

# United States Court of Appeals for the Federal Circuit

2007-1386

PRINCO CORPORATION and PRINCO AMERICA CORPORATION,

Appellants,

v.

INTERNATIONAL TRADE COMMISSION,

Appellee,

and

U.S. PHILIPS CORPORATION,

Intervenor.

Eric L. Wesenberg, Orrick, Herrington & Sutcliffe LLP, of Menlo Park, California, argued for appellants. With him on the brief were Robert E. Freitas, Cynthia Wickstrom Zuniga, Kenneth J. Halpern, and Michael C. Ting.

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Jonathan G. Cedarbaum, Wilmer Cutler Pickering Hale and Dorr LLP, of Washington, DC, argued for intervenor. With him on the brief were A. Douglas Melamed, Edward C. DuMont, and Perry A. Lange.

Appealed from: United States International Trade Commission

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On Appeal from the United States International Trade Commission in  
Investigation No. 337-TA-474.

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DECIDED: April 20, 2009

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Before BRYSON, GAJARSA, and DYK, Circuit Judges.

Opinion for the court filed by Circuit Judge DYK. Opinion concurring in the result in part and dissenting in part filed by Circuit Judge BRYSON.

DYK, Circuit Judge.

Princo Corporation and Princo America Corporation (collectively “Princo”) appeal from a final order of the United States International Trade Commission (“Commission”). The Commission found that compact discs imported by Princo infringed claims of six patents asserted by U.S. Philips Corporation (“Philips”) and rejected Princo’s patent

misuse defense. In re Certain Recordable Compact Discs & Rewritable Compact Discs, No. 337-TA-474, slip op. at 9 (Int'l Trade Comm'n Feb. 5, 2007) ("Final Determination"), available at 2007 WL 1256290 (public version).

On appeal, Princo contends that the Commission erred by failing to find misuse with respect to two aspects of Philips's licensing practices: first, that Philips conditioned the license of Philips patents essential to the production of Orange Book compliant recordable compact discs upon the purchase of a license to an allegedly-nonessential Sony patent (the Lagadec patent), and second, that Philips allegedly agreed with Sony not to license the Lagadec patent as competing technology to the Orange Book. We affirm the Commission's rejection of Princo's misuse argument based on the first practice; we vacate and remand for further proceedings with regard to the second.

## BACKGROUND

### I

This is the second time that this case has come before us. See U.S. Philips Corp. v. Int'l Trade Comm'n, 424 F.3d 1179 (Fed. Cir. 2005) ("Philips I") (remanding case to Commission); see also U.S. Philips Corp. v. Princo Corp., 173 F. App'x 832 (Fed. Cir. 2006) ("Philips II") (appeal in related infringement action filed by Philips against Princo in federal district court); In re Princo Corp., 478 F.3d 1345 (Fed. Cir. 2007) ("Philips III") (same).

The central issue is again whether Princo's admitted infringement of Philips's patents is subject to a patent misuse defense. The background on the parties' dispute is as follows.

Philips and three other companies (Sony, Taiyo Yuden, and Ricoh) own patents relevant to the manufacture of recordable compact discs (“CD-Rs”) and rewritable compact discs (“CD-RWs”). Some of those patents cover features of discs necessary to comply with the “Orange Book,” a technical standard jointly developed by Philips and Sony in the late 1980s and early 1990s. Manufacturers produce CD-R and CD-RW discs in accordance with the Orange Book technical standard in order for the discs to be compatible with CD players and CD-ROM drives installed in computers and home entertainment systems, which are also manufactured in accordance with the corresponding Orange Book specifications.

In the early 1990s, the companies agreed to pool their Orange Book-related CD-R and CD-RW patents. In return for a share of royalties from the pool, Sony, Taiyo Yuden, and Ricoh authorized Philips to administer the pool and to grant package licenses of their pooled patents to manufacturers interested in producing Orange Book compliant compact discs. Philips made available a joint license to the pooled CD-R patents held by Philips, Sony, and Taiyo Yuden and a joint license to the pooled CD-RW patents held by Philips, Sony, and Ricoh.<sup>1</sup> Licensees desiring to produce Orange Book discs could choose one of the packages offered by Philips; licenses to individual patents were not offered. The package licenses required a manufacturer to pay a per-disc royalty on each compact disc produced using at least one licensed patent. The per-disc

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<sup>1</sup> Philips contends that in addition to the joint licenses, it also offered a package consisting of only the Philips patents. The Commission found otherwise, however, determining as a factual matter that Philips-only package licenses did not become available until 2000. In addition, in 2001 Philips added additional options by offering packages including only patents that Philips deemed “essential” to the manufacture of Orange Book compliant compact discs.

royalty did not vary depending on which or how many features covered by licensed patents were actually used to produce the disc, “meaning that licensees must pay a royalty based on the number of discs manufactured regardless of how many of the patents are actually used in the manufacturing.” Philips III, 478 F.3d at 1348.

Princo took a package license from Philips in 1997, but like several other manufacturers of CD-Rs and CD-RWs, ceased paying royalties soon thereafter. Philips filed a complaint with the International Trade Commission, contending that some of the manufacturers were violating 19 U.S.C. § 1337(a)(1)(B) by importing compact discs that infringed Philips’s patents. There was no allegation that the manufacturers had infringed patents owned by other pool participants. On July 26, 2002, the Commission instituted an investigation and named nineteen respondents, not including Princo. In re Certain Recordable Compact Discs & Rewritable Compact Discs, 67 Fed. Reg. 48,948 (Int’l Trade Comm’n July 26, 2002). Princo thereafter moved to intervene and was added as a respondent.

Although it initially contested the issue of infringement, Princo now admits that its products are within the scope of Philips’s patents. Instead, Princo asserts patent misuse by Philips as a defense. Before the Commission, Princo argued that Philips improperly expanded the scope of its statutory patent rights through price fixing, price discrimination, and the use of mandatory package licensing to force manufacturers to take licenses to “nonessential” pool patents in order to obtain licenses to pool patents that were in fact essential to the manufacture of CD-Rs or CD-RWs. The administrative law judge (“ALJ”) agreed, ruling that the Philips patents were unenforceable due to patent misuse per se and under the rule of reason. See In re Certain Recordable

Compact Discs & Rewritable Compact Discs, No. 337-TA-474, slip op. at 219-20 (Int'l Trade Comm'n Oct. 24, 2003) ("Initial Determination"). With regard to per se misuse, the ALJ determined that Philips and other pool members fixed prices at higher than competitive levels and charged excessive royalties that would drive manufacturers out of the market, and that Philips committed improper price discrimination by exempting favored disc manufacturers from paying royalties. With regard to misuse under the rule of reason, the ALJ found that anticompetitive effects flowed from the inclusion of nonessential patents in the mandatory package licenses and from the excessive fixed royalty rates set by the pool.

On review, the Commission affirmed the ALJ's misuse determination, but on narrower grounds. In re Certain Recordable Compact Discs & Rewriteable Compact Discs, No. 337-TA-474, USITC Pub. No. 3686, slip op. at 4-5 (Apr. 11, 2004). The Commission took no position on the ALJ's ruling of patent misuse per se based on theories other than tying, and no position on eight of the twelve pool patents the ALJ found to be nonessential for the manufacture of Orange Book compliant CD-R/RWs and hence improperly tied to the essential patents. Id. at 5 n.3, 50-51. Focusing its analysis on the four remaining allegedly-nonessential patents, the Commission concluded that Philips's "practice of mandatory package licensing constitute[d] patent misuse per se as a tying arrangement between (1) licenses to patents that are essential to manufacture CD-Rs or CD-RWs according to Orange Book standards and (2) licenses to [the four] other patents that are not essential to that activity." Id. at 4-5. It agreed with the ALJ that the four patents were not actually essential because for the technology covered by each patent a non-infringing, "economically viable[] alternative technology existed" that

could be used to create an Orange Book compliant disc. Id. at 61. It also adopted the ALJ's conclusion that the tying arrangement constituted misuse under the rule of reason. Id. at 50.

