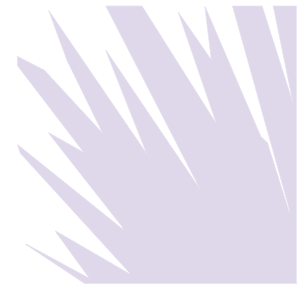


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SSPPU: A TOOL FOR AVOIDING JURY CONFUSION

*Mark Snyder**

INTRODUCTION

The law of patent infringement damages has long relied principally on the construct of a hypothetical negotiation between a patent owner and an infringer. That construct requires a fact finder to determine a reasonable royalty by applying economically sound principles. In most cases, one or more of the factors set forth in *Georgia-Pacific* are used to guide the fact finder in its task. The reasonable royalty framework—and the *Georgia-Pacific* analysis in particular—has long been notable for its adaptability to a variety of factual circumstances, an attribute that is sensible in light of the statutory requirement that the patentee be compensated “for the use made of the invention by the infringer.” Recently, however, there has been a concerted effort to impose a rigid structure on the calculation of a reasonable royalty to put downward pressure on the royalties paid for those patented technologies. Certain advocates urge the use of a concept known as “smallest salable patent-practicing unit” (“SSPPU”), as a one-size-fits-all methodology for calculating a reasonable royalty. Nowhere is this more evident than in the debate involving valuation of standards-essential patents (“SEPs”)—those patents that are necessarily infringed by products that practice a technical standard that reads on those patents.

* Copyright 2016, Mark Snyder. Mr. Snyder is a Senior Vice President and Patent Counsel at Qualcomm Incorporated. The views and opinions expressed in this paper are those of the author, and not those of the author’s employer.

But SSPPU cannot be transformed into something it is not. SSPPU was created as one tool judges could use as an evidentiary safeguard to mitigate the risk that jurors will be confused by high revenue numbers when calculating reasonable royalties and produce unreasonably high royalty awards. By focusing a jury on calculating a reasonable royalty based on the smallest salable patent practicing unit sold by the infringer, the court can avoid having the jury reach a damages verdict that is not consistent with the value that the infringer gains through use of the patented invention. For example, if the SSPPU is further incorporated into other products sold by the infringer, and the patentee cannot establish a basis for use of the entire market value of the accused product as the royalty base, then a court might instruct the jury only to consider the revenues from sales of the SSPPU when establishing a base for the calculation of a reasonable royalty. In doing so, SSPPU conceals from juries revenue numbers related to other potential bases an economist might consider for calculating damages. Far from being a substantive legal rule, SSPPU is a narrow tool to be used only in certain circumstances.

Nonetheless, there are advocates who urge that application of the SSPPU concept should be dramatically expanded. Some contend that SSPPU should be mandatory in all jury trials, even where there is no risk of confusion. Some contend that SSPPU should be mandatory in all patent trials of any kind. And some even go so far as to contend that SSPPU should control the range of acceptable royalties in *private* market transactions.

These absolutist proponents of SSPPU are mistaken in this respect, and this paper seeks to explain why. Part I of this paper provides some necessary background on the law of patent damages. Part II discusses the possible problem of jury confusion in patent trials, and how the problem may have its basis in a behavioral-economics concept called “anchoring.” Part III

discusses SSPPU's origins and its treatment in the Federal Circuit. Finally, Part IV examines some of the problems associated with converting SSPPU from an evidentiary safeguard into a substantive rule of law.

THE REASONABLE ROYALTY DAMAGES FRAMEWORK

A finding of patent infringement entitles a patentee to “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.”¹ Whether this damages award takes the form of lost profits, a reasonable royalty, or a combination of the two, the damages floor is the same: “in no event less than a reasonable royalty.”² So-worded, the statute has been interpreted as “expansive rather than limiting” — “[i]t affirmatively states that damages must be adequate, while providing only a lower limit and no other limitation.”³ Indeed, the Supreme Court has admonished courts not to invent limitations on patent infringement damages, explaining that “[w]hen Congress wished to limit an element of recovery in a patent infringement action, it said so explicitly.”⁴

In determining a reasonable royalty, the best evidence of a *reasonable* royalty for a given patent is an *established* royalty for

1. 35 U.S.C. § 284.

2. *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1544–45 (Fed. Cir. 1995); *see also* *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1335 (Fed. Cir. 2009) (referring to “the statutory damages floor of 35 U.S.C. § 284”).

3. *Rite-Hite Corp.*, 56 F.3d at 1544.

