

United States Court of Appeals for the Federal Circuit

COMMONWEALTH SCIENTIFIC AND INDUSTRIAL
RESEARCH ORGANISATION,
Plaintiff-Appellee

v.

CISCO SYSTEMS, INC.,
Defendant-Appellant

2015-1066

Appeal from the United States District Court for the
Eastern District of Texas in No. 6:11-cv-00343-LED, Chief
Judge Leonard Davis.

Decided: December 3, 2015

MICHAEL NG, Kobre & Kim LLP, San Francisco, CA,
argued for plaintiff-appellee. Also represented by DANIEL
AMON ZAHEER; BENJAMIN JEFFREY AARON SAUTER, New
York, NY; MICHAEL F. HEIM, MIRANDA Y. JONES, Heim,
Payne & Chorush, LLP, Houston, TX; FREDERICK
MICHAUD, Capshaw DeRieux LLP, Washington, DC;
JAMES WAGSTAFFE, MICHAEL JOHN VON LOEWENFELDT,
Kerr & Wagstaffe, LLP, San Francisco, CA.

JOHN C. O'QUINN, Kirkland & Ellis LLP, Washington,
DC, argued for defendant-appellant. Also represented by

JASON M. WILCOX; L. NORWOOD JAMESON, JENNIFER H. FORTE, ALISON HADDOCK HUTTON, MATTHEW YUNGWIRTH, Duane Morris LLP, Atlanta, GA.

MARK S. DAVIES, Orrick, Herrington & Sutcliffe LLP, Washington, DC, for amicus curiae Apple Inc. Also represented by BRIAN PHILIP GOLDMAN, San Francisco, CA.

LAUREN B. FLETCHER, Wilmer Cutler Pickering Hale and Dorr LLP, Boston, MA, for amici curiae Intel Corporation, Dell Inc., Hewlett-Packard Company. Also represented by REBECCA A. BACT, WILLIAM F. LEE, JOSEPH J. MUELLER; KENNETH HUGH MERBER, Washington, DC.

MIKE MCKOOL, McKool Smith, P.C., Dallas, TX, for amicus curiae Ericsson Inc. Also represented by THEODORE STEVENSON III; JOHN BRUCE CAMPBELL, JOEL LANCE THOLLANDER, Austin, TX.

DEMETRIUS TENNELL LOCKETT, Townsend & Lockett, LLC, Atlanta, GA, for amici curiae Nokia Corporation, Nokia USA, Inc.

ROGER BROOKS, Cravath Swaine & Moore LLP, New York, NY, for amicus curiae Qualcomm Incorporated.

ALEXANDRA MCTAGUE, Winston & Strawn LLP, Menlo Park, CA, for amicus curiae Aruba Networks, Inc. Also represented by DAVID SPENCER BLOCH, San Francisco, CA.

Before PROST, *Chief Judge*, DYK and HUGHES, *Circuit Judges*.

PROST, *Chief Judge*.

Following a bench trial on damages, the district court awarded Commonwealth Scientific and Industrial Research Organisation (“CSIRO”) \$16,243,067 for Cisco

Systems, Inc.’s (“Cisco”) infringement of CSIRO’s U.S. Patent No. 5,487,069 (“’069 patent”). On appeal, Cisco challenges the district court’s damages award. We conclude that the district court’s methodology in this case—insofar as it relied on the parties’ actual licensing discussions—is not contrary to damages law. However, we also hold that the district court erred in not accounting for the ’069 patent’s standard-essential status and in its reasons for discounting a relevant license agreement. We therefore vacate the district court’s judgment and remand for the district court to revise its damages award.

I. BACKGROUND

CSIRO is the principal research arm of the Australian federal government and conducts research in countless scientific fields. One such field is wireless communications. In the early 1990s, CSIRO, among many other organizations, set out to devise faster and more reliable wireless local area network technology. CSIRO’s research resulted in the ’069 patent, which was filed on November 23, 1993, and issued to CSIRO on January 23, 1996. The ’069 patent discloses techniques directed to solving issues from wireless signals reflecting off objects and interfering with each other, commonly referred to as the “multipath problem.”

