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Compensatory Damages Issues in Patent Infringement Cases

Second edition

FEDERAL JUDICIAL CENTER
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Compensatory Damages Issues in Patent Infringement Cases

Second Edition

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Introduction

Several years ago, then-Chief Judge Paul R. Michel of the U.S. Court of Appeals for the Federal Circuit brought together a diverse group of lawyers, judges, academics, and experts to develop a guide for trial courts to consult when faced with issues of compensatory damages in patent infringement cases. The goal was to bring to bear the participants' collective experience on how best to address and resolve patent damages issues, all within the overarching framework of achieving the "just, speedy, and inexpensive determination of every action and proceeding."¹ The first edition of this pocket guide, published in 2011, was the result.

As that initial publication recognized, however, patent infringement damages is a continuously evolving area of law. In the intervening years, the courts not only have continued to refine the legal principles that govern the determination of patent infringement damages, but also have implemented a variety of case-management techniques that focus on patent damages. Judge Jeremy Fogel, director of the Federal Judicial Center, therefore requested a revised patent damages guide to reflect the current state of the law and the courts' evolving case-management efforts. This second edition is the result.

As with the original, this revised guide does not attempt to provide a comprehensive explication of substantive damages law or to predict its future evolution. Rather, it is intended to focus on case-management practices that may be helpful to the courts in the adjudication of patent infringement damages. Because judges have requested inclusion of more substantive damages law, however, we have added more detail in this regard, but we have stopped well short of presenting a patent damages treatise.

We would like to thank Judge Andrew Guilford (C.D. Cal.) and Judge Rebecca Pallmeyer (N.D. Ill.) for their thoughtful

1. Fed. R. Civ. P. 1. Unless otherwise indicated, all references in this guide to the "Rules" are to the Federal Rules of Civil Procedure.

review of this manuscript and for their helpful suggestions. The content of this guide has not been reviewed or endorsed by the U.S. Court of Appeals for the Federal Circuit or any judge of that court; the guide was prepared only by the members of the Patent Damages Handbook Committee. Thus, the practices set forth are not intended to be “official” in any sense, nor do they represent policy or recommendations of the Federal Judicial Center or its Board. No member of this committee, or the company, law firm, or client that employs that member, or the court on which that member serves, endorses the application of any particular practice in any particular case. Moreover, this guide is not intended to suggest that current law needs (or does not need) judicial or legislative revision. Rather, it is intended simply to be a helpful resource for judges, judicial clerks, and lawyers under current law.

In compiling this guide, we have continued to look to and draw from the work of others, including the Center’s *Patent Case Management Judicial Guide*,² the National Jury Instruction Project,³ and the local patent rules, standing orders, and general orders of various district courts. We continue to recognize that “the rich variety of cases and rapidly evolving patent ecosystem” require district court judges to exercise their informed judgment and discretion.⁴ Accordingly, those who consult this guide will need to supplement and tailor the practices and approaches discussed to the circumstances of each particular case.

2. Peter S. Menell et al., *Patent Case Management Judicial Guide* (3d ed. 2016) [hereinafter “Patent Management Guide”].

3. The National Jury Instruction Project, *Model Patent Jury Instructions* (2009) [hereinafter “Model Patent Instructions”] (<http://www.nationaljuryinstructions.org>).

4. *Patent Management Guide*, *supra* note 2, at 1–2.

Introduction

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I. Patent Damages in General

Although this guide is not intended to be a comprehensive treatise on patent infringement compensatory damages or a definitive interpretation of the extensive judicial precedent on the subject, it is helpful to set forth the legal framework and context for the procedural practices described later.

A. Statutory Provisions

Section 284 of the patent statute (35 U.S.C. §§ 1–376) addresses damages, both compensatory and enhanced. The portion directed to compensatory damages states:⁵

Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court. When the damages are not found by a jury, the court shall assess them

The court may receive expert testimony as an aid to the determination of damages or of what royalty would be reasonable under the circumstances.⁶

An important principle flows from this statutory mandate. Patent infringement damages are compensatory, designed to make the patentee whole. The damages inquiry “must concentrate on compensation for the economic harm caused by

5. The patent statute also affords the patent owner the opportunity to obtain damages enhanced up to treble damages, attorney fees, costs, and prejudgment interest, 35 U.S.C. §§ 284–285, and, to the owner of a design patent, the infringer’s “total profit.” *See* 35 U.S.C. § 289; *Comcast Holdings I LLC v. Sprint Comm’n Co.*, 850 F.3d 1302, 1313–14 (Fed. Cir. 2017); *Samsung Elecs. Co. v. Apple Inc.*, 137 S. Ct. 429, 434–36 (2016); *Nordock, Inc. v. Sys. Inc.*, 803 F.3d 1344, 1352–57 (Fed. Cir. 2015); *Nike Inc. v. WalMart Stores, Inc.*, 138 F.3d 1437, 1441–48 (Fed. Cir. 1998). Determining whether to award and the amount of attorney fees and enhanced damages in patents cases deserves its own treatise, while determining whether to award and the amount of costs and interest does not vary greatly from the manner appropriate in other commercial disputes. Thus, these topics are beyond the scope of this guide.

6. 35 U.S.C. § 284.

infringement of the claimed invention.”⁷ An award of compensatory patent infringement damages attempts to assess “the difference between the [patentee’s] pecuniary condition after the infringement, and what his condition would have been if the infringement had not occurred.”⁸ The question to be asked in determining such damages is “had the Infringer not infringed, what would [the] Patent Holder . . . have made?”⁹

B. Forms of Compensatory Utility Patent Damages

Compensatory damages for utility patent infringement traditionally have fallen into three categories, one or all of which may be involved in a particular case:¹⁰ lost profits, established royalty,¹¹ and reasonable royalty.¹² In addition, the court may

7. *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 869 (Fed. Cir. 2010).

8. *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1324 (Fed. Cir. 2009) (quoting *Yale Lock Mfg. Co. v. Sargent*, 117 U.S. 536, 552 (1886)).

9. *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 507 (1964); *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1545 (Fed. Cir. 1995) (en banc).

10. *State Indus., Inc. v. Mor-Flo Indus., Inc.*, 883 F.2d 1573, 1577 (Fed. Cir. 1989) (award split between lost profits and reasonable royalty). Indeed, where the trial court eliminates on posttrial motion a lost profits award with respect to a portion of the infringing devices, it must consider an appropriate other measure of damages for that portion. *Siemens Med. Solutions USA, Inc. v. Saint-Gobain Ceramics & Plastics, Inc.*, 637 F.3d 1269, 1290 (Fed. Cir. 2011).

11. The Federal Circuit’s repeated statements that “[t]here are two alternative categories of compensatory damages available under § 284: the patentee’s lost profits and the reasonable royalty he would have received through arms-length bargaining,” *Nordock*, 803 F.3d at 1352; *Lucent Techs.*, 580 F.3d at 1324, overlooks the category of damages known as “established royalty.” Although sometimes incorrectly characterized as a reasonable royalty, see *Monsanto Co. v. McFarling*, 488 F.3d 973, 978 (Fed. Cir. 2007), the established royalty is, strictly speaking, a form of actual damages and is “reasonable” in the sense that it typically provides the “best measure” of a royalty for the use made of the invention. *Id.* The relatively rigorous requirements for finding an established royalty based on previous third-party license agreements, see, e.g., *Rude v. Westcott*, 130 U.S. 165 (1889), do not apply to the use of such license agreements in the reasonable royalty analysis. See, e.g., *Lucent Techs.*, 580 F.3d at 1325–26 (applying comparability standard).

12. A fourth form of compensatory damages, the infringer’s profits from the infringement, was eliminated by statute in 1946 for all but design patents. See *Aro*, 377 U.S. at 505; see also 35 U.S.C. § 289; *Nike*, 138 F.3d at 1442.

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award prejudgment interest under 35 U.S.C. § 284 on the compensatory portion of the damages award,¹³ prejudgment interest on any award of attorney fees,¹⁴ postjudgment interest under Federal Rule of Civil Procedure 37 on the entire award,¹⁵ and ongoing royalties.¹⁶

1. Lost Profits

Lost profits normally are proved by determining what profits would have been made by the patentee “but for” the infringement.¹⁷ That is, to obtain lost profits damages, the patent owner “must show a reasonable probability that, ‘but for’ the infringement, it would have made the sales that were made by the infringer.”¹⁸ The patent owner makes this showing by establishing what profits it “would have made absent the infringing product.”¹⁹ And the patent owner must support its analysis with “sound economic proof of the nature of the market and likely outcomes with infringement factored out of the economic picture.”²⁰

13. *Gen. Motors Corp. v. Devex Corp.*, 461 U.S. 648 (1983) (prejudgment interest award is the norm); *Sanofi-Aventis v. Apotex Inc.*, 659 F.3d 1171 (Fed. Cir. 2011) (prejudgment interest denied when contract limited compensatory damages solely to a percentage of infringer’s net sales); *Group One Ltd. v. Hallmark Cards, Inc.*, 407 F.3d 1297 (Fed. Cir. 2003) (prejudgment interest may be denied for period in which patent is expired and owner fails to reinstate); *Underwater Devices, Inc. v. Morrison-Knudsen Co.*, 717 F.2d 1380 (Fed. Cir. 1983) (no prejudgment interest on enhanced damages portion).

14. *Mathis v. Spears*, 857 F.2d 749 (Fed. Cir. 1988) (prejudgment damages may be awarded on attorney fees).

15. *Tronzo v. Biomet, Inc.*, 318 F.3d 1378 (Fed. Cir. 2003) (postjudgment interest). Where willful infringement is found, the court may enhance the amount of damages awarded up to three times under 35 U.S.C. § 284. *See In re Seagate Tech., LLC*, 497 F.3d 1360 (Fed. Cir. 2007) (en banc). If the case is adjudged to be “exceptional,” attorneys’ fees (in addition to costs) may be awarded to the prevailing party. *See* 35 U.S.C. § 285.

16. *See Paice v. Toyota Motor Corp.*, 504 F.3d 1293, 1314–15 (Fed. Cir. 2007).

17. *Rite-Hite*, 56 F.3d at 1545; *BIC Leisure Prods. v. Windsurfing Int’l*, 1 F.3d 1214, 1218 (Fed. Cir. 1993).

18. *Akamai Techs., Inc. v. Limelight Networks, Inc.*, 805 F.3d 1368, 1379 (Fed. Cir. 2015); *Rite-Hite*, 56 F.3d at 1545.

19. *Akamai*, 805 F.3d at 1379.

20. *Id.*

One accepted (but not exclusive) test for lost profits damages—often referred to as the “*Panduit*” test²¹—requires that the patent owner establish “(1) demand for the patented product; (2) absence of acceptable noninfringing substitutes; (3) manufacturing and marketing capability to exploit the demand; and (4) the amount of profit it would have made.”²² Satisfying this four-part test establishes an inference that the lost profits claimed were in fact caused by the infringing sales and sustains the patentee’s burden of proving entitlement to lost profits owing to the infringing sales.²³ The burden then shifts to the infringer to show that the inference is unreasonable for some or all of the lost sales.²⁴ Whether lost profits are legally compensable in a particular situation is a question of law.²⁵

The *Panduit* test is not absolute in that failure to meet one of the factors does not necessarily disqualify a loss from being compensable. For example, a patentee in a multi-supplier market with available noninfringing alternatives nonetheless can seek lost profits for a portion of the infringing sales based on the patentee’s share of the market absent the infringement.²⁶ Application of this “market-share approach” will result in the patentee being compensated for some portion of the infringement by way of lost profits and the remainder by way of reasonable royalty. This approach requires, however,

21. See *Panduit Corp. v. Stahlin Bros. Fibre Works, Inc.*, 575 F.2d 1152 (6th Cir. 1978). The Federal Circuit has described the *Panduit* test as a “standard way of proving lost profits,” a “nonexclusive standard for determining lost profits,” as “approved generally,” and as “usually straightforward and dispositive.” *State Indus., Inc. v. Mor-Flo Indus., Inc.*, 883 F.2d 1573, 1577–79 (Fed. Cir. 1989).

22. *Mentor Graphics Corp. v. Eve-USA, Inc.*, 851 F.3d 1275, 1285 (Fed. Cir. 2017); *Rite-Hite*, 56 F.3d at 1545.

23. *Rite-Hite*, 56 F.3d at 1545; *Versata Software Inc. v. SAP Am., Inc.*, 717 F.3d 1255, 1264 (Fed. Cir. 2013) (“A showing under the four-factor *Panduit* test establishes the required causation.”); see also *Mentor Graphics*, 851 F.3d at 1285 (“Together, requiring patentees to prove demand for the product as a whole and the absence of non-infringing alternatives ties lost profit damages to specific claim limitations and ensures that damages are commensurate with the value of the patented features.”).

24. *Rite-Hite*, 56 F.3d at 1545.

25. *Am. Seating Co. v. USSC Grp., Inc.*, 514 F.3d 1262 (Fed. Cir. 2008); *Poly-Am., L.P. v. GSE Lining Tech., Inc.*, 383 F.3d 1303, 1311 (Fed. Cir. 2004).

26. See *Mor-Flo*, 883 F.2d at 1577–79.

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that the patentee competed in the same market as the infringer and had the ability to make the sales that were made by the infringer.²⁷

The first *Panduit* factor—whether demand existed for the “patented product”—may be restated as whether demand existed for “a product that is ‘covered by the patent in suit’ or that ‘directly competes with the infringing device.’”²⁸ Focus on particular features corresponding to individual claim limitations is unnecessary for the first *Panduit* factor, but instead “the elimination or substitution of particular features corresponding to one or more claim limitations goes to the availability of acceptable noninfringing substitutes under the second *Panduit* factor.”²⁹ A “patentee cannot show entitlement to a higher price divorced from the effect of that higher price on demand for the product” because “[a]ll markets must respect the law of demand,” which counsels that “consumers almost always purchase fewer units of a product at higher price than a lower price, possibly substituting other products.”³⁰ And the patentee must show that the infringing units do not “possess characteristics significantly different from the [patentee’s product].”³¹

As to the second *Panduit* factor, to be “available” for purposes of a lost profits analysis, an acceptable noninfringing substitute must have been “available or on the market” at the time of infringement.³² A fact finder “must proceed with caution in assessing proof of the availability of substitutes not

27. *BIC Leisure*, 1 F.3d at 1218.

28. *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1330 (Fed. Cir. 2009), quoting *Rite-Hite*, 56 F.3d at 1548–49.

29. *DePuy Spine*, 567 F.3d at 1331.

30. *Crystal Semiconductor Corp. v. TriTech Microelectronics Int’l, Inc.*, 246 F.3d 1336, 1357 (Fed. Cir. 2001); see also *BIC Leisure*, 1 F.3d at 1218.

31. *Kaufman Co. v. Lantech, Inc.*, 926 F.2d 1135, 1142 (Fed. Cir. 1991).

32. *Siemens Med. Solutions USA, Inc. v. Saint-Gobain Ceramics & Plastics, Inc.*, 637 F.3d 1269, 1288 (Fed. Cir. 2011) (citing *Grain Processing Corp. v. Am. Maize-Prods. Co.*, 185 F.3d 1341, 1349 (Fed. Cir. 1999)).

actually sold during the period of infringement.”³³ Nevertheless, a substitute that was not on sale at the time of infringement but that could have been readily commercialized may be “available” for purposes of a lost profits determination.³⁴ Where an alleged substitute was not on the market during the damages period, the accused infringer has the burden to overcome the inference that the substitute was not “available.”³⁵

Patentees enjoy “significant latitude to prove and recover lost profits for a wide variety of foreseeable economic effects of the infringement.”³⁶ For example, lost profits damages may account for both lost sales and a reduction of price owing to the infringing competition—that is, price erosion.³⁷ To prove price erosion damages, a patent holder must show that “but for” the infringement, it would have sold its product at a higher price.³⁸ A price erosion analysis also must account for the effect of a higher price on demand for the product as well as the impact of acceptable noninfringing alternatives on the market.³⁹

Sales of unpatented or noninfringing components or products may be included in an award of lost profits damages under certain circumstances. Application of the “entire market value rule,” which is discussed more fully below with respect to reasonable royalty damages, requires that (1) the infringing component or feature is the basis for customer demand

33. *Grain Processing*, 185 F.3d at 1353.

34. *Siemens*, 637 F.3d at 1288.

35. *SynQor Inc. v. Artesyn Techs., Inc.*, 709 F.3d 1365, 1382 (Fed. Cir. 2013); *DePuy Spine*, 567 F.3d at 1331; *Grain Processing*, 185 F.3d at 1353.

36. *Grain Processing*, 185 F.3d at 1350; *Am. Seating*, 514 F.3d at 1270.

37. *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 711 F.3d 1348, 1378 (Fed. Cir. 2013) (“We thus recognize the economic principle of ‘price erosion’ in calculating compensatory damages for patent infringement.”).

38. *SynQor*, 709 F.3d at 1381.

39. *Id.* (“[B]ecause ‘a rational would-be infringer is likely to offer an acceptable non-infringing alternative, if available, to compete with the patent owner rather than leave the market altogether,’ the analysis must consider the impact of such alternate technologies on the market as a whole.” (quoting *Grain Processing*, 185 F.3d at 1350–51)).

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for the entire product, (2) the infringing and noninfringing components are sold together so they constitute a functional unit or are parts of a complete machine or single assembly of parts, and (3) the infringing and noninfringing components are analogous to a single functioning unit.⁴⁰ “A conveyed sale is a sale of a product that is not patented, but is sufficiently related to the patented product such that the patentee may recover lost profits for lost sales.”⁴¹ Being sold together with the patented product merely for “convenience or business advantage,”⁴² or solely to satisfy customer demand,⁴³ is not enough to establish a relationship sufficient to recover lost profits.⁴⁴ That the allegedly conveyed product has a use independent of the patented product suggests a nonfunctional relationship.⁴⁵

Although “the recovery of lost profits is not limited to the situation in which the patentee is selling the patented device,”⁴⁶ to be recoverable, the lost profits must be those of the patentee. That is, “a patentee may not claim, as its own damages, the lost profits of a related company.”⁴⁷ And lost profits

40. See *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1549–50 (Fed. Cir. 1995); *Funai Elec. Co., Ltd. v. Daewoo Elec. Corp.*, 616 F.3d 1357, 1375–76 (Fed. Cir. 2010) (affirming award of lost profits based on entire lost sales value, where there was evidence that the benefits provided by the patented technology “were the basis for customer demand”).

41. *Warsaw Orthopedic, Inc. v. NuVasive, Inc.*, 778 F.3d 1365, 1375 (Fed. Cir. 2015); see also *Am. Seating*, 514 F.3d at 1268.

42. *Warsaw Orthopedic*, 778 F.3d at 1375; *Am. Seating*, 514 F.3d at 1268.

43. *Am. Seating*, 514 F.3d at 1268–69.

44. For example, “pull-through” sales, sales of unrelated products based on the business relationship developed by sales of the patented products but that neither compete with nor function with the patented products, are not compensable as lost profits. *DePuy Spine*, 567 F.3d at 1333–34.

45. *Warsaw Orthopedic*, 778 F.3d at 1375; see also *DePuy Spine*, 567 F.3d at 1333.

46. *Poly-Am., L.P. v. GSE Lining Tech., Inc.*, 383 F.3d 1303, 1311 (Fed. Cir. 2004).

47. *Warsaw Orthopedic*, 778 F.3d at 1375; see also *Poly-Am.*, 383 F.3d at 1311. Normally a patentee may not recover as lost profits damages “true-up” payments that may be based in large part on patent license royalties. *Warsaw Orthopedic*, 778 F.3d at 1377.

damages “must come from the lost sales of a product or service the patentee itself was selling.”⁴⁸

“The traditional understanding that our patent law operates only domestically and does not extend to foreign activities is embedded in the Patent Act itself, which provides that a patent confers exclusive rights in an invention within the United States.”⁴⁹ Although lost profits may be awarded for foreign sales of the patented items manufactured in the United States and sold to foreign buyers by the U.S. manufacturer,⁵⁰ the presumption against extraterritoriality prohibits awarding lost profits for damages resulting from a third party’s foreign use of the infringing products.⁵¹ Likewise, loss of sales in foreign markets, even though an accused infringer became a direct competitor of the patentee as a result of infringement within the United States, is not compensable as lost profits.⁵² Analogously, damages are not available for sales made during the pediatric exclusivity period after the patent has expired, because the injured party’s rights are not attributable to patent infringement.⁵³

2. Established Royalty

Where it can be proven, an established royalty usually will be the best measure of damages.⁵⁴ An established royalty can be

48. *Warsaw Orthopedic*, 778 F.3d at 1376; see also *Rite-Hite*, 56 F.3d at 1548; *Poly-Am.*, 383 F.3d at 1311.

49. *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437 (2007).

50. *Brown v. Duchesne*, 60 U.S. 183 (1856); *Goulds’ Mfg. Co. v. Cowing*, 105 U.S. 253 (1881); *Dowagiac Mfg., Co. v. Minn. Moline Plow Co.*, 235 U.S. 641 (1915).

51. *WesternGeco L.L.C. v. ION Geophysical Corp.*, 791 F.3d 1340, 1349 (Fed. Cir. 2015).

52. *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 711 F.3d 1348 (Fed. Cir. 2013).

53. See *AstraZeneca AB v. Apotex Corp.*, 782 F.3d 1324, 1344 (Fed. Cir. 2015).

54. *Clark v. Wooster*, 119 U.S. 322, 326 (1886) (“It is a general rule in patent causes that established license fees are the best measure of damages that can be used.”); see also *Burdell v. Denig*, 92 U.S. 716, 719 (1876); *Birdsall v. Coolidge*, 93 U.S. 64, 70 (1876); cf. *Nickson Indus., Inc. v. Rol Mfg. Co.*, 847 F.2d 795, 798 (Fed. Cir. 1988) (“Where an established royalty exists, it will usually be the best measure of what is a ‘reasonable’ royalty.”).

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proven in two ways. First, the parties to the lawsuit may have previously entered into an agreement by which the patentee and accused infringer set the price for a license, but one or both of the parties did not perform under the agreement. In that circumstance, the royalty required by the agreement ordinarily will be treated as an established royalty.⁵⁵

Second, the patentee may have granted licenses to third parties, licenses to which the infringer is a “stranger.” To constitute an established royalty, however, such third-party licenses must be repeated, uniform licensing transactions in which the market actually has valued a license to the very patents at issue in the context of conduct comparable to that of the accused infringer.⁵⁶ For a royalty to be established by third-party licenses, it “must be paid by such a number of persons as to indicate a general acquiescence in its reasonableness by those who have occasion to use the invention.”⁵⁷ Thus, a single third-party license agreement cannot demonstrate uniformity or acquiescence in the reasonableness of a royalty rate.⁵⁸ Proof of an established royalty normally requires a showing that it was the patentee’s regular practice to grant to third parties licenses that authorize conduct of the kind engaged in by the infringer at an established royalty

55. See *Seymour v. McCormick*, 57 U.S. 480, 490–91 (1854) (reversing damages award for more than the established royalty set by defendants’ licenses). Accord *Middleton v. Wiley*, 195 F.2d 844, 846 (8th Cir. 1952) (reversing denial of established royalty damages); *Seal-Flex, Inc. v. W.R. Dougherty & Assocs.*, 254 F. Supp. 2d 647, 655 (E.D. Mich. 2003) (“In light of the existence of an established royalty, the Court need not engage in the process of determining a hypothetical royalty.”).

56. See *Monsanto Co. v. McFarling*, 488 F.3d 973, 978 (Fed. Cir. 2007); *Nickson*, 847 F.2d at 798 (absent proof of unusual circumstances, such as widespread infringement that artificially depressed royalty, established royalty is best measure of damages); *Hanson v. Alpine Valley Ski Area, Inc.*, 718 F.2d 1075, 1078 (Fed. Cir. 1983) (same).

57. *Rude v. Westcott*, 130 U.S. 165 (1889); see also *Faulkner v. Gibbs*, 199 F.2d 635, 639 (9th Cir. 1952).

58. *Trell v. Marlee Elecs. Corp.*, 912 F.2d 1443, 1446 (Fed. Cir. 1990); *Hanson*, 718 F.2d at 1078.

rate.⁵⁹ In this context, the Supreme Court has rejected consideration of third-party license agreements entered into to resolve litigation.⁶⁰ Perhaps because the required proof is so exacting, an established royalty is the least common form of patent infringement damages sought or awarded.

Although some Federal Circuit cases have referred to an established royalty as a form of “reasonable royalty,”⁶¹ others have properly distinguished between the two, recognizing that an established royalty is analytically different from the reasonable royalty resulting from the hypothetical negotiation between the willing seller and willing buyer summarized in the *Georgia-Pacific* opinion.⁶² Although the first factor eval-

59. *Rude*, 130 U.S. at 165. In *Monsanto v. Ralph*, 382 F.3d 1374, 1383–84 (Fed. Cir. 2004), the Federal Circuit rejected an established royalty argument based on an agreement that imposed a “Technology Fee” that authorized “only a narrow, contractually agreed-upon, use,” rather than the infringer’s use. *Accord* *Monsanto Co. v. David*, 516 F.3d 1009, 1018 (Fed. Cir. 2008) (same); *McFarling*, 488 F.3d at 978–79 (same). In *Bandag, Inc. v. Gerrard Tire Co.*, 704 F.2d 1578, 1582–83 (Fed. Cir. 1983), the Federal Circuit rejected use of a franchise agreement that imposed a “royalty and service fee” as an established royalty.

60. *Rude*, 130 U.S. at 165. There is no corresponding bar to considering settlement agreements in connection with a reasonable royalty analysis. See *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 872 (Fed. Cir. 2010) (in this reasonable royalty case, the most reliable license in the record arose out of litigation); *Prism Techs. LLC v. Sprint Spectrum L.P.*, 849 F.3d 1360, 1372 (Fed. Cir. 2017) (in dicta limiting *Rude*’s holding on litigation settlements to the established royalty context).

61. In *Hanson*, 718 F.2d at 1078, the Federal Circuit divided damages into two kinds—actual damages (namely, lost profits) and a reasonable royalty that “may be based upon an established royalty, if there is one, or if not upon a hypothetical royalty resulting from arm’s length negotiations between a willing licensor and a willing licensee.”

62. See *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1121 (S.D.N.Y. 1970), *modified and aff’d*, 446 F.2d 295 (1971), *cert. denied*, 404 U.S. 870 (1971) (“The parties agree there is no ‘established’ royalty Consequently, it is necessary to resort to a broad spectrum of other evidentiary facts probative of a ‘reasonable’ royalty.”); *Integra Life Sciences I, Ltd. v. Merck KgaA*, 331 F.3d 860, 869 (Fed. Cir. 2003) (“[A]n injured patentee enjoys at least a reasonable royalty even when unable to show lost profits or an established royalty rate.”); *Riles v. Shell Exploration & Prod. Co.*, 298 F.3d 1302, 1311 (Fed. Cir. 2002) (“The statute guarantees patentees a reasonable royalty even when they are unable to prove entitlement to lost profits or an established royalty rate.”). The Supreme Court has distinguished

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uated under the *Georgia-Pacific* hypothetical negotiation approach is the “royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty,” the district court in that case recognized that it needed to resort to the hypothetical negotiation approach only because there was no established royalty.⁶³ In other words, an established royalty ordinarily eliminates the need to employ the hypothetical negotiation construct to identify the reasonable royalty. As the Supreme Court has explained, where “there was no established royalty . . . it was permissible to show the value by proving what would have been a reasonable royalty”⁶⁴

In most instances where an established royalty can be proved, it will be the appropriate measure of damages. But there are circumstances in which it may not be. For example, the Supreme Court in *Birdsall v. Coolidge*⁶⁵ held that an established royalty should not be awarded “arbitrarily and without any qualification,” and it reversed a damages judgment as excessive “where the patented improvement has been used only to a limited extent and for a short time.”⁶⁶ Similarly, the

established royalty from a reasonable royalty in *General Motors Corp. v. Devex Corp.*, 461 U.S. 648, 651–52 n.5 (1983), and *Dowagiac*, 235 U.S. at 648.

63. *Georgia-Pacific*, 318 F. Supp. at 1121. *Accord* *Hughes Aircraft Co. v. United States*, 86 F.3d 1566, 1568 (Fed. Cir. 1996); *Unisplay, S.A. v. Am. Elec. Sign Co.*, 69 F.3d 512, 517 (Fed. Cir. 1995); *Rite-Hite*, 56 F.3d at 1554; *Wang Labs., Inc. v. Toshiba Corp.*, 993 F.2d 858, 870 (Fed. Cir. 1993); *Trell*, 912 F.2d at 1446; *Fromson v. Western Litho Plate & Supply Co.*, 853 F.2d 1568, 1574 (Fed. Cir. 1988).

64. *Dowagiac*, 235 U.S. at 648.

65. 93 U.S. at 70. *Birdsall* suggested in dicta that damages could under some circumstances exceed the established royalty, but cited only authorities dealing with awards of other forms of “actual” damages, the patentee’s lost profits or the then-authorized equitable remedy of an award of the infringer’s profits. *Id.*

66. In the context of “reasonable compensation” for use of patented inventions by the government, the Federal Circuit’s predecessor court in *Tektronix, Inc. v. United States*, 552 F.2d 343, 347 & n.5 (Ct. Cl. 1977), explained in dicta that “[e]ven an established royalty may be modified upward . . . depending on the circumstances of the case,” citing *Meurer Steel Barrel Co. v. United States*, 85 Ct. Cl. 554, 34 U.S.P.Q. 123, 127 (1937), which held in the context of “reasonable compensation” for use of a patented invention by the government that the patentee’s uniform license rate did not show an established royalty because half its agreements were entered into to settle ongoing litigation.