4. *Gen. Motors Corp. v. Devex Corp.*, 461 U.S. 648, 653 (1983) (refusing to limit a court's authority to award interest); *see also* *Bilski v. Kappos*, 561 U.S. 593, 602 (2010) (“This Court has more than once cautioned that courts should not read into the patent laws limitations and conditions which the legislature has not expressed.” (internal quotation marks omitted)).

that patent.⁵ When an established royalty is unavailable, though, courts turn to a hypothetical negotiation between the plaintiff and the defendant.⁶ This hypothetical negotiation “requires the court to envision the terms of a licensing agreement reached as the result of a supposed meeting between the patentee and the infringer at the time infringement began,”⁷ and involves consideration of fifteen factors set forth in *Georgia-Pacific*.⁸ Importantly, though, the hypothetical negotiation is “constructed on hypothetical assumptions,” including infringement, validity of the patent, willingness of the parties to negotiate an agreement, and that the infringer’s degree of efficiency is irrelevant.⁹

When the accused device contains both patented and unpatented features, measuring a reasonable royalty requires “a determination of the value added by such features,” a process

5. See *Monsanto Co. v. McFarling*, 488 F.3d 973, 978–79 (Fed. Cir. 2007) (“An established royalty is usually the best measure of a ‘reasonable’ royalty for a given use of an invention because it removes the need to guess at the terms to which parties would hypothetically agree.”).

6. See *id.* Infrequently courts use “the so-called ‘analytical approach,’” which involves “subtract[ing] the infringer’s usual or acceptable net profit from its anticipated net profit realized from sales of infringing devices.” *TWM Mfg. Co. v. Dura Corp.*, 789 F.2d 895, 899 (Fed. Cir. 1986). But the hypothetical negotiation framework is far more common. In fact, at times the Federal Circuit has defined a reasonable royalty based on a hypothetical negotiation. See, e.g., *Fujifilm Corp. v. Benun*, 605 F.3d 1366, 1372 (Fed. Cir. 2010) (“To determine a reasonable royalty, a jury must find the royalty that would have been agreed to in a hypothetical negotiation between a willing licensee and willing licensors at the time infringement began.”).

7. *Rite-Hite Corp.*, 56 F.3d at 1554.

8. See *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970).

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

called “apportionment.”¹⁰ The Supreme Court articulated the apportionment rule well over a century ago in *Garretson v. Clark*: “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.”¹¹ “The essential requirement [of apportionment] is that the ultimate reasonable royalty award must be based on the incremental value that the patented invention adds to the end product.”¹² Of course, a patented invention may contribute to *all* of the value of the end product. For this situation, courts have derived the “the entire market value rule” (or “EMVR”), which states that when the patented invention drives demand for the end product or substantially creates the value of the component parts, damages may likewise be based on the entire market value of the product.¹³

JURY TRIALS CAN PRESENT A UNIQUE APPORTIONMENT CONCERN

Because a reasonable royalty is a question of fact, juries are often responsible for apportionment.¹⁴ In a jury trial, the jury must decide (usually after hearing from experts on both sides) how much value the patented invention adds to the infringing product(s) and then express their conclusion in the form of a royalty, often calculated by multiplying together a royalty base and a royalty rate. Logically, of course, apportionment may be

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

11. 111 U.S. 120, 121 (1884) (internal quotation marks omitted).

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

13. *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1326 (Fed. Cir. 2014).

14. *See Riles v. Shell Expl. & Prod. Co.*, 298 F.3d 1302, 1308 (Fed. Cir. 2002).

accomplished by calibrating the royalty base “to reflect the value added by the patented feature,” by calibrating the royalty rate “so as to discount the value of a product’s non-patented features,” or by some combination of the two.¹⁵

Some courts, however, have questioned whether juries are capable of this analysis. Specifically, the concern is that juries will produce excessive royalties when they rely on excessive royalty bases. Said another way, juries may be misled by large revenue numbers. In such situations, courts have discretion to devise mechanisms to avoid misleading the jury.¹⁶

In essence, the fear is “anchoring.” Anchoring is the behavioral-economics term for the human tendency to rely too heavily on the first piece of information received. The concept was made famous by psychologists Amos Tversky and Daniel Kahneman, who posited that people often “make estimates by starting from an initial value that is adjusted to yield the final answer,” but that those “adjustments are typically insufficient.”¹⁷ “That is, different starting points yield different estimates, which are biased toward the initial values.”¹⁸ As an example of this bias, Tversky and Kahneman described an experiment in which subjects were shown what they thought were randomly generated numbers (though in fact the numbers

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

16. Cf. FED. R. EVID. 403 (“The court may exclude relevant evidence if its probative value is substantially outweighed by a danger of one or more of the following: unfair prejudice, confusing the issues, *misleading the jury*, undue delay, wasting time, or needlessly presenting cumulative evidence.” (emphasis added)).