In 1997, the Institute of Electrical and Electronics Engineers (“IEEE”) released the original 802.11 wireless standard, which provides the specifications for products using the Wi-Fi brand. The first revision of 802.11, called 802.11a, was ratified in 1999, and it included the ’069 patent’s technology. In connection with 802.11a, CSIRO submitted a letter of assurance to the IEEE pledging to license the ’069 patent on reasonable and non-discriminatory (“RAND”) terms. The ’069 patent is also essential to various later iterations of 802.11 (802.11g, n, and ac). However, despite the IEEE’s repeated requests to CSIRO that it submit a letter of assurance for the ’069

patent for these revisions of 802.11, CSIRO refused to encumber the '069 patent with a RAND commitment for these revisions.

When the '069 patent issued in 1996—the early days of 802.11—a group of individuals involved in the '069 patent's research attempted to commercialize the technology. Along with David Skellern and Neil Weste, both professors at Macquarie University in Australia, Terry Percival, a CSIRO scientist and named inventor on the '069 patent, founded a company called Radiata, Inc. to sell wireless chips in at least the United States. Consequently, Radiata and CSIRO entered into a license agreement—the Technology License Agreement (“TLA”)—for the '069 patent. Under the TLA, Radiata agreed to pay CSIRO tiered royalties for each chip sold according to the following table:

<u>Sales Volume</u>	<u>Standard Chip Royalty</u>	<u>Derivative Chip Royalty</u>
1–100,000	5.0%	5.0%
100,001–400,000	4.0%	4.0%
400,001–1,000,000	3.0%	3.0%
1,000,001–3,000,000	2.0%	2.0%
> 3,000,001	1.0%	0.5%

In November 2000, Cisco publicly announced its plans to acquire Radiata. The acquisition was completed in early 2001. As part of the acquisition, Cisco, Radiata, and CSIRO amended the TLA in February 2001, largely to allow Cisco to take Radiata's place in the TLA. Cisco and CSIRO amended the TLA again in September 2003. Cisco paid royalties to CSIRO under the TLA until 2007, when

Cisco ceased using Radiata-based chips in its products. Over the course of the TLA, Cisco paid CSIRO over \$900,000 in royalties.

Around 2003, CSIRO decided to offer a license to the '069 patent to other Wi-Fi industry participants. Eventually, it developed a form license offer, called the "Rate Card," which it began offering to potential licensees in 2004. The Rate Card was structured as follows:

	<u>Royalty per product sold</u>				
Days from offer to acceptance:	< 90	< 120	< 150	< 180	> 180
<u>Sales Volume</u>					
0–1 million	\$1.90	\$2.38	\$2.85	\$3.33	\$3.80
1–2 million	\$1.80	\$2.25	\$2.70	\$3.15	\$3.60
2–5 million	\$1.70	\$2.13	\$2.55	\$2.98	\$3.40
5–10 million	\$1.60	\$2.00	\$2.40	\$2.80	\$3.20
10–20 million	\$1.50	\$1.88	\$2.25	\$2.63	\$3.00
> 20 million	\$1.40	\$1.75	\$2.10	\$2.45	\$2.80

The lowest Rate Card rates, corresponding to acceptance of CSIRO's offer within ninety days, were \$1.40–\$1.90 per unit. CSIRO did not execute any licenses under the Rate Card terms.

In 2004, CSIRO approached Cisco and offered Cisco a license to the '069 patent on the Rate Card rates. Cisco did not accept CSIRO's offer. However, the district court found that in subsequent discussions in 2005, Dan Lang,

Cisco's Vice President of Intellectual Property, informally suggested to CSIRO that a \$0.90 per unit rate may be more appropriate. *Commonwealth Sci. & Indus. Research Org. v. Cisco Sys., Inc.*, No. 6:11-CV-343, 2014 WL 3805817, at *12 (E.D. Tex. July 23, 2014). This rate was not much lower than what Cisco was already paying CSIRO under the TLA, though over time the TLA rates declined dramatically due to rapidly decreasing chip prices. Despite both parties' apparent willingness to negotiate a license, CSIRO and Cisco failed to agree on terms.