On appeal, we reversed and remanded. Philips I, 424 F.3d at 1198-99. We explained that offering the package licenses at issue did not constitute a per se violation “[i]n light of the efficiencies of package patent licensing and the important differences between product-to-patent tying arrangements and arrangements involving group licensing of patents.” Id. at 1193. In addition, we concluded that Philips's inclusion of the four allegedly-nonessential patents in the package licenses did not constitute misuse under the rule of reason because those patents were essential rather than non-essential. The patents were essential because they covered features necessary for Orange Book compliance, and the record did not disclose that “any commercially viable alternative actually existed” to those patents. Id. at 1197-98. However, because the Commission's relatively narrow decision based on tying of the four patents “did not address all of the issues presented by the administrative law judge's decision under both the per se and rule of reason analysis,” we remanded for further proceedings concerning Princo's remaining theories of misuse. Id. at 1198.

## II

Among Princo's arguments on remand were issues concerning misuse relating to one particular pool patent, Sony's U.S. Patent No. 4,942,565 (the “Lagadec patent” or “565 Patent”), and those are the sole issues on appeal. A brief description of the development of the Orange Book standard and the relationship of the Lagadec patent to other pool patents is necessary to an understanding of Princo's arguments.

Both the Lagadec patent and Philips's U.S. Patent Nos. 4,999,825 and 5,023,856 (collectively the "Raaymakers patents") were included in the CD-R/RW patent pools. The Raaymakers patents are undeniably essential to the manufacture of Orange Book compliant discs. The present dispute (as to the tying issue) centers on whether the Lagadec patent is also essential. The Lagadec and Raaymakers patents stem from the joint efforts of Philips and Sony engineers to develop recordable CDs in the late 1980s. The CD-R/RW discs that were eventually developed contain a highly accurate spiral-shaped "pregroove" track that provides a guide for the recording laser to follow when writing data to an unrecorded CD-R/RW. The pregroove is not a perfect spiral, but is slightly "wobbled" at regular intervals. E.g. U.S. Patent No. 5,023,856 fig. 4a. The undulating wobble is used by the recorder as a clock signal to control the CD-R/RW's rotation speed, ensuring that the disc rotates at the correct velocity during recording.

During the course of developing the recordable compact disc standard, Philips and Sony engineers exchanged proposals concerning different ways of implementing particular product features. One such feature was the encoding of position data on the "blank" or unrecorded CD-R/RW disc. Sony and Philips found that it was necessary to develop means for a CD-R/RW recorder to determine where along the spiral pregroove track the recorder's laser was positioned at any given time, or "absolute time" position data.<sup>2</sup>

After identifying the need for position data, Philips and Sony separately developed solutions that built upon the wobble signal on the compact discs that was

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<sup>2</sup> "Absolute time" refers to the fact that the laser's location is expressed in terms of the time required to scan the spiral groove from the start of the disc to the current position.

already used to provide velocity control. Philips proposed an analog solution, encoding the absolute time position data by frequency modulating the wobble signal. In contrast, Sony proposed a digital modulation method to encode position data using the wobble signal. The analog Philips method, known as “Absolute Time in Pregroove” or “ATIP,” was covered by the Raaymakers patents, while the digital Sony solution was covered by the Lagadec patent.<sup>3</sup> Although the two methods solve the same basic problem (the encoding of position data on recordable CDs using the existing wobbled pregroove, and doing so in a manner backwards-compatible with existing CD players), they are fundamentally incompatible, and there is no dispute that a disc made using one technological approach would not work in an CD recorder designed to read position data using the other.

Philips and Sony ultimately chose to define the Orange Book standard using the analog Raaymakers ATIP approach, not the digital Lagadec method. Nevertheless, a license to the Lagadec patent was included along with the Raaymakers patents in the standard CD-RW joint license and perhaps in the CD-R joint license as well.<sup>4</sup> The joint licenses only allowed use of pool patents, including Lagadec, to produce Orange Book compliant discs. They did not allow use of Lagadec to produce a disc using the digital method for encoding position data taught by Lagadec.

On remand, the Commission did not hold hearings or remand to the ALJ. It confined itself to new arguments before the full Commission concerning the previously

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<sup>3</sup> Although the Lagadec patent primarily describes a digital solution, as will be seen, Claim 6 of that patent is arguably not limited to digital modulation.

<sup>4</sup> The record on appeal is unclear as to whether the Lagadec patent was included in the standard CD-R joint license before 2001, when it was expressly listed by Philips in the package of “essential” CD-R patents.

unaddressed portion of the ALJ's initial decision. Princo advanced, inter alia, two misuse theories concerning the Lagadec patent. First, Princo pursued a tying theory, arguing that the Lagadec patent was not essential to the production of Orange Book compliant discs and was unlawfully tied to patents that were actually essential to the manufacture of Orange Book compact discs, including the Raaymakers patents. Second, Princo alleged that the Lagadec and Raaymakers patents covered potentially competing technologies, and that by agreeing with Sony that the Lagadec patent would not be available except through a package license that also included the Raaymakers patents, Philips engaged in a form of price fixing, i.e., foreclosing potential competition between the technologies of the Lagadec and Raaymakers patents.<sup>5</sup>

On February 5, 2007, the Commission issued a final determination. Final Determination at 1. For the reasons discussed below, the Commission reversed the ALJ's previously unaddressed rulings that Philips committed patent misuse. Having determined that Princo's accused compact discs infringed the claims of the six patents asserted by Philips, that the asserted claims were enforceable and not invalid, and that the domestic industry requirement of section 337 was satisfied, the Commission issued remedial orders.

Princo timely appealed from the final determination of the Commission, and we have jurisdiction under 28 U.S.C. § 1295(a)(6).

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<sup>5</sup> The Commission's independent Investigative Attorney ("IA"), whose role as defined in 19 C.F.R. § 210.3 is to "engage in investigatory activities in an investigation or a related proceeding," did not support any of Princo's per se misuse theories below. The IA agreed, however, that inclusion of Lagadec supported a finding of patent misuse under the rule of reason. The IA argued, inter alia, that "Philips included the Lagadec patent" to "secure[] Sony's adherence to the . . . Orange Book standard" and to "forestall competition from Sony." Final Determination at 96.

## DISCUSSION

Patent misuse is an equitable defense to patent infringement. It was designed “to restrain practices that did not in themselves violate any law, but that drew anticompetitive strength from the patent right, and thus were deemed to be contrary to public policy.” Philips I, 424 F.3d at 1184 (quoting Mallinckrodt, Inc. v. Medipart, Inc., 976 F.2d 700, 704 (Fed. Cir. 1992)). The key inquiry in determining whether a patentee’s conduct constitutes misuse “is whether, by imposing conditions that derive their force from the patent, the patentee has impermissibly broadened the scope of the patent grant with anticompetitive effect.” Id. (quoting C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1372 (Fed. Cir. 1998)). Experience has taught that some practices, such as when a patentee having market power conditions a license upon the purchase of a separate, staple good, are sufficiently anticompetitive so as to warrant condemnation on their face. Va. Panel Corp. v. MAC Panel Co., 133 F.3d 860, 869 (Fed. Cir. 1997) (discussing examples of per se misuse).<sup>6</sup> Other allegedly anticompetitive practices beyond the few specific practices identified by the courts as constituting misuse per se are evaluated under the rule of reason to determine whether they “impose[] an unreasonable restraint on competition.” Id.; see also Philips I, 424 F.3d at 1185.

Against this background, Princo contends that the Commission erred by failing to find patent misuse by Philips either as a result of tying or as a result of an agreement

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<sup>6</sup> Congress has created a safe harbor in 35 U.S.C. § 271(d)(5) for certain types of conduct by patentees lacking market power. See Ill. Tool Works Inc. v. Indep. Ink, Inc., 547 U.S. 28, 41-42 (2008). In the present case, “the Commission found that Philips has market power in the relevant market and that section 271(d)(5) is therefore inapplicable.” Philips I, 424 F.3d at 1186.

between Sony and Philips concerning the availability of the Lagadec patent. We address these arguments in turn.

I

A

Princo first argues that “Philips has engaged in patent misuse by tying the Lagadec patent to the essential Orange Book patents in a manner prohibited under Philips I.” Appellants’ Br. 48. Princo’s primary contention is that through mandatory package licensing, Philips improperly used its market power to force manufacturers seeking patents essential to the production of Orange Book compliant discs to also take a license to Lagadec, an allegedly-nonessential Sony patent.