Supreme Court and Federal Circuit have stated on several occasions, albeit not in the form of a holding in a patent infringement context, that an established royalty does not set a ceiling for patent infringement damages where widespread infringement artificially depressed the established royalty.⁶⁷

3. Reasonable Royalty

In most patent cases, the patent owner seeks reasonable royalty damages, either for infringement for which it cannot prove lost profits or established royalty damages, or as an alternative damages theory.⁶⁸ “The reasonable royalty theory of damages . . . seeks to compensate the patentee not for lost sales caused by infringement, but for its lost opportunity to obtain a reasonable royalty that the infringer would have been willing to pay if it had been barred from infringing.”⁶⁹

a. The Hypothetical Negotiation for a Reasonable Royalty

The most common approach to calculating reasonable royalty damages is the “hypothetical negotiation” or “willing seller–willing buyer” methodology, in which the trier of fact

67. “Though established royalty rates are normally applicable,” the Federal Circuit noted in dicta in *Bio-Rad Labs., Inc. v. Nicolet Instrument Corp.*, 739 F.2d 604, 617 (Fed. Cir. 1984), “they do not necessarily establish a ceiling for the royalty that may be assessed after an infringement trial.” Then, four years later, the Federal Circuit in *Nickson* opined, again in dicta, that the patentee “correctly states that a royalty ‘reasonable’ under 35 U.S.C. § 284 may be greater than an established royalty.” 847 F.2d at 798 (citing *Bio-Rad Labs.*, 739 F.2d at 617). The court went on to speculate that “a higher figure may be awarded when the evidence clearly shows that widespread infringement made the established royalty artificially low.” *Id.* Likewise, circumstances might justify award of a lower figure, but these deviations should be the exception from the rule.

68. A damages award may consist of lost profits for a portion of the accused infringements and reasonable royalty for the remainder of the infringements. See *TWM Mfg. Co. v. Dura Corp.*, 789 F.2d 895, 898 (Fed. Cir. 1986). For example, this approach is commonly applied where the patent owner seeks to prove lost profits based on market share. See *State Indus., Inc. v. Mor-Flo Indus., Inc.*, 883 F.2d 1573, 1577 (Fed. Cir. 1989).

69. *AstraZeneca*, 782 F.3d at 1334 (citing *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1325 (Fed. Cir. 2009)).

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determines what a willing licensee in the place of the infringer reasonably would have paid, and what a willing licensor in the place of the patentee reasonably would have accepted, for the grant of a license under the patent-in-suit, if such a license had been negotiated before the infringement began.⁷⁰ This approach requires the assumption that both parties reasonably wished to enter into a license and that both parties conducted the negotiation based on the understanding that the patent was valid, enforceable, and infringed.⁷¹

The first step in this type of royalty analysis is to determine when the asserted infringement began, because the hypothetical license would have been negotiated before the infringing activity began.⁷² The correct determination of this

70. *Lucent*, 580 F.3d at 1325 (“The hypothetical negotiation tries, as best as possible, to create the ex ante licensing negotiation scenario and to describe the resulting agreement.”). Courts imported the willing buyer–willing seller methodology from other areas of law, where it continues to be applied. *See, e.g.*, *Gaylord v. United States*, 773 F.3d 1363, 1368 (Fed. Cir. 2015) (applying willing buyer–willing seller methodology in context of U.S. government’s unauthorized use of a copyrighted work, relying on copyright infringement cases). Courts have emphasized that the willing buyer–willing seller methodology is not the only way to determine reasonable royalty damages, *see United States v. Virginia Electric & Power Co.*, 365 U.S. 624, 633 (1961) (willing buyer–willing seller methodology “not an absolute standard nor an exclusive method of valuation”).

71. *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1544 (Fed. Cir. 1995); *Lucent*, 580 F.3d at 1325. Courts sometimes refer to an “analytical approach” to calculating reasonable royalty damages, which focuses on the infringer’s internal profit projections for the infringing item at the time the infringement began and then apportions the projected profits between the patent owner and the infringer. *See, e.g., Lucent*, 580 F.3d at 1324. Such an approach has not been applied in a precedential Supreme Court or Federal Circuit case, however, and would not eliminate the need to apportion damages between patented and unpatented features or components of the accused products, to ensure that the patentee is fairly compensated only for the value of the claimed invention.

72. *Integra*, 331 F.3d at 870 (hypothetical negotiation occurs “at a time before the infringing activity began”); *Lucent*, 580 F.3d at 1324 (hypothetical negotiation takes place “before infringement began”); *LaserDynamics, Inc. v. Quanta Computers, Inc.*, 694 F.3d 51, 75 (Fed. Cir. 2012) (date of hypothetical negotiation is the date infringement began). Determination of the date of the hypothetical negotiation is a legal conclusion that may depend on factual findings. Because the date affects not only the hypothetical negotiation framework, but perhaps also the facts that may be considered in the analysis, testifying experts often present analyses based on different

date “is essential for properly assessing damages.”⁷³ The timing of the hypothetical negotiation can make a significant difference in the economic risks and rewards the negotiating parties would have factored into their negotiations.⁷⁴ In some cases, there may be more than one hypothetical negotiation date, for example if alleged infringement by different products began at different times⁷⁵ or if there are multiple patents at issue and the infringements of the patents began at different times.

In addition to ascertaining the proper date of the hypothetical negotiation, it may be important to identify the parties to the negotiation, for example, where the ownership of the patent-in-suit has changed and the patent holder at the time of the hypothetical negotiation is not the patent holder at the time the litigation is brought and damages are calculated.⁷⁶

Damages are not based on a hindsight evaluation of what happened, but on what the parties to the hypothetical license negotiations would have agreed upon.⁷⁷ Nevertheless, evidence relevant to the negotiation is not necessarily limited to

hypothetical negotiation dates, and the court should instruct the jury on the date of hypothetical negotiation if possible.

73. *LaserDynamics*, 694 F.3d at 75; *Integra*, 331 F.3d at 870 (the value of a hypothetical license negotiated in one year could be “drastically different” from one negotiated a year later; remanding case to trial court for determination of hypothetical negotiation date and recalculation of damages).

74. *Integra*, 331 F.3d at 870 (“a year can make a great difference in economic risks and rewards” and change the “risks and expectations” of the parties to the hypothetical negotiation).

75. See *Applied Med. Res. Corp. v. U.S. Surgical Corp.*, 435 F.3d 1356, 1363 (Fed. Cir. 2006) (where infringement caused by sales of two different products began at different times, they require “two different hypothetical negotiation dates”).

76. See, e.g., *Oracle Am., Inc. v. Google, Inc.*, 798 F. Supp. 2d 1111, 1116–17 (N.D. Cal. 2011) (patentee at the time, rather than plaintiff that later acquired the patent, was proper party to hypothetical negotiation); *Nichols Inst. v. Scantibodies Clinical Lab.*, No. 3:02-cv-0046-B, ECF No. 808, at 7–10 (S.D. Cal. May 2, 2006) (same).

77. *LaserDynamics*, 694 F.3d at 75 (reasonable royalty determination must relate to the time infringement occurred and “not be an after-the-fact assessment” (citing *Riles*, 298 F.3d at 1313)); *Powell v. Home Depot U.S.A., Inc.*, 663 F.3d 1221 (2011) (same).

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facts that predate the hypothetical negotiation. In “certain circumstances,” factual developments that occur after the hypothetical negotiation can inform the damages calculation.⁷⁸ For example, “evidence of usage [of the infringing technology] after infringement started can, under appropriate circumstances, be helpful to the jury and the court in assessing whether a royalty is reasonable.”⁷⁹ Usage (or similar) data may provide information the parties would have estimated during the negotiation.⁸⁰ In certain circumstances, it may be appropriate to consider as part of the hypothetical negotiation other postnegotiation facts, namely license agreements entered into by the parties, profits earned by the infringer, and noninfringing alternatives. As explained in the following section, these facts may shed light on what the parties to the hypothetical negotiation would have thought in certain circumstances.

b. Calculating a Reasonable Royalty

The second step in a reasonable royalty analysis is to determine what royalty the parties to the hypothetical negotiation would have agreed upon as of the negotiation date. This requires determining both the *form* of royalty the parties would

78. *Sinclair Ref. Co. v. Jenkins Petroleum Process Co.*, 289 U.S. 689, 698 (1933) (postnegotiation evidence of the extent of use of the patented invention); *Lucent*, 580 F.3d at 1333 (same); *Fromson*, 853 F.2d at 1575 (postnegotiation evidence of demand for the patented invention). This use of postnegotiation evidence of sales, demand, or use information is often referred to as the “book of wisdom,” harking back to the Supreme Court’s comments in *Sinclair* regarding contract damages for failure to assign a patent: “At times the only evidence available may be that supplied by testimony of experts as to the state of the art, the character of the improvement, and the probable increase of efficiency or saving of expense . . . This will generally be the case if the trial follows quickly after the issue of the patent. But a different situation is presented if years have gone by before the evidence is offered. Experience is then available to correct uncertain prophecy. Here is a book of wisdom that courts may not neglect.” 289 U.S. at 698.

79. *Lucent*, 580 F.3d at 1333.

80. *Id.*

have agreed upon—a single, lump-sum license payment versus a running royalty based on ongoing sales or usage, or perhaps another form—and the *amount* of the royalty payment.⁸¹

i. The form of reasonable royalty

A party seeking a reasonable royalty in the form of a single, lump-sum payment ordinarily may provide evidence of the expectations of the parties to the hypothetical negotiation concerning how often the patented technology would be used.⁸² The Federal Circuit has said that damages “ought to be correlated, in some respect, to the extent the infringing method is used by consumers. This is so because this is what the parties to the hypothetical negotiation would have considered.”⁸³ This perhaps overstates the relevance of use, particularly where the value of the use of the patented invention is relatively small—for example, where the value is less than the cost of defending a patent infringement lawsuit, or where there is a history of licensing or sale at a relatively low amount.

Where a running royalty is sought, a “classic way” to calculate it is to multiply the royalty base (reflecting revenues generated as a result of the infringement) by the royalty rate

81. See *id.* at 1325–27. Although *Lucent* recognized only the lump sum and running royalty forms, there are other possible arrangements.

82. *Id.* at 1327 (reversing \$357 million lump-sum reasonable royalty damages award because, inter alia, “no evidence of record establishes the parties’ expectations about how often the patented method would be used by consumers”; patentee “submitted no evidence upon which a jury could reasonably conclude that [the parties to the hypothetical negotiation] would have estimated, at the time of the negotiation” that the patented feature “would have been so frequently used or valued as to command a lump-sum payment” of that magnitude). See also *Interactive Pictures v. Infinite Pictures*, 274 F.3d 1371, 1384–85 (2001) (accepting as suitable factual evidence the patentee’s “business plan and its projections for future sales” prepared “two months before infringement began”).

83. *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1334 (Fed. Cir. 2009) (patentee has the “burden to prove that the extent to which the infringing method has been used supports the lump-sum damages award”); see also *Asetek Danmark A/S v. CMI USA Inc.*, 842 F.3d 1350, 1360 (Fed. Cir. 2016).

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(a percentage of the royalty base).⁸⁴ A running royalty also can be calculated as a fixed amount for each sale of an infringing product, sometimes referred to as a “per unit” royalty.⁸⁵ The form of the payment, however, should not be selected arbitrarily, but according to evidence of the form upon which the parties to the negotiation would have agreed.⁸⁶

ii. *The amount of reasonable royalty*

The reasonable royalty analysis may consider a wide range of evidence, and some of the factors to which that evidence may relate are referred to as the *Georgia-Pacific* factors.⁸⁷ The first fourteen “factors” identified by the *Georgia-Pacific* court are:

84. *Whitserve, LLC v. Computer Packages, Inc.*, 694 F.3d 10, 27 (Fed. Cir. 2012). In *WesternGeco L.L.C. v. ION Geophysical Corp.*, 791 F.3d 1340, 1349 n.9 (Fed. Cir. 2015), the court rejected using the defendant’s customer’s revenues to calculate a reasonable royalty, relying on a paucity of cases “in which the plaintiff has used the defendant’s customer’s revenue as the revenue base for calculating a reasonable royalty.”

85. *See, e.g.*, *Kearns v. Chrysler Corp.*, 32 F.3d 1541, 1544 (Fed. Cir. 1994) (awarding reasonable royalty of 90 cents per vehicle sold with the infringing windshield wipers, where average car price was approximately \$4,000 to \$6,000).

86. *See Lucent*, 580 F.3d at 1325 (“[W]e must decide whether substantial evidence supports this jury’s implicit finding that [the accused infringer] would have agreed to, at the time of the hypothetical negotiation, a lump-sum, paid-in-full royalty . . .”). Experts will on occasion convert one form of agreement into another, for example, converting the amount of one of a party’s lump-sum agreements into the amount of running royalties where the hypothetically negotiated license agreement implements a running royalty structure. Although a running royalty can be converted into a lump sum by calculating the present value of the running royalty payments, and conversely a lump sum can be converted to a running royalty if the amount and timing of product sales to which the lump sum applies is known, these conversions involve not only the use of interest or discount rates to allow for the time value of money and the risk associated with the receipt of future royalty payments, but other factors, such as a party’s preference for the form of royalty, administrative convenience of the lump-sum form, etc. *See id.* at 1326 (identifying factors); *Whitserve*, 694 F.3d at 27 (criticizing expert testimony for failing to explain how lump sum payments were converted to a running royalty).

87. *See Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120–21 (S.D.N.Y. 1970); *WhitServe*, 694 F.3d at 26–27 (*Georgia-Pacific* factors are “meant to provide a reasoned economic framework” for a hypothetical negotiation); *Energy Transp. Grp., Inc. v. William Demant Holding A/S*, 697 F.3d 1342, 1357 (Fed. Cir. 2012) (“[T]his court does not endorse *Georgia-Pacific* as setting forth a test for royalty calculations, but only as a list of admissible factors informing a reliable economic analysis.”); *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1317 (Fed. Cir. 2011) (“This

1. The royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty.
2. The rates paid by the licensee for the use of other patents comparable to the patent in suit.
3. The nature and scope of the license, as exclusive or non-exclusive; or as restricted or non-restricted in terms of territory or with respect to whom the manufactured product may be sold.
4. The licensor's established policy and marketing program to maintain his patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly.
5. The commercial relationship between the licensor and licensee, such as, whether they are competitors in the same territory in the same line of business; or whether they are inventor and promoter.
6. The effect of selling the patented specialty in promoting sales of other products of the licensee; the existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or convoyed sales.
7. The duration of the patent and the term of the license.
8. The established profitability of the product made under the patent; its commercial success; and its current popularity.
9. The utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results.
10. The nature of the patented invention; the character of the commercial embodiment of it as owned and produced

court has sanctioned the use of the *Georgia-Pacific* factors to frame the reasonable royalty inquiry. Those factors properly tie the reasonable royalty calculation to the facts of the hypothetical negotiation at issue.”); *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 869 (Fed. Cir. 2010) (*Georgia-Pacific* factors are a “comprehensive (but un-prioritized and often overlapping) list of relevant factors for a reasonable royalty calculation”).

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by the licensor; and the benefits to those who have used the invention.

11. The extent to which the infringer has made use of the invention; and any evidence probative of the value of that use.

12. The portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions.

13. The portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.

14. The opinion testimony of qualified experts.

The court compiled these fourteen evidentiary factors (plus a fifteenth “factor” that effectively restates the analytical framework⁸⁸) from a “conspectus of the leading cases” described as “seemingly more pertinent” to the issue.⁸⁹ The fifteen factors,

88. The fifteenth and final factor identified by the *Georgia-Pacific* district court is “The amount that a licensor (such as the patentee) and a licensee (such as the infringer) would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount which a prudent licensee—who desired, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention—would have been willing to pay as a royalty and yet be able to make reasonable profit and which amount would have been acceptable by a prudent patentee who was willing to grant a license.” 318 F. Supp. at 1120. The Federal Circuit has restated this “willing licensor–willing licensee” approach as attempting “to ascertain the royalty upon which the parties would have agreed had they successfully negotiated an agreement just before infringement began,” recognizing that “[t]he hypothetical negotiation tries, as best as possible, to recreate the *ex ante* licensing negotiation scenario and to describe the resulting agreement,” noting that “if infringement had not occurred, willing parties would have executed a license agreement specifying a certain royalty payment scheme,” and that “[t]he hypothetical negotiation also assumes that the asserted patent claims are valid and infringed.” *Lucent*, 580 F.3d at 1324–25.

89. *Georgia-Pacific*, 318 F. Supp. at 1120. The Federal Circuit has taken the liberty of revising these factors to more closely align with developments in damages law under its watch. For example, in *i4i Ltd. P’ship v. Microsoft Corp.*, 589 F.3d 1246, 1268 n.3 (Fed. Cir. 2009), the Federal Circuit described the *Georgia-Pacific* factors as “(1) royalties the patentee has received for licensing the patent to others; (2) rates paid by the licensee for the use of comparable patents; (3) the nature and scope of

however, are not exclusive.⁹⁰ Moreover, there is “no formula by which these factors can be rated precisely in the order of their relative importance or by which their economic significance can be automatically transduced into their pecuniary equivalent.”⁹¹ In applying the *Georgia-Pacific* factors, the parties are presumed to have had full knowledge of the facts and circumstances surrounding the infringement at the time of the negotiation.⁹²

Although the *Georgia-Pacific* framework is the method most commonly used to analyze reasonable royalty damages, parties are not required to use “any or all” of the *Georgia-Pacific* factors.⁹³ If they choose to use them, however, they must fully analyze the *applicable* factors, rather than superficially

the license (exclusive or nonexclusive, restricted or non-restricted by territory or product type); (4) any established policies or marketing programs by the licensor to maintain its patent monopoly by not licensing others to use the invention or granting licenses under special conditions to maintain the monopoly; (5) the commercial relationship between the licensor and licensee, such as whether they are competitors; (6) the effect of selling the patented specialty in promoting sales of other products of the licensee; (7) the duration of the patent and license term; (8) the established profitability of the product made under the patent, including its commercial success and current popularity; (9) the utility and advantages of the patent property over old modes or devices; (10) the nature of the patented invention and the benefits to those who have used the invention; (11) the extent to which the infringer has used the invention and the value of that use; (12) the portion of profit or of the selling price that may be customary in that particular business to allow for use of the invention or analogous inventions; (13) the portion of the realizable profit that should be credited to the invention as opposed to its non-patented elements; (14) the opinion testimony of qualified experts; and (15) the results of a hypothetical negotiation between the licensor and licensee.”

90. *Integra Life Sciences I, Ltd. v. Merck KgaA*, 331 F.3d 860, 871–72 (Fed. Cir. 2003).

91. *Georgia-Pacific*, 318 F. Supp. at 1121.

92. *LaserDynamics, Inc. v. Quanta Computers, Inc.*, 694 F.3d 51, 76 (Fed. Cir. 2012). This principle—that the parties to the hypothetical negotiation are presumed to have known of the patent and the infringement at the time of the negotiation—is sometimes misinterpreted to mean that a trier of fact can properly consider all post-negotiation facts and developments under the “book of wisdom” doctrine. That is not the case. See the “book of wisdom” discussion above, note 78.

93. *WhitServe*, 694 F.3d at 31. The Supreme Court has explained in the real property context that the willing buyer–willing seller approach “is not an absolute standard nor an exclusive method of valuation.” *United States v. Virginia Elec. & Power Co.*, 365 U.S. 624, 633 (1961).

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reciting all fifteen.⁹⁴ Moreover, “while mathematical precision is not required, some explanation of both why and generally to what extent the particular factor impacts the royalty calculation is needed.”⁹⁵

Other factors not enumerated in *Georgia-Pacific* may be relevant to the royalty determination. For example, the cumulative effect of “stacking royalties”—the number of patent licenses required to produce the accused product—may color the character of a hypothetical negotiation.⁹⁶ Where the patent-in-suit was transferred (along with products, other patents and know-how, or other assets) as part of a business acquisition, the overall acquisition price may be relevant in assessing the value of a license to the patent.⁹⁷

The accused infringer’s evidence of an available, acceptable, noninfringing alternative to the infringing technology, or “design-around,” should be considered in the hypothetical negotiation,⁹⁸ but the cost of such an alternative does not necessarily cap the reasonable royalty.⁹⁹ When an infringer can

94. *WhitServe*, 694 F.3d at 31

95. *Id.* (rejecting “bare-bones *Georgia-Pacific* analysis” that consisted of a cursory recitation of the factors, followed by conclusory remarks that each factor would cause an upward or downward adjustment to, or have a neutral impact on, the hypothetically negotiated royalty rate).

96. *Integra*, 331 F.3d at 871–72.

97. *Id.*

98. *See Riles v. Shell Exploration & Prod. Co.*, 298 F.3d 1302, 1312 (Fed. Cir. 2002) (“[U]nder the constraints of the hypothetical negotiation, the market could not award [the patentee] a royalty for his method divorced of all relation to a potential non-infringing alternative method. The economic relationship between the patented method and non-infringing alternative methods, of necessity, would limit the hypothetical negotiation.”) (citing *Grain Processing Corp. v. Am. Maize-Prods. Co.*, 185 F.3d 1341, 1347 (Fed. Cir. 1999)); *Zygo Corp. v. Wyko Corp.*, 79 F.3d 1563, 1571–72 (Fed. Cir. 1996) (remanding damages award for district court to “reconsider its award of a 25% royalty rate in light of [infringer’s] ability to market the noninfringing [product] in lieu of marketing the infringing [product]”). A similar approach is basing a reasonable royalty on the costs avoided by infringing. *See Prism Techs. LLC v. Sprint Spectrum L.P.*, 849 F.3d 1360, 1375–76 (Fed. Cir. 2017).

99. Reasonable royalty damages are not capped, as a matter of law, at “the cost of implementing the cheapest available, acceptable, non-infringing alternative” because there may be reasons beside cost that prevent the infringer from switching to the alternative. *Mars, Inc. v. Coin Acceptors, Inc.*, 527 F.3d 1359, 1373 (Fed. Cir. 2008).

easily design around a patent, the hypothetical royalty is typically low; by the same reasoning, if avoiding the patent would be difficult, expensive, and time-consuming, the hypothetical royalty would likely be greater.¹⁰⁰ Even where the infringer did not have a noninfringing alternative in hand but had the resources to come up with one at the time of the negotiation, the fact finder may consider that fact in setting a royalty rate.¹⁰¹ Merely because an infringer implemented a noninfringing alternative at some point after the hypothetical negotiation date is not enough, however; the alternative must have been available to the infringer and acceptable to customers at the relevant time.¹⁰² At times, there will be evidence about the availability and acceptability of noninfringing alternatives contemporaneous with the hypothetical negotiation,¹⁰³ but when there is no such evidence, courts have looked to *ex post* evidence that sheds light on the availability and acceptability of a noninfringing alternative at the time of the hypothetical negotiation.¹⁰⁴

100. *AstraZeneca AB v. Apotex Corp.*, 782 F.3d 1324, 1334–35 (Fed. Cir. 2015). The infringer “would have been in a stronger position to negotiate for a lower royalty rate knowing it had a competitive noninfringing device ‘in the wings.’” *Id.*

101. *See Mars*, 527 F.3d at 1373.

102. *See, e.g., Spectralytics, Inc. v. Cordis Corp.*, 649 F.3d 1336, 1346 (Fed. Cir. 2011) (affirming jury verdict of 5% royalty despite evidence of noninfringing alternative where district court’s finding that “a reasonable jury could have found that the alleged alternatives were either not acceptable or not available” was supported by substantial evidence); *Micro Chem., Inc. v. Lextron, Inc.*, 317 F.3d 1387, 1393–94 (Fed. Cir. 2003) (affirming jury verdict based on lack of evidence that noninfringing alternative implemented three years after the hypothetical negotiation was available to infringer and acceptable to consumers at the hypothetical negotiation). If the alternative would not have been available at the time of the hypothetical negotiation, or would have taken considerable time to implement, the analysis should consider the infringer’s cost of delayed market entry.

103. *See, e.g., Riles*, 298 F.3d at 1313 (remanding for trial court to entertain additional evidence in light of “conflicting” evidence on availability of noninfringing alternative).

104. For example, in *TWM*, the Federal Circuit affirmed the district court’s rejection of the infringer’s argued existence of a noninfringing alternative based on consideration of the infringer’s “failure to design its own device,” “election to infringe, despite having expended only minimal sums when notified of infringement,” “willful infringement,” “failure to successfully market other allegedly ‘acceptable’ designs,”

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A fundamental premise of the hypothetical negotiation form of reasonable royalty analysis is that the suppositious licensee would be left with *some* anticipated profit after paying the royalty.¹⁰⁵ The *Georgia-Pacific* trial court identified the “anticipated amount of net profits that the prospective licensee reasonably thinks he will make” as one of the factors that parties to a hypothetical negotiation may consider,¹⁰⁶ but on appeal the Second Circuit made clear that the suppositious licensee’s expected profit should be seen as a *limitation* on the reasonable royalty—a royalty should always be fixed “so as to leave the infringer, or supposititious licensee, a reasonable profit,” and explicitly rejected as “basic error” the computation of a royalty rate that “did not allow [the supposititious licensee] a reasonable profit after paying the supposititious royalty.”¹⁰⁷ The Federal Circuit has similarly recognized that “[an expert]’s opinion that [a supposititious licensee] would agree to pay a royalty in excess of what it expected to make in profit was . . . absurd.”¹⁰⁸ A suppositious licensee sitting at the hypothetical negotiating table would expect to

violation of an injunction, and “withdrawal from the business after enforcement of the injunction.” *TWM Mfg. Co. v. Dura Corp.*, 789 F.2d 895, 900 (Fed. Cir. 1986); see also, *AstraZeneca*, 782 F.3d at 1340–41 (finding that noninfringing alternatives were not available at the time of infringement because the only noninfringing alternative available was covered by third-party patents and other alternatives were found to be noninfringing at a much later time).

105. See *Hanson v. Alpine Valley Ski Area, Inc.*, 718 F.2d 1075, 1081 (Fed. Cir. 1983) (“[T]hat a reasonable royalty would leave an infringer with a reasonable profit . . . is implicit”) (internal quotation marks omitted). Although, economically speaking, exceptional circumstances exist where the infringer’s anticipated profit flowing directly from infringing sales may not represent a reasonable cap, such as a loss leader, those circumstances should be considered from the broad perspective of benefit to the infringer, not just benefit from the infringing sales, if those benefits can be quantified.

106. *Georgia-Pacific*, 318 F. Supp. at 1121.

107. *Georgia-Pacific Corp. v. U.S. Plywood-Champion Papers, Inc.*, 446 F.2d 295, 299 (2d Cir. 1971).

108. *Lindemann Maschinenfabrik GmbH v. Am. Hoist & Derrick Co.*, 895 F.2d 1403, 1408 (Fed. Cir. 1990). See also *Carnegie Mellon Univ. v. Marvell Tech. Grp., Ltd.*, 807 F.3d 1283, 1304 (Fed. Cir. 2015) (“A key inquiry in the [reasonable royalty] analysis is what it would have been worth to the defendant, as it saw things at the time, to obtain the authority to use the patented technology considering the benefits it would

make a profit from its anticipated use of the patented invention. In other words, “a reasonable royalty would leave an infringer with a reasonable profit,” at least based on its expectations, if they can be proven.¹⁰⁹ As evidence of the profits the accused infringer at the hypothetical negotiation table would have expected to make from using the invention, actual profits are like evidence of postnegotiation license agreements, in that the relevance of the infringer’s actual profits depends on whether the circumstances under which those profits were made were comparable to what the negotiation party would have anticipated or expected.¹¹⁰ That an infringer actually made unexpectedly low profits, or even lost money, from its infringing use may have little or no relevance, and a reasonable royalty may exceed the infringer’s actual profit.¹¹¹

expect to receive from using the technology” and “a basic premise of the hypothetical negotiation is the opportunity for making substantial profits if the two sides [are] willing to join forces by arriving at a license of the technology.” (internal quotation marks omitted)). Likewise, “a patent owner participating in a hypothetical negotiation would consider the profits on sales it might lose as a result of granting a license.” *Asetek Danmark A/S v. CMI USA Inc.*, 842 F.3d 1350, 1360 (Fed. Cir. 2016) (citing *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1544–56 (Fed. Cir. 1995)).

109. *Hanson*, 718 F.2d at 1081 (“The issue of the infringer’s profit is to be determined not on the basis of hindsight evaluation of what actually happened, but on the basis of what the parties to the hypothetical license negotiations would have considered at the time of the negotiations.”).

110. *Aqua Shield v. Inter Pool Cover Team*, 774 F.3d 766, 771–72 (Fed. Cir. 2014).

111. *See id.* (district court “erred in treating the profits [accused infringer] actually earned during the period of infringement as a royalty cap” because accused infringer “could have raised its prices (over what it actually charged for infringing sales) to account (fully or partly) for a royalty payment”); *Douglas Dynamics, LLC v. Buyers Prods. Co.*, 717 F.3d 1336, 1346 (Fed. Cir. 2013) (“The infringer’s selling price can be raised if necessary to accommodate a higher royalty rate, and indeed, requiring the infringer to do so may be the only way to adequately compensate the patentee for the use of its technology.”); *Radio Steel & Mfg. Co. v. MTD Prods., Inc.*, 788 F.2d 1554, 1557 (Fed. Cir. 1986) (affirming royalty that exceeded the infringer’s profits where infringer’s treasurer testified infringing products “might have been utilized as loss-leaders at various times during the period of infringement”); *Hanson*, 718 F.2d at 1081 (“Whether, as events unfurled thereafter, [infringer] would have made an actual profit, while paying the royalty determined as of [the hypothetical negotiation date], is irrelevant.”). In *Powell v. Home Depot U.S.A., Inc.*, 663 F.3d 1221, 1238–39 (2011), the dicta rejecting the infringer’s profit expectation as a limit on the reasonable royalty relied solely on the irrelevant holding of *Stickle v. Heublien, Inc.*, 716 F.2d 1550, 1563 (Fed. Cir. 1983), “rejecting the accused infringer’s argument that the reasonable

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Witnesses testifying to the amount of a reasonable royalty often seek to use other license agreements as evidence of what the parties to the hypothetical negotiation would have agreed upon.¹¹² Other license agreements may be relevant to the hypothetical negotiation if they are “sufficiently comparable to the hypothetical license at issue,” because they can provide inferential evidence of how the parties to the hypothetical negotiation would have valued the patent-in-suit at the time of the negotiation, particularly the party that entered into that license.¹¹³ Thus, whether such license agreements are relevant and admissible depends on the specifics of the licenses: they must be for sufficiently comparable technology, and they must have been entered into under economic or other circumstances that are sufficiently comparable to the hypothetical negotiation that the license can fairly be said to yield relevant inferences about how the parties would have valued the patented technology at issue.¹¹⁴ Actual licenses to

royalty is capped by the sales prices of the patented product.” *Powell*, 663 F.3d at 1239.

112. For example, *Georgia-Pacific* factor 2 is “[t]he rates paid by the licensee for the use of other patents comparable to the patent in suit.” *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970). Subsumed within this factor is the question of the structure of the license—that is, “whether the licensor and licensee would have agreed on a lump-sum payment or instead to a running royalty based on ongoing sales or usage.” *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1326 (Fed. Cir. 2009).