On July 1, 2011, CSIRO filed the instant suit for infringement of the '069 patent against Cisco. Nearly two years later, the district court accepted a joint stipulation that Cisco would not contest infringement or validity, so the only issue left for trial was damages. The district court conducted a four-day bench trial commencing on February 3, 2014.

At trial, the parties' experts presented competing damages models. CSIRO contended that the benefits of 802.11 products that practice the '069 patent over 802.11 products that do not practice the '069 patent "are primarily attributable to the technology of the '069 Patent." *Id.* at *5. "Based on this claim, CSIRO contend[ed] that the difference in profit Cisco captured between accused 802.11a and 802.11g products and unaccused 802.11b products largely represents the value attributable to the '069 Patent." *Id.* Therefore, James Malackowski, CSIRO's damages expert, compared the market prices at the time of the hypothetical negotiation of 802.11 products that practice the '069 patent and 802.11 products that do not practice the '069 patent. Mr. Malackowski then attributed Cisco's profit premiums on those products to the '069 patent. These ranges were \$6.12–\$89.93 for Linksys-branded products, and \$14.00–\$224.00 for Cisco-branded products. After making various adjustments under *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F.

Supp. 1116 (S.D.N.Y. 1970), Mr. Malackowski concluded that the outcome of the hypothetical negotiation would be a volume-tiered rate table ranging from a \$1.35 to \$2.25 royalty per end unit sold. Mr. Malackowski then opined that total damages were \$30,182,922.

Cisco based its damages model on the TLA. Under the TLA rates, the per chip royalty ranged from \$0.04–\$0.37 for Linksys products and \$0.03–\$0.33 for Cisco products over the damages period. Cisco’s damages expert, Christopher Bakewell, opined that, using this method, Cisco owed CSIRO just over \$1,050,000.

The district court issued its findings of fact and conclusions of law on July 23, 2014. In its order, the district court rejected both parties’ proffered damages models. The district court faulted CSIRO’s model for, among other reasons, performing “arbitrary” final apportionment and having broad profit premium ranges. As to Cisco’s model, the district court found that the TLA was not comparable to the license Cisco and CSIRO would negotiate in a hypothetical negotiation. Significantly, the district court determined that “the primary problem with Cisco’s damages model is the fact that it bases royalties on chip prices.” *Commonwealth Sci.*, 2014 WL 3805817, at *11. According to the district court, “[t]he benefit of the patent lies in the idea, not in the small amount of silicon that happens to be where that idea is physically implemented.” *Id.* The district court reasoned that “[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. While such a calculation captures the cost of the physical product, it provides no indication of its actual value.” *Id.*

Rather than adopt one of the parties’ damages methodologies, the district court created its own based on CSIRO’s 2004 Rate Card offer and the informal rate suggestion made in October 2005 by Cisco’s Mr. Lang.

The district court noted that both data points were near the hypothetical negotiation dates of May 2002 for Linksys-branded products and October 2003 for Cisco products. “Based on these data points,” the district court found, “a range of \$0.90 to \$1.90 is a reasonable starting point for negotiations between the parties in 2002 and 2003.” *Id.* at *12.

The district court then proceeded with an analysis of the *Georgia-Pacific* factors. As an initial matter, the district court held that “[a]lthough other courts have made specific adjustments to the *Georgia-Pacific* factors to take a RAND commitment into account, specific adjustments to the overall framework are not necessary here” because CSIRO was obligated to license on RAND terms for only 0.03% of the accused products. *Id.* The district court next considered all *Georgia-Pacific* factors. *Id.* at *12–13. To summarize the district court’s *Georgia-Pacific* analysis, the district court found that factors 3, 4, and 5 favored a downward adjustment; factors 8, 9, and 10 favored an upward adjustment; and all other factors were neutral. The district court concluded that, “[w]ith the sum of the factors essentially in equipoise, CSIRO and Cisco would have been in substantially equal bargaining positions at the hypothetical negotiations.” *Id.* at *13. “Accordingly, no overall adjustment [was] needed to the baseline rates and a range of \$0.90 to \$1.90 [was] the appropriate outcome of the hypothetical negotiation here.” *Id.*

Finally, the district court adjusted the royalty rate range downward for Linksys-branded products, as the parties agreed that the Lang offer only pertained to Cisco products, and Linksys products had a lower profit margin. The district court found that the royalty rate range for Linksys was \$0.65–\$1.38.