Tying arrangements have a long history in both the patent misuse and antitrust contexts. Much of the Supreme Court’s early patent misuse doctrine was developed in cases involving a challenge to some form of tying arrangement. In Morton Salt Co. v. G.S. Suppiger Co., 314 U.S. 488, 490-91 (1942), for example, the Court held that a tying arrangement where the patent license was conditioned upon the purchase of a separate, staple product amounted to patent misuse, because in such a case “the patent is used as a means of restraining competition with the patentee’s sale of an unpatented product.” Id. at 493; see also Ill. Tool Works, 547 U.S. at 45-46 (holding that a patent alone does not confer market power necessary to show unlawful tying). Likewise, the early antitrust cases found that various tying arrangements violated the antitrust laws. See, e.g., N. Pac. Ry. Co. v. United States, 356 U.S. 1, 10-11 (1958); see also United States v. Loew’s Inc., 371 U.S. 38, 44-45 (1962); United States v. Paramount Pictures, Inc., 334 U.S. 131, 156-59 (1948).

Although tying in many of its varied forms has potential to inflict anticompetitive harms, in more recent times it has been recognized that tying also has potential to create substantial procompetitive efficiencies. See, e.g., Ill. Tool Works, 547 U.S. at 36 (“The assumption that ‘[t]ying arrangements serve hardly any purpose beyond the suppression of competition,’ rejected in [U.S. Steel Corp. v. Fortner Enters., Inc., 429 U.S. 610 (1977)], has not been endorsed in any opinion since.”); Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 40-44 (1984) (O’Connor, J., concurring in judgment) (“Tie-ins may entail economic benefits as well as economic harms, and . . . these benefits should enter the rule-of-reason balance.”); see also Herbert Hovenkamp, Mark D. Janis & Mark A. Lemley, IP and Antitrust § 34.4, at 34-20.1 (2009) (“Typical procompetitive benefits [of patent pools] include the clearing of blocking positions, the advantages flowing from integration of complementary technologies, and the cost savings from avoiding litigation.”).

In Philips I, we considered one particular form of patent-to-patent tying, where patents essential to the practice of a standardized technology (the Orange Book standard) were licensed together as a package. We concluded that “[i]n light of the efficiencies of package patent licensing and the important differences between product-to-patent tying arrangements and arrangements involving group licensing of patents,” Philips’s practice of package licensing essential patents together could not be condemned as misuse per se but instead should be evaluated under the rule of reason. Philips I, 424 F.3d at 1193. As we explained, the group of patents essential to practice a particular technology or standard generally may be viewed as a unified product:

If a patentholder has a package of patents, all of which are necessary to enable a licensee to practice particular technology, it is well established

that the [patentholder] may lawfully insist on licensing the patents as a package and may refuse to license them individually, since the group of patents could not reasonably be viewed as distinct products.

Id. at 1196; see Hovenkamp, Janis & Lemley, supra, § 22.3 at 22-13, 14. Inclusion in a package license of essential patents to enable the practice of the particular technology by clearing blocking positions is not tying of the type that patent misuse doctrine seeks to prevent. See Philips I, 424 F.3d at 1196; Int'l Mfg. Co. v. Landon, Inc., 336 F.2d 723, 729 (9th Cir. 1964).

Moreover, we concluded that Philips's practice of offering essential patents as a package survived under the rule of reason. There, the allegation was that four Orange Book pool patents were not actually essential because alternative technologies existed that could be used in their place to produce Orange Book compatible compact discs without infringing the four patents. Philips I, 424 F.3d at 1194-95. We rejected the argument that the four patents were not essential, as the record showed that those patents in fact had "no practical or realistic alternative." Id. at 1194, 1198. As a result, the tying of those four patents to so-called essential patents would have no anticompetitive effect "because no competition for a viable alternative product is foreclosed." Id. at 1194.

On remand, the Commission rejected Princo's Lagadec tying claim under the framework of Philips I, stating that "[Princo]'s argument is fundamentally flawed because the [Raaymakers] patents are inside, not outside, the package." Final Determination at 80. The Commission similarly rejected the IA's Lagadec tying claim, stating that "the premise of the IA's argument . . . that the Lagadec '565 patent cannot be used to make an Orange Book compliant CD, is fatal to his rule of reason tying claim." Id. at 94.

Elsewhere in its opinion, the Commission declined to decide whether Lagadec was a blocking patent, i.e., a patent that covered the Orange Book standard and was therefore essential to the production of Orange Book compliant discs. Final Determination at 23.

On appeal, Princo contends that the Commission erred in rejecting its misuse claim under Philips I, arguing that the Lagadec patent is not an “essential patent” for purposes of the Orange Book standard. It maintains that requiring licensees to purchase Lagadec, a nonessential patent, in order to obtain licenses to truly essential patents therefore constitutes misuse. We need not parse the Commission’s somewhat opaque decision as to the tying claim for, like Philips, we believe that this issue can be resolved by focusing on the issue not decided by the Commission—namely, the scope of Claim 6 of the Lagadec patent.

Philips contends that Lagadec is essential as a blocking patent because at least one patent claim, Claim 6, reads on every Orange Book compliant disc. Claim 6 provides: “A disc-shaped recording medium . . . having formed thereon a substantially spiral pregroove which is wobbled . . . and formed by . . . a first signal . . . that has been

modulated by a second signal . . . .” ’565 Patent col.10 ll.14-24.<sup>7</sup> Philips maintains that Claim 6 is broadly written to cover recordable compact discs containing a wobbled pregroove formed by “a first signal . . . that has been modulated by a second signal that contains coded information,” and does not require the use of any particular type of modulation (for example, digital modulation). ’565 Patent col.10 ll.22-25. Although it acknowledges that Lagadec “generally teaches a digital method of encoding position data not used by the Orange Book,” it contends that the specification cannot be used to read a “digital” limitation into Claim 6 where such a limitation is absent from the language of the claim. See Phillips v. AWH Corp., 415 F.3d 1303, 1323-24 (Fed. Cir. 2005) (en banc).

In contrast, Princo argues that Lagadec is not in fact a blocking patent because Claim 6 must be read in light of the specification, which discloses primarily a digital

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<sup>7</sup> In full, Claim 6 of the Lagadec patent is as follows:

6. A disc-shaped recording medium capable of having a data signal optically recorded thereon and optically reproduced therefrom, said recording medium comprising:

- a substrate layer having first and second surfaces, said first surface having formed thereon a substantially spiral pregroove which is wobbled in a radial direction of said disc-shaped recording medium and formed by a control signal consisting of a first signal that has a predetermined frequency and that has been modulated by a second signal that contains coded information and that has a frequency at least an order of magnitude lower than said predetermined frequency;
- a recording layer formed on the first surface of said substrate layer and adapted for subsequent optically recording the data signal thereon;
- and
- a protective layer formed on said recording layer.

’565 Patent col.10 ll.14-31.

encoding scheme. Princo does not identify any individual claim limitation of Claim 6 that is absent from the Orange Book compact discs; rather, it argues that because the Lagadec specification must be understood as teaching away from analog methods, the patent must be read as claiming only a digital encoding scheme. Princo contends that Lagadec therefore is not an essential patent, because Claim 6 cannot be construed as blocking a recordable compact disc using the analog encoding method required by the Orange Book standard.

The Commission did not decide this question, nor do we need to do so. We conclude that Lagadec can qualify as an essential Orange Book patent if a license to practice Claim 6 of the Lagadec patent could be viewed as reasonably necessary to practice the Orange Book standard. We further conclude that it would have been reasonable for a manufacturer to believe a license under Claim 6 was necessary at the time the licenses were executed.

Philips I recognized that patent pools could generate procompetitive efficiencies in the form of reduced transaction costs, reduced litigation expenses, and most importantly the overall “procompetitive effect of reducing the degree of uncertainty associated with investment decisions.” Philips I, 424 F.3d at 1192-93. These efficiencies are not limited to situations in which a potential pool patent is, in fact, a blocking patent. As we noted in Philips I, one of the major potential efficiencies of package licensing in the context of innovative technology is the avoidance of “uncertainty that could only be resolved through expensive litigation.” Id. at 1198; see also id. at 1192 (“Package licensing can also obviate any potential patent disputes . . . and thus reduce the likelihood that a licensee will find itself involved in costly litigation.”).