17. Amos Tversky & Daniel Kahneman, *Judgment under Uncertainty: Heuristics and Biases*, 185 SCIENCE 1124–31 (1974).

18. *Id.*

were always either 10 or 65), and then asked to estimate the percentage of African countries in the United Nations.¹⁹ On average, the estimates tended toward the initial numbers—subjects shown 65 estimated a larger percentage of African countries in the United Nations, and subjects shown 10 estimated a smaller percentage of African countries in the United Nations.²⁰

In the patent context, the “anchor” is the royalty base. If the royalty base is high, the argument goes, then the jury is in danger of deciding upon an excessive royalty, because the jury may not be capable of determining an appropriate royalty rate to be applied to that base.

Before moving to a supposed solution to this problem, one should consider whether there actually *is* a problem to solve. Juries are asked to unravel complex problems every day. To name just a few, juries are entrusted with cases involving commercial contracts, securities transactions, medical malpractice, antitrust violations, and products liability. Many of these cases require juries not only to hear and digest huge volumes of evidence, but also to apply detailed laws and standards to that evidence. Thus, to the extent that juries are worthy fact-finders in other complex cases, there is little basis for singling out apportionment as too complicated for juries.²¹

Even assuming that patent trials have an anchoring problem, it is important to keep in mind that calibrating an anchoring-minimizing royalty base in a particular jury trial requires a

19. *Id.*

20. *Id.*

21. *Cf. In re U.S. Fin. Sec. Litig.*, 609 F.2d 411, 429–30 (9th Cir. 1979) (“The opponents of the use of juries in complex civil cases generally assume that jurors are incapable of understanding complicated matters. This argument unnecessarily and improperly demeans the intelligence of the citizens of this Nation. We do not accept such an assertion.”).

judge to know at least the “right” magnitude of the royalty, which will vary by invention and by accused product. This necessitates addressing the issue case-by-case. One size does not fit all.

THE GENESIS AND EVOLUTION OF THE SSPPU CONCEPT

Judge Rader proposed a solution to the jury anchoring problem in *Cornell University v. Hewlett-Packard Co.*, minting the term “smallest salable patent-practicing unit.”²² The case concerned Cornell’s patented “method for instruction issuance within a computer processor.”²³ The claimed method was carried out within a component of an instruction reorder buffer within a computer processor.²⁴ The computer processors were further incorporated into CPU modules, which were further combined into CPU “bricks” that were ultimately assembled into a server.²⁵ Hewlett-Packard (“HP”) sold computer processors, CPU modules, CPU bricks, and servers—many different products in the assembly chain of servers and workstations, all of which included the component that practiced the claimed invention. At first, Cornell’s damages expert sought to testify to the jury that the appropriate royalty base was the entire market value of servers and workstations sold by HP.²⁶ But because the expert offered no reliable evidence to justify the use of the entire market value of the servers and workstations as the royalty

22. 609 F. Supp. 2d 279 (N.D.N.Y. 2009) [hereinafter *Cornell II*]. At the time, Judge Rader was a Circuit Judge of the United States Court of Appeals for the Federal Circuit, sitting by designation in the United States District Court for the Northern District of New York.

23. *Id.* at 283.

24. *Id.*

25. *Id.*

26. *Cornell Univ. v. Hewlett-Packard Co.*, No. 01-CV-1974, 2008 WL 2222189, at *2 (N.D.N.Y. May 27, 2008) [hereinafter *Cornell I*].

base, Judge Rader excluded the testimony.²⁷ Undeterred by the court's admonition, the same expert next testified that a reasonable royalty should be calculated on the basis of CPU bricks sold by HP, the next rung in the assembly ladder of products sold by HP.²⁸ Judge Rader rejected this testimony for a lack of reliable supporting evidence to justify the use of the entire market value of the CPU bricks as the royalty base.²⁹ Running throughout these rulings was Judge Rader's concern that an unjustifiably large royalty base "would mislead the jury to award damages far in excess of their compensatory purpose."³⁰ No doubt the concern assumed even greater prominence for Judge Rader in light of the unwillingness of Cornell's expert to abide by the court's rulings.³¹ In the end, Judge Rader concluded that the appropriate royalty base was the processor itself, which he dubbed the smallest salable patent-practicing unit sold by the infringer, HP.³²

For Judge Rader, the SSPPU concept—applied to reduce the royalty base to the lowest rung in the infringing assemblies

27. *Id.* at *3–4.

28. *See Cornell II*, 609 F. Supp. 2d at 287–90.

29. *Id.*

30. *Id.* at 284.