The result of the district court’s calculus was the following volume-tiered rate table:

	Royalty per unit sold	
<u>Sales Volume</u>	<u>Linksys</u>	<u>Cisco</u>
0–1 million	\$1.38	\$1.90
1–2 million	\$1.23	\$1.70
2–5 million	\$1.09	\$1.50
5–10 million	\$0.94	\$1.30
10–20 million	\$0.80	\$1.10
> 20 million	\$0.65	\$0.90

After some further calculations, the district court entered judgment for CSIRO in the amount of \$16,243,067. Cisco appeals. This court has jurisdiction under 28 U.S.C. § 1295(a)(1).

II. DISCUSSION

“This court reviews a district court’s judgment following a bench trial for errors of law and clearly erroneous findings of fact.” *Allen Eng’g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336, 1343–44 (Fed. Cir. 2002).

Cisco alleges two separate legal bases for reversal: (1) the district court erred in not beginning its damages analysis with the wireless chip, which it found to be the smallest salable patent-practicing unit; (2) the district court did not adjust the *Georgia-Pacific* factors to account for the asserted patent being essential to the 802.11 standard. Cisco also argues that the district court clearly erred in not crediting the TLA evidence. We address each issue in turn.

A. Smallest Salable Patent-Practicing Unit

Title 35, section 284 of the United States Code provides that “[u]pon 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” Under § 284, damages awarded for patent infringement “must reflect the value attributable to the infringing features of the product, and no more.” *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1226 (Fed. Cir. 2014). This principle—apportionment—is “the governing rule” “where multi-component products are involved.” *Id.* Consequently, to be admissible, all expert damages opinions must separate the value of the allegedly infringing features from the value of all other features. *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1329 (Fed. Cir. 2014).

Apportionment is not a new rule. Indeed, it dates at least to *Garretson v. Clark*, 111 U.S. 120, 121 (1884) (quotation marks omitted), where the Supreme Court explained:

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 *Garretson*, the Supreme Court affirmed a special master’s report that the patentee had submitted no proof of its damages because it failed to apportion to the value

of the patented feature. *Id.* at 121–22. Likewise today, given the great financial incentive parties have to exploit the inherent imprecision in patent valuation, courts must be proactive to ensure that the testimony presented—using whatever methodology—is sufficiently reliable to support a damages award. See *Summit 6, LLC v. Samsung Elecs. Co.*, 802 F.3d 1283, 1296 (Fed. Cir. 2015) (“[E]stimating a reasonable royalty is not an exact science.”); *VirnetX*, 767 F.3d at 1328 (explaining that a district court must exercise “its gatekeeping authority to ensure that only theories comporting with settled principles of apportionment were allowed to reach the jury”). And as we have repeatedly held, “[t]he essential requirement” for reliability under *Daubert* “is that the ultimate reasonable royalty award must be based on the incremental value that the patented invention adds to the end product.” *Ericsson*, 773 F.3d at 1226. In short, apportionment.