Prohibiting the inclusion in a package license of a patent that is arguably essential, merely because it ultimately proved not to be essential would undercut, even eliminate, this potential procompetitive efficiency.

We thus think that perfect certainty is not required to avoid a charge of misuse through unlawful tying. Rather, in this context a blocking patent is one that at the time of the license an objective manufacturer would believe reasonably might be necessary to practice the technology at issue. A leading treatise has made a similar observation in the context of patent pools and cross-licensing agreements:

Indeed, even if the patents are only arguably conflicting, there are strong reasons to permit the settlement of patent disputes by means of a cross-licensing agreement. Not only will judicial economy be served and litigation costs reduced by settling such disputes, but the delay and uncertainty associated with blocking patent disputes may prevent either party from going forward with a commercial product for years while litigation is pending. Where two or more patents are arguably blocking, therefore, settling the dispute by means of cross-licensing is likely to be procompetitive.

Hovenkamp, Janis & Lemley, supra, § 3.3, at 3-36 (emphasis added); see also Roger B. Andewelt, Analysis of Patent Pools Under the Antitrust Laws, 53 Antitrust L.J. 611, 616 (1985) (“[T]he line between competitive patents and blocking or complementary patents is frequently very difficult to draw. Obtaining access to patents that appear competitive would provide assurance of access to the needed technology if a court later determines that the patents are blocking.”).

Our understanding of the likely procompetitive benefits of package licensing patents which reasonably might be necessary to practice a given technology is further informed by industry practice in the analogous area of standards-setting organizations. Such organizations typically seek to reduce the uncertainty involved in developing a

technological standard by requiring of their members disclosure of patents that might cover aspects of the standard being developed, because “nondisclosure . . . could put the [patentee member] in a position in which it could literally block the use of the published [standard] by any company unless the company obtained a separate license from the [patentee].” Qualcomm Inc. v. Broadcom Corp., 548 F.3d 1004, 1013 (Fed. Cir. 2008). The standard-setting industry organization in Qualcomm did not require its members to disclose only patents actually blocking practice of the standard, however; rather, members understood the duty to require disclosure of those patents that “reasonably might be necessary to practice the [standard].” Id. at 1018 (emphasis added); see also Rambus Inc. v. Infineon Techs. AG, 318 F.3d 1081, 1100 (Fed. Cir. 2003). In the package licensing context, it may be similarly the case that a given patent that appears to be necessary ultimately may prove not to be so. But including the patent within the package license nevertheless may be procompetitive; for example, doing so may beneficially avoid “continuing disputes over whether the licensee’s technology infringes certain ancillary patents owned by the licensor that are not part of the group elected by the licensee.” Philips I, 424 F.3d at 1198. Indeed, as with disclosure in the standard-setting context, a major goal of package licensing is this type of avoidance of uncertainty and costly litigation.

Here, we agree with Philips that inclusion of the Lagadec patent in the patent pool did not give rise to an illegal tying arrangement, because Claim 6 reasonably might

be necessary as a blocking patent to the Orange Book standard.<sup>8</sup> Claim 6, on its face, would have presented an obvious source of concern for an Orange Book manufacturer. Princo does not appear to contend that a recordable disc produced according to Orange Book standards lacks “a substantially spiral pregroove which is wobbled in a radial direction of said disc-shaped recording medium,” where that wobbled pregroove is “formed by a control signal consisting of a first signal that has a predetermined frequency and that has been modulated by a second signal that contains coded information.” ’565 Patent col.10 ll.23-28. As Philips points out, the Lagadec patent contains no express or indisputable disclaimer limiting the scope of the claims, and our attention is not drawn to any prosecution history that would support such a limitation. Princo contends only that the scope of the claim must be limited by the primarily digital disclosure of the patent’s specification. A manufacturer evaluating the patent would thus be left gambling on the uncertain proposition of whether the specification was sufficiently narrow that Claim 6 would be correspondingly limited.

This is especially true in light of the fact that the law of claim construction was unsettled in the late 1990s, when the licenses of which Princo complains were executed. See Philips I, 424 F.3d at 1198 (explaining that the propriety of a license generally must be evaluated as of the time when it is issued). While some cases at that time were perceived by litigants as suggesting, as Princo now argues, that broad claims

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<sup>8</sup> In its reply brief, Princo argues that because the Commission did not determine whether Lagadec is a blocking patent, we may not uphold its decision on this alternative legal ground. This argument misunderstands the holding of S.E.C. v. Chenery Corp., 318 U.S. 80, 87 (1943). The relevant facts concerning the underlying Orange Book technology are undisputed, and whether the patent claims could reasonably be construed to cover that technology is a legal matter well within the competence of an appellate tribunal to decide. See id. at 88.

might be limited to the disclosed embodiments,<sup>9</sup> other cases continued to caution against improperly importing limitations into otherwise broad claims.<sup>10</sup> Further, several of the core cases of our modern claim construction jurisprudence (including those clarifying the proper role of the specification in construing claim language) were relatively recent or had not yet been decided. E.g., Phillips v. AWH Corp., 415 F.3d 1303 (Fed. Cir. 2005) (en banc). Against this background, legitimate questions could have existed as to the scope of the Lagadec patent.

We thus conclude that Princo has failed to meet its burden of demonstrating that at the time the Lagadec patent was included in the package licenses, an objective manufacturer, faced with the patent and the plain language of Claim 6, would not have believed that a license reasonably might be necessary to manufacture Orange Book compact discs. Lagadec qualified as an “essential” patent for purposes of the Orange Book pool. See Philips I, 424 F.3d at 1196. We affirm the Commission’s determination that Princo’s misuse claim based on tying is without merit.

## B

In a related argument, Princo contends that Philips has violated the Supreme Court’s teaching in Zenith Radio Corp. v. Hazeltine Research, Inc., 395 U.S. 100, 135 (1969), that “conditioning the grant of a patent license upon payment of royalties on products which do not use the teaching of the patent [is] misuse.” In short, Princo contends Philips’s licensing practice at issue violates Zenith because under the joint

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<sup>9</sup> See, e.g., Toro Co. v. White Consol. Indus., Inc., 199 F.3d 1295 (Fed. Cir. 1999); Wang Labs., Inc. v. Am. Online, Inc., 197 F.3d 1377 (Fed. Cir. 1999)

<sup>10</sup> See, e.g., Comark Commc’ns, Inc. v. Harris Corp., 156 F.3d 1182, 1186 (Fed. Cir. 1998); Electro Med. Sys., S.A. v. Cooper Life Scis., Inc., 34 F.3d 1048, 1054 (Fed. Cir. 1994).

license royalties from the manufacture of compact discs are paid to Sony because of Lagadec even though “the Lagadec patent cannot be used in an Orange Book compliant disc.” Appellants’ Br. 43-45. Philips and the Commission reply that Princo has waived this per se misuse argument by failing to raise it below. However, even if we were to assume (without deciding) that Princo is correct about Zenith’s scope and the argument was not waived—an assumption about which we have considerable doubt—Princo’s argument is not persuasive. As previously discussed, at the time the package licenses at issue were executed it appeared that Lagadec reasonably might be necessary to manufacture Orange Book compact discs. Manufacturers taking a package license including Lagadec eliminated the uncertainty of potentially infringing Claim 6 of that patent when they manufacture Orange Book compliant discs. Because the blocking aspect of the patent is, or reasonably might be, necessary to Orange Book manufacturers, it cannot fairly be said on these facts that a royalty is paid on products which do not use the teaching of the Lagadec patent.

## II

In addition to challenging the practice of requiring manufacturers who sought licenses to essential Orange Book patents to also take a license to Lagadec, Princo challenges a second aspect of Philips’s conduct involving Lagadec. Although Princo presents variations of its argument under different names, including price fixing, we understand the essence of its claim to be that, as discussed earlier, Lagadec represented an alternative technological solution to the Raaymakers patents with respect to encoding position data using the preexisting wobble signal. Princo argues that Philips and Sony agreed not to license Lagadec in a way that would allow a

competitor “to develop, use or license the [Lagadec] technology to create a competing product.” Appellants’ Reply Br. 1; see also Intervenor’s Br. 33-34 (“What Princo calls its principal price-fixing argument . . . thus really amounts to the accusation that Philips bribed Sony not to use . . . Lagadec to compete against the Orange Book.”). Thus, Princo contends, even if Lagadec properly may be included in the package licenses, Philips committed patent misuse by agreeing with Sony to not license Lagadec in a manner allowing “the further development of the Lagadec technology and the possibility of competition between that technology and its own [Raaymakers technology].” Appellants’ Reply Br. 3.