113. *See, e.g.*, *LaserDynamics, Inc. v. Quanta Computers, Inc.*, 694 F.3d 51, 79, 80 (Fed. Cir. 2012) (“Actual licenses to the patent-in-suit are probative not only of the proper amount of a reasonable royalty, but also of the proper form of the royalty structure.”); *Lucent*, 580 F.3d at 1325–26 (quoting Russell L. Parr, *Royalty Rates for Licensing Intellectual Property* 64 (2007) (“For similar license agreements to be used as a proxy for derivation of a fair market royalty, the form of license compensation should be on a like-kind basis.”)).

114. *See, e.g.*, *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1317 (Fed. Cir. 2011) (“[T]here must be a basis in fact to associate the royalty rates used in prior licenses to the particular hypothetical negotiation at issue in the case.”); *see also Lucent*, 580 F.3d at 1325, 1330; *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 870–72 (Fed. Cir. 2010). The Federal Circuit has cautioned that courts must “exercise vigilance when considering past licenses to technologies other than the patent in suit.” *ResQNet*, 594 F.3d at 869 (citing *Lucent*, 580 F.3d at 1329). And “royalties paid by re-

the patented technology at issue are likely the most probative, as they “most clearly reflect the economic value of the patented technology in the marketplace.”¹¹⁵ Licenses to other technology may be useful, but a party seeking to rely on them bears the burden of showing that they are sufficiently comparable to the hypothetical license being negotiated and must account for any economic or technological differences between them and the hypothetical license.¹¹⁶ License agreements that are “vastly different” from the hypothetical license—for example, because they cover an entire patent portfolio instead of just the patent (or patents) in suit, because they license not only the patents in suit but other types of intellectual property, or because they cover different technology—cannot properly inform the damages analysis.¹¹⁷ Likewise, reliance on “industry licenses” does not establish comparability.¹¹⁸

When evaluating the comparability of other licenses offered as part of a reasonable royalty analysis, the timing of the execution of the agreements matters in at least two ways. First, the closer in time the other licenses are to the hypothetical negotiation date, whether before or after, the more likely it will be that those licenses were entered into under eco-

lated parties have little probative value as to the patent’s value.” *Warsaw Orthopedic, Inc. v. NuVasive, Inc.*, 778 F.3d 1365, 1377 (Fed. Cir. 2015); *see also* *Allen Archery, Inc. v. Browning Mfg. Co.*, 898 F.2d 787, 790 (Fed. Cir. 1990).

115. *LaserDynamics*, 694 F.3d at 79, 80 (“Actual licenses to the patent-in-suit are probative not only of the proper amount of a reasonable royalty, but also of the proper form of the royalty structure.”).

116. *See, e.g., Uniloc*, 632 F.3d at 1317; *Lucent*, 580 F.3d at 1325, 1330; *ResQNet*, 594 F.3d at 870–72; *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1211–11 (Fed. Cir. 2010).

117. *Lucent*, 580 F.3d at 1327–28 (license agreements for other groups of patents “were created from events far different from a license negotiation to avoid infringement of the one patent here”); *LaserDynamics*, 694 F.3d at 79 (“alleging a loose or vague comparability between different technologies or licenses does not suffice”); *see also ResQNet*, 594 F.3d at 870, 872.

118. *Lucent*, 580 F.3d at 1328 (patentee “characterizes the four [other license] agreements as covering ‘PC-related patents,’ as if personal computer kinship imparts enough comparability to support the damages award”).

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nomic or other circumstances that are sufficiently comparable to those surrounding the hypothetical negotiation to reflect the view of one or both of the parties to the hypothetical negotiation of the value of the hypothetical license. The effect of timing on comparability may depend upon the rate of technological change in the relevant market. Second, for settlement of litigation, settlement licenses, negotiated after the determination of infringement and validity, can be relevant as they have taken place in a setting “similar to the setting of a hypothetical negotiation in which infringement and patent validity are assumed.”¹¹⁹

Furthermore, the form of the requested hypothetical royalty and the form of the proposed “comparables” are also important. There are “fundamental differences” between lump-sum license agreements and running-royalty agreements.¹²⁰ Thus, although it is possible for a running royalty agreement to be relevant to a lump-sum damages award (and vice versa), there must be a factual basis for comparing the two and recalculating “in a meaningful way” the value of the running royalty licenses to arrive at the hypothetical lump-sum license amount.¹²¹ Even when comparing existing lump-sum licenses to a hypothetical lump-sum license, there must be a factual basis for comparison.¹²²

That said, there may be circumstances when admittedly noncomparable licenses are relevant and admissible for limited purposes. For example, a party may wish to offer existing license agreements that are not comparable to the hypothetical license (because, for example, they “cover many patents

119. *AstraZeneca*, 782 F.3d at 1336–37.

120. *Lucent*, 580 F.3d at 1330.

121. *Id.*

122. *Wordtech Sys., Inc. v. Integrated Networks Solutions, Inc.*, 609 F.3d 1308, 1320 (Fed. Cir. 2010) (without data on how existing lump-sum licenses were calculated—such as what the intended products were and how many products each licensee expected to produce under the lump-sum license—other lump-sum licenses provide no basis for comparison and amount to “little more than a recitation of royalty numbers” (quoting *Lucent*, 580 F.3d at 1329)).

at a lower rate” than the other party proposes) precisely *because* they are not comparable and arguably show that the requested royalty is unreasonably high.¹²³ Faced with a request to introduce noncomparable licenses, the court should carefully consider the proffered reason for introducing them, and where it concludes they appropriately can be admitted, properly limit their use.

A related issue is whether settlement licenses can be relevant to the reasonable royalty inquiry. The Federal Circuit has acknowledged that there may be instances where the most comparable license agreements have been entered into to settle litigation.¹²⁴ While it could be said that many if not most patent license agreements are entered into because of at least the implicit threat of litigation conveyed by the patent, courts nonetheless should exercise care in considering license agreements entered into to settle ongoing or explicitly threatened litigation in order to ensure the agreements provide information that would have been considered by the participants in the hypothetical negotiation—that is, that they truly are comparable, and that their value is adjusted to compensate for litigation effects.¹²⁵ Similarly, in some circumstances, proposed (but not consummated) licenses may have

123. See *LaserDynamics Inc. v. Quanta Computer, Inc.*, No. 2:06-cv-348, ECF No. 785 at 1 (E.D. Tex. Jan. 30, 2011).

124. *ResQNet*, 594 F.3d at 872 (“[T]he most reliable license in this record arose out of litigation.”). Because settlement agreements are subject to exclusion for lack of comparability and relevant adjustment, parties often present an alternative analysis along with one based on settlement agreements.

125. See *id.* at 872 (“the hypothetical reasonable royalty calculation occurs before litigation” and “litigation itself can skew the results of the hypothetical negotiation”); *LaserDynamics, Inc. v. Quanta Computers, Inc.*, 694 F.3d 51, 77 (Fed. Cir. 2012) (“The propriety of using prior settlement agreements to prove the amount of a reasonable royalty is questionable”; a district court must consider such licenses in their “proper context within the hypothetical negotiation framework to ensure that the reasonable royalty rate reflects ‘the economic demand for the claimed technology.’” (quoting *ResQNet*, 594 F.3d at 872)); *but see* *Prism Techs. LLC v. Sprint Spectrum L.P.*, 849 F.3d 1360, 1370 (Fed. Cir. 2017) (“The particulars of a case that was settled and the settlement, as well as the case in which the settlement is offered as evidence, matter to the Rule 403 balance.”).

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some value for determining a reasonable royalty, but their evidentiary value is narrowly limited because, among other reasons, “patentees could artificially inflate the royalty rate by making outrageous offers.”¹²⁶ Care should be taken in evaluating damages testimony that relies on offers to license.

It is important to distinguish the date of the hypothetical negotiation from other dates that affect infringement damages liability.¹²⁷ For example, the statutory six-year limitation on recovery of past damages does not preclude the hypothetical negotiation date from taking place earlier, when infringement began, “even if damages cannot be collected until sometime later.”¹²⁸ Likewise, failure to mark a patented product or prove actual notice of the patent precludes a patentee from recovering damages for the period prior to marking or notice, “but the hypothetical negotiation date may nevertheless be properly set before marking or notice occurs.”¹²⁹

c. Apportionment

Damages awarded for patent infringement “must reflect the value attributable to the infringing features of the product, and no more.”¹³⁰ “This principle—apportionment—is the governing rule where multi-component products are involved.”¹³¹ The requirement for apportionment dates back to at least *Garretson v. Clark*,¹³² where the Supreme Court explained:

126. *Whitserve, LLC v. Computer Packages, Inc.*, 694 F.3d 10, 29–30 (Fed. Cir. 2012) (expert’s testimony regarding a proposed, but unaccepted, license cannot support jury verdict “because it is based on fiction” and contradicts expert’s other testimony). *See also* *NetAirus Techs., LLC v. Apple Inc.*, No. 10-cv-3257, ECF No. 533, at 69 (C.D. Cal. Oct. 23, 2013) (rejecting damages expert’s reliance on unaccepted litigation settlement offers).

127. *LaserDynamics*, 694 F.3d at 75.

128. *Id.* *See* 35 U.S.C. § 286.

129. *LaserDynamics*, 694 F.3d at 75. *See* 35 U.S.C. § 287.

130. *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1226 (Fed. Cir. 2014).

131. *Commonwealth Sci. & Indus. Research Org. v. Cisco Sys., Inc. (“CSIRO”)*, 809 F.3d 1295, 1301 (Fed. Cir. 2015).

132. 111 U.S. 120, 121 (1884).

The patentee . . . must in every case give evidence tending to separate or apportion the defendant's profits and the patentee's damages between the patented feature and the unpatented features, and such evidence must be reliable and tangible, and not conjectural or speculative; or he must show, by equally reliable and satisfactory evidence, that the profits and damages are to be calculated on the whole machine, for the reason that the entire value of the whole machine, as a marketable article, is properly and legally attributable to the patented feature.

In view of the apportionment requirement, “all expert damages opinions must separate the value of the allegedly infringing features from the value of all other features.”¹³³ Thus, the “essential requirement” for reliability “is that the ultimate reasonable royalty award must be based on the incremental value that the patented invention adds to the end product,”¹³⁴ i.e., the value apportioned to the patented features.

The Federal Circuit has “developed certain principles to aid courts in determining when an expert's apportionment model is reliable.”¹³⁵ One such principle—the smallest salable patent-practicing unit principle—provides that a patentee should use no more than the smallest salable patent practicing unit of an accused multicomponent product as the royalty base.¹³⁶ Where the smallest salable patent-practicing unit itself contains both patented and unpatented features or components, further apportionment may be necessary to ensure that the damages compensate only for the contribution and value of the patented invention.¹³⁷ The damages must be cali-

133. *CSIRO*, 809 F.3d at 1301 (citing *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1329 (Fed. Cir. 2014)).

134. *Ericsson*, 773 F.3d at 1226.

135. *CSIRO*, 809 F.3d at 1301.

136. See *LaserDynamics*, 694 F.3d at 67; *Versata Software Inc. v. SAP Am., Inc.*, 717 F.3d 1255, 1268 (Fed. Cir. 2013).

137. See *VirnetX*, 767 F.3d at 1327 (“[T]he requirement that a patentee identify damages associated with the smallest salable patent-practicing unit is simply a step towards meeting the requirement of apportionment. Where the smallest salable unit is, in fact, a multi-component product containing several non-infringing features with

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brated to compensate only for the infringer’s use of the patented invention. Apportioning patent infringement damages ensures that patentees are compensated only for the value of what they invented.¹³⁸ Apportionment cannot be based on arbitrary rules of thumb or other arbitrary assumptions.¹³⁹ Rather, a court “must carefully tie proof of damages to the claimed invention’s footprint in the market place.”¹⁴⁰ A damages calculation that is not based on the value of the claimed invention “punishes beyond the reach of the [patent damages] statute.”¹⁴¹

A formulation known as the entire market value rule (“EMV rule” or “EMVR”) exists as a “narrow exception” to the

no relation to the patented feature . . . , the patentee must do more to estimate what portion of the value of that product is attributable to the patented technology.”); *LaserDynamics*, 694 F.3d at 70 (purpose of entire market value rule is to ensure that the royalty base “does not overreach and encompass components not covered by the patent”).

138. *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1318 (Fed. Cir. 2011) (the patentee “must in every case give evidence tending to separate or apportion the defendant’s profits and the patentee’s damages between the patented feature and the unpatented features, and such evidence must be reliable and tangible, and not conjectural or speculative” (quoting *Garretson*, 111 U.S. at 121)); *Riles v. Shell Exploration & Prod. Co.*, 298 F.3d 1302, 1312 (Fed. Cir. 2002) (“[T]he market would pay [the patentee] only for his product . . . [The patentee’s damages] model [does not support the jury’s damages award because it] does not associate [the] proposed royalty with the value of the patented method at all, but with the unrelated cost of the entire . . . platform.”).

139. See *VirnetX*, 767 F.3d at 1032–34 (rejecting application of a 50% rule of thumb under the guise of the “Nash Bargaining Solution” because it was insufficiently tied to the facts of the case); *Uniloc*, 632 F.3d at 1318 (rejecting damages 25% rule of thumb as “arbitrary, unreliable and irrelevant”); *Douglas Dynamics, LLC v. Buyers Prods. Co.*, 717 F.3d 1336, 1346 (Fed. Cir. 2013) (district court abuses its discretion by applying “the infamous 25% rule of thumb”). Courts should scrutinize damages calculations that use similarly arbitrary approaches, such as testimony that the parties to the hypothetical negotiation simply would “split the difference” or “meet in the middle” between their respective negotiating positions. Unless that testimony is based on facts carefully tied to the particular parties—such as evidence that this is their normal negotiating strategy—it would be just as “arbitrary, unreliable and irrelevant” as the 25% rule of thumb rejected by the Federal Circuit in *Uniloc*. See also *LaserDynamics, Inc. v. Quanta Computers, Inc.*, 694 F.3d 51, 69 (Fed. Cir. 2012).

140. *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 869 (Fed. Cir. 2010).

141. *Id.*

apportionment requirement.¹⁴² The EMV rule most frequently arises in deciding whether the royalty base to which a royalty rate will be applied should be the entire value of the infringing product or some portion thereof to allow for the presence of unpatented components.¹⁴³ In the context of lost profits, the EMV rule usually arises in assessing whether noninfringing products sold with the infringing product may be included in the damages base. The EMV rule allows a patentee to assess damages based on the entire market value if (1) the infringing product or component is the basis for customer demand for the unpatented product or the entire infringing product, (2) the infringing and noninfringing products or components are sold together so they constitute a functional unit or are parts of a complete machine or single assembly of parts, and (3) the infringing and noninfringing products or components are analogous to a single functioning unit.¹⁴⁴

The first requirement—that “the patented feature creates the ‘basis for customer demand’ or ‘substantially create[s]

142. *CSIRO*, 809 F.3d at 1302.

143. The Federal Circuit has underscored that a patentee may not avoid satisfying the requirements of the EMV rule simply by using a low royalty rate. *LaserDynamics*, 694 F.3d at 68 (“[T]he requirement to prove that the patented feature drives demand for the entire product may not be avoided by the use of a very small royalty rate.”); *Uniloc*, 632 F.3d at 1320 (“The Supreme Court and this court’s precedents do not allow consideration of the entire market value of accused products for minor patent improvements simply by asserting a low enough royalty rate.”).

144. *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1549–50 (Fed. Cir. 1995). The EMV rule “limit[s] the permissible scope of patentees’ damages theories” and “acts as a check” to ensure that royalty damages are reasonable “in light of the technology at issue.” *LaserDynamics*, 694 F.3d at 67. The EMV rule does not apply, however, where the patent claims cover the entire accused product, the accused product contains “no unpatented or non-infringing feature,” and the combination substantially creates the value of the entire product. *AstraZeneca AB v. Apotex Corp.*, 782 F.3d 1324, 1338–39 (Fed. Cir. 2015). The entire market value rule is not an exercise in subtracting prior art elements from the asserted patent claim. *Id.* “Notably, these requirements are additive, not alternative ways to demonstrate eligibility for application of the entire market value rule.” *Cornell Univ. v. Hewlett-Packard Co.*, 609 F. Supp. 2d 279, 286–87 (N.D.N.Y. 2009) (Rader, J., sitting by designation).

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the value of the component parts”¹⁴⁵—is the one most frequently addressed in the case law.¹⁴⁵ It is not enough to show that the patented feature or component is valuable, important, or even essential to the use or commercial viability of the accused product.¹⁴⁶ The evidence must show that the patented feature *alone* drives consumer demand for the product or “substantially creates the value of the entire product,” such that the value of the entire product is fairly attributable to the allegedly infringed technology.¹⁴⁷

Market studies and consumer surveys are two ways a patentee might seek to show what drives demand for the accused product.¹⁴⁸ However, the testimony and opinions of survey experts also must satisfy Rule 702’s requirements: the surveys must be based on scientifically valid reasoning or methodology that is properly applied to the facts of the case. Surveys that purport to measure the value or importance of features that go beyond what is covered by the patents-in-suit do not meet this test.¹⁴⁹

Where the patentee cannot show that the entire market value rule applies and cannot apportion its damages, it still might be able to seek reasonable royalty damages based on

145. See, e.g., *Uniloc*, 632 F.3d at 1318 (citing *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1336 (Fed. Cir. 2009) and *Rite-Hite*, 56 F.3d at 1549–50); *LaserDynamics*, 694 F.3d at 66–70.

146. *LaserDynamics*, 694 F.3d at 68 (“[P]roof that consumers would not want a laptop computer without [the patented features] is not tantamount to proof that any one of those features alone drives the market for laptop computers.”).

147. *Id.* at 68, 69 (to use the EMV rule, the entire value of the accused product must be attributable to the patented feature (citing *Garretson*, 111 U.S. at 121)); *Astra-Zeneca*, 782 F.3d at 1338–39.

148. *LaserDynamics*, 694 F.3d at 69.

149. See Fed. R. Evid. 702; see also generally Patent Management Guide, *supra* note 2, at 7-37 to 7-39; see also *Fractus, S.A. v. Samsung Elecs. Co., Ltd.*, No. 6:2009-cv-00203, ECF No. 896, at 2 (E.D. Tex. Apr. 29, 2011) (excluding consumer surveys that measured the value or importance of features that are broader than the claimed invention; such surveys “do not measure how consumers value the purported advantages provided by [the patented] technology”); *NetAirus*, No. 10-cv-3257, ECF No. 524, at 4–6 (excluding survey results as unreliable, e.g., for eliciting answers from respondents who had no basis to provide them, seeking to value features beyond those covered by the asserted claims, and asking value-related questions without sufficient factual basis).

something other than a percentage of sales revenue or profit, for example, a lump-sum royalty or a per-unit royalty.¹⁵⁰ This alternate form of royalty, however, may still require apportionment.

Where a patentee cannot satisfy the EMV rule, it may be improper and prejudicial to permit the patentee to put the accused infringer's total revenues from the accused products before the jury for some other reason. For example, where the EMV rule is not satisfied, an expert may not use the infringer's total revenues as a purported "reasonableness check."¹⁵¹ Such evidence "cannot help but skew the damages horizon for the jury, regardless of the contribution of the patented component to this revenue."¹⁵² A court should carefully evaluate any effort (and proffered rationale) to put evidence of the entire revenues associated with the accused products before the jury.¹⁵³

The court should not permit a party to circumvent the apportionment requirement by relying on broad "apparatus" claim language when, in fact, the patented invention is not an

150. See *LaserDynamics*, 694 F.3d at 70 (patentee's argument that "practical and economic necessity" compelled use of entire market value of a multicomponent product overlooks that a percentage running royalty "is not the only form of a reasonable royalty that the parties might have agreed to in a hypothetical negotiation"); *SynQor Inc. v. Artesyn Techs., Inc.*, 709 F.3d 1365, 1383 (Fed. Cir. 2013) (requirements of EMV rule inapplicable where patentee "never sought to justify its damages figure based on the price of the customer end products").

151. *Uniloc*, 632 F.3d at 1319–20 ("[T]he fact that the entire market value was brought in as only a 'check' is of no moment.").

152. *Id.* at 1320. See also *LaserDynamics*, 694 F.3d at 68 ("[O]ne way in which the error of an improperly admitted entire market value theory manifests itself is in the disclosure of the revenues earned by the accused infringer associated with a complete product rather than the patented component only.").

153. See, e.g., *NetAirus*, ECF No. 533, at 3–4 (rejecting expert's attempt to provide dollar figure for accused infringer's hypothetical lost profits if it were to lose half its sales; such figures are irrelevant and not permitted by the entire market value rule).

entire apparatus but is only an improvement on, or component of, such an apparatus.¹⁵⁴ On the other hand, apportionment does not apply where the claimed invention is the combination of the accused product's few features.¹⁵⁵

A trier of fact is not required to accept either of the royalty rates proffered by the parties (or their experts), but its decision may be accepted so long as the royalty awarded is within the range encompassed by the record as a whole.¹⁵⁶

4. *Standard Setting Organizations, Reasonable and Nondiscriminatory Terms, and Standard Essential Patents*

Standard setting organizations (SSOs) such as the Institute of Electrical Electronics Engineers and the International Telecommunications Union create standards for use in designing

154. See, e.g., *Egry Register Co. v. Std. Register Co.*, 23 F.2d 438, 440 (6th Cir. 1928) (Patentee “cannot, by the language which his claims happen to take transform his invention of an improvement in an existing structure into one of a complete structure, as if it were wholly new, so as to entitle him to profits upon those parts of it which are not in any fair sense his invention.”); *DataQuill, Ltd. v. High Tech Comput. Corp.*, No. 08-cv-543-IEG, ECF No. 192, at 35–36 (S.D. Cal. Dec. 1, 2011) (Despite the use of “apparatus” language in the patent claims at issue, “DataQuill would likely have a hard time arguing that its patents represent the invention of the cell phone or even the smart-phone. The patent-in-suit only represents an improvement on an invention”—such as touch sensitive screens or integrated cameras. “Therefore the entire market value applies in this case, and DataQuill can only use the total revenue of the accused [cell phone] devices as the royalty base if it can show that the rule has been satisfied.” (citations to *Lucent* and *Uniloc* omitted)). See also *Fractus*, No. 09-cv-203, ECF No. 896, at 2 (Patentee may not introduce consumer surveys that attempt to quantify the estimated value of consumers’ preference for internal, versus external, cell phone antennas, where patentee “did not invent, and the patents-in-suit do not cover, all internal cell phone antenna designs.” Patentee’s invention is only one type of internal antenna that purportedly provides certain advantages.).

155. *AstraZeneca*, 782 F.3d at 1138. In this regard, the apportionment analysis is not simply an exercise in prior art subtraction. As the *AstraZeneca* court explained, “it is not the case that the value of all conventional elements must be subtracted from the value of the patented inventions as a whole when assessing damages. For a patent that combines old elements, removing the value of all of those elements would mean that nothing would remain. In such cases, the question is how much new value is created by the novel combination, beyond the value conferred by the conventional elements alone.” *Id.* at 1139 (internal quotation marks omitted).

156. *Spectralytics, Inc. v. Cordis Corp.*, 649 F.3d 1336, 1347 (Fed. Cir. 2011). Of course, this presumes that there is no other infirmity with the evidence.

and manufacturing technology products, e.g., WiFi and video coding standards. “SSOs play a significant role in the technology market by allowing companies to agree on common technological protocols so that products complying with the standards will work together.”¹⁵⁷

Standards adopted by SSOs often incorporate patented technology that must be practiced in order to comply with an optional or mandatory aspect of the adopted standard. Such patents are sometimes “called standard essential patents or ‘SEPs’.”¹⁵⁸ In order to curb the market power that SEP owners would otherwise gain by having their patented technology adopted in a standard, and to ensure the standard is available for wide use, SSOs commonly require owners of SEPs to license their patents on reasonable and nondiscriminatory (RAND), or fair, reasonable, and nondiscriminatory (FRAND), terms.¹⁵⁹

In the patent infringement damages context, what constitutes a “RAND royalty rate is a heavily disputed, fact-sensitive issue that must be resolved by a finder of fact.”¹⁶⁰ The basic principles underlying the determination of what constitutes a RAND royalty include:

A RAND royalty should be set at a level consistent with the SSOs’ goal of promoting widespread adoption of their standards;

157. *Microsoft Corp. v. Motorola, Inc.*, No. C10-1823, 2013 U.S. Dist. LEXIS 60233, at *12 (D. Wash. Apr. 25, 2013). See generally *In re Innovatio IP Ventures, LLC Patent Litigation*, No. 11-cv-9308, ECF No. 975 (N.D. Ill. Oct. 3, 2013).

158. *Microsoft*, 2013 U.S. Dist. LEXIS 60233, at *12–13.

159. See *id.* at *13. SSOs may refrain from expressly defining what constitutes a RAND in their agreements because they fear that taking an ex ante approach (i.e., an approach based on forecast rather than actual results) may have antitrust implications. See *id.* at *45–46.

160. *Id.* at *16. District courts have asked juries to set RAND rates in cases involving the 802.11 Wi-Fi standard. *Ericsson, Inc. v. D-Link Sys., Inc.*, No. 10-CV-0473 (E.D. Tex. 2013), *rev’d*, 773 F.3d 1201 (Fed. Cir. 2014); *Realtek Semiconductor Corp. v. LSI Corp.*, No. 12-cv-3451 (N.D. Cal. 2014).

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a RAND royalty should . . . recognize and seek to mitigate the risk of patent hold-up¹⁶¹ that RAND commitments are intended to avoid;

a RAND royalty should address the risk of royalty stacking by considering the aggregate royalties that would apply if other SEP holders made royalty demands of the implementer;

a RAND royalty should be set with the understanding that SSOs include technology intended to create valuable standards” and “must guarantee that holders of valuable intellectual property will receive reasonable royalties on that property; [and]

a RAND commitment should be interpreted to limit a patent holder to a reasonable royalty on the economic value of its patented technology itself, apart from the value associated with incorporation of the patented technology into the standard.¹⁶²

The Federal Circuit embraced these basic principles in *Ericsson v. D-Link*,¹⁶³ the first case in which it considered the issue of RAND royalty rates.¹⁶⁴ In *Ericsson*, the accused infringer argued that the damages award against it was improper because the district court issued jury instructions that included the complete list of *Georgia-Pacific* factors, many of which were inapplicable or confusing in the RAND context, rather than instructing the jury about the patent hold-up (basing compensation on the infringer’s investment or benefit of the standard, rather than solely on the value of the patented invention) and royalty stacking (where a product may infringe multiple patents and may bear multiple royalty burdens)—concerns that RAND provisions are intended to address.¹⁶⁵ In vacating the jury’s damages award, the *Ericsson* court held:

161. A “patent hold-up” is a demand from a SEP owner for excessive patent royalties based on the leverage gained by the SEP owner from its patented technology being included in a standard.

162. *Microsoft*, 2013 U.S. Dist. LEXIS 60233, at *42–44.

163. 773 F.3d 1201 (Fed. Cir. 2014).

164. *See id.* at 1229.

165. *See id.*

a district court must instruct the jury only on factors that are relevant to the specific case at issue;

[a district] court should instruct the jury on the actual RAND commitment at issue and must be cautious not to instruct the jury on any factors that are *not* relevant to the record developed at trial;

district courts must make clear to the jury that any royalty award must be based on the incremental value of the invention, not the value of the standard as a whole or any increased value the patented feature gains from its inclusion in the standard; [and]

if an accused infringer wants an instruction on patent hold-up and royalty stacking, it must provide evidence on the record of patent hold-up and royalty stacking in relation to both the RAND commitment at issue and the specific technology referenced therein.¹⁶⁶

The *Ericsson* court explained that “courts must consider the facts of record when instructing the jury and should avoid rote reference to any particular damages formula.”¹⁶⁷ It is not sufficient to simply instruct the jurors on all the *Georgia-Pacific* factors without modification and without regard to their relevance to the case at hand. Although the *Ericsson* court considered the extent to which the *Georgia-Pacific* factors (either as-is or in a modified form) applied to the underlying case,¹⁶⁸ it expressly declined “to create a new set of *Georgia-Pacific*-like factors for all cases involving RAND-encumbered patents.”¹⁶⁹

Special apportionment issues arise when dealing with SEPs, namely that “the patented feature must be apportioned

166. *See id.* at 1235.

167. *Id.* at 1232. With respect to the *Ericsson* case, the Federal Circuit noted that *Georgia-Pacific* factors 4 and 5 are irrelevant because they are inconsistent with a licensor’s RAND obligations, and that factors 8–10 required modification and/or different treatment in view of a licensor’s RAND obligations. *Id.* at 1230–31.

168. *See id.* at 1230–31.

169. *See id.* at 1232; *see also id.* at 1235 (“There is no *Georgia-Pacific*-like list of factors that district courts can parrot for every case involving RAND-encumbered patents.”).

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from all of the unpatented features reflected in the standard” and “the patentee’s royalty must be premised on the value of the patented feature, not any value added by the standard’s adoption of the patented technology.”¹⁷⁰ This apportionment requirement applies to all SEPs, not just RAND-encumbered patents.¹⁷¹

C. Damages or Other Monetary Relief Under the Hatch-Waxman Act

In Hatch-Waxman cases filed under 35 U.S.C. § 271(e)(2), the statute treats submission of an Abbreviated New Drug Application for approval to market a drug covered by an unexpired patent as an act of infringement. Remedies available for infringement under § 271(e)(2) are set forth in § 271(e)(4). Under § 271(e)(4)(C), courts are permitted to award damages only if commercial activity had occurred in the United States, including commercial manufacture and importation of commercial products.

In determining damages under § 271(e)(4)(C), courts have applied the traditional lost profit or reasonable royalty damages for patent infringement under § 284.¹⁷² For example, in *AstraZeneca v. Apotex*, the patentee sought damages under § 271(e)(4)(C) for the accused infringer’s launch of its approved generic product before expiration of the patentee’s patents. The Federal Circuit reviewed damages awarded under § 271(e)(4)(C) based on a reasonable royalty theory¹⁷³ and confirmed that this statute provides only the “typical” damages for patent infringement and thus does not provide

170. *Commonwealth Sci. & Indus. Research Org. v. Cisco Sys., Inc.* (“*CSIRO*”), 809 F.3d 1295, 1303 (Fed. Cir. 2015) (quoting *Ericsson*, 773 F.3d at 1232).

171. *Id.* (“reaffirming” *Ericsson*, 773 F.3d at 1231).