31. *See id.* at 288 ("Indeed, on more than one occasion and in contravention of this court's order, Dr. Stewart continued to advise the jury that, in his opinion, server and workstation revenues were the appropriate royalty base. . . . Dr. Stewart's decision to cling to his excluded opinion is telling. Rather than present a damages case accounting for this court's order, Dr. Stewart and Cornell relied on the same evidence and reasoning that proved insufficient to support application of the entire market value rule in the server and workstation context only slightly revising those contentions to show entitlement to the entire market value of the CPU bricks.").

32. *Id.* at 292.

sold by HP—was no more than an evidentiary safeguard designed to avoid jury confusion. Indeed, it is not clear from the decision that Judge Rader considered SSPPU distinct from requiring the principled application of the EMVR where the infringer sold multiple subassemblies all containing the infringing technology. His *Cornell II* opinion neither announced a substantive rule, nor held that SSPPU was even relevant outside of the narrow set of facts before him. Under *Garretson*, the substantive rule is apportionment. And Judge Rader accomplished apportionment, in part, by rejecting an award of damages arrived at through an improper reference to the entire market value of the accused product, and instead, calculating the award using the smallest subassembly sold by the infringer that wholly contained the claimed invention.

Since *Cornell II*, only a few Federal Circuit cases have referred to SSPPU, and each opinion focused on the risk of jury confusion.³³

Better than any other Federal Circuit opinion, *Ericsson, Inc. v. D-Link Sys., Inc.* carefully explained the critical distinction between “the substantive statutory requirement of apportionment” and the “evidentiary principle” to which SSPPU is linked:

33. See, e.g., *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1226 (Fed. Cir. 2014) (“[C]are must be taken to avoid misleading the jury by placing undue emphasis on the value of the entire product.”); *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308 (Fed. Cir. 2014) (referring to “the fundamental concern about skewing the damages horizon” by “using a base that misleadingly suggests an inappropriate range” to the jury); *LaserDynamics, Inc. v. Quanta Comput., Inc.*, 694 F.3d 51, 68 (Fed. Cir. 2012) (“Admission of such overall revenues, which have no demonstrated correlation to the value of the patented feature alone, only serve to make a patentee’s proffered damages amount appear modest by comparison, and to artificially inflate the jury’s damages calculation beyond that which is adequate to compensate for the infringement.” (internal quotation marks omitted)).

There is one substantive legal rule, and there is a separate evidentiary principle[.] . . . The essential requirement [of the substantive legal rule of apportionment] is that the ultimate reasonable royalty award must be based on the incremental value that the patented invention adds to the end product. Our cases have added to that governing legal rule an important evidentiary principle. The point of the evidentiary principle is to help our jury system reliably implement the substantive statutory requirement of apportionment of royalty damages to the invention's value. The principle, applicable specifically to the choice of a royalty base, is that, where a multi-component product is at issue and the patented feature is not the item which imbues the combination of the other features with value, care must be taken to avoid misleading the jury by placing undue emphasis on the value of the entire product. It is not that an appropriately apportioned royalty award could never be fashioned by starting with the entire market value of a multi-component product—by, for instance, dramatically reducing the royalty rate to be applied in those cases—it is that reliance on the entire market value might mislead the jury, who may be less equipped to understand the extent to which the royalty rate would need to do the work in such instances.³⁴

There are three important points to note about *Ericsson*. First, no one who has read *Ericsson* can reasonably think that the concept of SSPPU is a substantive rule of Federal Circuit law.

34. *Ericsson*, 773 F.3d at 1226–27.

Ericsson left no room for doubt. Second, *Ericsson* did not say that the SSPPU concept is *itself* an evidentiary principle. The evidentiary principle “is that, where a multi-component product is at issue and the patented feature is not the item which imbues the combination of the other features with value, care must be taken to avoid misleading the jury by placing undue emphasis on the value of the entire product.”³⁵ Indeed, the SSPPU concept is nothing more than a shorthand expression for the cautious application of the EMVR, and simply *one way* a court may administer the evidentiary principle of avoiding jury confusion. Third, *Ericsson* did not say that the evidentiary principle of avoiding jury confusion (which has always existed in the form of Federal Rule of Evidence 403) requires the exclusion of evidence in *every* jury trial. Only “*undue* emphasis on the value of the entire product” is a problem.³⁶ In cases where there is evidence supporting valuation of the patent by reference to the end product, the concept of SSPPU has not been used to restrict the jury’s access to that evidence. Indeed, *Ericsson* itself affirmed the admission of expert testimony “regarding licenses in which royalties were set by reference to the value of an end product.”³⁷ Whether emphasis on the value of the end product is “undue” will largely depend on the gap between the value added by the patented invention and the value of the end product. Put differently, the less important the patented invention is to the end product, the greater the potential risk that a jury will put too much emphasis on the value of the end product.