Our law also recognizes that, under this apportionment principle, “there may be more than one reliable method for estimating a reasonable royalty.” See *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1315 (Fed. Cir. 2014), *overruled on other grounds by Williamson v. Citrix Online, LLC*, 792 F.3d 1339 (Fed. Cir. 2015). This adaptability is necessary because different cases present different facts. And as damages models are fact-dependent, “[a] distinct but integral part of [the admissibility] inquiry is whether the data utilized in the methodology is sufficiently tied to the facts of the case.” *Summit 6*, 802 F.3d at 1296. In practice, this means that abstract recitations of royalty stacking theory, and qualitative testimony that an invention is valuable—without being anchored to a quantitative market valuation—are insufficiently reliable. See *Ericsson*, 773 F.3d at 1234 (“The district court need not instruct the jury on hold-up or stacking unless the accused infringer presents actual evidence of hold-up or stacking.”); *LaserDynamics, Inc. v. Quanta Comput., Inc.*,

694 F.3d 51, 68 (Fed. Cir. 2012) (“It is not enough to merely show that the disc discrimination method is viewed as valuable, important, or even essential to the use of the laptop computer.”). “[W]here the data used is not sufficiently tied to the facts of the case,” *Summit 6*, 802 F.3d at 1296, a damages model cannot meet “the substantive statutory requirement of apportionment of royalty damages to the invention’s value,” *Ericsson*, 773 F.3d at 1226.

Recognizing that each case presents unique facts, we have developed certain principles to aid courts in determining when an expert’s apportionment model is reliable. For example, the smallest salable patent-practicing unit principle provides that, where a damages model apportions from a royalty base, the model should use the smallest salable patent-practicing unit as the base. *See LaserDynamics*, 694 F.3d at 67 (“[I]t is generally required that royalties be based not on the entire product, but instead on the “smallest salable patent-practicing unit.””).

Our cases provide two justifications for this principle. First, “[w]here small elements of multi-component products are accused of infringement, calculating a royalty on the entire product carries a considerable risk that the patentee will be improperly compensated for non-infringing components of that product.” *Id.*; *see also Garretson*, 111 U.S. at 121 (“[The patentee] must separate [the patented improvement’s] results distinctly from those of the other parts, so that the benefits derived from it may be distinctly seen and appreciated.”). Second is the “important evidentiary principle” that “care must be taken to avoid misleading the jury by placing undue emphasis on the value of the entire product.” *Ericsson*, 773 F.3d at 1226. As we stated in *Uniloc USA, Inc. v. Microsoft Corp.*, disclosure of the end product’s total revenue “cannot help but skew the damages horizon for the jury, regardless of the contribution of the patented component to this revenue.” 632 F.3d 1292, 1320 (Fed. Cir. 2011).

In addition to the smallest salable patent-practicing unit principle, we have also explained that “[t]he entire market value rule is a narrow exception to this general rule” “derived from Supreme Court precedent” in *Garretson*. *LaserDynamics*, 694 F.3d at 67. Under the entire market value rule, if a party can prove that the patented invention drives demand for the accused end product, it can rely on the end product’s entire market value as the royalty base. *Id.*

Fundamentally, the smallest salable patent-practicing unit principle states that a damages model cannot reliably apportion from a royalty base without that base being the smallest salable patent-practicing unit. That principle is inapplicable here, however, as the district court did not apportion from a royalty base at all. Instead, the district court began with the parties’ negotiations. At trial, the district court heard evidence that, around the time of the hypothetical negotiations, the parties themselves had brief discussions regarding Cisco taking a license to the ’069 patent. According to the district court’s factual finding—which is supported by the testimony at trial—Cisco informally suggested \$0.90 per unit as a possible royalty for the ’069 patent. The district court used this rate as a lower bound on a reasonable royalty. For the upper bound, the district court looked to the \$1.90 per unit rate requested by CSIRO in its public Rate Card license offer. Because the parties’ discussions centered on a license rate for the ’069 patent, this starting point for the district court’s analysis already built in apportionment. Put differently, the parties negotiated over the value of the asserted patent, “and no more.” *Ericsson*, 773 F.3d at 1226. The district court still may need to adjust the negotiated royalty rates to account for other factors (see *infra* Section II.B), but the district court did not err

in valuing the asserted patent with reference to end product licensing negotiations.¹

