relief – for example, by staying an injunction for a period of time to allow redesign of an infringing component of a complex product – may avoid or mitigate

the negative effects an injunction otherwise might impose. Moreover, courts should consider tailoring injunctions in the normal course, even when a proportionality-based test is otherwise satisfied.

ONGOING ROYALTY IN LIEU OF INJUNCTIVE RELIEF:

Chapter 4 recommends that when injunctive relief is not granted (and damages have not separately compensated for future infringement) courts should award as a substitute additional monetary damages in the form of an “ongoing reasonable royalty.” This ongoing royalty should be calculated in accordance with the principle for determining a “reasonable royalty” for past infringement, without any special enhancement due to the ongoing reasonable royalty’s association with activity that occurs after the judgment of infringement.

CHAPTER 5: THE EFFECT OF FRAND COMMITMENTS ON PATENT REMEDIES

Chapter 5 addresses a special category of cases in which an asserted patent is, or has been declared to be, essential to the implementation of a collaboratively developed voluntary consensus standard, and the holder of that patent has agreed to license it to implementers of the standard on terms that are fair, reasonable, and nondiscriminatory (FRAND). Both as a matter of patent law, contract law, and competition law, the existence of such a FRAND commitment may affect a patent holder’s entitlement to monetary damages and injunctive relief.

MONETARY DAMAGES:

Chapter 5 recommends that courts assessing FRAND royalty rates should reject strict application of the *Georgia-Pacific* framework, and instead select whatever methodology for calculating FRAND rates is best supported by the available evidence. Depending on the evidence available, courts may choose to rely on sufficiently comparable license agreements covering the same patents, general consensus on aggregate royalty rates for an overall standard or technology, and one or both of the “bottom-up” and “top-down” royalty calculation methodologies.

INJUNCTIONS:

Chapter 5 additionally recommends that courts place reasonable conditions on the issuance of injunctions against the infringement of standards-essential patents – such as those discussed in Chapter 4 – even absent a violation of competition law. When balancing equities between the parties, this chapter additionally recommends

that courts incorporate the procedures laid out in *Huawei v. ZTE* or under the law of Japan or Korea. While these procedural analyses were developed with potential violations of competition law or contract law in mind, they nonetheless model a well-functioning bilateral relationship within the standard-setting context and, thus, are relevant to a full and fair assessment of the appropriateness of equitable relief.