More recently, the *Ericsson* view of SSPPU was confirmed in *Commonwealth Scientific & Industrial Research Organisation v. Cisco Systems, Inc.* (“CSIRO”), where damages were calculated

35. *Id.* at 1226.

36. *Id.* (emphasis added).

37. *Id.* at 1227.

for infringement of a Wi-Fi SEP.³⁸ The infringer, Cisco, did not contest infringement or validity, and the parties agreed to a bench trial on damages.³⁹ Cisco proposed a damages model basing royalties on the prices of the chips used in implementing the 802.11 Wi-Fi standard—what Cisco contended was the SSPPU.⁴⁰ The district court rejected Cisco’s damages model and created its own damages methodology, using the dollar-per-unit ranges of the parties’ prior negotiations as a starting point and considering adjustments based on the *Georgia-Pacific* factors.⁴¹

On appeal, Cisco argued for a rule “which would require all damages models to begin with the smallest salable patent-practicing unit.”⁴² The Federal Circuit flatly rejected Cisco’s rule as “untenable.”⁴³ Instead, the Federal Circuit found that Cisco’s proposed rule “conflicts with our prior approvals of a methodology that values the asserted patent based on comparable licenses,” and noted *Ericsson’s* holding, “that otherwise comparable licenses are not inadmissible solely because they express the royalty rate as a percentage of total revenues, rather than in terms of the smallest salable unit.”⁴⁴ The Federal Circuit thus made it clear that SSPPU is not the exclusive rule for determining reasonable-royalty damages in patent infringement cases.

38. 809 F.3d 1295 (Fed. Cir. 2015).

39. *Id.* at 1297–99.

40. *Id.* at 1299–1301.

41. *Id.* at 1299–1300.

42. *Id.* at 1303.

43. *Id.*

44. *Id.*

THE SSPPU CONCEPT IS NOT AND SHOULD NOT BECOME A
SUBSTANTIVE LEGAL REQUIREMENT FOR PATENT DAMAGES

Despite the crystal-clear explanation in *Ericsson*—and the holding in *CSIRO*—there are those who seek to convert the concept of SSPPU into a mandatory legal rule. The extent of their misunderstanding ranges from “SSPPU should govern all jury trials,” to “SSPPU should govern all trials,” and even to “SSPPU should govern all *private* transactions.” Contrary to these assertions, the SSPPU concept should not be converted into a mandatory legal rule.

Mandatory SSPPU Would Be Inconsistent with Apportionment.

Mandatory application of the concept of SSPPU in patent damages determinations would establish an artificial ceiling on royalties. If utilized as advocated by some, the SSPPU concept would limit the royalty base in a reasonable royalty determination to the cost of the component in which the patented invention is primarily implemented, which can prevent the very outcome apportionment requires—a royalty commensurate with the value added by the patented invention to the end product.⁴⁵ Consider a hypothetical. Suppose that a patented invention is largely, but not entirely, implemented in a \$20 component of a \$500 device. Suppose further that the use of the patented invention in the device adds \$150 of value. In a world of the mandatory application of the SSPPU concept to reduce the royalty base to components of devices sold by infringers, the royalty base *must* be the \$20 component, which means that no royalty rate of

45. See *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1226 (Fed. Cir. 2014) (stating that a reasonable royalty reflects “the value added by [the patented] features”). Note that this formulation differs substantially from Judge Rader’s original use of the term to describe the infringing device *sold by the infringer*; in *Cornell II*, the processors used by Judge Rader as the base to calculate a reasonable royalty were sold separately by the infringer HP.

100% or less can capture the value added by the patented invention.⁴⁶ If a jury (or a court, for that matter) is unlikely to award a royalty rate of greater than 100%, then the cost of the component will effectively operate as a royalty cap that is inconsistent with apportionment.⁴⁷

Relatedly, mandatory application of the SSPPU concept as advocated improperly assumes a necessary economic relationship between the *value* of an invention and the *cost* of a component in which that invention is primarily implemented. As Judge Davis of the Eastern District of Texas put it, “[b]asing a royalty solely on chip price is like valuing a copyrighted book based only on the costs of the binding, paper, and ink needed to actually produce the physical product.”⁴⁸ “While such a calculation captures the cost of the physical product, it provides no

46. An advocate of mandatory application of the SSPPU concept might reply that royalty rates should be permitted to exceed 100% where the royalty base is the SSPPU and a royalty rate between 0% and 100% cannot express the value added by the patented invention. Ironically, however, anchoring—the very behavioral-economics insight that gave birth to the concept of SSPPU—advises against this fix. Tversky and Kahneman concluded that estimates follow anchors, no matter in which direction the anchors stray. As a result, low royalty bases *and* high royalty bases are capable of mischief and worthy of suspicion. And if mandatory application of SSPPU is justifiable only if royalty rates can exceed 100%, then the SSPPU becomes a low anchor that is every bit as problematic in anchoring terms as the cost of the end product.