The Commission rejected Princo’s argument under both a per se analysis and under the rule of reason, relying in both cases on substantially the same reasoning. The Commission did not directly address whether there was an agreement to prevent Lagadec from being licensed as a competing technology, apparently concluding instead that no misuse could exist regardless of any such agreement:

If Philips is correct that the Lagadec ’565 patent is a “technically blocking patent,” then no misuse flows from including the patent in the joint licenses. On the other hand, [if Lagadec is not blocking], we reject respondents’ and the IA’s various theories of patent misuse because there has been no showing that the Lagadec ’565 patent competes with another patent in the pool [and] no showing that the pool licensors would have competed in the technology licensing market absent the pooling arrangement, and no showing of the anti-competitive effect required under a rule of reason analysis.

. . .

Notably, even if Lagadec is a substitute technology for the ATIP standard, it is not a substitute technology that can be used to manufacture Orange Book compliant CD-R/RW discs. Consequently, the record in this investigation does not support a finding that the Lagadec ’565 patent competes with the ’825 or ’856 patents.

Final Determination at 23-24 (footnote omitted); see id. at 80-81. We conclude that the

Commission erred in holding that these grounds would be sufficient to defeat a claim of misuse even if such an agreement existed.<sup>11</sup>

The first ground relied upon by the Commission in rejecting Princo's argument was that if "the Lagadec '565 patent is a 'technically blocking patent,' then no misuse flows from including the patent in the joint licenses." Final Determination at 23. This conclusion rested on our statement in Philips I, 424 F.3d at 1196, that a patentee holding blocking patents may "lawfully insist on licensing the patents as a package and may refuse to license them individually, since the group of patents could not reasonably be viewed as distinct products."

We believe, however, that the Commission read our decision in Philips I too broadly if it meant to suggest that Lagadec's status as a blocking patent could immunize an agreement not to compete. While our decision in Philips I confirmed that the package licensing of blocking patents is not patent misuse as a form of tying, we did not there consider whether an agreement that would prevent the development of alternatives would constitute misuse under a theory of elimination of competition or price fixing. That poses a different question, and not one foreclosed by our decision in Philips I.

Philips I involved a tying claim based on Philips's practice of requiring manufacturers to license four allegedly non-essential patents in order to obtain licenses to truly essential pool patents. The Commission had determined that the four allegedly nonessential patents were separate products from the package of "essential" Orange

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<sup>11</sup> Because we conclude that the licensing practice alleged by Princo would, if proven, violate the rule of reason, we need not determine whether it should be evaluated under a per se rule.

Book patents, because the Orange Book features covered by those four patents could be achieved equally well through the use of alternative non-pool technologies not covered by those patents. Id. at 1194-96. Thus, the Commission reasoned, “the package licensing agreements adversely affected competition in the market for the nonessential technology,” because no Orange Book disc manufacturer would have incentive to license and use any of the alternative technologies if they had already been forced to take a license to the equivalent pool patents as part of the package license. Id. at 1194 (describing findings).

On appeal, we determined that the Commission’s findings were unsupported by substantial evidence, as the record did not actually show market foreclosure with regard to alternative technologies. The record did not show that “any commercially viable alternative actually existed” to the allegedly-nonessential patents. Id. at 1198. Any potential market foreclosure in that case was simply too speculative to support a finding of misuse, as “the mere possibility that alternative technology might at some point become available is not sufficient to support a finding that at the time the Philips licenses were executed, there was actually a commercially available alternative to the technology.” Id. at 1196. In contrast, the potential efficiencies we identified from packaging the patents at issue included the integration of complementary technologies, reduced transaction costs, reduced litigation expenses, and most importantly the overall “procompetitive effect of reducing the degree of uncertainty associated with investment decisions.” Id. at 1192-93. Because the package licenses had significant potential to generate procompetitive efficiencies, and the risk of future anticompetitive harm was at

best speculative, we concluded that the Commission's analysis finding the licensing agreements unlawful per se and under the rule of reason was in error.

Philips I thus foreclosed arguments that a patent is non-essential because of a supposed alternative where the claimed alternative is not commercially viable; market foreclosure in such a case is typically too speculative to justify a finding of misuse. See 424 F.3d 1194, 1198. But it is also clear that Philips I did not consider, let alone foreclose, arguments based on alleged agreements to prevent the development of a competing alternative technology. Notably, in Philips I, the pool did not include the allegedly competing alternatives to the four challenged pool patents. There was no agreement not to license those competing technologies, and no allegation that the package licenses directly restrained licensing of the alternative technologies that disc manufacturers might desire to use in place of pool technology. Rather, the market remained free to develop such alternative technologies.

In contrast, here Princo contends that Philips and Sony agreed from the outset to license Lagadec, a potential competitor to the Raaymakers pool patents, in a way that would necessarily prevent it from ever becoming a commercially viable alternative technology that might compete with the Orange Book standard. The essential nature of the Lagadec patent to the Orange Book standard cannot justify the refusal to allow it to be licensed for non-Orange Book purposes. It is one thing to offer a pooled license to competing technologies;<sup>12</sup> it is quite another to refuse to license the competing

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<sup>12</sup> As noted by Philips, even when blocking patents are not involved, pooling may in some cases have procompetitive benefits, such as enabling licensees to obtain access to alternative technologies through one negotiation without determining at the outset which technology is the most efficient. Intervenor's Br. 36-37 (citing Andewelt, supra, at 616).

technologies on any other basis. In contrast to tying arrangements, there are no benefits to be obtained from an agreement between patent holders to forego separate licensing of competing technologies, as counsel for Philips conceded at oral argument. Oral Arg. 26:10-26:25, available at <http://oralarguments.ca9.uscourts.gov/mp3/2007-1386.mp3> (Oct. 6, 2008).

Agreements between competitors not to compete are classic antitrust violations. See, e.g., Palmer v. BRG of Ga., Inc., 498 U.S. 46, 49 (1990); Otter Tail Power Co. v. United States, 410 U.S. 366, 377 (1973); United States v. Topco Assocs., Inc., 405 U.S. 596, 608 (1972). Agreements preventing patent licensing of competing technologies also can constitute such violations. Standard Oil Co., Ind. v. United States, 283 U.S. 163, 174 (1931) (“Where domination exists, a pooling of competing process patents . . . is beyond the privileges conferred by the patents and constitutes a violation of the Sherman Act.”); id. at 175 (“In the case at bar, the primary defendants own competing patented processes for manufacturing an unpatented product . . .; and agreements concerning such processes are likely to engender the evils to which the Sherman Act was directed.”); United States v. New Wrinkle, Inc., 342 U.S. 371, 380 (1952) (“An arrangement was made between patent holders to pool their [competing] patents and fix prices on the products for themselves and their licensees. The purpose and result plainly violate the Sherman Act.”); cf. U.S. Dep’t of Justice & Fed. Trade Comm’n, Antitrust Guidelines for the Licensing of Intellectual Property § 5.1 ex. 9 (Apr. 6, 1995) (“In the absence of evidence establishing efficiency-enhancing integration from the joint assignment of patent rights, the Agency may conclude that the joint marketing of competing patent rights constitutes horizontal price fixing and could be challenged as a

per se unlawful horizontal restraint of trade.”). Such agreements are not within the rights granted to a patent holder.

Second, the Commission rejected the misuse defense on the ground that there has been “no showing that the pool licensors [Sony and Philips] would have competed in the technology licensing market absent the pooling arrangement.” Final Determination at 23-24, 96. Treating this argument as “viewing the licensing arrangement as tantamount to a merger that eliminates Sony as a potential competitor,” the Commission found no harm to future competition because there had been no showing that Sony “would probably have entered the market within a reasonable period of time” and “would have entered and survived to become a significant competitive force.” Id. at 97-98.