172. *AstraZeneca AB v. Apotex Corp.*, 985 F. Supp. 2d 452, 489 (S.D.N.Y. 2013); see also *Aktiebolag v. Andrx Pharms., Inc.*, 695 F. Supp. 2d 21, 29–30 (S.D.N.Y. 2010) (holding that damages for “commercial manufacture” alone may be assessed under § 284 for lost profit or reasonable royalty damages).

173. *AstraZeneca*, 782 F.3d at 1330–31.

any monetary relief for commercial sales that occurred after the patents expired.¹⁷⁴

D. Burdens, Methods, and Standards of Proof

The amount of patent infringement damages is a question of fact.¹⁷⁵ The patentee has the burden of proving damages¹⁷⁶ and must do so by a preponderance of the evidence.¹⁷⁷ Whatever damages theory is pursued, patent infringement is a statutory cause of action akin to a tort, and like other tort damages, the aggrieved party has the burden of proving both that the economic harm was reasonably foreseeable and that it was caused by the infringer.¹⁷⁸

The ultimate burden of proof on damages subsumes burdens on subsidiary issues. For example, the patent owner has the burden to justify application of the entire market value rule¹⁷⁹ and to show that other licenses it relies on as evidence

174. *Id.* at 1343 (§ 271(e)(4)(B) and (C) “provide the ‘typical remedies’ for patent infringement: injunctive relief and money damages”). The *AstraZeneca* court rejected the award of damages based on any post-expiration sales that occurred during the pediatric exclusivity period. *Id.* at 1344–45. Pediatric exclusivity refers to a six-month exclusivity period that begins on the date an existing patent on a drug product expires. 21 U.S.C. § 355a. It does not extend the term of the existing patent; instead, it prohibits the FDA from approving another drug application on the same drug during that six-month period.

175. *SmithKline Diagnostics, Inc. v. Helena Labs. Corp.*, 926 F.2d 1161, 1164 (Fed. Cir. 1991).

176. *Id.*; see also *Blake v. Robertson*, 94 U.S. 728, 733 (1876) (“Damages must be proved; they are not to be presumed.”); *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1324 (Fed. Cir. 2009) (“The burden of proving damages falls on the patentee.”).

177. *Vulcan Eng’g Co. v. Fata Aluminium, Inc.*, 278 F.3d 1366, 1376 (Fed. Cir. 2002).

178. *Coupe v. Royer*, 155 U.S. 565, 582 (1895) (patent infringement damages are the pecuniary losses that the patent owner “has suffered from the infringement”); *King Instrument Corp. v. Perego*, 65 F.3d 941, 948 n.3 (Fed. Cir. 1993) (economic harm limited by foreseeability); *Rite-Hite*, 56 F.3d at 1546 (same). “[W]hile it may be appropriate to speak loosely of patent infringement as a tort, more accurately the cause of action for patent infringement is created and defined by statute.” *3D Sys., Inc. v. Aarotech Labs., Inc.*, 160 F.3d 1373, 1379 (Fed. Cir. 1998) (quoting *North Am. Philips Corp. v. Am. Vending Sales, Inc.*, 35 F.3d 1576, 1579 (Fed. Cir. 1994)).

179. *Lucent*, 580 F.3d at 1336 (“For our entire market value rule to apply, the patentee must prove that the patent-related feature is the basis for customer demand.” (internal quotation marks omitted)).

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of the terms to which the parties to the hypothetical negotiation would have agreed are sufficiently comparable to the hypothetical license.¹⁸⁰ The accused infringer has no obligation to rebut the patentee's damages evidence until the patentee meets its burden of producing reliable and sufficient evidence to prove the amount of damages.¹⁸¹

The patentee's burden in establishing patent damages has been described as "a burden of reasonable probability."¹⁸² Regardless of the form of damages, the court should not apply any less rigorous standard of admissibility to the evidence than that required by the rules of evidence¹⁸³ or any less rigorous standard to the proof of facts. Courts recognize that "any reasonable royalty analysis 'necessarily involves an element of approximation and uncertainty.'"¹⁸⁴ Speculation, however, is not evidence.¹⁸⁵ Courts may allow damage awards based only on "sound economic and factual predicates."¹⁸⁶

As with any other cause of action, a patentee may succeed in proving liability but fail to prove the amount of its damages. In such instances, the question arises whether the patent damages statute nevertheless requires the trial court to discern and award some amount as a reasonable royalty, or

180. *Id.* at 1329 (patentee has burden to prove that other licenses it relies on are sufficiently comparable to support the damages award). Of course, the accused infringer has the same burden when it offers a damages analysis based on other licenses. *See, e.g.,* *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1211–11 (Fed. Cir. 2010).

181. *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 872 (Fed. Cir. 2010).

182. *Lam, Inc. v. Johns-Manville Corp.*, 718 F.2d 1056, 1065 (Fed. Cir. 1983).

183. *See* *Crystal Semiconductor Corp. v. TriTech Microelectronics Int'l, Inc.*, 246 F.3d 1336, 1354–58 (Fed. Cir. 2001) (affirming grant of JMOL on lost profits because expert testimony was "incompetent" and "unreliable," and affirming grant of JMOL on price erosion because expert testimony was "unreliable" and "used an inappropriate benchmark").

184. *Lucent*, 580 F.3d at 1325 (citing *Unisplay, S.A. v. Am. Elec. Sign Co.*, 69 F.3d 512, 517 (Fed. Cir. 1995)).

185. *Id.* at 1327.

186. *Integra Life Sciences I, Ltd. v. Merck KgaA*, 331 F.3d 860, 870–72 (Fed. Cir. 2003) (reversing denial of JMOL on reasonable royalty where record not clear on date of first infringement); *Riles v. Shell Exploration & Prod. Co.*, 298 F.3d 1302, 1311 (Fed. Cir. 2002).

whether the result properly can be an award of no damages.¹⁸⁷ The courts have not answered this question consistently. On the one hand, the Federal Circuit has made clear that the patentee bears the burden of proving its damages,¹⁸⁸ and it has affirmed an award of zero damages on the ground that “none were proven.”¹⁸⁹ A number of district courts have dismissed cases or granted summary judgment of no damages where the patentee failed to prove its damages.¹⁹⁰ That is consistent with the legislative history of the 1946 legislative amendment, which explained that the addition of the “not less than a reasonable royalty” language to § 284 was intended “to make the basis of recovery in patent-infringement suits general damages, that is, *any damages the complainant can prove*, not less than a reasonable royalty, together with interest from the

187. See 35 U.S.C. § 284 (“Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement but in no event less than a reasonable royalty for the use made of the invention by the infringer . . .”).

188. *Lucent*, 580 F.3d at 1324.

189. *Gustafson Inc. v. Intersystems Ind. Prods. Inc.*, 897 F.2d 508, 509–10 (Fed. Cir. 1990). See also *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1328 (Fed. Cir. 2014) (“[I]n a case completely lacking any evidence on which to base a damages award, the record may well support a zero royalty award.”); *Lindemann Maschinenfabrik GmbH v. Am. Hoist & Derrick Co.*, 895 F.2d 1403, 1406 (Fed. Cir. 1990) (emphasizing the distinction between proving the fact of damages and the amount of damages; having created a “sparse and totally inadequate record” with “little or no satisfactory evidence of a reasonable royalty,” patentee may not successfully argue on appeal that the \$10,000 damages award by the trial court was unreasonable). In *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1334–35 (Fed. Cir. 2009), the Federal Circuit affirmed the district court’s rejection of the patentee’s challenge to a jury verdict of 0% royalty where the jury verdict also found infringement and the instructions required the jury to choose a royalty rate between 6% and 15%, because the patentee did not object to the inconsistent verdict after the verdict was read, but avoided having to deal with the statutory damages floor because the lost profits award exceeded the patentee’s reasonable royalty request.

190. See, e.g., *AVM Techs., LLC v. Intel Corp.*, 927 F. Supp. 2d 139, 146 (D. Del. 2013) (excluding plaintiff’s untimely expert testimony and granting summary judgment of no damages because plaintiff therefore had no evidence to prove damages); *Unicom Monitoring, LLC v. Cencom, Inc.*, No. 06-1166, 2013 U.S. Dist. LEXIS 56351, at *24 (D.N.J. Apr. 19, 2013) (granting summary judgment of no damages where plaintiff failed to provide competent proof of a reasonable royalty).

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time infringement occurred, rather than profits and damages.”¹⁹¹ Other cases, however, state that the patent statute requires an award of at least a reasonable royalty and the patentee is therefore entitled to such an award, even if it failed to provide sufficient proof of the damages amount.¹⁹²

If faced with such a failure of proof, a trial court should consider the current state of the law, along with the legislative history of § 284. It also should consider whether the record includes evidence from which an appropriate royalty could be determined without speculation or guesswork.¹⁹³ Of course, a patentee need not present expert testimony on damages, and mere exclusion of a party’s expert damages testimony does not warrant denial of damages.¹⁹⁴

191. *SmithKline Diagnostics*, 926 F.2d at 1164 n.1 (emphasis added) (citation omitted).

192. *See, e.g., Norian Corp. v. Stryker Corp.*, 363 F.3d 1321, 1333 (Fed. Cir. 2004) (reversing and remanding jury verdict awarding no damages on the ground that no damages had been proven; because the patent damages statute “requires” that reasonable royalty damages be awarded, “[t]he jury’s finding of no damages cannot be supported”); *Embrex Inc. v. Service Eng’g Corp.*, 216 F.3d 1343, 1350 (Fed. Cir. 2000) (vacating lost profits award as unsupported by evidence, but noting that patentee “in no event” loses entitlement to reasonable royalty; although the record does not contain sufficient evidence to compute a reasonable royalty, case is remanded for trial court to determine what the royalty should be).

193. *See, e.g., Lindemann*, 895 F.2d at 1406, 1408 (affirming court’s award of damages despite patentee’s failure to prove its damages, based in part on accused infringer’s evidence of what a reasonable royalty would be).

194. *See Info-Hold, Inc. v. Muzak LLC*, 783 F.3d 1365, 1372 (Fed. Cir. 2015) (reversing grant of summary judgment on reasonable royalty damages because, in spite of the preclusion of patentee’s expert testimony, there was “other record evidence which the district court could use as a basis for determining a reasonable royalty”); *Apple v. Motorola*, 757 F.3d at 1330 (“Even if [plaintiff] had not submitted expert evidence, this alone would not support a finding that zero is a reasonable royalty.”); *Versata Software Inc. v. SAP Am., Inc.*, 717 F.3d 1255, 1267–68 (Fed. Cir. 2013) (affirming reasonable royalty jury verdict where district court precluded patentee’s expert from testifying on reasonable royalty damages but accused infringer’s expert testimony provided sufficient basis for award).

II. Early Evaluation of Patent Damages

Trial courts can—and often do—implement a variety of case-management techniques in the early stages of a patent case to evaluate the approximate dollar value of the action by focusing on damages issues, damages theories, and potential exposure.¹⁹⁵ Early damages disclosures and discussion can benefit both the court and the parties by providing a “realistic evaluation of both Defendant’s exposure and Plaintiff’s damages calculation and further promote early and effective mediation.”¹⁹⁶ This can help close the gap in the parties’ views of the value of the case, which is often a key to early settlement. Even where early settlement does not result, early focus on damages issues can help a court identify opportunities to creatively manage the case and streamline it for trial, resulting in time and resource savings for both the court and the parties.

There are many ways for a court to evaluate the monetary value of patent cases earlier, rather than later. For example, courts should require complete and meaningful early damages disclosures pursuant to Rule 26 of the Federal Rules of Civil Procedure, and should also consider requiring the parties to exchange formal damages contentions at or near the time they serve their infringement and noninfringement contentions. *See* section III below. Another technique is to permit an early summary judgment motion on key damages issues that could significantly refine or narrow the case and help bring the value of the case into sharper focus. *See* section V below. Courts should consider using the initial case management conference as an opportunity to elicit the parties’ respective damages positions and goals. Experience has shown

195. Former Chief Judge Randall Rader has encouraged trial courts to perform such early evaluations to “get a good idea of the worth of the contested technology and its implications in the market place” and to “identify cases that would benefit from tailoring the standard procedures to fit the case and its significance.” *See* <https://patentlyo.com/media/docs/2011/09/raderstateofpatentlit.pdf> at 15.

196. *Id.*

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that, by focusing on and candidly discussing damages theories and issues early in a case, courts may be able to identify cases that present opportunities for creative management and early disposition.

Like all case-management issues, early damages evaluation is not a formulaic exercise, but should be approached flexibly, based on the facts and circumstances of each action. The early evaluation approaches available to the courts are as varied as the cases themselves. Whether—and how—to implement them will turn on the court’s assessment of the parties, the facts, the nature of the case, and the disputed issues.

Some techniques that have been used with success include the following:

Where the parties are able to identify a small number of disputed key claim terms whose resolution is potentially dispositive, an early, focused claim construction hearing may be held (with the possibility of an early motion for summary judgment thereafter), and may be accompanied by a stay of all discovery not related to either the early claim construction or the resulting focused dispositive motion.¹⁹⁷

Where the patent holder previously has licensed the patent-in-suit, the patent holder may be ordered to make an early production of its license agreements, while the accused infringer is ordered to produce accused product

197. See *Parallel Networks L.L.C. v. Abercrombie & Fitch Co.*, No. 6:10-cv-111, ECF No. 338, at 6 (E.D. Tex. Mar. 15, 2010). After consolidating the four *Parallel Networks* cases and implementing these procedures, the trial court construed three claim terms and granted in part the defendants’ resulting motion for summary judgment, which resolved the case as to 99 of 112 defendants. But see *McAirlaids, Inc. v. Kimberly-Clark Corp.*, No. 7:13-cv-193, ECF No. 23, at 2 (W.D. Va. Aug. 5, 2013), in which the court denied defendant’s request for an initial phase of discovery, claim construction, and dispositive motions limited to a single claim term, on the grounds that construing a single term “divorced from contextual clues” would (1) “hamstring” the court’s analysis, because a court often must interpret claim terms that are not in dispute to provide a proper context for construction of the disputed term and (2) potentially make appellate review of the court’s analysis more difficult.

sales data. This may be followed by an early mediation, with the possibility (to be determined later, if the mediation does not resolve the case) of an early *Markman* hearing.¹⁹⁸

Alternatively, following the case-management conference, the patentee may be required to produce its license agreements and infringement contentions, and the accused infringer to produce accused product sales data.¹⁹⁹ The parties also may be encouraged to make whatever additional disclosures are necessary or helpful to facilitate meaningful infringement and settlement discussions—all before an early mediation.²⁰⁰

Following an early status conference, a *Markman* hearing may be scheduled, the patentee may be ordered to produce its preliminary infringement contentions and license agreements, accused infringers may be ordered to produce limited technical disclosures and a financial summary, discovery may be stayed in whole or in part, and the parties may be directed to participate in early mediation. Any accused infringers that remain in the case following the early mediation are permitted to request a mini-*Markman* hearing (in advance of an already-scheduled full *Markman*) to address a limited set of claim terms.²⁰¹

198. See *PACid Group L.L.C. v. Cisco Sys. Inc.*, No. 6:09-cv-324, ECF No. 282 (E.D. Tex. May 17, 2011). Following implementation of these procedures, the case was dismissed as to all defendants before any claim construction hearing.

199. That the sales revenue and profit of the accused products may never be shown to the jury, see, e.g., *LaserDynamics, Inc. v. Quanta Computers, Inc.*, 694 F.3d 51, 68 (Fed. Cir. 2012), should not serve as an impediment to its production, since that data often serve as the only available starting point for damages discussion at the outset of the case.

200. See *Uniloc USA, Inc. v. Sony Corp. of Am.*, No. 6:10-cv-373, ECF No. 126 (E.D. Tex. May 20, 2011). In this case, one of seven involving 95 defendants, the court's early evaluation procedures resulted in numerous dismissals before claim-construction proceedings.

201. See *Wordcheck Tech, LLC v. Alt-N Techs. Ltd.*, No. 6:10-cv-457, ECF No. 525 (E.D. Tex. Jan. 11, 2012). The court's early evaluation procedures in this case resulted in dismissal of all defendants before any claim-construction hearing.

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Where the status conference shows that damages issues are likely to predominate over the merits issues, the merits issues may be stayed and the case subjected to “reverse-bifurcation,” by scheduling for trial damages issues separately before liability issues. The goal is to inform the parties of the stakes in the case, thereby enhancing the possibility of early settlement and potentially achieving significant time and cost savings for both the court and the parties.²⁰²

This is not to suggest that any of these procedures would be appropriate or effective—or that they should be adopted—in every patent case. It is only to suggest that experience in some courts has shown that (1) there are many tools available to a trial court to conduct an early evaluation of the value of a case; (2) patent cases can present opportunities for creative case-management techniques that can (and should) be considered and, where appropriate to implement, be tailored to the circumstances of each case; and (3) early, open communication between the court and the parties about damages—preferably, beginning as early as the case-management conferences—can provide the court valuable insight into whether the case is one that likely would benefit from implementation of these or other early evaluation techniques and, if so, what specific techniques would be appropriate.

202. See *infra* text accompanying notes 374–78.

III. Pleadings and Mandatory Initial Disclosures

Because Rule 8(a)(3) requires only “a demand for the relief sought, which may include relief in the alternative or different types of relief,”²⁰³ patent infringement complaints rarely assert the damages claim in any more detail than a request “for damages.” Any lack of specificity in the complaint may well be overcome by the requirement of Rule 26 that the patent owner voluntarily provide damages information and documents as part of its initial disclosures. The rule states:

(A) *In General.* Except as exempted by Rule 26(a)(1)(B) or as otherwise stipulated or ordered by the court, a party must, without awaiting a discovery request, provide to the other parties:

. . .

(iii) a computation of each category of damages claimed by the disclosing party—who must also make available for inspection and copying as under Rule 34 the documents or other evidentiary material, unless privileged or protected from disclosure, on which each computation is based, including materials bearing on the nature and extent of injuries suffered²⁰⁴

The amount of detail and precision that is possible to provide in initial disclosures will vary from case to case. And there can be practical limits to how much can be disclosed early in a case. Patentees often find that they do not know the full nature and extent of a defendant’s infringing conduct and do not have sufficient information at the outset of the litigation to know or calculate precisely the damages caused by the alleged infringement.²⁰⁵ As a consequence, patentees of-

203. Fed. R. Civ. P. 8(a)(3).

204. Fed. R. Civ. P. 26(a)(1).

205. See Fed. R. Civ. P. 26(a)(1) advisory committee’s note to 1993 amendment (“a party would not be expected to provide a calculation of damages which, as in many patent infringement actions, depends on information in the possession of another party or person”).

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ten limit their initial damages disclosures to general categories of patent damages, such as “lost profits and reasonable royalty damages.” Moreover, because the accused infringer’s profit information, for example, is not typically information a patentee would know absent discovery, any initial damages calculations that are provided may reasonably be considered preliminary or approximate.

At the same time, courts should not accept skeletal initial damages disclosures uncritically. While courts should recognize that the fair determination of damages may require the use of confidential information of both parties, and that each party may require fact discovery before they can understand the other’s information sufficiently to formulate detailed damages contentions, both sides should be required to provide initial damages disclosures that are as complete as is reasonably possible, as well as at least “high level” documents in their possession that are likely relevant to a fair assessment of the damages issue.²⁰⁶ Courts may wish to discuss with counsel the possibility of consulting with their damages experts or using other appropriate analytical resources in connection with the early disclosures.

The Northern District of California has by local rule required the parties to provide the following:

- before the initial case-management conference “a non-binding, good-faith estimate of the damages

206. In *Corning Optical Communications Wireless Ltd. v. Solid, Inc.*, 306 F.R.D. 276, 277 (N.D. Cal. 2015), the court recognized a situation that is, unfortunately, not uncommon in patent infringement litigation:

Just a few months from trial, and a few weeks from the close of fact discovery, the parties in this patent case are working hard. They have exchanged reams of data. They have scheduled certain fact depositions and scheduled many more. They have retained multiple experts who are furiously scribing reports with scores of exhibits and schedules. All of this, undoubtedly, is costing a small fortune. And yet, remarkably, neither side has any firm sense of whether this is a \$1 case or a case worth billions. Even more remarkable, the parties here are not unusual. For years it has been the norm in patent cases to bludgeon first and value second.

range expected for the case along with an explanation for the estimates”

- with the disclosure of asserted claims identification of the start and end of the damages period, all agreements the patentee “contends are comparable to a license that would result from a hypothetical reasonable royalty negotiation,” all agreements that “otherwise may be used to support” the patentee’s damages case, documents sufficient to show that its commercial embodiments were marked, documents sufficient to show sales, revenues, costs and profit for lost profits, and documents reflecting any RAND agreement covering the asserted patent
- with the invalidity contentions agreements the accused infringer contends are comparable to the hypothetical license, documents sufficient to show the sales, revenue, cost and profits for the accused devices, and all agreements that may be used to support the accused infringer’s damages case, and
- damages contentions and responsive damages contentions.²⁰⁷

Other courts have used scheduling or other orders to require damages disclosures and contentions.²⁰⁸

Some courts that have more rigorously interpreted the disclosures required by Rule 26 have tied the scope of the disclosures to the parties’ Rule 11 obligations, noting that a plaintiff “must, of course, have a basis for its damages when

207. U.S. District Court, Northern District of California, Patent Local Rules, <http://www.cand.uscourts.gov/localrules/patent> (Rules 2.1, 3.1–3.2, 3.4, and 3.8–3.9).

208. *In re West View Research, LLC Patent Cases*, Nos. 14-cv-2668, 2670, 2675, 2677, 2679, ECF No. 33, at 7–8 (“Case Management Order”) (S.D. Cal. Apr. 24, 2015); see also Scheduling Order (Patent), <http://ded.uscourts.gov/judge/judge-sue-l-robinson> (J. Robinson, D. Del., rev. Feb. 5, 2015); Patent Scheduling Order (Non-ANDA), <http://www.ded.uscourts.gov/judge/chief-judge> (C.J. Stark, D. Del., rev. June 2014).

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it files suit.”²⁰⁹ For example, with pointed references to plaintiff’s Rule 11 obligations, one such court has insisted that plaintiffs must disclose “what is or should be known” at the time of the Rule 26 disclosures without waiting for complete information to be developed through discovery, explaining:

[T]hat some material is as yet unknown does not excuse non-disclosure of what is or should be known. Plaintiff is not required to do the impossible but is required to do the best it can. Just because some items cannot yet be disclosed does not mean that nothing should be disclosed.²¹⁰

The same court ruled that a patentee seeking lost profit damages should be able to state in its Rule 26 disclosures the approximate dollar amount of its lost sales and how they were calculated; to identify each of its products that compete with the accused products; and explain how the sales of its products were affected by the alleged infringement.²¹¹ Similarly, the court found that patentees seeking reasonable royalty damages should be able to state the claimed royalty rate and base for each accused product on a yearly basis, even if later discovery might require revisions to the calculations.²¹² Another court has required disclosure of the amount of damages under each theory; apportionment of damages between accused infringers and asserted patents; the time period in which the patentee seeks damages for each asserted patent; to the extent the patentee seeks damages under both lost profits and reasonable royalty; the theory under which such recovery is appropriate; the witnesses and documents on which the patentee seeks to rely in support of its damages claim; the factual basis for any lost profits claim (including

209. *Eon Corp. IP Holdings, L.L.C. v. Sensus USA Inc.*, No. 3:12-cv-1011 (N.D. Cal. Mar. 8, 2013); *see also Brandywine Comm. Techs. L.L.C. v. Cisco Sys. Inc.*, No. 3:12-cv-1669, ECF No. 114, at 2 (N.D. Cal. Nov. 13, 2012) (plaintiff should be able to provide the unprivileged documents on which it will rely for damages “save and except for those not yet known to it despite the type of diligent pre-suit investigation required by Rule 11”).

210. *Brandywine*, No. 3:12-cv-1669, ECF No. 114 at 4.

211. *Id.* at 2.

212. *Id.* at 2–3.

the identity and amount of the patentee's products on which profits were lost); and the facts on which the patentee bases its reasonable royalty claim, including the date of hypothetical negotiation; any allegedly comparable license agreements; the terms of the reasonable royalty sought; "and any other *Georgia-Pacific* factors on which [the patentee] intends to rely."²¹³

Each court must determine the scope of disclosures that reasonably can be expected in each case. For a patentee, however, initial disclosures normally should include documents concerning sales and profitability, market shares, and comparable license agreements and royalty rates related to the patent at issue. They also may include basic marketing, pricing, manufacturing, and sales information relating to any products or processes that embody the patented invention or are licensed under the patent, or that compete with, or are sold with or sold as a result of sales of products or processes that embody the patented invention or are licensed under the patent.

For the accused infringer, the documents initially produced should similarly include documents concerning license agreements and royalty rates that relate to the accused product or process; basic marketing, pricing, and sales information relating to the accused products; and the availability of any noninfringing substitutes; as well as information that otherwise may be relied on to define the royalty rate or base.²¹⁴

213. *Corning Optical*, 306 F.R.D. at 277. Another factor that could affect the ultimate damages award significantly is the prejudgment interest rate, and focusing the parties on that rate by requiring them to identify it early on could lead one or both parties to better understand the effect of timing on settlement.

214. *See id.* at 278 ("Accused infringers must disclose 'any license agreement known by it (such as, for example, any license agreement in its own portfolio) that it may use to support its view of a reasonable royalty.'"); *Brandywine*, ECF No. 114, at 4 (Accused infringer is not required to provide damages computation but must disclose any license agreements known to it that it may use to support its contention regarding a reasonable royalty; "It may not hold back this disclosure merely because

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Meaningful compliance with the initial damages disclosure requirements can be essential to the efficient management of the litigation for many reasons. For example, courts overseeing damages disclosures should be mindful of the role these disclosures may play in the early resolution of the litigation. Thoughtfully crafted early damages disclosures can be helpful in maximizing the potential for early settlement. Conversely, failure to provide good-faith damages disclosures and at least “high level” damages discovery at the outset of the litigation may hinder settlement discussions, delay settlement, and result in unnecessary expenditure of time, money, and judicial resources.²¹⁵ The prospects for early resolution of a case are greatly enhanced when all parties have an understanding of the economic stakes.

Even where the initial disclosures do not lead to an early settlement, they can be useful to the court in developing an efficient and effective approach to management of the case. With a clearer understanding at the outset of the nature and scope of the case, courts can more readily tailor their pretrial orders and procedures to the needs of the case. For example, early damages disclosures can provide information that is useful in fashioning an appropriate discovery plan, including the timing and extent of discovery related to damages. With meaningful early damages disclosures, the court can evaluate whether, in any given case, it would be appropriate and useful to set an accelerated schedule for fact and expert discovery

it has not yet seen the patent plaintiff’s damages study.”); *Eon*, ECF No. 657, at 4 (defendants must “disclose generally their revenue as well as relevant license information”).

215. See *Eon*, ECF No. 657, at 2 (early damages disclosures can help parties realistically assess the value of a case and promote early, effective settlement discussions). Accused infringers often are unwilling to disclose sales, profits, and other business information that is fundamental to the calculation of damages on the ground that the information is highly confidential and cannot properly be disclosed to the patent owner. As explained in section IV.C below, the best course is for the court to ensure that the confidentiality of initial disclosures is adequately protected, either by local rule, standing order, or an early protective order.

related to damages. Moreover, early disclosure of the estimated range of damages—or at the very least an estimated “order of magnitude of damages at issue (e.g., less than \$10 million; \$25 million; more than \$100 million)”—may be necessary for a court to apply the proportionality principle that informs the scope of discovery that is warranted in a particular case.²¹⁶ Revised Rule 26 explicitly identifies “the amount in controversy” as a factor in determining proportionality.²¹⁷ Without some level of damages disclosures, a court would be hard pressed to ensure that the burden and expense of proposed discovery is warranted. Earlier damages disclosure also may assist the parties in framing discovery and help the court manage discovery by shedding light on the damages issues for which discovery will be needed and appropriate.

Meaningful early disclosure of damages information also may help identify damages issues that can be addressed early in the case as a matter of law, e.g., where a damages theory is legally flawed or where the factual basis for a party’s damages analysis is incorrect as a matter of law, as when an incorrect date is used for the hypothetical negotiation for the determination of a reasonable royalty or a party seeks to benefit from the entire market value rule without evidence that “the patented feature creates the basis for customer demand or substantially create[s] the value of the component parts.”²¹⁸ Finally, requiring parties to focus on—and disclose—damages theories and evidence earlier in a case may help “reduce the likelihood that fundamental disputes about damages theories

216. *Eon*, ECF No. 657 at 2; Patent Management Guide, *supra* note 2, at 2-83, 4-2 to 4-3.

217. Fed. R. Civ. P. 26(b)(1) (discovery is limited to relevant, nonprivileged matter that is “proportional to the needs of the case”); Patent Management Guide, *supra* note 2, at 2-83 (early discussion with parties at first case-management conference about the scope of the case and nature and amount of damages can “provide a useful baseline to judge proportionality as the case progresses”).

218. *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1318 (Fed. Cir. 2011).

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and evidence are relegated to the eve of trial,” when the parties and court may not be able to address them as thoroughly as necessary.²¹⁹

To the extent early damages disclosures require production of a party’s sensitive financial information, such concerns can be addressed by early entry of a protective order, either through a court’s “default” protective order that becomes effective automatically at the outset of a patent case or, if the parties have not agreed upon a final protective order early in the case, with a temporary protective order that ensures confidentiality of damages or other early discovery materials until a final protective order can be entered.²²⁰ Confidentiality concerns should not preclude or impede early damages disclosures. *See* section IV.C below.

District courts across the country have recognized the need to require early disclosure of initial infringement, noninfringement, invalidity, and validity contentions from patent infringement litigation parties.²²¹ These requirements avoid a “shifting sands” approach to infringement or invalidity that is

219. The *Patent Management Guide* suggests that requiring meaningful early damages disclosures avoids last-minute *Daubert* motions and that “resolving *Daubert* challenges well before the pretrial conference is good practice.” Patent Management Guide, *supra* note 2, at 7-26 to 7-27. It explains: Where *Daubert* challenges are raised with the court at the end of the case, “a court that believes that an expert’s opinions may not be reliable is typically faced with imperfect options: (a) excluding the expert and leaving the party with no expert testimony regarding damages at trial; (b) continuing the trial date and providing the party proffering the expert a do-over; or (c) allowing the testimony, despite its reservations, with the belief that the jury will see the weakness in the opinions and the intent that, if not, the court will correct the outcome through remittitur, JMOL or a motion for new trial.” *Id.* On the other hand, early consideration of a damages *Daubert* motion, separate from summary judgment and in limine motions, allows for more thorough briefing and consideration, gives the court adequate time to consider the merits of the challenge, and may prevent the risk of a party being denied any expert at trial. *Id.*

220. *See, e.g., In re West View Research*, Nos. 14-cv-2668, 2670, 2675, 2677, 2679, ECF No. 33, at 7–8. (“The production of licenses is subject to the highest level of confidentiality (attorneys’ eyes only) unless the plaintiff designates them otherwise.”).