The rule Cisco advances—which would require all damages models to begin with the smallest salable patent-practicing unit—is untenable. It conflicts with our prior approvals of a methodology that values the asserted patent based on comparable licenses. *See VirnetX*, 767 F.3d at 1331; *ActiveVideo Networks, Inc. v. Verizon Commc’ns, Inc.*, 694 F.3d 1312, 1333 (Fed. Cir. 2012); *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1211–12 (Fed. Cir. 2010). Such a model begins with rates from comparable licenses and then “account[s] for differences in the technologies and economic circumstances of the contracting parties.” *Finjan*, 626 F.3d at 1211. Where the licenses employed are sufficiently comparable,²

¹ The choice of royalty base—which is often the focus of the apportionment analysis—is irrelevant to the district court’s analysis. The particular rates relied on by the district court were contemplated as cents per end unit sold by Cisco, but they could equally have represented cents per wireless chip without affecting the damages calculation.

² Note, of course, that this court has often excluded proffered licenses as insufficiently comparable. *See, e.g., LaserDynamics*, 694 F.3d at 77–78; *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 870–71 (Fed. Cir. 2010); *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1327–28 (Fed. Cir. 2009). Grounds for exclusion in our past cases have included, but are not limited to: the license being a litigation settlement agreement, *LaserDynamics*, 694 F.3d at 77 (“The propriety of using prior settlement agreements to prove the amount of a reasonable royalty is questionable.”); and the patented technology’s lack of a relationship to the licensed technology, *ResQNet.com*, 594 F.3d at 871 (“Dr. David offers little or no evidence of a

this method is typically reliable because the parties are constrained by the market's actual valuation of the patent. *See Georgia-Pacific*, 318 F. Supp. at 1120 (declaring the first factor relevant to damages calculations to be “[t]he royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty”). Moreover, we held in *Ericsson* 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. *Ericsson*, 773 F.3d at 1228. Therefore, adopting Cisco's position would necessitate exclusion of comparable license valuations that—at least in some cases—may be the most effective method of estimating the asserted patent's value. Such a holding “would often make it impossible for a patentee to resort to license-based evidence.” *Id.*

Accordingly, we conclude that the district court did not violate apportionment principles in employing a damages model that took account of the parties' informal negotiations with respect to the end product.

B. Standardization

Cisco also contends that the district court legally erred under *Ericsson* because it failed to account for any extra value accruing to the '069 patent from the fact that it is essential to the 802.11 standard. We agree. *Ericsson*

link between the re-bundling licenses and the claimed invention.”); *Lucent*, 580 F.3d at 1329 (“[A] lump-sum damages award cannot stand solely on evidence which amounts to little more than a recitation of royalty numbers, one of which is arguably in the ballpark of the jury's award, particularly when it is doubtful that the technology of those license agreements is in any way similar to the technology being litigated here.”).

identified unique considerations that apply to apportionment in the context of a standard-essential patent (“SEP”):

When dealing with SEPs, there are two special apportionment issues that arise. First, the patented feature must be apportioned from all of the unpatented features reflected in the standard. Second, 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. These steps are necessary to ensure that the royalty award is based on the incremental value that the patented *invention* adds to the product, not any value added by the standardization of that technology.

773 F.3d at 1232. Consequently, the idea that “the patent holder should only be compensated for the approximate incremental benefit derived from his invention . . . is particularly true for SEPs.” *Id.* at 1233. *Ericsson* explains:

When a technology is incorporated into a standard, it is typically chosen from among different options. Once incorporated and widely adopted, that technology is not always used because it is the best or the only option; it is used because its use is necessary to comply with the standard. In other words, widespread adoption of standard essential technology is not entirely indicative of the added usefulness of an innovation over the prior art. This is not meant to imply that SEPs never claim valuable technological contributions. We merely hold that the royalty for SEPs should reflect the approximate value of that technological contribution, not the value of its widespread adoption due to standardization.