The analogy of a merger of two companies offered by Philips and accepted by the Commission is not an accurate one. The Commission found that there had been no showing, as might be necessary in the case of a challenged merger, that Sony and Philips “would have competed in the technology licensing market” absent the pooling arrangement or that a standard based on Lagadec would have entered the market soon and survived to become a competitive force. Final Determination at 26, 98 (citing 5 Phillip E. Areeda & Herbert Hovenkamp, Antitrust Law ¶ 1121b at 53, ¶ 1128a at 94 (2d ed. 2003)). But unlike the alleged agreement not to compete at issue here, a merger of two companies has potential countervailing efficiencies that offset potential harms to future competition. For example, mergers have the potential to create socially desirable resource savings through improved economies of scale and improved allocation of capital, to name just a few. See 5 Areeda & Hovenkamp, supra, ¶¶ 1103-1107 at 12-

49. In contrast, an agreement of the sort alleged by Princo is unlikely to have any efficiencies that could not be achieved equally well through a non-exclusive agreement that would have left open the possibility that the Lagadec technology could have been further developed. Indeed, as noted earlier, at oral argument counsel for Philips was able to identify no efficiencies flowing from such an agreement.

Third, the Commission rejected Princo's misuse argument on the ground that "even if Lagadec is a substitute technology for the ATIP standard, it is not a substitute technology that can be used to manufacture Orange Book compliant CD-R/RW discs." Final Determination at 24. The Commission's analysis was flawed in this respect as well.

While the Commission's observation that the Lagadec patent could not be used in place of the Raaymakers patents to manufacture Orange Book CD-R/RWs is supported by substantial evidence, that observation is irrelevant. The very thrust of Princo's misuse argument is that the alleged agreement to offer Lagadec only through the joint licenses harms competition because Lagadec is non-Orange Book technology and could have been a competitive alternative to Orange Book technology. Thus, the fact that Lagadec is not an "Orange Book compliant" substitute for the Raaymakers ATIP technology does not answer Princo's defense of misuse.

Directing this court's attention to footnote 20 of the Commission's determination, Philips argues that the Commission correctly rejected Princo's argument on the basis that there had been no showing that the Lagadec was in fact a "commercially viable" technology. Final Determination at 24 n.20. The Commission's footnote, however, must be understood within the context of the surrounding text, which focuses on

whether Lagadec was a commercially viable technology for purposes of the Orange Book:

“[T]he Lagadec ‘565 patent constitutes completely different technology that does not work well according to the Orange Book Standards. This testimony renders Lagadec extraneous to the Orange Book.” . . . [fn19]

[fn19] The ALJ credited testimony that the Lagadec approach is prone to errors and “did not provide a scheme that would work and was reliable.”

The ALJ concluded that “Lagadec constitutes, at best, a substitute technology for the ATIP standard, and at worst, an extraneous, non-working add-on to the patent pool.” Notably, even if Lagadec is a substitute technology for the ATIP standard, it is not a substitute technology that can be used to manufacture Orange Book compliant CD-R/RW discs. [fn20]

[fn20] Respondents have pointed to no evidence that the Lagadec approach is a commercially viable technological alternative to the technology of Philips’ ‘825 or ‘856 patents. Moreover, the commercial viability of a method that is prone to errors, unreliable, and unworkable is doubtful.

Final Determination at 23-24 (emphases altered, internal citations omitted).<sup>13</sup> The Commission did not determine that Lagadec was fundamentally incapable of being commercialized as part of an alternative standard, but merely that it was not workable within the context of existing Orange Book technology. The Commission’s determination thus does not include findings of fact directed to the question of whether,

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<sup>13</sup> The Commission based its statement that Lagadec’s commercial potential was “doubtful” on the testimony of a Philips expert that the Lagadec method was “prone to errors,” “unreliable,” and “unworkable.” Final Determination at 24 n.20. These statements, however, appear to have been volunteered by the expert during testimony related to the validity of the Raaymakers ‘825 and ‘856 patents, not in the context of whether Lagadec could have been a competitive alternative to the Orange Book technologies.

absent agreement to the contrary, Lagadec could have been developed as part of an alternative technological platform.

To the extent that Philips contends that the Lagadec technology must already have been developed to the point of commercial viability before misuse could be found, it is incorrect. See Intervenor's Br. 36 (noting that no evidence showed that Lagadec "was" a commercially viable alternative and therefore "an actual" competitor). The thrust of Princo's argument is that by agreement Lagadec was effectively suppressed; the result of that suppression was that the technology could not become a viable competitor. It cannot be the case that horizontal competitors can insulate themselves from misuse liability simply by agreeing to suppress competing technologies before they are fully developed. If that were the rule, then patentees engaging in such suppression of potential alternative technologies could never be called to account. In short, because standardization of technology and the development of patent pools are likely to occur early in the development of a given technology market, requiring stringent proof of the destruction of future competition, with its accompanying imponderables, would effectively immunize from misuse manufacturers who agree to suppress competition from alternative technologies.

In determining the appropriate standard under the rule of reason, it is important to bear in mind several pertinent considerations. First, the fact that a patent's disclosed embodiments may not be commercially viable cannot be dispositive. Technology disclosed in a patent typically needs to be further developed before a viable commercial embodiment is possible. Indeed, our cases have recognized that one way the patent laws encourage the development of new products is by securing an inventor's rights

during the time between patenting of an immature technology and commercialization. Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538, 1547 (1995) (en banc) (“The patent laws promote the progress in different ways, prominent among which are by protecting the investment of capital in the development and working of a new invention from ruinous competition till the investment becomes remunerative.” (quotation marks omitted)). The efforts required to commercialize an invention disclosed by a patent can be considerable. For example, in CFMT, Inc. v. Yieldup International Corp., 349 F.3d 1333, 1338 (Fed. Cir. 2003), we noted that the invention, while enabled by the issued patent, nevertheless required “hundreds of modifications” and months of experimentation by the inventors to achieve a suitable commercial implementation. In doing so, we observed that issuance of a patent “does not require an inventor to meet lofty standards for success in the commercial marketplace.” Id. at 1338.

Second, it may be difficult to show that the patented technology would or would not be commercially viable in the absence of market incentives to commercialize the technology.

Third, even a faulty technology may provide some meaningful competition. As a leading commentator has suggested in the analogous context of Section 2 of the Sherman Act:

Even the acquisition of one out of several equivalent patents might have exclusionary effects. The acquired patent might, with further advances in the art, turn out to have been the most promising. . . . Further, the inquiry [into whether a given patent is superior or inferior] is rarely worthwhile, for even inferior technologies can provide some, even if not perfect, competition to the patentee.

3 Areeda & Hovenkamp, supra, ¶ 707d at 203-04.

Fourth, as discussed above, there are no benefits to be achieved from suppression of potentially competing technology, suggesting that there would be no harm to competition from adopting a protective rule.

While we reject the suggestion that a showing of misuse in these circumstances requires proof that an allegedly-suppressed technology was already commercially viable, the question remains as to what showing must be made to invoke the patent misuse defense. On the one hand, evidence that a suppressed technology would have been viable would be sufficient; on the other, proof that a suppressed technology could not have been viable would be sufficient to negate a charge of misuse. We need not determine at this time where on the continuum between “certainly would have been viable” and “certainly could not have been viable” the appropriate standard lies. We leave that issue for consideration in the first instance by the Commission, together with the question of whether the evidence here satisfies the standard.<sup>14</sup>

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<sup>14</sup> The record appears to contain competing evidence as to Lagadec’s potential. On the one hand, both the Commission and Philips recognize that Lagadec provided an alternative to the Orange Book method. See Final Determination at 24 (“Lagadec constitutes, at best, a substitute technology. . . .”); Intervenor’s Br. 35 (noting that Princo had “point[ed] to evidence suggesting that the digital modulation method taught by the Lagadec patent was a technological alternative to the analog method of the [Raaymakers] patents”). On the other, Philips’s witness suggested that commercial development might be difficult. However, the record contains a 1986 Sony memorandum describing the Lagadec proposal that suggests potential solutions existed to some of the problems identified by Philips’s expert even at that early date. For example, the expert stated that the Lagadec encoding method would cause unwanted interference at the low and high ends of the frequency spectrum. The memorandum indicates that interference caused by the Lagadec method at high frequencies could be reduced by “simple audio oversampling” and that interference at low frequencies could be reduced with “[a] simple digital highpass filter.” The patent as issued reflects these solutions. E.g. ’565 Patent col.6 ll.47-52; id. col.7 ll.54-58 (discussing band-limitation to eliminate disturbance at high and low frequencies).