47. This royalty ceiling is also inconsistent with Section 284 and cases interpreting it. *See Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1544 (Fed. Cir. 1995) (“[Section 284] affirmatively states that damages must be adequate, while providing only a lower limit and no other limitation.”).

48. *Commonwealth Sci. & Indus. Research Organisation v. Cisco Sys., Inc.*, No. 6:11-CV-343, 2014 WL 3805817, at *11 (E.D. Tex. July 23, 2014), *vacated*, 809 F.3d 1295 (Fed. Cir. 2015).

indication of its actual value.”⁴⁹ It is not hard to find other illustrations. A blank DVD disk may *cost* \$1, but if the disk contains patented software, then the DVD disk may be *valued* at \$100. The point is that the value of the DVD disk can vary depending on the software stored on it, all while the cost of the blank DVD disk remains constant.

Mandatory Application of SSPPU Ignores Established Royalties.

The forced application of SSPPU in cases where there is market-based evidence of an established royalty could result in exclusion of the best evidence of value. Established royalties are the “best measure[s] of a reasonable royalty.”⁵⁰

Many large, competitive industries have long calculated royalties on the basis of end products.⁵¹ A review of intended royalty rates by holders of SEPs to the 4G LTE cellular-phone standard found that *every* reporting patentee announced an intended royalty rate using an end product as a royalty base.⁵²

Nevertheless, mandatory application of SSPPU would require courts to ignore such long-standing industry practices, which violates a central tenet of patent-damages law. If the best evidence of a reasonable royalty for a given patent is an established royalty for that patent,⁵³ and the established royalty relied

49. *Id.*

50. *See Monsanto Co. v. McFarling*, 488 F.3d 973, 979 (Fed. Cir. 2007).

51. *See Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1339 (Fed. Cir. 2009) (“[S]ophisticated parties routinely enter into license agreements that base the value of the patented inventions as a percentage of the commercial products’ sales price.”).

52. Eric Stasik, *Royalty Rates And Licensing Strategies For Essential Patents On LTE (4G) Telecommunication Standards*, LES NOUVELLES, at 114 (Sept. 2010), available at <http://www.investorvillage.com/uploads/82827/files/LESI-Royalty-Rates.pdf>.

53. *See Monsanto*, 488 F.3d at 979.

on an entire-device royalty base, then mandatory application of SSPPU requires exclusion of the best available evidence. As the studies above indicate, for some industries this rule would eliminate *most* comparable licenses.

Mandatory Application of SSPPU Would Be Inconsistent with SSPPU's Purpose of Avoiding Jury Confusion.

The SSPPU concept is, at most, an evidentiary safeguard designed to facilitate compliance with the evidentiary principle of avoiding jury confusion. Simply put, there is no basis for expanding the concept of SSPPU beyond the confines of jury trials for which it was created.⁵⁴

In the Federal Circuit's view, jurors struggle to apply the substantive apportionment rule when exposed to large revenue numbers in cases where the value added by the patented invention is but a portion of the total value of the infringing product.⁵⁵

But judges are different. Judges are well-equipped to understand both the apportionment rule and the mathematical interplay between royalty base and royalty rate, as judges regularly apportion damages by means of complex methodologies. No prophylactic rule designed to prevent misunderstandings or miscalculations is necessary for judges.

Besides, *Ericsson* could not have been any clearer that application of the SSPPU concept is applicable only to jury trials: "The point of the evidentiary principle" — and, therefore, the

54. Some advocates for expanding the application of the SSPPU concept argue that it should apply outside the United States, where typically judges, and not juries, determine patent damages.

55. See, e.g., *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1327 (Fed. Cir. 2014) ("[R]eliance on the entire market value of the accused products . . . 'cannot help but skew the damages horizon for the jury.'" (quoting *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1320 (Fed. Cir. 2011))).

tool used to effectuate that principle, SSPPU—“is to help our *jury system* reliably implement the substantive statutory requirement of apportionment of royalty damages to the invention’s value.”⁵⁶ No argument for the expansive use of the SSPPU concept in bench trials is reconcilable with *Ericsson*.

Mandatory Application of SSPPU Would Be Inconsistent With Cases Rejecting Rigid Patent Damages Limitations.