Id. “In other words, a royalty award for a SEP must be apportioned to the value of the patented invention (or at least to the approximate value thereof), not the value of the standard as a whole.” *Id.* Therefore, damages awards for SEPs must be premised on methodologies that attempt to capture the asserted patent’s value resulting not from the value added by the standard’s widespread adoption, but only from the technology’s superiority. *Id.*

CSIRO argues that *Ericsson* applies only to SEPs encumbered with an obligation to license on RAND terms. But CSIRO’s perspective is wrong for several reasons. First, the above quotes from *Ericsson* discuss SEPs, not only RAND-encumbered patents. As *Ericsson* also grapples separately with issues unique to RAND-encumbered patents, it is clear that *Ericsson* did not conflate the two terms. Indeed, *Ericsson* refers separately to RAND-encumbered patents and SEPs when explaining the need to adjust the *Georgia-Pacific* factors, but *Ericsson* explicitly holds that the adjustments to the *Georgia-Pacific* factors apply equally to RAND-encumbered patents and SEPs. *Ericsson*, 773 F.3d at 1231 (“Several other *Georgia-Pacific* factors would at least need to be adjusted for RAND-encumbered patents—indeed, for SEP patents generally.”). Second, a reasonable royalty calculation under § 284 attempts to measure the value of the patented invention. *Id.* at 1232. This value—the value of the technology—is distinct from any value that artificially accrues to the patent due to the standard’s adoption. *Id.* Without this rule, patentees would receive all of the benefit created by standardization—benefit that would otherwise flow to consumers and businesses practicing the standard. We therefore reaffirm that reasonable royalties for SEPs generally—and not only those subject to a RAND commitment—must not include any value flowing to the patent from the standard’s adoption.

The district court—which did not have the benefit of the *Ericsson* opinion at the time of its decision—erred

because it did not account for standardization. In thoroughly analyzing the *Georgia-Pacific* factors, the district court increased the royalty award because the '069 patent is essential to the 802.11 standard.

This error impacted the district court's analysis on all three factors that it weighed in favor of CSIRO. With respect to factor 8—"[t]he established profitability of the product made under the patent; its commercial success; and its current popularity," *Georgia-Pacific*, 318 F. Supp. at 1120—the district court found that "[a]t the time of the hypothetical negotiations, the market for wireless products was growing rapidly, indicating increased commercial success." *Commonwealth Sci.*, 2014 WL 3805817, at *13. As to factors 9 and 10—which relate to the advantages of the patented invention—the district court concluded that "[a]lternative technologies in the wireless industry, such as PBCC, MBCK, and PPM, failed to achieve commercial success." *Id.* However, the district court never considered the standard's role in causing commercial success. *Ericsson* calls out factors 8, 9, and 10 as all being irrelevant or misleading in cases involving SEPs. *Ericsson*, 773 F.3d at 1231. We therefore conclude that the district court erred in failing to account for standardization when it evaluated the *Georgia-Pacific* factors.³

³ Furthermore, much of the district court's reasoning in favor of CSIRO is based on evidence that the '069 patent is central to the 802.11 standard. But it makes little sense to adjust the starting royalty rate upward for this reason. The argument that the '069 patent is more valuable than a typical patent essential to the 802.11 standard is only relevant if the court begins with a generic royalty rate for a generic 802.11 patent. But in this case the court began with rates mentioned by the parties in negotiation. Even the lowest of these rates—\$0.90—is

Additionally, the district court failed to account for the possibility that the \$0.90 and \$1.90 per unit rates that it used as a starting point may themselves be impacted by standardization.⁴ The parties do not dispute that CSIRO actively refused to submit a letter of assurance to the standard-setting body for later iterations of the 802.11 standard, after the '069 patent was locked into the standard. It seems quite possible, then, that CSIRO's Rate Card rates attempt to capture at least some value resulting from the standard's adoption. CSIRO's offer was not accepted by a single entity. On remand, the district court should consider whether the initial rates taken from the parties' discussions should be adjusted for standardization.

In sum, the district court erred in failing to account for value accruing to the '069 patent from the standard's adoption. This error manifests in at least two parts of the district court's analysis: (1) in its discussion of the *Georgia-Pacific* factors, and (2) in its adoption of the parties' informally offered royalty rates without accounting for the possibility that CSIRO may have been trying to capture the standard's value in its licenses. As these are legal errors under *Ericsson*, we must vacate the district court's damages award and remand for a new determination of a reasonable royalty.

much higher than a rate derived from dividing the value of the standard by the number of patents essential to the standard. The starting rates themselves thus appear to account—at least to some extent—for the centrality of the '069 patent to the 802.11 standard.