### III

We turn then to the final question—whether there was in fact an agreement between Philips and Sony to prevent the licensing of Lagadec as a competitor to the Orange Book. Philips maintains that Princo has made no showing that Sony agreed with Philips that Lagadec would be unavailable. The Commission did not reach this issue in rejecting Princo’s argument. Final Decision at 23-26, 80-81, 96-98. There is sufficient evidence supporting Princo’s theory that we conclude that further Commission proceedings are necessary.

First, it is undisputed that the Orange Book joint licenses that included Lagadec only permitted the use of the Lagadec license to produce Orange Book compliant discs. As the ALJ noted, “All of Philips’ CD-R and CD-RW licenses contain a field of use provision limiting the license grant to use of the patents to manufacture . . . discs that comply with either the CD-R or CD-RW ‘Standard Specifications.’” Initial Determination at 370. The licenses did not allow the use of Lagadec to produce discs competitive with the Orange Book standard.

Second, there is evidence that could support a finding that Sony granted Philips an exclusive license to Lagadec for CD-R purposes, and that Philips agreed not to license the patent (absent “exceptional” circumstances) except for the manufacture of Orange Book compliant discs.

The parties appear to agree that a 1993 agreement between Philips and Sony “granted exclusive right[s] to license Sony’s CD-R patents for purposes of manufacturing CD-R discs and recorders.” Intervenor’s Br. 40 n.17; see also id. at 36 n.13. While it may be that the 1993 agreement did not initially list Lagadec as an

included patent, that agreement was not limited to listed patents. It stated that it pertained to “Patent Rights . . . including but not limited to” the listed patents. J.A. 3319. The parties appear to differ as to whether Lagadec was subject to the 1993 agreement before 2001. Princo points to evidence that Lagadec was, in fact, licensed by Philips for CD-R purposes before 2001. See J.A. 3506, 3532 (1999 CD-R joint license and accompanying exhibit of patents listing Lagadec). It is also unclear whether the 1993 agreement was extended to cover Sony’s patents for purposes of CD-RW licensing before a separate agreement to that effect was executed in 2000, though Philips admits that it somehow had the authority to license Lagadec for CD-RW purposes before that time. Intervenor’s Br. 12; J.A. 3534, 3561 (1999 CD-RW joint license and accompanying exhibit of patents listing Lagadec).

There is also a question as to how to interpret the 1993 agreement. Princo contends that in the agreement Philips agreed not to license Sony patents for non-Orange Book purposes absent “exceptional” circumstances. Appellants’ Reply Br. 12-13. Princo urges that the evidence shows that Philips did not, in fact, license Sony patents for any other purposes, again supporting an inference that it agreed not to do so.<sup>15</sup>

The 1993 agreement gave Philips an “exclusive right to license such Patent Rights . . . for use in Articles listed in Appendix 2.” J.A. 3319. Appendix 2 lists “CD-

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<sup>15</sup> Princo points out that when asked if he was “aware of any separate license agreements between a licensee and Philips whereby only certain patents that are identified in the CD-R disc license were licensed,” a Philips witness testified “I’m not aware of any such license agreements.” J.A. 1934. Such “business behavior is admissible circumstantial evidence from which the fact finder may infer agreement.” Theatre Enters., Inc. v. Paramount Film Distrib. Corp., 346 U.S. 537, 541 (1954).

WO” (i.e., CD-R) “Disc” and “Recorder.” J.A. 3321. The agreement is unclear as to whether Appendix 2 is referring only to Orange Book compliant products. Other portions of the 1993 agreement, however, arguably tend to suggest both that the license was broader than for Orange Book uses and that Philips was to license for non-Orange Book purposes only in “exceptional” circumstances. That agreement went on to state that “it is expressly understood . . . that in licensing . . . any Patent Rights relative to Articles . . . both our companies shall give at all times due regard to our joint efforts to promote the standardization of optical recording and retrieval systems.” J.A. 3320. It further noted that “we confirm with respect to the aforementioned Patent Rights . . . that we will license such Patent Rights outside the jointly agreed upon system standards only in cases which can reasonably be considered exceptional.” Id.

Third, there is evidence that, if the 1993 agreement applied to Lagadec, Sony itself may have agreed with Philips not to license the Lagadec patent for non-Orange Book purposes. Again the agreement stated “we confirm with respect to the aforementioned Patent Rights on joint inventions that we will license such Patent Rights outside the jointly agreed upon system standards only in cases which can reasonably be considered exceptional.” J.A. 3320. There is a question as to whether the word “we” refers only to Philips, or to Sony as well. Again, we think the agreement is unclear, and on remand the Commission should consider its proper interpretation.

The portions of the record before us in the joint appendix are thus unclear as to whether the 1993 agreement became applicable to Lagadec, whether Philips received an exclusive license to Lagadec for all purposes, and whether Philips and Sony agreed generally not to license Lagadec outside the Orange Book standard. On remand, the

Commission should determine which interpretation is correct, taking into account any other relevant evidence pertinent to the agreement above.

In summary, the Commission did not determine whether the parties agreed not to license Lagadec outside the Orange Book context. Because we lack the Commission's familiarity with the full record, a remand is appropriate so that the factfinder may make that determination in the first instance. In doing so, we emphasize that the burden of proving misuse, and the corresponding risk of having made an insufficient record, lies with Princo. If the Commission determines on remand that the record contains insufficient evidence to justify a finding that Sony and Philips agreed that Lagadec would not be licensed as competitive technology, then there would be no misuse under Princo's theory.

#### CONCLUSION

In summary, we affirm the Commission's determination that Princo failed to meet its burden of demonstrating that Philips's patents are unenforceable due to patent misuse on the grounds of unlawful tying.

However, we conclude that the Commission's analysis of the agreement issue was predicated on legal errors in several respects, and that the Commission erred in failing to determine whether Princo established that such an agreement existed. We vacate and remand for the limited purposes of determining (1) whether Lagadec was a potentially workable alternative to the Orange Book technology and (2) whether Princo has established that Sony and Philips agreed that Lagadec would not be licensed in a manner allowing its development as competitive technology.

AFFIRMED-IN-PART, VACATED-IN-PART, and REMANDED

## COSTS

No costs.

# United States Court of Appeals for the Federal Circuit

2007-1386

PRINCO CORPORATION and PRINCO AMERICA CORPORATION,

Appellants,

v.

INTERNATIONAL TRADE COMMISSION,

Appellee,

and

U.S. PHILIPS CORPORATION,

Intervenor.

On appeal from the United States International Trade Commission  
In Investigation No. 337-TA-474.

BRYSON, Circuit Judge, concurring in the result in part and dissenting in part.

I would affirm the Commission's final determination and would not remand for further findings.

1. The majority rejects Princo's tying claim on a ground not adopted by the Commission, concluding that the Commission's decision on that issue is "somewhat opaque." I find the Commission's decision on that issue to be both clear and sufficient to reject Princo's argument of patent misuse based on tying. I agree, however, that the majority's ground for decision is also correct and offers a satisfactory alternative rationale for affirming the Commission's determination on that issue.

The tying argument is based on the contention that the Lagadec patent is not among those “essential” to the manufacture of an Orange Book compliant disc. Tying that non-essential patent to the package of essential Orange Book patents, according to the argument, was anticompetitive and unjustified, and thus constituted patent misuse.

As the Commission explained, the premise of that argument—that the Lagadec patent cannot be used to make an Orange Book compliant disc—is fatal to the tying claim. That is because prospective manufacturers of Orange Book compliant discs would be interested in obtaining a license for the essential patents in the patent pool; they would not be interested in a patent that could not be used to make an Orange Book compliant disc. For that reason, the requirement that purchasers take a license to a pool of patents that included the Lagadec patent could not have adversely affected competition, because at most the licensees were required to accept something they did not want and would not have tried to obtain by other means and from other sellers. See Jefferson Parish Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 16 (1984) (“When a purchaser is ‘forced’ to buy a product he would not have otherwise bought even from another seller in the tied product market, there can be no adverse impact on competition because no portion of the market which would otherwise have been available to other sellers has been foreclosed.”).