221. *See, e.g., U.S. District Court, Eastern District of Texas, Patent Rules*, <http://txed.uscourts.gov/?q=patent-rules>; *U.S. District Court, Northern District of California, Patent Local Rules*, <http://www.cand.uscourts.gov/localrules/patent>.

unfair to the litigants and that unnecessarily prolongs the case and increases costs.

Whether by amendment of local patent rules, a general or standing order, or orders in individual cases, courts also should consider requiring the patent owner to serve initial damages contentions early in the case and the accused infringer to respond shortly thereafter. Ideally, damages contentions should be served at the same time or shortly after the parties serve their respective initial contentions on infringement and noninfringement, so that both parties' damages contentions can address the actual asserted claims, infringement theories, and accused instrumentalities or technology.²²² In any event, formal damages contentions should be served early enough in the case to permit the parties—and the court—to identify, focus on, and address any damages contentions or theories that may be legally deficient or lack necessary evidentiary support.

The benefits of requiring formal damages contentions mirror those of meaningful initial damages disclosures: maximizing potential for early settlement, informing efficient and effective case management, and facilitating early identification of potentially case-dispositive (or at least case-narrowing) issues.

Of course, even where damages contentions are required by rule or order, the court can modify the standard required content or timing of the contentions to reflect individual, case-specific circumstances. For example, the court might choose to defer damages contentions to address a critical claim-construction issue or early motion that is likely to be case dispositive, or to permit narrowly targeted discovery on particular products or technology that would be necessary to

222. Patent Management Guide, *supra* note 2, at 2-79 (Damages contention disclosures “would require the patentee to identify its theories early in the case, would enable the accused infringer to disclose rebuttal damages theories in response to a contention interrogatory served during fact discovery, and would put parties in a position to challenge each other’s legal and factual bases for damages positions earlier in the case.”).

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ensure meaningful damages contentions. Conversely, a court might choose to advance the deadline for damages contentions where there is considerable history with the patent(s) at issue (e.g., they have been the subject of prior litigation) that would make earlier contentions feasible. In every case, however, the court should require parties, at the Rule 16 conference, to engage in a thorough discussion of how damages discovery and damages contentions should be tailored for the case and what specific information the parties believe is necessary for them to prepare meaningful damages contentions.

IV. Discovery

A. Phased Discovery

“Discovery in patent cases can be exhaustive and exhausting,” a fact that “is only magnified by the emerging emphasis on electronic discovery.”²²³ Full-fledged damages discovery can raise yet another concern: It not only can be expensive, time-consuming, and burdensome, but it ultimately may prove to be unnecessary, either because the case settles before trial or because the patent is determined to be invalid, unenforceable, and/or not infringed.

To minimize burden and improve efficiency, courts should consider, as part of the initial case assessment and scheduling, whether the interests of justice would be served by phasing damages discovery. For example, after the mandatory Rule 26 damages disclosures and the above-described initial “high-level” damages disclosures by both parties, the court may choose to stay some or all damages discovery until after the court’s ruling on claim construction.²²⁴ When the court’s ruling on claim construction is not scheduled to occur early in the proceedings, phasing may not be efficient, as damages discovery will take some time and might best be conducted in concert with discovery on the merits. Moreover, limiting initial damages discovery to high-level information may or may not give the parties enough basic information about damages to permit meaningful settlement negotiations.²²⁵ And while claim construction sometimes promotes either settlement or stipulation to judgment followed by appeal, or sets a case up for summary adjudication under

223. Patent Management Guide, *supra* note 2, at 4-1.

224. Such an order usually would address the timing of consideration of not only compensatory damages but also willfulness and enhanced damages. The latter two topics are beyond the scope of this guide.

225. Early damages discovery may, for example, reveal that the potential damages may be less than the expected cost of proceeding with or defending the litigation.

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Rule 56 (thereby obviating the need for damages discovery), a court-ordered hiatus on damages discovery may lead to significant inefficiencies by lengthening the period of fact discovery and, perhaps, delaying trial.²²⁶ Clearly, there is no one-size-fits-all approach. In each case, as part of the case-management process, courts should assess the extent to which the parties' differences on damages are a barrier to resolution. Where damages are at the heart of the dispute, it may make sense to accelerate rather than defer damages discovery.

One benefit of phased discovery is that it allows trial of liability and damages to the same jury, either at the same time or in phases. Some courts, however, opt to bifurcate patent infringement cases into liability and damages phases for both discovery *and* trial. In the final analysis, the decision whether to implement phased discovery or order separate discovery and trial on damages is committed to the trial court's discretion and would be reviewed only for abuse of discretion.²²⁷

B. Accelerated Damages Discovery

Depending on the needs and circumstances of the case, the court may consider ordering an accelerated discovery schedule for fact and expert discovery related to damages. For example, the Eastern District of Texas has adopted a "Track B" Initial Patent Case Management Order that requires the parties to submit a good-faith damages estimate early in the case and allows significantly less discovery (on a significantly shortened discovery schedule) than the normal "Track A"

226. The local rules in the Northern District of Illinois establish a fact discovery hiatus that begins 28 days after the exchange of patent claim terms and phrases for construction and ends upon the entry of a claim-construction ruling. U.S. District Court, Northern District of Illinois, Local Patent Rules, LPR 1.3, http://www.ilnd.uscourts.gov/_assets/_documents/_rules/localpatentrules-preamble.pdf.

227. *In re Innotron Diagnostics*, 800 F.2d 1077, 1079 (Fed. Cir. 1986). Separation orders are reviewed under Federal Circuit precedent and are not controlled by the law of the regional circuit from which the appeal originated. *Gardco Mfg., Inc. v. Herst Lighting Co.*, 820 F.2d 1209, 1212 (Fed. Cir. 1987).

management order. The Track B plan can be implemented by the parties' stipulation or by order of the court.²²⁸

C. Protective Orders

Parties in patent infringement actions routinely seek—and are granted—a protective order to govern documents and information produced in discovery.²²⁹ There is good reason for this, as “a patentee will typically seek information about development of the accused product or process, marketing and sales by the defendant, including cost and profit margins, and license fees paid by the defendant for comparable technology rights”—“categories [that] typically include highly confidential commercial and technical information, kept as trade secrets by the litigants and third parties.”²³⁰ The need for such an order is particularly acute in the context of damages discovery, which often includes extremely sensitive financial information concerning a party's costs, revenues, profits, and the like. Disclosure of such information publicly could severely harm a party's business or competitive position. Courts must ensure that damages discovery is not used as a means to harm a competitor's ability to compete in the marketplace.²³¹

It is important that a protective order be in place early in the case. Few patent litigants will produce documents without one, and there is no reason to allow lack of a protective order to delay discovery. Some courts have adopted local patent rules that provide interim protection for all confidential

228. See General Order 14-03, General Order Regarding Track B Initial Patent Case Management Order, <http://www.txed.uscourts.gov/page1.shtml?byYear=2014&location=general> (E.D. Tex. Feb. 25, 2014).

229. See Fed. R. Civ. P. 26(c).

230. Patent Management Guide, *supra* note 2, at 4-2.

231. Apart from actions involving competitors, patent infringement actions brought by entities whose sole business is enforcing and licensing patents pose significant risks for an accused infringer's confidential business information. Those entities may be engaging in parallel patent prosecution or evaluation of confidential information for purposes of other patents or portfolios. While this concern should be addressed by limiting the use of confidential information to the present lawsuit, such a restriction can be difficult to enforce.

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information by confining disclosure, absent further court order, to outside counsel.²³² Other courts address the need for early confidentiality protection either by adopting patent local rules containing a standard form of protective order that automatically applies to any filed patent case or by sua sponte issuing a standard protective order at the outset of the action.²³³ Such early protective orders—sometimes known as default orders—ensure that the parties can timely make their initial disclosures subject to confidentiality protection and also can eliminate (or minimize) costly and distracting disputes between the parties over the contents of a protective order. Parties still may seek to modify the court’s standard protective order in some respects, but having a court-imposed default order at the outset is likely to narrow and focus the areas of dispute. Likewise, some courts publish a model protective order that the parties can use as a basis for negotiating their own order, knowing that the court may well lean toward the model provisions in resolving any dispute.²³⁴ Experience has shown that the greater the protection provided by a default order, the less likely the parties will be to engage in motion practice over the content of the order.

It often is helpful for the court to explore, at the initial scheduling conference, the types of confidential information the parties believe will likely be the subject of discovery. A protective order—whether a default order or an order created for the particular case—may be tailored to address the specific types or categories of documents that pose particular confidentiality concerns to the parties in that action.

One of the most common areas of dispute in protective orders is who will be allowed access to the confidential infor-

232. See U.S. District Court, Northern District of Georgia, Patent Local Rules, <http://www.gand.uscourts.gov/sites/default/files/NDGARulesPatent.pdf>, at PR-4 (2004).

233. See Patent Management Guide, *supra* note 2, at Appendix 2.4a (Northern District of California Interim Model Protective Order).

234. See *id.* at Appendix 2.4c (Northern District of Illinois Model Protective Order).

mation and whether a multiple-tier protective order is necessary or appropriate. The traditional single-tier protective order that provides only a single level of “confidential” protection and allows designated materials to be disclosed to both in-house and outside counsel has given way to a two-tier protective order, which is appropriate where one or both of the parties believe the information to be disclosed is so highly confidential and competitively sensitive as to merit an extra level, or second tier, of confidentiality protection.²³⁵ Such additional protection is often necessary where employees or in-house counsel for the receiving party are involved in competitive decision making, such as patent strategy, licensing negotiations, sales and marketing, and research and development in the relevant product market.²³⁶

In cases where the parties cannot agree on the appropriate levels of protection, the court should consider such factors as the nature of the documents to be produced and the possibility for competitive or other harm; the extent of involvement by in-house counsel for the receiving party in competitive decision making, versus involvement in litigation and settlement activities; the likelihood of over-designation at the higher level of protection; and the possibility of avoiding or

235. See U.S. District Court, Western District of Pennsylvania, Local Rules of Court, http://www.pawd.uscourts.gov/sites/pawd/files/local_rules/lrmanual_0.pdf, at Appendix LPR 2.2 (2009); U.S. District Court, Southern District of California, Local Rules, <http://www.casd.uscourts.gov/Rules/Lists/Rules/Attachments/92/Local%20Rules%202016%20v1.pdf>, at 92 (2015). Particularly in the context of computer software source code, courts typically require even greater protection, such as security requirements for the storage and review environments, including a locked room and stand-alone computer, and limits on how much of the code the receiving party may copy without a showing of need and further order of the court.

236. See *Brown Bag Software v. Symantec Corp.*, 960 F.2d 1465, 1470 (9th Cir. 1992) (competitive decision making entails “advising on decision about pricing or design ‘made in light of similar or corresponding information about a competitor’”) (citation omitted). On the facts before it, the *Brown Bag* court concluded that permitting in-house counsel to have access to the producing party’s trade secret information “would place in-house counsel in the ‘untenable position’ of having to refuse his employer legal advice on a host of contract, employment, and competitive marketing decisions lest he improperly or indirectly reveal [the producing party’s] trade secrets.” *Id.* at 1471.

mitigating over-designation. Examples of such mitigation include specifically identifying the types of documents entitled to the higher level of protection and providing a procedure for the court to rule on contested designations. When the dispute focuses on whether, or to what extent, in-house counsel should have access to discovery materials, courts look beyond an attorney's status as in-house counsel to evaluate the facts concerning the in-house counsel's role and the risks of improper use or disclosure of confidential information.²³⁷

In all events, protective orders should provide that all confidential or highly confidential information may be used only for purposes of the instant litigation.

D. Limits on Depositions

Rule 30(b)(6) depositions of corporate representatives often are useful in patent infringement cases, particularly for financial information involved in infringement damages. Courts should urge parties to agree on the number of depositions and should guard against “runaway 30(b)(6) depositions” to ensure they are not used to evade the limits on the number of

237. See *U.S. Steel Corp. v. United States*, 730 F.2d 1465, 1469 (Fed. Cir. 1984) (“Status as in-house counsel cannot alone create the probability of a serious risk to confidentiality and cannot therefore serve as the sole basis for denial of access.”); *Matsushita Elec. Indus. Co. v. United States*, 929 F.2d 1577, 1579–80 (Fed. Cir. 1991) (attorney access to confidential information denied because movant’s competitive position would be compromised by unacceptable risk of inadvertent use or disclosure of confidential information owing to attorney’s involvement in “routine ‘advice and participation’ in ‘competitive decision making’”); *Brown Bag Software*, 960 F.2d at 1470 (a court ruling on a protective order dispute must “examine factually all the risks and safeguards surrounding inadvertent disclosure by any counsel, whether in-house or retained”). See also *Catch a Wave Techs., Inc. v. Sirius XM Radio, Inc.*, No. C12-05791, ECF No. 47 (N.D. Cal. Aug. 6, 2013) (court’s model protective order should be modified to include a “patent acquisition bar” preventing plaintiff’s counsel from advising any clients in the acquisition of patents involving satellite radio signal processing for the purpose of asserting them against defendant for two years after the conclusion of the litigation, including appeals; “[t]he two-year patent acquisition bar allows time for the limitations of human memory to run their course or for the information to become largely stale”).

depositions.²³⁸ One effective approach is for the initial scheduling order to provide that “each day of [Rule] 30(b)(6) deposition counts as a separate deposition for purposes of the per-side deposition limit.”²³⁹ Disputes may arise concerning the scope of questioning of a particular witness. Resolving such disputes can be challenging and time-consuming. Where lawyers are unable to agree on the parameters of a subject-matter limitation, the court may choose to enforce time limits, rather than subject-matter limits, on any particular deposition examination. Often such time limits motivate counsel to exercise good judgment and focus the examination appropriately.

The scope of topics for Rule 30(b)(6) depositions is a frequent source of dispute between parties. The rule only permits discovery of “information known or reasonably available to the organization.”²⁴⁰ Particularly with respect to patent damages, however, litigants frequently frame topics that are more appropriately addressed by a retained expert than by a corporate representative. In addition, litigants often frame topics in an overly broad manner that can provoke disputes regarding whether the witness was sufficiently knowledgeable or prepared. Courts should enforce the requirement under Rule 30(b)(6) that the matters for examination be described with “reasonable particularity,” and where the topics are properly framed, should not hesitate, if necessary, to enforce the requirement that the proffered deponent be knowledgeable.

Whatever deposition limitation the court imposes (or the parties agree on), it should apply only to percipient witnesses, nonretained experts (such as employees that a party intends to use as both an expert and a percipient witness), and Rule 30(b)(6) witnesses. The depositions of retained experts should not be subject to the limitation; the number of expert depositions is necessarily defined by the number of experts on which a party relies and effectively is self-limiting.

238. See Patent Management Guide, *supra* note 2, at 4-8.

239. *Id.*

240. Fed. R. Civ. P. 30(b)(6).

E. Document Retention and Production

“[D]ocument production can be extremely painful and costly for patent litigants.”²⁴¹ And unfortunately, especially given the broad sweep of electronic document production and retention, it can be used as a weapon in patent infringement litigation. There arguably is no area more subject to this kind of abuse than patent damages documents.

Document production can be particularly painful and costly where, as a practical matter, there is a large disparity in the quantity of documents in the possession of the parties—e.g., where one of the litigants is a nonpracticing entity or a corporate shell patent owner that has little in the way of documents to be produced. In such cases, courts should be particularly mindful of whether a collateral objective of the requesting party is to increase the burden and expense of the lawsuit to thereby force settlement, rather than to discover information truly needed to determine damages. Accordingly, courts should be particularly cautious about granting requests for production of “all documents” relating to a particular issue (such as sales, revenues, or profits), especially when dealing with electronically stored information, unless it is clear that such production is necessary, is within the proportionality requirement of Rule 26(b), and is not propped for the purpose of increasing cost, disrupting the litigation, or otherwise harassing the party from whom discovery is sought. It often may be more appropriate and cost-effective (and consistent with the proportionality requirement) to require production of documents “sufficient to show” the needed information, such as sales, revenues, or profits.

Courts also should ensure that Rule 34 requests for production are not abused and should take steps to facilitate effective, cost-effective document production. The need for judicial control and oversight is particularly acute when addressing requests directed to electronically stored infor-

241. Patent Management Guide, *supra* note 2, at 4-6.

mation. For that reason, some courts have adopted model orders regarding e-discovery in patent cases.²⁴² For example, at the outset of the case, courts should encourage cooperation in the discovery process, review carefully the parties' discovery plan (including electronic discovery plan and protocols), and consider whether limiting the number of document requests permitted per side would yield more focused discovery or, alternatively, might result in fewer, but broader, requests that would in turn lead to unnecessary discovery and disputes. Given the initial disclosure requirements and local rules in many districts already requiring parties to produce what is relevant, the better approach may be to allow as many targeted requests as may reasonably be necessary. In any event, careful assessment by the parties of damages issues (in which the relevant information often may be provided in spreadsheet form) as part of the early disclosure process can be very helpful in facilitating the court's ability to evaluate the reasonableness and proportionality of the parties' document requests, particularly those calling for extensive production of electronically stored information.

The parties' discovery plan also should address the format for document production, particularly as it relates to electronically stored documents.²⁴³ The parties should consider the potential cost and time savings that may result from allowing (or requiring) production of financial or other damages-related data in a format that permits ready manipulation for purposes of damages analyses.

In any event, courts should consider carefully the relative discovery costs and burdens in weighing patent damages discovery disputes and should shift costs where appropriate. Shifting the cost of discovery to the requester is particularly appropriate where a party already has received a fair amount

242. *See id.* at 4-18 and Appendix 4.3 (Model Orders for E-Discovery).

243. Fed. R. Civ. P. 26(f)(2), (3)(C) (parties "must discuss any issues about preserving discoverable information; and develop a proposed discovery plan" addressing "any issues about disclosure or discovery of electronically stored information, including the form or forms in which it should be produced").

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of discovery on a subject but is contending that it needs more, or where the type of discovery sought would impose significant burden on the producing party. For example, where the accused infringer already has made available its production or sales summaries and the patentee insists on discovering documents that contain the underlying detail, the court should (if it permits the discovery) consider imposing the cost of such additional production on the party seeking it. On the other hand, the mere fact that one party has more documents to produce does not necessarily mandate discovery cost shifting, especially where the discovery sought relates to core issues in the case or is otherwise fairly needed by the party seeking it.

F. Mandatory Final Disclosures and Supplementation

Courts should require final damages disclosures after the parties have had the opportunity to complete damages discovery. These disclosures serve a purpose different than that of the individual expert reports required by Rule 26(a)(2)(B), which identify the damages experts' theories and evidence and constrain their testimony. Final damages disclosures may provide a further basis for the parties' summary judgment or in limine motions. Accordingly, courts should not allow the parties to amend final damages disclosures freely, but rather should require a particularized showing of good cause for belated amendment. The parties should be required, however, to supplement those disclosures according to the same standard as Rule 26(e): "if the party learns that in some material respect the disclosure or response is incomplete or incorrect, and if the additional or corrective information has not otherwise been made known to the other parties during the discovery process or in writing."²⁴⁴

244. Fed. R. Civ. P. 26(e).

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“Summary judgment is as appropriate in a patent case as it is in any other case.”²⁴⁵ Indeed, given the complexity of most patent infringement actions and the enormous judicial resources they often consume, narrowing a patent case through proper summary adjudication can be particularly important. Former Chief Judge Randall Rader of the U.S. Court of Appeals for the Federal Circuit emphasized the importance of summary judgment, noting that in “vast technical lawsuits, summary judgment is the key to efficient resolution of disputes,” enabling a court to “end the litigation or narrow the case to dimensions more amenable to settlement.”²⁴⁶

In addition to issues related to infringement and validity, there are a number of damages issues that may be amenable to summary judgment.

A. Timing of Summary Judgment on Damages

Effective management—and narrowing—of a case through dispositive motions depends in part on the timing of such motions and the rulings on them. In many cases, important evidence relating to damages will come in the form of expert testimony. For that reason, it is often appropriate for the court to consider summary judgment motions relating to damages at the same time as—but separate from—*Daubert* challenges to the experts’ opinions.

Setting an early schedule for summary judgment motions on one or more aspects of the patentee’s damages case can be a very effective technique to reduce the disparity between the parties’ views of the value of a patent case and, perhaps,

245. *Desper Prods., Inc. v. QSound Labs, Inc.*, 157 F.3d 1325, 1332 (Fed. Cir. 1998) (quoting *C.R. Bard, Inc. v. Advanced Cardiovascular, Inc.*, 911 F.2d 670, 672 (Fed. Cir. 1990)).

246. <http://www.patentlyo.com/media/docs/2011/09/raderstateofpatentlit.pdf> at 6.

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make the case more amenable to early settlement. Early, candid communications between counsel and the court—starting as early as the initial status conference—can help identify opportunities for streamlining a case through early summary judgment.²⁴⁷

Courts ordering or permitting early summary judgment motions must, of course, be mindful of Rule 56(d), which allows the court to deny summary judgment (or defer ruling on the motion) when the nonmoving party “shows by affidavit or declaration that, for specified reasons, it cannot present facts essential to justify its opposition.”²⁴⁸ Effective use of early summary judgment motions on damages issues thus may require careful case management to ensure that the nonmoving party has the opportunity to obtain discovery necessary to respond to the motion.

Even where a case is not amenable to an early summary judgment motion, delaying resolution of summary judgment motions until the eve of trial is inefficient for both the parties and the court. It is best to resolve summary judgment motions well in advance of the final pretrial conference (indeed, well in advance of the meetings of counsel that typically precede the final pretrial conference), so that the court and the parties can prepare their pretrial submissions and prepare for trial knowing precisely what issues must be tried.

247. *See, e.g.*, *Adjustacam L.L.C. v. Amazon.com Inc.*, No. 6:10-cv-329, ECF No. 426 (E.D. Tex. Apr. 27, 2011) (where parties agreed in early status conferences that discovery would focus principally on damages and defendants suggested that an early summary judgment motion on pre-suit damages and laches would narrow the number of accused products and position the case for settlement, trial court ordered exchange of limited damages disclosures on marking, the number of accused devices sold, and resulting revenues, and agreed to hear early summary judgment motion on laches and pre-suit damages issues); *N. Am. Philips Corp. v. Am. Vending Sales Inc.*, No. 1:93-cv-03261, ECF No. 168 (N.D. Ill. Nov. 12, 1993) (noting that determination of marking and notice issues may resolve the entire action, court ordered initial discovery limited to marking, notice, and identification of accused products and allegedly infringed claims and permitted early motions for summary judgment on marking and notice at conclusion of the initial discovery).

248. Fed. R. Civ. P. 56(b).

B. Potential Damages Issues Amenable to Summary Disposition

There are damages-related issues that may not depend on expert testimony, and it is often best to resolve such issues as early as possible since they can affect not only a damages expert's analysis but also the settlement posture of a case. Where it is possible to do so, addressing such issues before the exchange of expert reports can yield significant efficiencies and cost savings.

One issue that sometimes is amenable to an early summary judgment ruling is the date on which the infringement damages began to accrue. Pre-issuance damages may begin to accrue as early as the publication date of the patent application, even though the patent may issue years later.²⁴⁹ Conventional patent damages begin to accrue at 12:01 a.m. on the date the patent issues and stop accruing no later than midnight on the day the patent expires. When only method claims are asserted, or when no product embodying the patent claims has been commercialized, damages may accrue from the beginning of infringement or the issuance of the patent, whichever is later.²⁵⁰ Under § 287, recoverable damages for patented articles may be limited in the event the patentee or its licensee has not given either actual notice of the patent or constructive notice of the patent through the marking of

249. 35 U.S.C. § 154(d). To qualify for provisional damages, the claim scope of the issued patent must be substantially identical to that of the published application, and the issue whether the claim scope is substantially identical is amenable to summary judgment. *See* *Baseball Quick, LLC v. MLB Advanced Media L.P.*, No. 1:11-cv-1735, ECF No. 194, slip op. at 35–45 (S.D.N.Y. July 25, 2014) (granting summary judgment of no provisional damages because patent claim scope not substantially identical to that of published application). The award of pre-issuance damages under 35 U.S.C. § 154(d) requires “actual notice” of the published application that led to the asserted patent. *Rosebud LMS Inc. v. Adobe Sys. Inc.*, 812 F.3d 1070, 1073–74 (Fed. Cir. 2016) (granting summary judgment of no damages for lack of “actual notice” but noting that “actual notice” may be established by the patentee affirmatively providing notice *or* by the accused infringer obtaining knowledge, but not by constructive notice).

250. *See, e.g., Hanson v. Alpine Valley Ski Area, Inc.*, 718 F.2d 1075, 1082–83 (Fed. Cir. 1983).

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products made, used, imported, offered for sale, or sold under the asserted patent. Constructive notice requires the patentee or its licensees to mark their own products embodying the patented technology with the patent number, and the burden of establishing notice rests with the patentee.²⁵¹

It is not unusual for disputes to arise relating to notice. Such issues can be narrow legal issues amenable to resolution on summary judgment. For example, the parties may dispute whether marking was required at all, given the nature of the asserted and non-asserted claims in the patent-in-suit. Disputes also may arise concerning the date on which notice was given. Where the infringement is ongoing, notice always will have been given no later than upon the filing of the action. Similarly, because the marking requirement is not absolute, disputes often arise concerning the nature and extent of the marking used, and whether such marking has been “substantially consistent and continuous.” This is particularly so where the patent has been licensed and the required marking was performed by others acting under the patentee’s authority.

Disputes regarding the existence of actual or constructive notice may be particularly susceptible to resolution by summary judgment, because there typically is little or no need for the patentee to obtain discovery from the accused infringer on the issue because “[t]he correct approach to determining notice under section 287 must focus on the action of the patentee, not the knowledge or understanding of the infringer.”²⁵² Because the patentee bears the burden of showing either compliance with the marking statute or actual notice, and it has at its disposal the information regarding its own actions, the issue may be ripe for decision at an early stage, unless there is a genuine issue of material fact regarding the

251. *See generally* Rembrandt Wireless Techs., LP v. Samsung Elecs. Co., No. 2016-1729 (Fed. Cir. Apr. 17, 2017).

252. *Amsted Indus. Inc. v. Buckeye Steel Castings Co.*, 24 F.3d 178, 187 (Fed. Cir. 1994).

patentee's marking practices or the infringer's receipt of actual notice. For example, if the patentee is unable to marshal evidence showing that its marking, and the marking by its licensees, has been "substantially consistent and continuous,"²⁵³ summary judgment can appropriately limit the damages period.²⁵⁴ An early decision defining the damages period allows the parties' experts to properly focus their opinions and also can streamline discovery, e.g., by limiting discovery of product sales to only the relevant time period.²⁵⁵

Summary judgment also may be appropriate to eliminate a theory for calculating damages that is unsupported by the evidence. For example, the availability of lost profits is a question of law.²⁵⁶ As noted in section I.B.1 above, under the generally accepted test for lost profits a patentee must show (1) demand for the patented product, (2) absence of acceptable noninfringing alternatives, (3) manufacturing and marketing capability to exploit the demand, and (4) the amount of profit it would have made.²⁵⁷ The evidence may establish unambiguously the existence of noninfringing alternatives or the inability of the patentee to manufacture beyond a certain capacity. In such cases, summary judgment may be used to limit or eliminate the availability of lost profits as a damages theory.²⁵⁸ Similarly, where lost sales would have been made

253. *Id.*

254. *See, e.g.,* *Extreme Networks, Inc. v. Enterasys Networks, Inc.*, 558 F. Supp. 2d 909, 918 (W.D. Wis. 2008).

255. Information that precedes the date that damages start may be relevant. For instance, the hypothetical negotiation may precede the date of actual or constructive notice. Access to "pre-infringement" revenue and profit data can improve the quality of the damages analysis by providing a perspective on the pre-infringement world.

256. *Poly-Am., L.P. v. GSE Lining Tech., Inc.*, 383 F.3d 1303, 1311 (Fed. Cir. 2004). The underlying economic analysis is, however, often disputed.

257. *See Panduit Corp. v. Stahl Bros. Fibre Works, Inc.*, 575 F.2d 1152, 1156 (6th Cir. 1978). The Federal Circuit has endorsed this test as one way to show lost profits damages. *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1548 (Fed. Cir. 1995).

258. This presumes that the patent owner has not employed an alternative methodology to address such factors, such as a market share analysis to overcome the presence of noninfringing alternatives, *see State Indus., Inc. v. Mor-Flo Indus., Inc.*, 883 F.2d 1573, 1577 (Fed. Cir. 1989), or consideration of the investment required to expand manufacturing capability to address capacity constraint.

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by the patentee's corporate affiliate, the patentee may be unable to establish that the affiliate's profits in turn would have become the patentee's profits. In such cases, summary judgment could remove the lost profits theory from the case.²⁵⁹

Summary judgment may be used to address other damages theories. As explained in section I.B.3 above, a patentee seeking to recover damages under the entire market value rule must show that the patented technology is the basis for customer demand. Without a sufficient evidentiary nexus between the patented technology and customer demand, summary judgment can remove the entire market value theory from the case.²⁶⁰

Where damages are calculated as a reasonable royalty, the parties often disagree over the proper royalty base. Such a dispute often takes one of two forms: (1) the patentee makes an accusation of infringement against a component of, or an improvement to, a larger infringing system but seeks a royalty base that includes the entire system; or (2) the patentee seeks to include products sold in connection with the infringing product (allegedly collateral sales) in the royalty base. Some parties attempt to address this dispute through a motion in limine (to preclude the patentee from presenting evidence concerning damages based on the entire system or on collateral sales), others through a *Daubert* challenge (to exclude the expert through whom the theory will be presented).²⁶¹ It may be more appropriate to posit the issue as whether the patentee has a legal basis for seeking damages that extend beyond the infringing component, product, or method. Where the facts have been developed through discovery, it may be

259. See *Mars, Inc. v. Coin Acceptors, Inc.*, 527 F.3d 1359, 1367 (Fed. Cir. 2008).

260. Cf. *Lucent Techs. Inc. v. Gateway, Inc.*, 509 F. Supp. 2d 912, 935 (S.D. Cal. 2007) (granting new trial on damages where the evidence failed "to establish that the patented features themselves produced any customer demand or value of the product"). In *Cornell University v. Hewlett-Packard Co.*, No. 01-CV-1974, 2008 U.S. Dist. LEXIS 41848 (N.D.N.Y. May 27, 2008), the court addressed this issue on a *Daubert*-type challenge during trial.