⁴ Upon remand, the district court may also wish to consider how other factors, such as prospective litigation costs or the falling chip price, may have affected the parties' suggested royalty rates.

C. TLA

Finally, Cisco argues that the district court clearly erred in basing its damages model on the parties' negotiating positions, rather than on the TLA between CSIRO and Radiata. As the district court heard competing testimony regarding the relevance of the TLA, the Rate Card, and the Lang offer, the district court's decision about how to weigh and credit this varying evidence is a finding of fact entitled to deference. *See Santarus, Inc. v. Par Pharm., Inc.*, 694 F.3d 1344, 1358 (Fed. Cir. 2012) ("The district court's findings of fact are entitled to deference . . ."). However, we find clear error in at least three of the district court's reasons for rejecting the TLA, and therefore direct the court on remand to reevaluate the relevance of the TLA in its damages analysis.

In brief, the district court provided four reasons for rejecting the TLA evidence. First, the district court found that the close relationship between CSIRO and Radiata—Radiata was founded by three Australian individuals on CSIRO's campus—"belies the view that the negotiations leading to the TLA were purely disinterested business negotiations." *Commonwealth Sci.*, 2014 WL 3805817, at *10. Second, the district court found that the TLA's development requirements meant that:

Radiata had significant obligations to CSIRO, including disclosing its business plans concerning the patented technology, a requirement to use its best efforts to exploit the technology, and minimum performance obligations. CSIRO was also entitled to a royalty-free license to any improvements Radiata contributed to the technology and an assignment of all rights in those improvements upon termination of the TLA.

Id. Third, the district court found that "[a]nother obstacle to relying on the TLA rates is the timing of the agreement." *Id.* The TLA was signed in 1998, four and five

years, respectively, before the hypothetical negotiation dates of 2002 and 2003, during which time the “[c]ommercial viability of the technology escalated sharply” *Id.* Finally, the district court found that “the primary problem with Cisco’s damages model is the fact that it bases royalties on chip prices.” *Id.*

The majority of these findings do not support a wholesale rejection of the TLA. Most importantly, as to reason three—timing—the district court ignored evidence that CSIRO and Cisco twice amended the TLA, once in conjunction with Cisco’s purchase of Radiata in 2001, and again in September 2003. These amendments occurred at about the time the hypothetical negotiations would have taken place, and therefore bear consideration. While Commonwealth argues that the amendments are irrelevant because Commonwealth could not have renegotiated the royalty rates at the time, that is untrue. At the time of the 2001 and 2003 amendments, Commonwealth had the right to terminate the agreement or permit a sublicense. Both of these options provided a lever with which Commonwealth could have renegotiated royalty rates during the amendment process.

The amendments also refute the district court’s first reason for discounting the TLA—the close relationship between Commonwealth and Radiata. By the time of the amendments, the special relationship between Commonwealth and Radiata no longer existed, and therefore does not provide reason to reject the relevance of the amended TLA to the hypothetical negotiation.

Finally, the district court’s fourth reason—that the TLA uses chip prices as the royalty base—runs afoul of *Ericsson*’s holding that a license may not be excluded solely because of its chosen royalty base. *Ericsson*, 773 F.3d at 1228.

Because many of the district court’s reasons for discounting the TLA were flawed, we direct the court on

remand to reevaluate the relevance of the as-amended TLA in its damages analysis. This agreement is the only actual royalty agreement between Cisco and Commonwealth; it is contemporaneous with the hypothetical negotiation; it was reached before the 802.11g standard was adopted; and it focuses on the chip. To be sure, some other obligations running from Cisco to Commonwealth survived the amendments, e.g., the licensing of improvements. These factors, among others, should be taken into account in the district court's analysis.

III. CONCLUSION

For the foregoing reasons, we vacate the damages award and remand for further proceedings consistent with this opinion.

VACATED AND REMANDED