Both the Federal Circuit and the Supreme Court have carefully avoided the imposition of rigid limitations on patent damages. For example, the Federal Circuit has held that “[t]he correct measure of damages is a highly case-specific and fact-specific analysis.”⁵⁷ Similarly, the Supreme Court “has more than once cautioned that courts should not read into the patent laws limitations and conditions which the legislature has not expressed.”⁵⁸

In short, “[w]hen Congress wished to limit an element of recovery in a patent infringement action, it said so explicitly.”⁵⁹ Section 284 contains no indication (much less an explicit one) that Congress intended a mandatory SSPPU rule, and so none should be read into the statute.

56. 773 F.3d at 1226 (emphasis added).

57. *Mars, Inc. v. Coin Acceptors, Inc.*, 527 F.3d 1359, 1366 (Fed. Cir. 2008), *amended on other grounds*, 557 F.3d 1377 (Fed. Cir. 2009); *see Hebert v. Lisle Corp.*, 99 F.3d 1109, 1119 (Fed. Cir. 1996) (“The adequacy of the damages measure depends on the circumstances of each case.”).

58. *Bilski v. Kappos*, 561 U.S. 593, 602 (2010) (internal quotation marks omitted); *see also Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 1756 (2014) (stating that courts should not “superimpose[] an inflexible framework onto statutory text that is inherently flexible”); *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007) (“Helpful insights . . . need not become rigid and mandatory formulas.”).

59. *Gen. Motors Corp. v. Devex Corp.*, 461 U.S. 648, 653 (1983).

The SSPPU Concept Cannot Be Used to Limit Privately Negotiated License Agreements.

Some advocates of mandatory application of SSPPU go so far as to urge that SSPPU should dictate the royalty bases in private commercial arrangements between willing licensors and willing licensees—at least for licenses covering SEPs. No case has ever held that the SSPPU is a limit on the freedom of contract in private transactions, and there is no justification for converting the concept of SSPPU into such a limit.

SSPPU is a creature of the courts, not the market. As explained above, the concept Judge Rader dubbed “SSPPU” was designed “to help our *jury system* reliably implement the substantive statutory requirement of apportionment of royalty damages to the invention’s value.”⁶⁰ The goal of avoiding jury confusion has no application in a private negotiation between sophisticated market participants, because no one could reasonably contend that sophisticated market participants struggle to negotiate a fair royalty when dealing with high revenue and profit numbers. Furthermore, the *way* that the concept of SSPPU is applied to help a jury to reliably implement apportionment is by concealing revenue and profit data from them. Concealing revenue and profit data from participants in a private negotiation would be neither useful nor, in most cases, even possible.

What is more, applying the concept of SSPPU to private negotiations would require patent-by-patent and component-by-component negotiations, which would be impossible in the numerous transactions involving large, diverse patent-portfolios.⁶¹ Rather than invite the exorbitant transaction costs associ-

60. *Ericsson*, 773 F.3d at 1226 (emphasis added).

61. Nor is there reason to think that cases involving SSPPU even contemplated application of the theory to a voluminous patent-portfolio. *See*,

ated with patent-by-patent analysis, real-world license agreements involving large patent-portfolios tend to license on a portfolio-wide basis (or at least by major class of patents within a portfolio). This sensible approach not only avoids interminable negotiations, but also results in an easily administrable license. The royalty base is the end product, and the risk of infringement is obviated because all the licensor's patents are part of the license.

The SSPPU Concept Cannot Be Employed to Rewrite RAND Licensing Commitments.

The most obvious attempt to entrench the SSPPU concept as a substantive rule for determining patent damages is taking place in the development of intellectual property rights policies of standard-setting organizations ("SSOs"), such as the Institute of Electrical and Electronics Engineers Standards Association ("IEEE"). This possibility, or the threat of its application in court, is motivating many advocates to rewrite the contours of the reasonable and nondiscriminatory ("RAND") terms and

e.g., *Ericsson*, 773 F.3d at 1209–11 (three patents); *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1315 (Fed. Cir. 2014) (two patents); *LaserDynamics, Inc. v. Quanta Comput., Inc.*, 694 F.3d 51, 56 (Fed. Cir. 2012) (one patent); *Cornell Univ. v. Hewlett-Packard Co.*, 609 F. Supp. 2d 279, 282 (N.D.N.Y. 2009) [hereinafter *Cornell II*] (one patent). Indeed, recent discussions with Judge Rader on October 7, 2015, at the IEEE-SIIT conference held in Mountain View, California, on the applicability of his concept of SSPPU confirm that he never intended it to apply to the valuation of portfolios of patents. Judge Rader recognizes the virtual impossibility of attempting to apply the SSPPU concept to a portfolio because of the necessary correlation of the concept to the elements of the infringed claims.

conditions by which members of SSOs may agree to grant licenses.⁶² Doing so would enable implementers of standardized technology to pressure SEP holders into below-market royalty agreements, fundamentally altering the terms of the RAND bargain and stifling innovation.