261. See Patent Management Guide, *supra* note 2, at § 7.4.2.

possible to address this issue on summary judgment.²⁶² Because the royalty base is a key input to an expert's damages calculation, the issue should be addressed sufficiently ahead of trial so that, if necessary, the experts can conform their opinions to the summary judgment ruling.

Recent district court orders suggest other potential bases for damages-related summary judgment motions, including the date of the hypothetical negotiation,²⁶³ accused acts performed outside the United States,²⁶⁴ profits made by other entities,²⁶⁵ convoyed sales,²⁶⁶ and the application of hedonic regression.²⁶⁷ Other damages-related topics that may be the subject of an early summary judgment motion may include damages accrued before issuance of the patent,²⁶⁸ before issuance of a reexamination certificate,²⁶⁹ or after a patent

262. *See id.*

263. *See, e.g., Boston Sci. Corp. v. Cordis Corp.*, 777 F. Supp. 2d 783, 792 (D. Del. 2011) (denying accused infringer's motion for summary judgment regarding date of hypothetical negotiation and sua sponte granting patentee partial summary judgment on the proper date of the hypothetical negotiation).

264. *See, e.g., In re Papst Licensing GmbH & Co. KG Lit.*, No. 1:07-MC-493, ECF No. 520 (D.D.C. Nov. 20, 2012) (granting summary judgment on products never made, used, sold, offered for sale or imported in/into the United States); *Yangaroo Inc. v. Destiny Media Techs. Inc.*, 720 F. Supp. 2d 1034, 1037–38 (E.D. Wis. 2010) (granting summary judgment of noninfringement where accused acts performed in part outside the United States).

265. *See, e.g., Carver v. Velodyne Acoustics, Inc.*, 202 F. Supp. 2d 1147, 1149 (W.D. Wash. 2002) (granting defendant summary judgment that patentee plaintiff could not recover lost profits of nonparty manufacturing company she owned).

266. *See, e.g., Carefusion 303, Inc. v. Sigma Int'l*, No. 10-cv-442, ECF No. 92 (S.D. Cal. Jan. 3, 2012) (granting summary judgment of no convoyed sales).

267. *Stragent, LLC v. Intel Corp.*, No. 6:11-cv-421, 2014 U.S. Dist. LEXIS 106167, slip op. at *11–18 (E.D. Tex. Mar. 6, 2014) (granting motion to exclude testimony based on the results of hedonic regression analysis because opinion “lacks the ‘valid scientific connection to the pertinent inquiry’ that is required ‘as a precondition to admissibility’ under Rule 702”).

268. *See, e.g., LIVJO Inc. v. Deckers Outdoor Corp.*, No. 2:10-cv-4557, ECF No. 116 (C.D. Cal. Sept. 27, 2011) (granting summary judgment that patentee cannot recover pre-issuance damages).

269. *See, e.g., eBay Inc. v. PartsRiver Inc.*, No. C10-04947, ECF No. 46 (N.D. Cal. May 9, 2011) (granting summary judgment; no damages for alleged infringement prior to issuance of reexamination certificate because reexamined claims are substantively different); *Irrevocable Trust of Anthony J. Antonious v. Roger Cleveland Golf Co.*, No. 8:10-cv-01198, ECF No. 36 (C.D. Cal. Jan. 11, 2011) (same).

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expires;²⁷⁰ lack of an acceptable noninfringing substitute,²⁷¹ laches;²⁷² prosecution history laches;²⁷³ the availability of enhanced damages;²⁷⁴ and even the amount of lost profits damages.²⁷⁵ In other words, there are potentially many areas in which early, focused summary judgment motions can either better position the case for resolution or, at least, more narrowly frame the damages issues for trial.

270. *See, e.g., In re Katz Interactive Call Processing Patent Lit.*, No. 2:07-ML-1816-B, ECF No. 706 (C.D. Cal. Feb. 21, 2013) (granting summary judgment of no damages after patent expiration).

271. *See, e.g., Micro Chem., Inc. v. Lextron, Inc.*, 161 F. Supp. 2d 1187, 1190 (D. Colo. 2001) (granting summary judgment of no lost profits because of the existence of an acceptable noninfringing substitute); *AMP Inc. v. Lantrans Inc.*, 22 U.S.P.Q.2d 1448 (C.D. Cal. 1991) (granting summary judgment of no acceptable noninfringing substitutes).

272. *See, e.g., Nordock Inc. v. Sys. Inc.*, 927 F. Supp. 2d 577, 606–08 (E.D. Wis. Feb. 26, 2013) (granting patentee summary judgment on laches, equitable estoppel and unclean hands defenses).

273. *See, e.g., In re Katz Interactive Call Processing Patent Lit.*, 882 F. Supp. 2d 1123, 1149 (C.D. Cal. 2010) (granting summary judgment of no prosecution history laches).

274. *See, e.g., Seirus Innovative Accessories Inc. v. Cabela's Inc.*, No. 9-cv-102, ECF No. 367 (S.D. Cal. Oct. 5, 2011).

275. *See, e.g., AMP*, 22 U.S.P.Q.2d at 1448 (granting summary judgment of lost profits damages).

VI. Pretrial Case Management

A. Pretrial Conference and Order

The complexity of patent cases underscores the importance of careful pretrial preparation by both the parties and the court. One of the keys to a well-prepared trial is a comprehensive final pretrial conference and order. “The pretrial conference represents the final opportunity to anticipate and resolve problems that would otherwise interrupt and delay trial proceedings.”²⁷⁶ In patent cases, the pretrial conference offers the court a valuable opportunity to resolve disputes about how damages issues will be presented to the jury and to ensure a more effective presentation of the evidence. In cases in which damages issues are complex, it may even make sense to convene a separate, “preliminary” pretrial conference focused solely on damages. The agenda for such a conference might include which measures of damages may be argued to the jury or which *Georgia-Pacific* factors will be included in the jury instructions.²⁷⁷

The pretrial conference (or conferences) should be held after dispositive motions have been ruled upon, so the court and the parties know the contours of the issues that are to be tried. The goal of the pretrial conference process is a comprehensive final pretrial order that “will govern the issues for trial and establish the ground rules for the conduct of the trial.”²⁷⁸ The conference should be preceded by compulsory meetings between the parties on a host of topics typically defined by the court in its local rules or standing order. The “meet and confer” process allows the parties to identify areas of agreement that can be incorporated into a joint proposed

276. Patent Management Guide, *supra* note 2, at 7-2.

277. Only the relevant *Georgia-Pacific* factors should be included in the instructions. *Commonwealth Sci. & Indus. Research Org. v. Cisco Sys., Inc. (“CSIRO”)*, 809 F.3d 1295, 1303 (Fed. Cir. 2015).

278. Patent Management Guide, *supra* note 2, at 7-3.

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pretrial order and to identify areas of dispute, which then can be briefed to the court.

Among the most common subjects for the pretrial meet and confer and submissions are witness lists, exhibit lists, and jury instructions. Standard jury instructions on damages are often fairly barebones,²⁷⁹ and it is not uncommon for one or both of the parties to seek to modify or expand upon them. To the extent either party believes special jury instructions are required on damages issues, such instructions ideally are addressed within the procedure and timetable set by the court for exchange of proposed jury instructions and submission of disputed proposed instructions to the court. Sometimes, the need for special or modified jury instructions will become clearer as the evidence comes in. In that event, parties may request further modifications to the jury instructions as trial progresses, and the court should entertain such requests as appropriate. For example, one damages instruction issue that often arises is whether to instruct the jury on all fifteen *Georgia-Pacific* factors, where the evidence at trial does not relate to or support all of the factors. To avoid jury confusion, courts should limit jury instructions to those *Georgia-Pacific* factors that are supported by sufficient record evidence. In accordance with Rule 51, the basis for any objections, and for the court's rulings thereon, should be preserved on the record for later reference by the court or on appeal.

As explained below, in limine motions—including those addressed to damages issues—should be heard no later than the final pretrial conference, and it is preferable for *Daubert* challenges to be determined even earlier. To the extent other damages issues are likely to arise at trial, such issues at least should be identified—and, ideally, briefed and determined—at the final pretrial conference.

279. See, e.g., Model Patent Instructions, *supra* note 3, 6.1–6.6.

B. Challenges to Expert Testimony Regarding Damages

1. The Court's Gatekeeper Role and Rule 702 Challenges

“Critical to managing a patent trial is the court’s ability to control expert testimony.”²⁸⁰ No issue in a patent trial requires application of the gatekeeping tools of Federal Rule of Evidence 702²⁸¹ more than damages. Courts and parties are readily familiar with the requirement that a patent damages expert analysis (like any other expert opinion) must be relevant and “requires sound economic and factual predicates.”²⁸² But patent damages experts necessarily are applying scientific, technical, or specialized knowledge to evaluate a hypothetical legal construct, such as the royalty rate the patentee and the infringer would have agreed upon had they participated in a negotiation at the time before the first infringement knowing that the patent was valid and infringed.²⁸³ And that analysis may not take the form of an accepted scientific methodology applied outside the litigation context or be presented in the form of a generally accepted methodology supported by

280. Patent Management Guide, *supra* note 2, at 7-17.

281. See *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 597 (1993) (“[T]he Federal Rules of Evidence . . . —especially Rule 702—do assign to the trial judge the task of ensuring that an expert’s testimony both rests on a reliable foundation and is relevant to the task at hand.”). Many authorities use “*Daubert*” as shorthand for the Rule 702 analysis, but that case has been limited in part by subsequent case law and revision of Rule 702. See Fed. R. Evid. 702 advisory committee’s note to 2000 amendment. In *Summit 6, LLC v. Samsung Elecs. Co.*, 802 F.3d 1283, 1295 (Fed. Cir. 2015), the Federal Circuit echoed *Daubert*’s observation that the focus of the court’s inquiry into the relevance and reliability of the expert’s testimony “must be solely on principles and methodology, not on the conclusions that they generate,” *Daubert*, 509 U.S. at 595, an observation that must be tempered by the *Joiner* Court’s explanation that “conclusions and methodology are not entirely distinct from one another,” *Gen. Electric Co. v. Joiner*, 522 U.S. 136, 146 (1997), and the subsequent revision of Rule 702 to include subsection (d). See Fed. R. Evid. 702 advisory committee’s note to 2000 amendment. See *Prism Techs. LLC v. Sprint Spectrum L.P.*, 849 F.3d 1360, 1372 (Fed. Cir. 2017) (“the federal law of evidence is now embodied in the Federal Rules of Evidence, not in earlier Supreme Court decisions except to the extent they are actually reflected in the rules”).

282. *Integra Life Sciences I, Ltd. v. Merck KgaA*, 331 F.3d 860, 870 (Fed. Cir. 2003); *Riles v. Shell Exploration & Prod. Co.*, 298 F.3d 1302, 1311 (Fed. Cir. 2002).

283. Patent Management Guide, *supra* note 2, at 7-17 to 7-18.

peer-reviewed publications. Application of the Rule 702 analysis to this kind of expert testimony may prove challenging but is nonetheless important.²⁸⁴

Challenges to expert testimony on patent damages can focus on any one or more of Rule 702's "three distinct but related requirements: (1) the subject matter at issue must be beyond the common knowledge of the average layman; (2) the witness must have sufficient expertise; and (3) the state of the pertinent art or scientific knowledge permits the assertion of a reasonable opinion."²⁸⁵ Although the patent statute authorizes the court to "receive expert testimony as an aid to the determination of damages or of what royalty would be reasonable under the circumstances,"²⁸⁶ patent damages is not necessarily a subject beyond the knowledge of the average layman, especially if the parties simply and clearly "show the value [of what was taken] by proving what would have been a reasonable royalty, considering the nature of the invention, its utility and advantages, and the extent of the use involved."²⁸⁷

284. See *Riles*, 298 F.3d at 1311; *Shockley v. Arcan, Inc.*, 248 F.3d 1349, 1363 (Fed. Cir. 2001) (rejecting as "without any basis in economic reality" expert testimony based on the number of sales patentee told him to assume); *Utah Med. Prods., Inc. v. Graphic Controls Corp.*, 350 F.3d 1376, 1385 (Fed. Cir. 2003) (affirming *Daubert* ruling excluding as irrelevant "expert testimony and evidence of license agreements . . . asserted to support a reasonable royalty model of damages").

285. *United States v. Finley*, 301 F.3d 1000, 1007 (9th Cir. 2002); Fed. R. Evid. 702.

286. 35 U.S.C. § 284.

287. *Dowagiac Mfg., Co. v. Minn. Moline Plow Co.*, 235 U.S. 641, 647 (1915). Although the Federal Circuit has emphasized that expert damages testimony is not required, *Dow Chem. Co. v. Mee Indus., Inc.*, 341 F.3d 1370, 1382 (Fed. Cir. 2003) (holding that "district court erred in concluding that Dow did not carry its burden to establish damages because it failed to provide expert testimony on the damages issue" and stating "section 284 is clear that expert testimony is not necessary to the award of damages, but rather may be received as an aid"), where a party presents a complex damages case premised, for example, on the full panoply of *Georgia-Pacific* factors, one district court observed that a damages case should not be put to a jury through percipient witnesses "testifying to the wrong time period," with "no rationale to support its suggested reasonable royalty calculation," without "either clear guidance from an expert about how to apply complex calculations or simple

The qualifications analysis focuses on the witness's "knowledge, skill, experience, training or education" as it relates to the subject matter of the proposed testimony. That a witness is an accountant or an economist does not necessarily qualify him or her to testify on patent infringement damages in general or on damages in a particular patent infringement case.²⁸⁸ The qualifications inquiry is by definition fact-specific, and "the court will need to resolve this issue on a case-by-case basis, above all applying its common sense to determine whether the expert has sufficient foundation to offer the opinions in question."²⁸⁹

That the witness has the knowledge, skill, experience, training, or education to qualify as an expert in a given field does not mean that his or her expertise is relevant to the patent infringement damages. The witnesses' "scientific, technical, or other specialized knowledge" must be such that it would "help the trier of fact to understand the evidence or to determine a fact in issue."²⁹⁰ A corollary to this requirement

factual proofs about what [the] patentee has previously accepted in factually analogous licensing situations." *Unicomm Monitoring, LLC v. Cencom, Inc.*, No. 16-cv-1166, 2013 U.S. Dist. LEXIS 56351, at *24-26 (D.N.J. 2013).

288. *Cf. Monsanto Co. v. McFarling*, 488 F.3d 973, 981 (Fed. Cir. 2007) (no abuse of discretion in failing to exclude testimony of damages expert who, although neither a farmer nor an agronomist, was a certified valuation analyst, because his qualifications "go to whether the jury should believe the witness or credit his testimony, instead of whether the opinions have a reasonable basis or meet the *Daubert* requirements").

289. Patent Management Guide, *supra* note 2, at 7-29.

290. Fed. R. Evid. 702(a). "Whether the situation is a proper one for the use of expert testimony is to be determined on the basis of assisting the trier," the rule's commentary explains, "[t]here is no more certain test for determining when experts may be used than the common sense inquiry whether the untrained layman would be qualified to determine intelligently and to the best possible degree the particular issue without enlightenment from those having a specialized understanding of the subject involved in the dispute," and "[w]hen opinions are excluded, it is because they are unhelpful and therefore superfluous and a waste of time." Fed. R. Evid. 702 advisory committee's notes on proposed rules. Although experience alone may qualify a witness as an expert under Rule 702, "[i]f the witness is relying solely or primarily on experience, then the witness must explain how that experience leads to the conclusion reached, why that experience is a sufficient basis for the opinion, and

is imposed by Rule 403, which allows a court to “exclude relevant evidence if its probative value is substantially outweighed by a danger of . . . unfair prejudice, confusing the issues, misleading the jury, undue delay, wasting time, or needlessly presenting evidence.”²⁹¹ In this regard, courts have excluded, for example, consideration of the entire market value of accused products for infringement of patents on minor improvements.²⁹²

The reliability analysis itself breaks down into three components.²⁹³ First, the testimony must be “based on sufficient facts or data.”²⁹⁴ That is, the data itself must be reliable.²⁹⁵ Courts should exclude damages expert testimony that is “conjectural or speculative.”²⁹⁶

how that experience is reliably applied to the facts. The trial court’s gatekeeping function requires more than simply ‘taking the expert’s word for it.’” *Id.*

291. Fed. R. Evid. 403.

292. See *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1320–21 (Fed. Cir. 2011); *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1336 (Fed. Cir. 2009).

293. *Daubert*, 509 U.S. at 592–93; *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 150 (1999); *Summit 6*, 802 F.3d at 1295; Fed. R. Evid. 702 advisory committee’s notes to 2000 amendments. See *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 711 F.3d 1348, 1374 (Fed. Cir. 2013) (“unreliable testimony frustrates a primary goal of expert testimony,” which is “to place experience from professional specialization at the jury’s disposal, not muddle the jury’s fact-finding with unreliability and speculation”).

294. Fed. R. Evid. 702(b).

295. See *Power Integrations*, 711 F.3d at 1373 (excluding damages expert testimony “derived from unreliable data and built on speculation”; although expert’s data need not be admissible, “the data cannot be derived from a manifestly unreliable source”).

296. *Westinghouse Elec. & Mfg. Co. v. Wagner Elec. & Mfg. Co.*, 225 U.S. 604, 615 (1912). See also *Whitserve, LLC v. Comput. Packages, Inc.*, 694 F.3d 10, 29, 33 (Fed. Cir. 2012) (analysis by damages expert does not support verdict because his testimony was “conclusory, speculative, and, frankly, out of line with economic reality”; multiple errors in expert’s “royalty rate calculation cause his ultimate opinion regarding a reasonable royalty to be speculative”); *Wordtech Sys., Inc. v. Integrated Networks Solutions, Inc.*, 609 F.3d 1308, 1319–22 (Fed. Cir. 2010) (reversing verdict and remanding for new damages trial because verdict clearly was not supported by the evidence and was “based only on speculation and guesswork”); *Del Mar Avionics, Inc. v. Quinton Instr. Co.*, 836 F.2d 1320, 1327 (Fed. Cir. 1987) (“damages may not be determined by mere speculation or guess”) (citing *Story Parchment Co. v. Paterson Parchment Paper Co.*, 282 U.S. 555, 563 (1931)).

Second, the testimony must be “the product of reliable principles and methods.”²⁹⁷ Although lack of reliability has been the basis for excluding expert testimony in the lost profits context,²⁹⁸ reliability issues arise most often in connection with the determination of a reasonable royalty, which can be based on a complex, multi-factored framework that is subject to widely differing interpretation and, sometimes, misuse or abuse by parties and their experts. Common mistakes include mischaracterization or conclusory application of the *Georgia-Pacific* factors, use of a legally incorrect (or unarticulated) hypothetical negotiation date, or a legally erroneous theory.²⁹⁹

Third, the expert must have “reliably applied the principles and methods to the facts of the case.”³⁰⁰ This requirement differs from the requirement for sufficient facts or data in that it addresses, for example, reliance on assumptions not properly grounded in facts, such as “evidence unrelated to the claimed invention” (noncomparable license agreements³⁰¹

297. Fed. R. Evid. 702(c).

298. See *DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293, 1309 (Fed. Cir. 2006) (“While damages analysis invariably involves hypothetical reconstruction of a ‘but for’ marketplace, that reconstruction must include some footing in economic principle.”).

299. For example, in *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1326–29 (Fed. Cir. 2014), the expert’s opinion relied on the accused device’s entire value as the royalty base without further apportionment to the patented feature because it was the “smallest salable patent practicing unit”—this was compounded by a jury instruction to the same effect, resulting in reversible error.

300. Fed. R. Evid. 702(d).

301. *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1327 (Fed. Cir. 2009) (rejecting reliance on agreements “radically different from the hypothetical agreement under consideration”); *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 870–72 (Fed. Cir. 2010) (rejecting reliance on noncomparable license agreements because “evidence unrelated to the claimed invention does not support compensation for infringement, but punishes beyond the reach of the statute”); see also *Wordtech*, 609 F.3d at 1319–21.

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and rules of thumb³⁰²), and inappropriate use of facts, for example, facts that post-date the hypothetical negotiation.³⁰³ In such cases, “[a] court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.”³⁰⁴

Courts should perform their gatekeeping role under Federal Rule of Evidence 702 to ensure that the legal standards are properly applied and improper damages testimony does not infect the trial.³⁰⁵ Before admitting expert testimony, the trial court must make “a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue.”³⁰⁶ The

302. For example, in *Uniloc*, 632 F.3d at 1317, the Federal Circuit rejected the “25 percent rule of thumb as an abstract and largely theoretical construct” that says nothing “about a particular hypothetical negotiation or reasonable royalty involving any particular technology, industry, or party.” The *Uniloc* court explained that “[t]o be admissible, expert testimony opining on a reasonable royalty rate must ‘carefully tie proof of damages to the claimed invention’s footprint in the market place.’” *Id.* Likewise, in *VimetX*, 767 F.3d at 1331–34, the Federal Circuit rejected application of a 50/50 split of incremental profits under the guise of the Nash Bargaining Solution as “without sufficiently establishing that the premises of the theorem actually apply to the facts of the case at hand.”

303. Patent Management Guide, *supra* note 2, at 7-29 to 7-30. Another example of the inappropriate use of facts pertains to conjoint surveys used to identify the market’s willingness to pay for the patented feature in a multifeature product where the subject of the survey is an overbroad characterization of the patented feature. Although framing of survey questions, like other challenges to survey methodology, is generally an issue of weight rather than admissibility, “there must be some outer limits to this principle,” and “[a]t some point, a description of a patent [claim] in a survey may vary so much from what is claimed that the survey no longer ‘relate[s] to any issue in the case,’” “is not relevant and, ergo, non-helpful,” and “may be so confusing to the jury as to substantially outweigh the survey’s probative value, thus requiring the Court to exclude such material under Rule 403.” *Apple, Inc. v. Samsung Elecs. Co.*, No. 12-cv-630, 2014 WL 794328, at *18 (N.D. Cal. 2014) (dicta); *accord Sentius Int’l, LLC v. Microsoft Corp.*, No. 5:13-cv-825, 2015 WL 331939, at *3 (N.D. Cal. 2015) (dicta).

304. *Joiner*, 522 U.S. at 146.

305. *See, e.g., Integra*, 331 F.3d at 871–72 (reversing denial of JMOL on reasonable royalty where record was not clear on date of first infringement).

306. *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 592–93 (1993).

Federal Circuit has made clear, however, that this gatekeeping function does not amount to an “independent mandate” for courts to exclude evidence where the parties have asserted no objection, and that “[t]he responsibility for objecting to evidence . . . remains firmly with the parties.”³⁰⁷ Nor does the court’s gatekeeping function extend beyond the expert’s reasoning and methodology to correctness of the data used or the weight of the evidence.³⁰⁸ “[W]hether the expert is credible . . . is generally a question for the fact finder, not the court.”³⁰⁹ “Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.”³¹⁰

2. Procedures and Timing for Rule 702 Challenges

The party offering the expert has the burden of establishing that Rule 702 is satisfied.³¹¹ This burden must be carried by a preponderance of the evidence.³¹²

The effectiveness of the court’s performance of its gatekeeping role depends in large part on when and how it chooses to perform that role. The court has considerable discretion to determine how it will perform its function under Rule 702, including determining whether (and when) to use

307. *Lucent*, 580 F.3d at 1325 (rejecting argument that court “abdicated” gatekeeping role by not excluding damages evidence to which no objection was made at trial; “[a]ny implicit objection on appeal is deemed waived by failing to object at trial”).

308. *See, e.g.*, *i4i Ltd. P’ship v. Microsoft Corp.*, 589 F.3d 1246, 1271 (Fed. Cir. 2009) (“Under Rule 702, the question is whether the expert relied on facts sufficiently related to the disputed issue,” and “it is not the district court’s role under *Daubert* to evaluate the correctness of facts underlying an expert’s testimony.”); *Liquid Dynamics Corp. v. Vaughan Co.*, 449 F.3d 1209, 1221 (Fed. Cir. 2006) (“challenge [to inaccurate data] goes to the weight of the evidence rather than the admissibility”).

309. *Summit 6, LLC v. Samsung Elecs. Co.*, 802 F.3d 1283, 1296 (Fed. Cir. 2015).

310. *Daubert*, 509 U.S. at 596; *Rembrandt Wireless Techs., LP v. Samsung Elecs. Co.*, No. 2016-1729, slip op. at 16–17 (Apr. 17, 2017).

311. *Daubert*, 509 U.S. at 592 n.10.

312. *Id.*

special briefing or other procedures.³¹³ In making decisions about the timing and procedure it will use, the court should ensure that it has sufficient time and evidence to thoroughly perform “the task of ensuring that an expert’s testimony both rests on a reliable foundation and is relevant to the task at hand.”³¹⁴ A common method for fulfilling this function is a Rule 702 hearing, at which the court has the opportunity to hear directly from the challenged witness, although such a process is not specifically mandated.³¹⁵

Rule 702 challenges frequently are raised as a companion to a summary judgment motion or in the form of an in limine motion. But collapsing the Rule 702 analysis into the court’s consideration of dispositive motions (which often are complex enough to require substantial briefing) or in limine motions (which typically are short, discrete motions on simple evidentiary disputes shortly before trial) may not allow the care and attention such an analysis warrants.³¹⁶ Establishing and scheduling a separate mechanism for addressing Rule 702 challenges can help ensure that the court has sufficient

313. See *Kumho Tire*, 526 U.S. at 152 (“The trial court must have [discretionary] latitude in deciding *how* to test an expert’s reliability, and to decide whether or when special briefing or other proceedings are needed to investigate reliability . . .”) (emphasis in original); Fed. R. Evid. 702 advisory committee’s notes to 2000 amendment (Rule 702 “makes no attempt to set forth procedural requirements for exercising the trial court’s gatekeeping function over expert testimony,” and “[c]ourts have shown considerable ingenuity and flexibility in considering challenges to expert testimony under *Daubert*.”).

314. *Daubert*, 509 U.S. at 597.

315. See *Hynes v. Energy West, Inc.*, 211 F.3d 1193, 1203–04 (10th Cir. 2000) (district court held hearing); see also *United States v. Charley*, 189 F.3d 1251, 1266 (10th Cir. 1999) (district court granted great latitude in “deciding whether to hold a formal hearing”); *United States v. Call*, 129 F.3d 1402, 1405 (10th Cir. 1997) (noting that *Daubert* does not require a hearing).

316. “One problem with addressing *Daubert* issues as part of summary judgment or in limine briefing is that neither provides an adequate means for fleshing out the record on the factual and legal issues relevant to the sufficiency of expert testimony. Summary judgment briefing is inadequate for this purpose because there is little overlap between either the facts or the legal standards for deciding summary judgment and *Daubert* issues. And because both issues are substantial, there typically is not room in a summary judgment brief to do justice to both. The *Daubert* challenge usually gets short shrift . . .” Patent Management Guide, *supra* note 2, at 7-25.

information and opportunity to make a thorough and accurate evaluation of the reliability of an expert's opinion. Moreover, summary judgment and in limine briefing often occurs shortly before trial. Earlier determination of Rule 702 challenges to damages experts can significantly alter the settlement dynamics of a case and perhaps make an early settlement more likely, saving the parties significant expense. Moreover, the consequences of an order excluding all or part of an expert's testimony, close to trial, can be very prejudicial. Accordingly, courts should consider scheduling the Rule 702 briefing and (if one is held) hearing it earlier rather than later in the life of a case. At minimum, courts should consider separating the Rule 702 briefing from briefings on summary judgment and in limine motions. Courts also may consider conducting a preliminary pretrial conference devoted exclusively to damages issues, as suggested above.³¹⁷

Courts may decide to "carry" a Rule 702 motion until the witness is to be presented at trial or until the court is called upon to exercise its gatekeeping function in response to an objection at trial. Trial courts have discretion to conduct a Rule 702 hearing during trial before an expert witness testifies, which may have the benefit of allowing the court to consider the proffered testimony in context.³¹⁸ Doing so, however, may as a practical matter limit the time available to the court to hear and decide the issue, and courts should consider "the realities of a multi-week jury trial where . . . convening a *Daubert* hearing while the jury potentially [sits] idle for a few days would severely interrupt the presentation of [a

317. *Id.*

318. *See, e.g.*, *Hiscox Dedicated Corp. Member, Ltd. v. Matrix Grp. Ltd.*, Case No. 8:09-cv-2465-T-33AEP, 2011 BL 239310 (M.D. Fla. Sept. 19, 2011); *Mosley v. Waffle House, Inc.*, No. 1:04CV816LG-RH, 2006 BL 50552 (S.D. Miss. Apr. 14, 2006) ("the Court will conduct a *Daubert* hearing during trial and will determine at that time whether [the witness's] testimony should be excluded").

party's] case and substantially interfere with the jury's ability to stay engaged in the proceeding."³¹⁹

A court's gatekeeping function also may be invoked in posttrial motions, although it is preferable for the court to establish a process that permits the reliability of the experts' opinions to be fully evaluated and determined before the evidence is admitted at trial.³²⁰

3. Effect of a Successful Rule 702 Challenge: Do-Over?

Where a court has excluded some or all of a damages expert's opinion for failing to meet the *Daubert* standards, the question often arises whether the court will permit the party and its expert to "repair the record" by submitting a new damages report or by offering a new damages theory or methodology at trial. Whether to allow this falls within the court's broad discretion.³²¹ A number of factors may be relevant to the

319. *United States v. Neuman*, No. 3:11-CR-00247-BR, 2013 BL 298309 (D. Or. Oct. 28, 2013) (rejecting defendants' late disclosure and offer of expert witness testimony during trial despite offer to "[break] for a *Daubert* hearing").

320. *See, e.g., Cornell Univ. v. Hewlett-Packard Co.*, 609 F. Supp. 2d 279, 279 (N.D.N.Y. 2009). In *Cornell*, the court interrupted the trial to conduct a Rule 702 hearing; found that the patentee's damages expert had not properly applied the entire market value rule and excluded the expert's opinion; allowed the expert to return the next day with a revised damages analysis; allowed the expert to testify to the new opinion; but then ruled after trial that the revised opinion was just another iteration of the excluded opinion and granted defendant's motion for JMOL or, in the alternative, remittitur.

321. *See ePlus, Inc. v. Lawson Software, Inc.*, 700 F.3d 509, 523 (Fed. Cir. 2012). In *ePlus*, the trial court excluded the damages expert testimony proffered by the patentee as "flawed and unreliable," *id.* at 523, and then barred the patentee from presenting any damages evidence at trial under Federal Rule of Civil Procedure 37(c)(1) on the grounds that (1) the patentee had not previously disclosed any alternative royalty rate and thus "had not provided Lawson with adequate notice of its royalty rate theory in violation of Rule 26(f)" and (2) allowing the patentee "to supplement the record on the eve of trial would cause disruption in the proceedings and undue prejudice to Lawson." *Id.* at 515. The Federal Circuit found no abuse of discretion in the trial court's ruling, explaining:

Trial management is particularly subject to the wide latitude of the district court. Here the district court was reasonably concerned that any last-minute addition to the record would disrupt the proceedings and cause unacceptable delay. The district court was also concerned that by changing the damages calculation methodology on the eve of trial, ePlus would

court's decision, including, for example, whether the other party would be prejudiced by having to respond to a new damages opinion;³²² whether there is sufficient time before trial to reasonably accommodate a revised damages report, a revised rebuttal damages report, and a new round of expert depositions on the new reports³²³—or whether a revised expert report would disrupt the court's trial schedule;³²⁴ whether the deficiencies in the report were the result of a recent change in the law;³²⁵ and whether the party can prove

expose Lawson to an unjustified risk of prejudice. These concerns provided the district court with sufficient basis to preclude ePlus from presenting any evidence of damages at trial.

Id.

322. *See id.* at 515 (trial court did not abuse its discretion in concluding that allowing new damages methodology on the eve of trial would impose “unjustified risk of prejudice” to defendant); *NetAirus Techs., LLC v. Apple Inc.*, No. 10-cv-3257, ECF No. 533, at 9 (C.D. Cal. Oct. 23, 2013) (allowing additional opportunity to revise excluded damages opinion “would cause undue prejudice on the eve of trial”); *AVM Techs., LLC v. Intel Corp.*, 927 F. Supp. 2d 139, 146 (D. Del. 2013) (even if otherwise admissible, inventor's proposed expert and hypothetical testimony regarding damages was disclosed “far too late, on the eve of trial”).

323. *See Intellectual Ventures I LLC v. Xilinx, Inc.*, No. 10-cv-01065-LPS, Dkt. No. 593, at 8 (C.D. Cal. Oct. 23, 2013) (striking expert damages report and allowing the parties two days to advise the court how they wished to proceed given the “imminence of trial” and lack of clarity as to whether the expert could even “perform a ‘do-over’ damages analysis”).

324. *See Network Protection Scis., LLC v. Fortinet, Inc.*, No. C 12-01106, ECF No. 334, at 13–14 (N.D. Cal. Sept. 26, 2013) (The court denied excluded damages expert a “second bite at the apple,” noting “the trial date is only four days away and the parties and the Court have built their calendars around that date; to start over with a new royalty analysis would impose prejudice on the defense as well and disrupt the Court's calendar, which is burdened with other trials set far into the future.”); *ePlus*, 700 F.3d at 515 (trial court did not abuse its discretion in rejecting party's proffered last-minute change in damages methodology; the court was “reasonably concerned” that such a change “would disrupt the proceedings and cause unacceptable delay”).

325. *NetAirus*, No. 10-cv-3257, ECF No. 533, at 9. In denying the patentee's request for leave to submit a new damages report, the *NetAirus* court noted that the excluded report was itself a substitution for a previous damages expert's report and explained:

Given the late substitution, and the benefit *NetAirus* has had of observing the developments in the damages jurisprudence prior to [the new expert's] report, it was incumbent on *NetAirus* to ensure that [the new expert's] damages theories were properly supported. Additionally, [the new expert] has had the benefit of having his opinions rejected in a number of published opinions at the trial and appellate level, including in a number

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damages either under a new theory or without its expert, such as through a percipient witness or the other party's expert, which depends on whether the proposed new theory of damages and the witnesses on whom it depends were previously disclosed in discovery or Rule 26 disclosures.³²⁶ The court also may consider whether the flaws in the expert's testimony were the result of overreaching or other gamesmanship.³²⁷

Additional support for denying do-overs may be found in Federal Rule of Civil Procedure 37(c)(1), which provides: "If a party fails to provide information or identify a witness as required by Rule 26(a) or (e), the party is not allowed to use that information or witness to supply evidence on a motion,

of leading cases concerning patent damages. Thus, the applicable framework was clear, and the Court breaks no new ground in the analysis of [the expert's] opinions in this case.

Id. In light of the scope of the exclusions ordered, the court afforded the patentee an opportunity to submit an explanation of how the portions of the report not stricken constituted an affirmative damages theory. *Id.* at 9–10. The patentee did not do so. *Id.*, ECF No. 615, at 4.

326. *See infra* notes 335–36; *ePlus*, 700 F.3d at 515 (trial court did not abuse its discretion by precluding trial testimony reflecting new damages theory, where the theory had not been disclosed pursuant to Rule 26(f)); *AVM*, 927 F. Supp. 2d at 146 (inventor's proposed damages testimony excluded on the grounds that it was improper expert opinion, improper speculation, and was not properly disclosed; "AVM never identified [the inventor] as having knowledge of damages" and "Intel would be prejudiced by AVM's late disclosure of [the inventor's] damages analysis").

327. One court explained its reluctance to grant damages "do-overs" thus: "Over the course of many years and more than a dozen patent trials, the [court] has concluded that giving a second bite simply encourages overreaching on the first bite (by both sides). A second bite may be appropriate where the expert report can be salvaged with minimal disruption to an orderly trial, but where the report is not even close, there is a positive need to deny a second bite in order to encourage candor in the first place." *Network Protection*, ECF No. 334, at 13–14. The court continued: "Possibly, plaintiff can cobble together a royalty case based on other disclosed witnesses and evidence. Possibly not. If not, it is a problem clearly of plaintiff's own overreaching and it will not be allowed a second bite at the apple." *Id.*

One judge's standing patent rule, entitled "5.3 Hypothetically Negotiate with Care," explains that a "legally and methodologically sound damages report is far more valuable to you than a more aggressive report that is subject to exclusion under *Daubert*. Requests for a second bite at the apple may be met with a citation to S.P.R. 5.3." <http://www.cacd.uscourts.gov/honorable-andrew-jguilford>.

at a hearing, or at a trial, unless the failure was substantially justified or is harmless³²⁸ Courts have identified four factors that should be considered in determining whether to exclude testimony under Rule 37(c)(1):³²⁹

- the prejudice to or surprise of the party against whom the excluded witnesses would have testified;
- the ability of that party to cure the prejudice;
- the extent to which waiver of the rule against calling unlisted witnesses would disrupt the orderly and efficient trial of the case or other cases in the court; and
- bad faith or unwillingness in failing to comply with the court's order.

Rule 37(c)(1) is intended to “provide a strong inducement for the disclosure of material,”³³⁰ and regardless of which party moves for relief under Rule 37(c)(1), the party facing the sanctions bears the burden of proof.³³¹ Courts have upheld the use of Rule 37(c)(1) sanctions even when a litigant's entire cause of action or defense has been precluded.³³² Rule

328. Rule 37(c)(1) also provides for alternate sanctions, including “order[ing] the payment of reasonable expenses, including attorney's fees, caused by the failure,” “inform[ing] the jury of the party's failure,” or “impos[ing] other appropriate sanctions.”

329. In the Third Circuit, these factors are referred to as the *Pennypack* factors after *Meyers v. Pennypack Woods Home Ownership Ass'n*, 559 F.2d 894, 904–05 (3d Cir. 1977). See *AVM*, 927 F. Supp. 2d at 146 (excluding damages testimony based on an application of the *Pennypack* factors). The Seventh Circuit adopted the *Pennypack* factors in *Spray-Rite Serv. Corp. v. Monsanto Co.*, 684 F.2d 1226, 1245 (7th Cir. 1982), and the Ninth Circuit in turn adopted “the *Spray-Rite* factors.” See *Price v. Seydel*, 961 F.2d 1470, 1474 (9th Cir. 1992). See also *Woodworker's Supply, Inc. v. Principal Mut. Life Ins. Co.*, 170 F.3d 985, 993 (10th Cir. 1999); *Adalman v. Baker, Watts & Co.*, 807 F.2d 359, 369 (4th Cir. 1986); *United States v. Koziy*, 728 F.2d 1314, 1320–21 (11th Cir.), *cert. denied*, 469 U.S. 835 (1984).

330. See Fed. R. Civ. P. 37(c)(1) advisory committee notes.

331. See *Yeti by Molly Ltd. v. Deckers Outdoor Corp.*, 259 F.3d 1101, 1107 (9th Cir. 2001) (“Implicit in rule 37(c)(1) is that the burden is on the party facing sanctions to prove harmlessness.”).

332. See *id.* at 1106 (Affirming trial court's decision to exclude defendant's expert testimony because “[p]laintiffs received [the expert's] report one month before they were to litigate a complex case. To respond to it, plaintiffs would have had to depose [the expert] and prepare to question him at trial.”).

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37 sanctions are reviewed for abuse of discretion and decisions regarding trial management are “particularly subject to the wide latitude of the district court.”³³³

Where a court elects to permit a party to “redo” its expert’s damages analysis, the courts may consider requiring that party to pay for any additional costs the opposing party incurs as a result of the new damages report or theory—for example, the expert fees incurred to obtain a new rebuttal expert report, the costs associated with re-deposing the expert on the new damages analysis, and the cost of a second deposition of the rebuttal expert.

4. Effect of a Successful Rule 702 Challenge: Alternative Sources of Damages Evidence

Another question that can arise when expert damages testimony is excluded is whether the party whose expert testimony was excluded can rely on other witnesses to fill the void. This may depend, in part, on whether the “replacement” witnesses were properly disclosed in discovery or Rule 26(f) disclosures. For example, faced with the exclusion of its expert’s testimony, a patentee may seek to rely on testimony from the inventor to establish the factual predicates for a reasonable royalty. Care should be taken in evaluating proposed lay testimony on damages. An inventor may be able to testify to facts for which he or she is a percipient witness, such as the prior licenses he or she entered into; but the inventor should not be permitted to speculate concerning what type of license he or she might have granted in the hypothetical

333. *ePlus*, 700 F.3d at 516, 523.

negotiation, what royalty might have been expected in the negotiation, and the like.³³⁴ A lay witness generally may not offer an opinion on ultimate patent damages.³³⁵

A party whose expert testimony has been excluded also may seek to establish its damages by calling the other side's damages expert in its case.³³⁶ The circumstances under which courts will allow a party to call the other side's expert—as well as the standard used to make such a determination—is a question of regional circuit law that may vary.³³⁷

334. See *NetAirus*, ECF No. 615, at 5–10 (excluding inventor's proffered testimony in part, noting that testimony concerning, e.g., the costs the defendant would have incurred to avoid infringement, the calculation of fees for use of the invention, and what would have happened—or what the inventor would have expected—in a hypothetical negotiation is inadmissible because it relates “to issues that are solely within the province [of] expert testimony”); *AVM*, 927 F. Supp. 2d at 146 (much of co-inventor's proposed testimony relating to damages is improper expert opinion or improper speculative or hypothetical testimony about what “would have” occurred; lay witnesses, such as inventors, may not offer opinion on ultimate patent damages, including determining a reasonable royalty).

335. *NetAirus*, ECF No. 615, at 5–10; *AVM*, 927 F. Supp. 2d at 146. Cf. *Bowling v. Hasbro, Inc.*, 582 F. Supp. 2d 192, 203 (D.R.I. 2008) (following exclusion of patentee's damages expert's testimony, patentee sufficiently established damages primarily through testimony of inventor and two of the accused infringer's business executives, which together addressed most, if not all, *Georgia-Pacific* factors; inventor testified to what he would have charged to either license the patent or sell the patented product to the defendant).

336. See *NetAirus*, ECF No. 619, at 3 (“[C]ourts have repeatedly observed that once a party has given testimony through deposition or expert reports, those opinions do not ‘belong’ to one party or another, but rather are available for all parties to use at trial.” (citation omitted)).

337. *Compare*, e.g., *Peterson v. Willie*, 81 F.3d 1033, 1037–38 (11th Cir. 1996) (“Once a witness has been designated as expected to testify at trial, there may be situations when the witness should be permitted to testify for the opposing party . . . [and] [t]his decision is committed to the sound discretion of the court.”); *De Lage Operational Servs., LLC v. Third Pillar Sys., Inc.*, 851 F. Supp. 2d 850, 853 (E.D. Pa. 2012) (“The weight of authority favors allowing [the plaintiff] to introduce the opinion testimony of [the defendant]'s expert . . . [and] in these circumstances, there is no reason not to allow a party to call the opposing party's expert witness to testify at trial.”); *Doe v. Eli Lilly & Co., Inc.*, 99 F.R.D. 126, 128 (D.D.C. 1983) (“[N]o party to litigation has anything resembling a proprietary right to any witness's evidence . . . [and] [a]bsent privilege, no party is entitled to restrict an opponent's access to a witness . . . [e]ven an expert whose knowledge has been purchased.”) *with* *Durflinger v. Artilles*, 727 F.2d 888, 891 (10th Cir. 1984) (“exceptional circumstances” standard applies to requests to use the testimony of an opposing party's expert, when that

C. Court-Appointed Damages Experts

In almost all patent cases, the litigants present damages evidence principally through expert testimony. Patent damages analyses can be complex, however, and the parties' experts can differ widely on the proper damages amount. It may be difficult for a jury to evaluate the credibility of wildly divergent expert analyses and, in particularly complex cases, the court may encounter difficulty in evaluating whether the experts' opinions pass muster under *Daubert*. In such instances, a court may consider whether to appoint a neutral damages expert under Federal Rule of Evidence 706.

Court-appointed damages experts are distinct from court-appointed special masters. Special masters in patent cases generally are appointed to assist the court with discovery issues and claim construction, not damages.³³⁸ Moreover, unlike special masters, court-appointed damages experts are expected to give testimony.

Although the rule does not restrict the circumstances in which a court can appoint an expert, it is rarely invoked. In fact, “[c]ourts and commentators alike have remarked that Rule 706 should be invoked only in rare and compelling circumstances.”³³⁹

Rule 706 gives the trial court broad discretion to appoint an expert witness at the request of a party or on its own motion.³⁴⁰ A court may order the parties to show cause why it should not appoint an expert, and it may ask the parties to nominate experts.³⁴¹ It may appoint any expert on which the

party no longer intends to call the expert as a witness); *Lehan v. Ambassador Programs, Inc.*, 190 F.R.D. 670, 672 (E.D. Wash. 2000) (“[T]he court has the discretion to permit one party to call as a witness at trial the opposing party’s expert witness when there has been a showing of ‘exceptional circumstances.’”).

338. See Jay P. Kesan & Gwendolyn G. Ball, *A Study of the Role and Impact of Special Masters in Patent Cases 7* (Federal Judicial Center 2009).

339. *Monolithic Power Sys., Inc. v. O2 Micro Int’l Ltd.*, 558 F.3d 1341, 1348 (Fed. Cir. 2009) (citations omitted).

340. Fed. R. Evid. 706.

341. *Id.* 706(a).

parties agree or one of its own choosing.³⁴² In any event, the expert must agree to act,³⁴³ and of course the expert must be neutral.

A court considering whether to exercise its discretion under Rule 706 should carefully evaluate a number of factors. The primary consideration should be whether appointment of a neutral expert “will help secure . . . the ascertainment of truth and the just determination of proceedings.”³⁴⁴ In most instances, the normal operation of the adversarial system will suffice to promote accurate damages fact-finding, and no court-appointed expert will be necessary.³⁴⁵ It is possible, however, that the specific facts and posture of the case—including the complexity of the issues and the disparity in the parties’ views on damages—may be such that a neutral expert could be useful.³⁴⁶ The court should consider whether the addition of a neutral expert will unduly or unfairly delay the progress or resolution of the case or impose an undue financial burden on the parties. An appointed expert’s fees and expenses are paid by the parties,³⁴⁷ and the court should consider the impact of that added expense in deciding whether to appoint a neutral expert and how narrowly or broadly to

342. *Id.*

343. *Id.*

344. *Gen. Electric Co. v. Joiner*, 522 U.S. 136, 150 (1997).

345. *See In re Joint E. & S. Dists. Asbestos Litig.*, 830 F. Supp. 686, 693 (E.D.N.Y. 1993) (“[U]se of Rule 706 should be reserved for exceptional cases in which the ordinary adversary process does not suffice.”).

346. *See, e.g., Monolithic Power*, 558 F.3d at 1347–48 (court did not abuse its discretion by appointing a neutral technical expert in conformance with the standards of Rule 706; the case was “unusually complex” and the court was confronted with “starkly conflicting expert testimony”); *Walker v. Am. Home Shield Long Term Disability Plan*, 180 F.3d 1065, 1070–71 (9th Cir. 1999) (no abuse of discretion in Rule 706 appointment where scientific evidence was “confusing and conflicting” and appointment aided court in “evaluating contradictory evidence about an elusive disease of unknown cause”); *Oracle Am., Inc. v. Google Inc.*, No. C 10-03561 WHA, 2011 U.S. Dist. LEXIS 129766, at *8 (N.D. Cal. Nov. 9, 2011) (finding that “an independent economic expert was needed to aid the jury” in light of “the parties’ extremely divergent views on damages and the unusual complexity of the damages aspect” of the case).

347. Fed. R. Evid. 706(c)(2) (compensation of court-appointed experts in civil cases is paid “by the parties in the proportion and at the time that the court directs”). Typically, such expert fees are shared evenly by the parties.

define the expert's responsibilities. If an expert is appointed, the court should actively supervise the expert's bills and billing practices.

A court has broad discretion to fashion the selection process. For example, the court may ask each party to nominate a specific number of candidates and then select an expert from among them (particularly if the same expert appears on both lists). Alternatively, it may direct the parties to agree on an expert, order the parties' experts to jointly propose several experts from which the court will make a selection, or identify an expert on its own. Both the method and timing of the appointment are within the court's discretion. The court should consider whether it would be more effective to appoint an expert earlier or later in the case, a decision that may be affected by the expert's intended role.

Where the court elects to appoint a damages expert, it must clearly delineate the expert's responsibilities and deadlines³⁴⁸—preferably in a written order, to avoid uncertainty or misunderstanding. The court should identify whether the neutral expert is retained only to assist the court in evaluating *Daubert* challenges to the parties' experts or to prepare an independent damages analysis. If the latter, the neutral expert should be required to submit a written report.³⁴⁹ The expert may be deposed by any party³⁵⁰ and also should be permitted to attend the depositions of the parties' experts. Some courts appoint pro bono independent counsel to represent the neutral expert.³⁵¹ The parties have the right to cross-examine at

348. *Id.* (“The court must inform the expert of the expert’s duties. The court may do so in writing and have a copy filed with the clerk or may do so orally at a conference in which the parties have an opportunity to participate.”).

349. Rule 706 requires the expert to advise the parties of any findings it makes but does not specifically require a written report. Fed. R. Evid. 706(b)(1).

350. Fed. R. Evid. 706(b)(2).

351. *Oracle*, ECF No. 374 at 1 (appointing pro bono counsel for court-appointed damages expert); *id.*, ECF No. 272 (court-appointed expert’s counsel “will assist with formulating an appropriate description of the witness’s assignment and with coordinating the mechanics of access to evidentiary materials and the procedures for payment by the two litigants”).

trial as if the expert were an adverse expert witness and to respond to the expert's critiques of the parties' own expert analyses.³⁵² All such details should be set forth in a written order.³⁵³

The court has discretion to authorize disclosure to the jury of the fact that the court appointed the expert witness.³⁵⁴ Where the court chooses to do so, one of the primary concerns with court-appointed testifying damages experts is the potential for the jury to give the expert's testimony undue weight simply because the expert was appointed by the court.³⁵⁵ Although the Federal Circuit has recognized that Congress rejected this concern when it decided to authorize adoption of Rule 706,³⁵⁶ courts should remain sensitive to this concern and, if they choose to disclose the expert's court-appointed status, should carefully instruct the jury about the expert's role, and caution the jury not to give the appointed expert's testimony any greater weight than it would give to that of any other witness.³⁵⁷ Of course, the appointment of an

352. Fed. R. Evid. 706(b)(3), (4) (expert may be called to testify by the court or by any party and may be cross-examined by any party, including the party that called the expert).

353. See *Oracle*, ECF No. 413, at 1-3 (authorizing court-appointed expert to "review any and all materials necessary for him to be personally and thoroughly informed as to all aspects of the damages claims and analyses of the parties"; ordering him to prepare an expert report both critiquing each parties' damages report and setting forth his own damages assessment; giving parties the right to conduct discovery from the expert; ordering the court expert to testify at trial; allowing the expert to attend depositions of the parties' experts and have his counsel question them; and authorizing expert to communicate with parties' experts "in an informal off-the-record manner to address any ambiguities he may wish to have clarified").

354. Fed. R. Evid. 706(d).

355. See Fed. R. Evid. 706, advisory committee's notes (1972) ("[T]he contention is made that court appointed experts acquire an aura of infallibility to which they are not entitled.").

356. See *Monolithic Power*, 558 F.3d at 1348.

357. The Federal Circuit noted with approval that the trial court in *Monolithic Power* had instructed the jury: "You should not give any greater weight to [the appointed expert's] opinion testimony than to the testimony of any other witness simply because the court ordered the parties to retain an independent witness. In evaluating his opinion, you should carefully assess the nature of and basis for [the expert's] opinion just as you would do with any other witness' opinion." 558 F.3d at

independent expert does not limit the parties' ability to call their own experts, who may attack, support, or supplement the testimony of the court-appointed expert.³⁵⁸

D. In Limine Motions

In limine motions can be an important tool in effective trial management, providing the court “an opportunity to establish procedures and substantive limitations that will streamline the evidence, shorten the trial, and reduce jury confusion.”³⁵⁹ The key to effective use of in limine rulings is to issue them early, ideally not later than the final pretrial conference. Early determination of these motions gives the parties time to adjust their trial presentations to reflect the court's rulings and, depending on the importance of the testimony, may provide further impetus toward settlement. Some in limine motions need more context and information to permit a reasoned determination, and where that is the case, the court should not hesitate to conditionally grant them—or hold them in abeyance—until the necessary context can be developed at trial. Of course, rulings on in limine motions are not binding on the court; the court may revisit and revise its prior rulings as the case progresses, where it is appropriate or necessary to do so.³⁶⁰

Some of the most common in limine motions related to patent damages are directed to testimony and argument concerning the accused infringer's net worth, total revenue, or revenues from the sales of anything but the actual royalty base. Such information normally is inadmissible as unfairly prejudicial and should not be presented to the jury, whether in voir dire, opening statement, witness testimony, or closing

1348. The court also observed that, in fact, the jury's verdict did not entirely track the neutral expert's opinions. *Id.*

358. Fed. R. Evid. 706(e); *Monolithic Power*, 558 F.3d at 1347.

359. Patent Management Guide, *supra* note 2, at 7-39. *See also* *Mixed Chicks LLC v. Sally Beauty Supply LLC*, 879 F. Supp. 2d 1093, 1094–95 (C.D. Cal. 2012) (identifying “proper” and “improper” reasons for in limine motions).

360. *Ohler v. United States*, 529 U.S. 753, 758 n.3 (2000).

argument.³⁶¹ Of course, in limine motions may present other issues that commonly arise in the patent damages context, such as untimely disclosures, untimely expert opinions, opinions not disclosed in reports, affirmative opinions disclosed in rebuttal reports, certain settlement agreements offered as evidence of comparable licenses, and other information that is more prejudicial than probative.³⁶²

The court should make clear well in advance of the filing deadline for in limine motions—ideally, in a written order—that the parties should not bring in limine motions that are, in effect, disguised motions for summary judgment. In limine motions are a vehicle to make important evidentiary rulings prior to trial, not to achieve summary disposition.

361. See *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1320–21 (Fed. Cir. 2011).

362. Patent Management Guide, *supra* note 2, at 7-39 to 7-57.

VII. Trial

A. Separate Trials

A case-management technique used frequently outside the patent context is separate trials of liability and damages, sometimes with a stay of damages discovery until liability issues are resolved. Rule 42 gives courts wide discretion to separate issues or claims at trial “[f]or convenience, to avoid prejudice, or to expedite and economize.”³⁶³ In appropriate cases, courts should consider whether to exercise their discretion under Rule 42 to conduct separate trials.

In deciding whether one trial or separate trials will best serve the convenience of the parties and the court, avoid prejudice, and minimize expense and delay, the primary consideration is what approach will result in a just, speedy, and inexpensive disposition of the litigation. In many instances, the conventional approach of allowing discovery on liability and damages to proceed concurrently—followed by a single trial addressing all merits issues—will be most efficient and expeditious. In others, a phased or bifurcated approach to discovery and trial may be preferable. The determination is necessarily highly fact-driven and is committed to the court’s sound discretion.

Relevant considerations include the prospect of avoiding the burden and expense of full damages discovery (and, perhaps, avoiding the need to try damages at all), the extent to

363. Fed. R. Civ. P. 42(b). See *Gardco Mfg., Inc. v. Herst Lighting Co.*, 820 F.2d 1209, 1212 (Fed. Cir. 1987) (“Under Rule 42(b), a district court has broad discretion in separating issues and claims for trial as part of its wide discretion in trial management.”). As the Federal Circuit explained in *Robert Bosch, LLC v. Pylon Mfg. Corp.*, 719 F.3d 1305, 1319–20 (Fed. Cir. 2013):

District courts have the authority to try [damages and willfulness] issues together or separately just as they have the authority to try all issues together at the liability stage. They may decide, for example, for reasons of efficiency due to the commonality of witnesses or issues in any particular case, that bifurcation is not warranted. District court judges, of course, are best positioned to make that determination on a case-by-case basis.

which damages issues differ from or are intertwined with the primary liability issues, and whether a single trial would create the potential for jury bias or other prejudice.³⁶⁴ The court also should evaluate the potential for jury confusion. Some of these factors will loom larger in complex cases involving multiple patents and many accused products.³⁶⁵

In jury trials, there are three general approaches to handling patent damages issues:

Unitary trial: Damages issues are tried together with liability, so that the jury decides both liability and damages at the same time, and damages and liability discovery typically are conducted simultaneously.

Phased trial: Liability issues are tried to verdict and then, if liability is found, the same jury hears evidence on, and determines the amount of, damages to be awarded. Again, damages and liability discovery typically proceed at the same time.

Bifurcated trial: All issues *except* damages are tried to verdict first, leading to the entry of a final judgment that may be appealed as a matter of right. Damages are then tried only if needed, after appeal, to a different jury on remand.

364. For example, in *A.L. Hansen Mfg. Co. v. Bauer Prods., Inc.*, No. 03C3642, 2004 U.S. Dist. LEXIS 8935 (N.D. Ill. May 17, 2004), the court explained the Rule 42(b) inquiry under Seventh Circuit law:

First, the trial court must determine whether bifurcation would either promote judicial economy or avoid prejudice to the parties. Next, if one or both of these interests are implicated, the trial court must balance these interests against any countervailing prejudice to the non-moving party. Third, when the trial court is satisfied that this balance favors bifurcation, the court may order separate proceedings, but only if doing so would not violate the Seventh Amendment.

Id. at **4–5 (citations omitted).

365. In a case involving five asserted patents and, apparently, multiple accused products, the court in part explained its decision to grant separate liability and damages phases by noting that “[r]ather than having to present all the evidence concerning plaintiff’s alleged damages at once, the parties can wait to see precisely which inventions and [accused products] are involved, and limit their damages proof to them.” *Laitram Corp. v. Hewlett-Packard Co.*, 791 F. Supp. 113, 116 (E.D. La. 1992).

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Damages discovery typically is stayed until after the liability issues are finally determined.

Each of these three approaches has its advocates and, based on the facts of the case and the nature of the issues to be tried, certain advantages and disadvantages.

Unitary trials may be expeditious, but they require counsel to make strategic decisions about the amount of trial time to allocate to damages, especially when liability is strongly contested. And if the jury concludes there is no liability, the time and effort devoted to the damages presentation (and damages discovery) will have been unnecessary. Moreover, a single, unphased trial of all issues may pose “the danger (especially perilous in complicated trials with many separate and distinct issues) that the jury will consider evidence that may be admissible on only one issue to the moving party’s prejudice on other issues.”³⁶⁶ Some counsel favor unitary trials on the basis that a jury that has doubt about, but nonetheless finds, liability may be more restrained in the amount of damages it ultimately awards. Moreover, at the discretion of the court, the jury in a unitary trial may be asked to render a damages verdict regardless of its decision on liability, thereby providing a dollar figure that may be reinstated in the event of a successful JMOL on liability or a reversal on appeal or may be referenced by the parties in subsequent settlement negotiations.

Proponents of phased trials cite efficiency, as a trial addressing only liability is likely to be simpler and shorter, and the damages phase of trial may prove unnecessary if liability is not found. Because the jury is not usually told at the outset that it will need to sit for a second phase of the trial only if it finds liability (for fear that it will skew the liability result), some counsel are concerned that a phased trial may not place the jury in a good frame of mind when it learns that it must hear more evidence and render a second verdict.

366. *Id.*

Proponents of bifurcated trials also cite efficiency, while touting the ability to take an interim appeal of the liability determination to the Federal Circuit. Section 1292(c)(2), which governs interlocutory appeals in patent cases, confers jurisdiction on the Federal Circuit “over appeals where the district court has exercised its discretion to bifurcate the issues of damages and willfulness from those of liability.”³⁶⁷ If such an interim appeal results in a conclusion of no liability—or if the case is settled pending (or as a result of) the appeal—damages discovery will be avoided and damages will never need to be tried, resulting in substantial time and cost savings. As one court explained:

In the normal case separate trials of issues is seldom required, but in a patent infringement suit considerations exist which suggest that efficient judicial administration would be served by separate trials on the issues of liability and damages. The trial of the damages question in such a suit is often difficult and expensive, while being easily severed from the trial of the questions of validity and infringement of the patent. A preliminary finding on the question of liability may well make unnecessary the damages inquiry, and thus result in substantial saving of time of the Court and counsel and reduction of expenses to the parties. Moreover, separate trial of the issue of liability may present counsel the opportunity to obtain final settlement of that issue or appeal without having reached the often time-consuming and difficult damages question.³⁶⁸

367. *Robert Bosch*, 719 F.3d at 1320; 28 U.S.C. § 1292(c)(2) (an appeal may be taken “from a judgment in a civil action for patent infringement which would otherwise be appealable to the United States Court of Appeals for the Federal Circuit and is final except for an accounting”).