RAND licensing strikes a balance. Implementers of standardized technologies can obtain access to SEPs and the benefits of standardization, provided they enter into licenses on RAND terms that compensate innovators fairly and adequately for the use of their SEPs. RAND licensing allows implementers to obtain access to proven technology in a standard developed through collaborative engineering efforts to gain efficiency and predictability. In return, innovators receive a sufficient return on substantial investment in research and development, incentivizing innovation that benefits everyone. As a contractual commitment between the owners of SEPs and the SSOs to which they belong, RAND must be interpreted to give effect to the intent of the parties and, therefore, this balance.

But mandatory application of the SSPPU concept to valuing SEPs would upset that balance. This is precisely what is happening in IEEE, one of the world's largest SSOs, and the SSO where Wi-Fi standards are created. Recent events at IEEE, which led to changes in the IEEE's long-standing RAND Patent Policy, have created enormous uncertainties for SEP owners and implementers alike. The IEEE's new definition of a "reasonable royalty" sets forth SSPPU as a valuation standard that courts should consider in valuing patents essential to IEEE standards where the SEP owner has made a commitment to license under the new IEEE policy. For those SEP owners, the new

62. In some cases, SSOs express the same concept as "fair, reasonable and non-discriminatory" or "FRAND" license terms. For the purposes of this article, the two terms, RAND and FRAND are interchangeable.

policy will in practical terms make it mandatory for courts to apply the SSPPU concept, not as an evidentiary tool on a case-by-case basis to avoid misleading the jury, but as the basis for determining value in all cases. To be sure, there are other controversial changes to the IEEE's policy. But the extension of the SSPPU concept—indeed, its required acceptance as a valuation metric by any SEP owner that makes compliant licensing assurances—strikes directly at the balance of value that is the heart of a RAND commitment. The IEEE's new policy is intended not to shield juries from being misled, but instead to influence negotiation of new licenses and constrain the way future licenses are structured. Moreover, for licensors of large portfolios of SEPs that are often the companies that invest the most in risky research and development to develop the standard, the use of SSPPU is completely unworkable as a valuation construct and may lead to increased litigation.

Imposing a royalty cap in the form of a royalty base specified by the concept of SSPPU on RAND licenses puts a veritable anvil on the scale in favor of implementers. Already, several members of IEEE have publicly stated that they will not make licensing assurances under the new policy.⁶³ What that means for the development of new standards by IEEE and the ability to attract the best technology contributions remains to be seen, particularly as IEEE will undoubtedly face increased competition with other SSOs to develop future wireless communications standards. It is hard to understand the wisdom behind the IEEE's decision to put a cloud over the tremendous standardization engine at IEEE. If the response is that companies will no

63. See Richard Lloyd, *Ericsson and Nokia the latest to confirm that they will not license under the new IEEE patent policy*, IAM (Apr. 10, 2015), <http://www.iam-media.com/blog/detail.aspx?g=d07d0bde-ebd6-495a-aa72-4eecb9dac67d>.

longer make RAND commitments, or will contribute their technologies to other SSOs without such onerous policies, or will not invest in the risky research and development that has been the hallmark of the success in the wireless communications industry, then that could cost consumers more than anyone.

CONCLUSION

SSPPU is a purpose-built tool for a specific problem presented in U.S. jury-based patent litigation. In cases where juries must apportion the value added by a patented invention to an end product, judges should operate as gatekeepers to ensure damages awards are based on sound economic principles. In some cases, that responsibility may require courts to prevent misleading evidence from reaching the jury. With those principles in mind, and faced with an unruly expert unabashedly attempting to mislead a jury about a minor component that added little value to a larger set of devices, Judge Rader fashioned an evidentiary safeguard to solve the specific problem before him. Where there is no risk of jury confusion—like where the patented invention adds significant value, or where *there is no jury*—the ground for applying the concept of SSPPU falls away. This is why no court has applied any concept of SSPPU outside of the jury trial context, and certainly no court has held that application of SSPPU should be mandatory outside of court.

It should come as no surprise that there are technology implementers who think SSPPU should be expanded far beyond the context of its origins. After all, implementers see the opportunity to manipulate the concept of SSPPU as a way to achieve below-market royalties through the courts, or through the policies of SSOs. Why worry about stagnating “the progress

of science and useful arts”⁶⁴ if implementers can raise profits today?

Don't be fooled. There is no ambiguity and should be no confusion on this point: The concept of SSPPU is an evidentiary safeguard and *only* an evidentiary safeguard. Courts, governmental authorities, and SSOs should keep it that way, lest innovation suffer.

64. U.S. CONST. art. I, § 8, cl. 8.