368. *Swofford v. B&W, Inc.*, 34 F.R.D. 15, 19–20 (S.D. Tex. 1963). On appeal, the Fifth Circuit noted that “[t]he state of the record on this interlocutory appeal makes a decision on separability take on facets of a decision based on hypothetical facts; we cannot tell from the record whether the action pending below involves issues of fact common to liability and damages so as to preclude a separate trial.” *Swofford v. B&W, Inc.*, 336 F.2d 406, 415 (5th Cir. 1964). The court nevertheless affirmed, noting, “[W]e approve of the district judge’s order on the basis that we cannot think of an instance in a patent action where the damage issue is so interwoven with the other

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Particularly in complex cases, some courts favor bifurcation, reasoning that “[i]t will be difficult enough to educate the jury about the various concepts comprising the validity, enforceability and infringement issues that influence liability To include at the same time proof of the damages issues could risk needless juror confusion.”³⁶⁹ Some courts strongly favor bifurcation in patent cases; indeed, one court has asserted that “bifurcation is appropriate, if not necessary, in all but exceptional patent cases.”³⁷⁰ Even courts that do not embrace that view can properly consider whether, in light of the facts of each particular case, separate trials and/or discovery would best serve the interests of justice. Of course, the court must ensure that any order bifurcating trial preserves all federal rights to jury trial.³⁷¹

Critics of bifurcated trials contend that such trials lead to years of additional litigation and appeals, to the detriment of patentees with meritorious claims. Accused infringers may

issues that it cannot be submitted to the jury independently of the others without confusion and uncertainty.” *Id.*

369. *Laitram Corp.*, 791 F. Supp. at 116 (citations and footnote omitted).

370. *See, e.g., Robert Bosch L.L.C. v. Pylon Mfg. Corp.*, No. 1:08-00542, ECF No. 123 at 1 (D. Del. Aug. 26, 2009) (granting motion to bifurcate willfulness and damages for both discovery and trial, but acknowledging that “limited damages discovery may be relevant for purposes of exploring settlement and the issue of commercial success”). On appeal in that action, the Federal Circuit affirmed its jurisdiction, under 28 U.S.C. § 1292(c)(2), to entertain an appeal of a liability determination where issues of damages and willfulness have yet to be tried. *Robert Bosch, LLC v. Pylon Mfg. Corp.*, 719 F.3d 1305, 1320 (Fed. Cir. 2013).

371. *See* Fed. R. Civ. P. 42(b). The Seventh Amendment may be implicated where liability and damages are to be tried by different juries, as the Constitution requires that “a given issue may not be tried by different successive juries.” *Blyden v. Mancusi*, 186 F.3d 252, 268 (2d Cir. 1999); *see also* *United Air Lines, Inc. v. Wiener*, 286 F.2d 302, 306 (9th Cir. 1961) (on facts presented, “the issues of liability and damages, exemplary or normal, are not so distinct and separable that a separate trial of the damage issues may be had without injustice”). In *In re Innotron*, 800 F.2d at 1084, the Federal Circuit denied a petition for writ of mandamus challenging, on Seventh Amendment grounds, the trial court’s order directing separate trials of the plaintiff’s patent infringement action and defendant’s antitrust counterclaims. It explained: “the prohibition is not against having two juries review the same *evidence*, but rather against having two juries *decide* the same *essential issues*.” *In re Innotron Diagnostics*, 800 F.2d 1077, 1086 (Fed. Cir. 1986) (quotation and citation omitted) (emphasis in original).

disfavor a bifurcated damages trial for fear that jurors addressing only damages may take a less moderate approach to the damages determination, since they undertake their damages deliberations knowing the defendant to be an infringer and without the benefit of any mitigating evidence that may have been presented during the liability trial. Moreover, where liability is found, bifurcation inevitably results in some duplication, as a second jury must be educated about the basics of the technology and market, at least to the point where it can understand such issues as, for example, the nature and impact of any noninfringing substitutes.

A court that is inclined to phase or bifurcate a patent trial will need to determine whether to treat willfulness as part of the liability or damages portion of trial. Courts differ in how they address this question. Some of the evidence relating to willfulness, such as that relating to the development of the infringing product, normally will be presented during the liability trial for other purposes. Such evidence need not be presented in the damages/willfulness segment of a phased trial, but would have to be presented again if willfulness is tried to a second jury. Other willfulness evidence, such as the existence of or reliance on the opinions of counsel, is normally relevant only to the willfulness issue. Ultimately, whether it is most efficient and fair to address willfulness at the same time as the liability or the damages issues is a question left to the court's discretion, based on the facts of the specific case and the nature of the evidence that will be presented on the point.

Although most cases go to the Federal Circuit with both liability and damages determined, as noted above, the court has authority to hear appeals where willfulness and damages remain to be determined.³⁷² However, the Federal Circuit has declined to hear an appeal where injunction issues remain outstanding.³⁷³

³⁷² *Robert Bosch*, 719 F.3d at 1320.

³⁷³ See *Advanced Cardiovascular Sys. Inc. v. Medtronic Vascular, Inc.*, 231 F. App'x 962, 963 (Fed. Cir. 2007) (nonprecedential) (dismissing appeal as premature where request for permanent injunction remained pending before the district court);

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Multidefendant cases can present particular trial challenges for resolving damages issues in a way that is fair to all parties. Even if certain liability-related issues are common to all the defendants, damages or related issues like willfulness may not be. For example, a different hypothetical negotiation date may apply to each defendant. The defendants may have different design alternatives available to them, or they may use the patented invention in different ways. Accordingly, each defendant may have good justification for wishing to present its own damages case, rather than joining in a single damages presentation. In such circumstances, the court should consider severing defendants for purposes of trial, both as a matter of efficiency and to avoid the possibility of unfair prejudice. Even where the court concludes that severance is not necessary or appropriate, the amount of time allocated for trial (including the time allocated to each side's or party's trial presentation) should reflect the need for separate damages presentations by the defendants and ensure that each party has a fair opportunity to present its case.

Courts also should be aware of a procedure known as “reverse bifurcation,” which inverts traditional “liability-before-damages” bifurcation by trying damages issues separately *before* liability issues.³⁷⁴ The goal is to definitively inform the parties of the stakes in the case, thereby enhancing the possibility of early settlement and potentially achieving significant time and cost savings for both the court and the parties.³⁷⁵

see also Schwarz Pharma, Inc. v. Teva Pharms. USA, Inc., 132 F. App'x 369, 370 (Fed. Cir. 2005) (nonprecedential) (same).

374. *See* STC.UNM v. Intel Corp., No. 1:10-cv-01077, ECF No. 168 (D.N.M. Dec. 22, 2011).

375. *See In re Innovatio IP Ventures, LLC Patent Litigation*, No. 11-cv-9308, ECF No. 975, at *1 (N.D. Ill. Oct. 3, 2013), in which the defendants contended that the patent holder's patents were standard-essential and therefore subject to an obligation by the patent holder to license them on reasonable and nondiscriminatory terms. In ordering the damages determination to proceed first, the court explained that addressing damages first may aid settlement.

Although not the norm in patent litigation,³⁷⁶ the reverse bifurcation procedure has been used by several courts in patent actions,³⁷⁷ and the procedure has been requested and considered in others.³⁷⁸ In appropriate circumstances and cases, courts should consider whether such an approach would be useful.

B. Voir Dire

No special procedures normally are required for voir dire in patent cases. Courts should ensure, however, that voir dire is not used as a vehicle to put improper or unduly prejudicial information before the potential jurors.³⁷⁹ For example, counsel sometimes seek to include voir dire questions that reveal or relate to the size of the accused infringer, its revenues, profits, or market capitalization, or revenues on the accused

376. To date, reverse bifurcation has been most often used in large, complex product-liability cases, such as asbestos litigation.

377. See *In re Innovatio*, ECF No. 975, at *1; *Microsoft Corp. v. Motorola, Inc.*, No. C10-1823, 2013 U.S. Dist. LEXIS 60233, at *15–16 (D. Wash. Apr. 25, 2013) (in action alleging patentee’s failure to grant a license to standard-essential patents at a reasonable and nondiscriminatory rate, court held initial bench trial to determine royalty range for patents at issue, “to enable a fact-finder in a later trial to determine whether Motorola’s offer letters breached Motorola’s RAND obligation to offer a license for its patents in good faith”)

378. See *Gellyfish Tech. of Tex. L.L.C. v. Alltel Corp.*, No. 2:11-cv-00216, ECF No. 133, at 2–3 (E.D. Tex. July 22, 2011), in which the accused infringer asserted that the cost of litigating the action would exceed by a thousand times the maximum damages of \$2,250 and therefore sought to sever its case from the other defendants, reverse bifurcate the case against it so that damages discovery and trial would precede liability discovery and trial, and then conduct a mandatory mediation following the damages trial. The parties resolved the motion prior to a court ruling. See also *STC.UNM*, ECF No. 168, at 3 (finding that facts of case did not justify “reversing the ordinary progression of trial” and suggesting that reverse bifurcation “is most useful where the parties ‘have excellent information about the likelihood of success on the issue of liability and the real sticking points are the individual issues of causation and damages’” or “where the costs to the parties of litigating a case significantly outweigh the case’s overall value” and “an early damages determination may force all parties to re-evaluate whether a case is truly worth litigating” (citation omitted)).

379. *Mixed Chicks LLC v. Sally Beauty Supply LLC*, 879 F. Supp. 2d 1093, 1094 (C.D. Cal. 2012) (voir dire “is not to indoctrinate, inculcate, influence, insinuate, inform, or ingratiate”).

products as a way of influencing the jury's thinking on damages. Much of this type of information is properly the subject of in limine motions and is inadmissible in evidence, much less permissible in voir dire. Attempts to put such information before a jury panel through "hypothetical questions" are just as prejudicial as introducing it into evidence and should not be permitted.

C. Procedures to Aid the Jury's Understanding

In jury trials, providing preliminary substantive instructions on the applicable law before opening statements by counsel, allowing counsel to make interim statements during the evidentiary phase of lengthy trials, and allowing jurors to submit written questions for witnesses to answer are all procedures that have been used to aid the jury in understanding the case.³⁸⁰ Reasonable royalty damages present particularly complex issues that may warrant application of some or all of these techniques. After evaluating the complexity and length of any given trial, courts should consider whether such procedures would be helpful to the jury.

D. Objections

As with all cases tried to a jury, there is a danger in patent jury trials that "speaking objections," the presentation of prejudicial evidence, or the inappropriate arguments of counsel may be highly prejudicial to the outcome of the case. Judges should be mindful of this risk and should entertain pretrial motions and establish procedures that will prevent the jury from hearing information that may be more prejudicial than probative on the issue of patent damages. Special care should be taken to address how prior rulings, including the court's prior *Markman* rulings, are to be addressed with the jury, as well as any other issues that might interfere with the determi-

380. See, e.g., Seventh Circuit American Jury Project Final Report (Sept. 2008), <http://www.chicagoip litigation.com/uploads/file/American%20Jury%20Project.pdf>.

nation of the patent damages on properly introduced evidence. Examples of evidence that should be excluded include references to general industry royalty rates or to amounts paid by third parties on account of patents not in suit, unless a suitable foundation is laid establishing the applicability and comparability of those rates or payments to the patents or products at issue.

E. JMOL at the Close of Evidence

Pursuant to Rule 50, once a party has been fully heard on a damages issue during a jury trial, the court may grant a motion to resolve the issue against that party if a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on that issue. Such a motion may be made at any time before the case is submitted to the jury. Such motions often are addressed to damages issues, including, e.g., issues related to apportionment or the entire market value rule, or to the availability of a particular category of damages. Where a party elects not to file a pre-verdict JMOL motion on damages, it thereafter may not challenge the sufficiency of the evidence to support the jury's damages award.³⁸¹

F. Verdict Forms

The court should require the parties to submit a proposed verdict form, ideally one on which they agree. Absent agreement, each side should submit its proposed form to the court, with a short explanation of the perceived benefits of its proposal.

Although the law does not require a trial court to use a special verdict in patent cases,³⁸² it is advisable for the court to do so.³⁸³ The Supreme Court has noted, "in cases that reach the jury, a special verdict and/or interrogatories on each

381. *i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 856–57 (Fed. Cir. 2010).

382. *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1356 (Fed. Cir. 2001).

383. See Fed. R. Civ. P. 49. The *Model Patent Instructions* contain model verdict forms that can be useful starting points.

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claim element could be very useful in facilitating review, uniformity, and possibly postverdict judgments as a matter of law.³⁸⁴ The Federal Circuit also has encouraged special verdicts, particularly in complex cases.³⁸⁵

Special verdicts serve important purposes, both at trial and on appeal. Special verdicts focus the jurors' attention on each of the multiple issues they are asked to determine and give the jury an orderly way to approach their deliberations and verdict. They also facilitate appellate review and may help avoid remand and retrial, or at least narrow the scope of any post-appeal proceedings. As one court explained:

The special verdict compels detailed consideration. But above all it enables the public, the parties and the court to see what the jury really has done. The general verdict is either all wrong or all right, because it is inseparable and inscrutable. A single error completely destroys it. But the special verdict enables errors to be localized so that the sound portions of the verdict may be saved and only the unsound portions are subject to redeterminations through a new trial.³⁸⁶

This latter benefit, avoiding remand for retrial, is the special verdict's chief benefit to the trial court. That benefit must be

384. *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 39 (1997). "The theoretical distinction between general and special verdicts is that general verdicts require the jury to apply the law to facts, and therefore require legal instruction, whereas special verdicts compel the jury to focus exclusively on its fact finding role." *Function Media, LLC v. Google, Inc.*, 708 F.3d 1310, 1328–29 (Fed. Cir. 2013).

385. *Union Oil Co. v. Atlantic Richfield Co.*, 208 F.3d 989, 997 (Fed. Cir. 2000) ("In the course of the lengthy jury trial the district court heeded this court's counsel to use special verdicts in complex cases."); *Comark Commc'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1189 (Fed. Cir. 1998) ("We note that the use of special verdict interrogatories drawn to each claim element has been endorsed and indeed encouraged by the Supreme Court.").

386. *Richardson-Vicks, Inc. v. Upjohn Co.*, 122 F.3d 1476, 1484–85 (Fed. Cir. 1997). The court affirmed the trial court's order overturning the jury verdict and granting JMOL of invalidity, noting that "[s]orting through the record in a case such as this when the issue is the correctness of a jury verdict is made considerably more difficult by the absence of specific findings by the jury. The effort by the successful plaintiff to support the jury verdict in its favor is also made more difficult. The preferred route would have been to submit the underlying factual issues to the jury in the form of a special verdict under rule 49(a)." *Id.*

weighed, however, against the possibility that the special verdict form itself will create juror confusion. Ideally, the verdict form will provide enough information to avoid the need for remand for retrial, but will not require so much juror input as to cause confusion.

Damages, of course, are an important part of the special verdict form. At the very least, the verdict form should ask the jury to enter separate amounts for each category of damages sought (e.g., lost profits, reasonable royalty, price erosion damages). It also may be advisable to separately enter damages amounts for direct and indirect infringement, or at least ask the jury to indicate if the amounts are different.

Where reasonable royalties are sought, it may be advisable for the special verdict form to require the jury to state the royalty rate, the royalty base, and the amount of reasonable royalties awarded. In cases where infringement is proven and will potentially continue postverdict, it is helpful for the verdict form to reflect whether the royalty damages awarded by the jury were based on a running royalty or a paid-up lump-sum royalty, as this would affect any claim for an award of ongoing royalties. *See* section VIII.B below.

In multiple patent cases, the court may consider asking the jury to state whether (and if so, how) the royalty rate and base, or the lump-sum royalty, would change if not all of the patents in suit are valid and infringed. Where damages are sought under the entire market value rule, the court should consider a verdict form that asks the jury whether the accused feature is the basis for customer demand. Requiring the jury to provide separate answers to these questions will increase the likelihood that, even if the entire verdict is not upheld on appeal (e.g., if one or more of the asserted patents ultimately is found invalid or unenforceable), the Federal Circuit will be able to resolve the case without having to remand it to the district court for further proceedings.

Special verdict forms for damages can be particularly useful when more than one patent is at issue. Depending on the circumstances, including whether the patents are related and

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whether the same products are accused of infringing each of the patents, it may be appropriate to use a verdict form that seeks separate damages for each patent. If more than a single damages amount is to be entered, however, care should be taken to ensure the jury understands which of the amounts needs to be entered depending upon their conclusions on the issues. For example, if separate questions are presented relating to the amounts of reasonable royalties and lost profits, the form of verdict should make clear that answers to both questions are required. Similarly, if amounts of damages are to be entered even if a negative verdict is returned on the issue of liability, the form of verdict should so clearly state.

Often there is a gap of time between when damages evidence has been produced and the date of trial. In this circumstance, “the time period of the claim must be presented to the jury with clarity so as to avoid the ambiguity” of an unaddressed gap between the period for which evidence has been presented and the date of the jury verdict.³⁸⁷ The trial court “may award supplemental damages in light of that gap period.”³⁸⁸

Once the verdict is returned, counsel for the parties should be given sufficient time to review the verdict to ensure there are no inconsistencies. In the event of any inconsistency, the court should confer with the parties concerning how best to address the inconsistency before dismissing the jury.

387. *Warsaw Orthopedic, Inc. v. NuVasive, Inc.*, 778 F.3d 1365, 1378 (Fed. Cir. 2015).

388. *Id.*

VIII. Posttrial

A. Renewed JMOL Motions, Motions for New Trial and Remittitur

Following the return of the verdict, the court should hear and decide any renewed motions for judgment as a matter of law, pursuant to Rule 50. The court should set a briefing schedule that allows ample time to fully and fairly brief the issues.

The function of a renewed JMOL motion is not to allow the court to substitute its own judgment for that of the jury, but rather to allow the court to reconsider the legal issues raised earlier and assess whether the jury had a legally sufficient evidentiary basis to find as it did. Movants therefore should not reargue the evidence that could have justified a different result, but rather should focus on whether the evidence was sufficient to support the verdict. In patent cases, such motions often address issues of lost profits, reasonable royalty, and collateral sales.

A motion for new trial often is filed with the posttrial JMOL motion. Rule 59 authorizes a district court, on timely motion, to grant a new trial “for any reason for which a new trial has heretofore been granted in an action at law in federal court.”³⁸⁹ A court deciding a motion for new trial in a patent infringement case applies the law of the regional circuit, which often provides that the trial court may grant a new trial “where the verdict is against the clear weight of the evidence.”³⁹⁰ The court’s authority also extends to “overturning

389. *Gasperini v. Center for Humanities, Inc.*, 518 U.S. 415, 433 (1996).

390. *Aero Prods. Int’l, Inc. v. Intex Recreation Corp.*, 466 F.3d 1000, 1016–17 (Fed. Cir. 2006) (citing Seventh Circuit law for “against the clear weight of the evidence” standard); *Shockley v. Arcan, Inc.*, 248 F.3d 1349, 1362 (Fed. Cir. 2001) (citing Fourth Circuit law for “against the clear or great weight of the evidence” standard) (internal quotation marks omitted). In patent cases, motions for new trial often challenge the testimony of damages experts. Although “the jury is entitled to believe one expert over the other,” where the testimony of the expert on which the jury relied is inconsistent with the law, the verdict may warrant a new trial under the relevant circuit standard. See *Nordock, Inc. v. Sys. Inc.*, 803 F.3d 1344, 1356 (Fed. Cir. 2015).

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verdicts for excessiveness and ordering a new trial without qualification, or conditioned on the verdict winner's refusal to agree to a reduction (remittitur).³⁹¹ Consistent with the parties' Seventh Amendment right to jury trial, any discretionary offer by the court to reduce a verdict must be accompanied by an offer to grant a new trial.³⁹² The same is not true if the verdict, or a portion thereof, is based upon an erroneous ruling of law, and remittitur without the option of a new trial may be proper in that circumstance.³⁹³

B. Ongoing Royalties

Where a trier of fact has found infringement, a court may consider "several types of relief for ongoing infringement"—that is, for infringement that continues after entry of judgment:

- (1) it can grant an injunction; (2) it can order the parties to attempt to negotiate terms for future use of the invention;
- (3) it can grant an ongoing royalty; or (4) it can exercise its discretion to conclude that no forward-looking relief is appropriate in the circumstances.³⁹⁴

The court's decisions on these issues are reviewed for abuse of discretion.³⁹⁵ Even under this highly deferential standard of

391. *Minks v. Polaris*, 546 F.3d 1364, 1370 (Fed. Cir. 2008) (quoting *Gasperini*, 518 U.S. at 433). The Federal Circuit follows the "maximum recovery rule," which permits the trial court to grant remittitur "which remits an excessive jury award to the highest amount the jury could properly have awarded based on the relevant evidence." *Shockley*, 248 F.3d at 1362, quoting *Unisplay, S.A. v. Am. Elec. Sign Co.*, 69 F.3d 512, 519 (Fed. Cir. 1995). Of course, a request for remittitur should be denied when substantial evidence supports the jury verdict. *Interactive Pictures v. Infinite Pictures*, 274 F.3d 1371, 1386 (2001); see also *i4i*, 598 F.3d at 857 (a damages award can be set aside only when the award exceeds the "maximum amount calculable from the evidence").

392. *Minks*, 546 F.3d at 1370.

393. *Id.* at 1371.

394. *Whitserve, LLC v. Computer Packages, Inc.*, 694 F.3d 10, 35 (Fed. Cir. 2012); *Paice v. Toyota Motor Corp.*, 504 F.3d 1293, 1314–15 (Fed. Cir. 2007) ("Under some circumstances, awarding an ongoing royalty for patent infringement in lieu of an injunction may be appropriate," but such relief is not granted as a matter of course whenever a permanent injunction is not imposed.). The law regarding injunctive relief in patent infringement cases is beyond the scope of this guide.

395. *WhitServe*, 694 F.3d at 35.

review, however, the trial court must articulate the basis for its decisions regarding prospective relief; otherwise, there is no basis for the appellate court to determine if the trial court abused its discretion, and the issue likely will be remanded for further consideration and explanation.³⁹⁶

In most cases where the district court determines that an ongoing royalty would be appropriate, the Federal Circuit has suggested that the court should first allow the parties to negotiate a license between themselves regarding future use of a patented invention.³⁹⁷ If the parties are not able to come to terms, the Federal Circuit has suggested that the court then may step in to assess a reasonable royalty.³⁹⁸

An ongoing royalty is a form of equitable relief.³⁹⁹ Thus, where a court concludes that imposition of such a royalty is appropriate, the parties are not entitled to a jury trial to determine the amount of the royalty.⁴⁰⁰ The trial court may take additional evidence, if necessary, to account for any additional factors arising out of the imposition of an ongoing royalty.⁴⁰¹

Where the court elects to assess an ongoing reasonable royalty, it is not bound to apply the prejudgment royalty rate

396. See *Paice*, 504 F.3d at 1315 (vacating and remanding award of ongoing royalty of \$25 per unit; “without any indication as to why that rate is appropriate, we are unable to determine whether the district court abused its discretion”); *WhitServe*, 694 F.3d at 35–36 (vacating denial of relief for ongoing infringement and remanding for trial court “to address the propriety of prospective relief and to explain any decision it makes with respect thereto”; the trial court is not required to award an ongoing royalty where it denies an injunction, but it “must adequately explain why it chooses to deny this alternative relief when it does so”); *Amado v. Microsoft Corp.*, 517 F.3d 1353, 1362 (Fed. Cir. 2008) (vacating \$0.12 per unit ongoing royalty and remanding for further consideration; because the trial court did not explain its ongoing royalty award, the appellate court could not determine if the award was a reasonable exercise of discretion).

397. *Paice*, 504 F.3d at 1314; *Telcordia Techs., Inc. v. Cisco Sys., Inc.*, 612 F.3d 1365, 1379 (Fed. Cir. 2010) (“the court may, and is encouraged, to allow the parties to negotiate a license”) (citing *Paice*, 504 F.3d at 1314).

398. *Paice*, 504 F.3d at 1315; *Telcordia*, 612 F.3d at 1379.

399. *Paice*, 504 F.3d at 1313 n.13.

400. *Id.* at 1317.

401. *Id.* at 1315.

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found by the jury.⁴⁰² There is a “fundamental difference,” the Federal Circuit has said, between a reasonable royalty for pre-verdict infringement and damages for postverdict infringement.⁴⁰³ “[P]re-suit and post-judgment acts of infringement are distinct, and may warrant different royalty rates given the change in the parties’ legal relationship and other factors.”⁴⁰⁴

Where the jury’s damages award at trial already compensates for future infringement—for example, where the damages award was based on a lump-sum, paid-up royalty—no ongoing royalty would be appropriate.⁴⁰⁵ It therefore is advisable for the jury verdict form to reflect whether any damages awarded are based on a running royalty or a lump-sum paid-up royalty, or otherwise to make clear whether a damages award includes compensation for future infringement.⁴⁰⁶

The amount of supplemental damages following a jury verdict is committed to the court’s discretion.⁴⁰⁷ The Federal Circuit has not yet described the analysis to be applied to the amount of ongoing royalties in lieu of a permanent injunction.

402. *Amado*, 517 F.3d at 1361–62.

403. *Id.* at 1361.

404. *Paice*, 504 F.3d at 1317; *see also Amado*, 517 F.3d at 1362 (“different economic factors are involved” after judgment of validity and infringement is entered).

405. *See Prism Techs. LLC v. Sprint Spectrum L.P.*, 849 F.3d 1360, 1377–79 (Fed. Cir. 2017) (affirming denial of accounting and ongoing royalties because jury’s award included royalties for “past, present, and ongoing infringement”); *Summit 6, LLC v. Samsung Elecs. Co.*, 802 F.3d 1283, 1300–01 (Fed. Cir. 2015) (affirming denial of ongoing royalty “because the jury award compensated [patentee] for both past and future infringement through the life of the patent”); *WhitServe*, 694 F.3d at 19 (suggesting posttrial relief for ongoing infringement would be inappropriate where jury’s damage award covered future infringement). *Cf. Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363 (Fed. Cir. 2008) (vacating permanent injunction where jury’s damages award included “market entry fee” that assumed future sales of infringing product).

406. *But see Telcordia*, 612 F.3d at 1378 (although verdict form is not clear whether the jury compensated the patentee for both past and ongoing infringement, the district court has broad discretion to interpret an ambiguous verdict form and is in position to assess whether verdict compensated for ongoing infringement; the trial court’s finding that the verdict compensated only for past infringement is not clearly erroneous).

407. *SynQor Inc. v. Artesyn Techs., Inc.*, 709 F.3d 1365, 1384 (Fed. Cir. 2013) (citing *Amado*, 517 F.3d at 1362 n.2).

In connection with a stay of injunction pending appeal, however, the Federal Circuit has explained,

When a district court concludes that an injunction is warranted, but is persuaded to stay the injunction pending an appeal, the assessment of damages for infringement taking place after the injunction should take into account the change in the parties' bargaining positions, and the resulting change in economic circumstances, resulting from the determination of liability—for example, the infringer's likelihood of success on appeal, the infringer's ability to immediately comply with the injunction, the parties' reasonable expectations if the stay was entered by consent or stipulation, etc.—as well as the evidence and arguments found material to the granting of the injunction and the stay.⁴⁰⁸

The ongoing royalty may not be capped based on the infringer's profit margins.⁴⁰⁹

A court may also choose to temporarily stay an injunction to give the infringer an opportunity to design around the patent while phasing out its infringing product. The patentee can be awarded a "sunset royalty" for the continued infringement during this "sunset" period.⁴¹⁰ Whereas an ongoing royalty is awarded in lieu of an injunction, a sunset royalty is awarded to compensate for the period of time when an injunction is temporarily stayed postverdict.⁴¹¹ Although a sunset royalty is distinct from an ongoing royalty, the Federal Circuit has stated that the same type of calculation and analysis applies to both.⁴¹²

408. *Amado*, 517 F.3d at 1362.

409. *Douglas Dynamics, LLC v. Buyers Prods. Co.*, 717 F.3d 1336, 1346 (Fed. Cir. 2013) ("The infringer's selling price can be raised if necessary to accommodate a higher royalty rate, and indeed, requiring the infringer to do so may be the only way to adequately compensate the patentee for the use of its technology.").

410. *ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.*, 694 F.3d 1312, 1342 (Fed. Cir. 2012).

411. *See id.* at 1343 (vacating the district court's injunction and remanding for determination of an appropriate ongoing royalty instead of a sunset royalty).

412. *Id.* (stating that the analysis for determining an ongoing royalty is "much the same" as the analysis for determining a sunset royalty).

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In view of this relatively sparse guidance, courts should take evidence on the amount of royalty appropriate under the changed circumstances involved in postverdict infringement. Some courts have given the jury the role of determining royalties for both past and future infringement. Whether the court takes evidence as part of the trial or after the verdict is a matter of discretion.

C. Findings of Fact and Conclusions of Law

Although Rule 52 identifies situations in which findings of fact and conclusions of law are mandated, the court should take care in all cases tried to the bench to provide as complete a record as possible for review on appeal, so as to avoid remands resulting from the Federal Circuit's lack of sufficient basis for application of the standards of appellate review.⁴¹³ The Federal Circuit does not hesitate to remand damages judgments from bench trials for an explanation of the underlying evidence and reasoning.⁴¹⁴

413. *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1578 (Fed. Cir. 1984); *see also Pullman-Standard v. Swint*, 456 U.S. 273, 291–92 (1982) (if trial court fails to make findings, judgment should be vacated and remanded).

414. *See, e.g., Heeling Sports Ltd. v. US Furong Int'l Inc.*, 319 F. App'x 905, 908 (Fed. Cir. 2009) (nonprecedential) (vacating trial court's damages award and remanding for explanation); *Amado*, 517 F.3d at 1362 (vacating trial court's damages escrow award and remanding for reconsideration and explanation); *Paice*, 504 F.3d at 1315 (vacating, for lack of reasoning, trial court's award of ongoing royalty in lieu of injunction and remanding for reevaluation of royalty rate).

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