Princo seeks to dress up its tying claim by referring to Philips’s conduct as “sequestering substitute patents within a pool.” But the tying of the Lagadec patent to the other patents in the pool, without more, cannot in any reasonable sense be characterized as “sequestering.” Princo’s real argument on this point, made elsewhere in its brief, is that the Lagadec patent “couldn’t be used and that some of the pool cost,

must be attributed to its inclusion.” That argument, however, is contrary to the Commission’s findings and to simple economic analysis. As the Commission found, if the Lagadec patent, as Princo asserts, could not be used to make Orange Book compliant discs, there is no economic reason to conclude that the price of a license to the Orange Book pool of patents would be lower if the Lagadec patent were excluded. The licensees were interested in producing discs, not in counting the number of patents covered by the license. The Commission explained that the profit-maximizing price for the license would be the same regardless of whether it included no unwanted patents or dozens of them, as long as it contained all the patents needed to make Orange Book compliant discs.

2. That reasoning likewise disposes of Princo’s argument that Philips has engaged in conduct that constitutes unlawful tying under the Supreme Court’s decision in Zenith Radio Corp. v. Hazeltine Research, Inc., 395 U.S. 100 (1969). Once again, I agree that the majority’s ground for deciding this issue is valid, but it is unnecessary to invoke that ground of decision because this case plainly does not involve unlawful tying under the Zenith standard.<sup>1</sup> In Zenith, the Supreme Court found misuse where a patent holder licensed a package of some 500 patents involving radio and television technologies and set royalties based on the licensees’ total radio and television sales—even if some of those sales were of products that used none of the licensed patents. Id. at 134-35. Here, in contrast, it is undisputed that many of the patents included in the

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<sup>1</sup> The parties spend some time debating whether Princo has waived this argument. The Commission and the intervenor contend that the “Zenith” argument has been waived because neither Princo nor the Investigative Attorney argued that the tying arrangement in this case constituted per se patent misuse. Because the Supreme Court’s analysis in Zenith is inapplicable here in any event, I agree with the majority that it is unnecessary to resolve the waiver question.

joint license are necessary to manufacture Orange Book compliant discs, and the licensees were obligated to pay royalties only on discs that used at least one patent in the package. That difference is a significant one because, as discussed above, as long as some of the patents included in the license are used to manufacture Orange Book compliant discs (and all such necessary patents are included in the license), then the price of the license does not depend on whether the package also includes unwanted patents. Unlike in Zenith, Philips was not using the leverage of the Orange Book licenses to increase revenues unrelated to its patent rights, such as by “garner[ing] as royalties a percentage share of the licensee’s receipts from sales of other products.” Zenith, 395 U.S. at 135.

3. As for Princo’s argument that Philips committed patent misuse by “conspiring to include in a mandatory patent pool their competing patents and thereby engag[ing] in prohibited price fixing,” the majority holds that the Commission’s decision on that issue cannot be sustained and that the case must be remanded to the Commission for further proceedings. I disagree. In my view, the Commission’s findings of fact and legal conclusions provide a sufficient ground for upholding the Commission’s ruling that Princo has failed to satisfy its burden of showing patent misuse through a horizontal price-fixing agreement.

Princo begins by attacking the Commission’s finding that there is no evidence that the patents in the joint package licenses “cover technologies that are close substitutes.” Princo contends that the evidence shows that the Lagadec patent and the Raaymakers patents “are substitutes for one another,” and that the “Commission’s conclusion that there has been no showing that the Lagadec patent was a potential

competitor of the Philips Raaymakers patents or that Sony and Philips acted with the purpose of avoiding potential competition with each other” is unsupported by substantial evidence.

The Commission found that the evidence failed to show that the Lagadec and Raaymakers technologies were substitutable. In particular, the Commission stated that the respondents “have not identified, nor are we aware of, evidence in the record that the patents in the joint package licenses ‘cover technologies that are close substitutes.’” Final Determination 22 (citing U.S. Dep’t of Justice & FTC, Antitrust Guidelines for the Licensing of Intellectual Property § 5.1 (1995)). For that reason, the Commission concluded, the joint package licenses “have not been shown to be ‘the joint marketing of competing patent rights.’” Id. (emphasis in original). Because “the patents have not been shown to be competing,” the Commission ruled, the pool royalty rate set by Philips and its co-licensors was not “a pricing agreement between competing entities with respect to their competing products.” Id. (citing Texaco, Inc. v. Dagher, 547 U.S. 1, 6 (2006)).

There is no force to Princo’s contention that the Commission’s finding on that issue is unsupported by substantial evidence. Because the Commission found that no evidence was introduced on that issue, it fell to Princo on appeal to point to the evidence that would support its contention that the Lagadec patent was a viable potential competitor for the Raaymakers patents. It has not done so. Instead, Princo has relied entirely on an inference that the Lagadec patent must have been a potential competitor for Philips’s Orange Book patents because otherwise Philips would not have allowed Sony to share in the patent pool licensing royalties. Princo contends that the

agreement can be explained only as a naked conspiracy to suppress competition or, as Princo puts it, that “Sony was paid not to compete” with Philips. Not only does that argument not constitute evidence of the viability of the Lagadec technology as a potential basis for a system that would compete with the Orange Book system, but it ignores ample record evidence of other reasons that Sony shared in the royalties from the Orange Book licensing agreements.

The Commission rejected, as unsupported by the evidence, the argument made by the Investigative Attorney that “Philips included Sony in the pool not because Sony brought anything necessary to CD-R/RW technology, but rather because Sony is a major player in the industry, whose cooperation Philips wanted.” See Final Determination 97 & n.63. The Commission likewise rejected as unsupported the administrative law judge’s remark that the inclusion of Lagadec in the patent pool “appears to be an attempt to forestall digital approaches to achieving what the Philips analog technology has achieved.” Final Determination 23 n.18.

Not only was there no evidence to support those assertions, but the evidence affirmatively showed that there were other reasons for Sony’s receiving a share of the royalties of the Orange Book patent pool, including the evidence that Sony had contributed substantial resources to the project to develop the Orange Book standard, and that the royalty division reflected a rough assessment of the value of each party’s portfolio of worldwide patent rights. Because Princo did not persuade the Commission that those justifications for Sony’s royalty share in the proceeds of the licensing pool were pretextual, the Commission properly rejected Princo’s argument that the only

possible reason for Sony's receiving a portion of the proceeds of the agreement is that it had engaged in a horizontal agreement with Philips to fix prices.

Significantly, the Commission's finding regarding the potential for the Lagadec technology to generate a competing system was not limited to the state of the technology at the time the patent pool was put into place. The Commission found that no evidence had been introduced suggesting that there was any prospect of competition between the Lagadec patent and other patents in the pool. As the Commission put it, "there has been no showing that the Lagadec '565 patent competes with another patent in the pool, no showing that the pool licensors would have competed in the technology licensing market absent the pooling arrangement, and no showing of anti-competitive effect" from the inclusion of the Lagadec patent in the patent pool. Final Determination 23; see also id. at 26 (Princo has "not pointed to evidence that establishes that, absent the pooling arrangements, the pool licenses would have competed in the technology licensing market"). The Commission noted that the administrative law judge had credited testimony that the Lagadec approach "is prone to errors and 'did not provide a scheme that would work and was reliable.'" Id. at 24 n.19.<sup>2</sup> Because "there has been

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<sup>2</sup> The majority asserts that the Commission "did not determine that Lagadec was fundamentally incapable of being commercialized as part of an alternative standard, but merely that it was not workable within the context of existing Orange Book technology." I do not interpret the Commission's statements to be so limited. The expert who testified that the Lagadec approach was "prone to errors" (and whose testimony was credited by the administrative law judge) identified several problems with Lagadec's approach that were not restricted to the viability of Lagadec as a component of the Orange Book platform. For example, the expert noted that "from basic physics, you can just see that [Lagadec's approach] is not a good solution, and it really wouldn't work well." Thus, while the Commission noted that Lagadec "does not work well according to the Orange Book standards," it added, separately, that Princo had "pointed to no evidence that the Lagadec approach is a commercially viable technological alternative to the technology of Philips's '825 or '856 patents," and that "the commercial

no showing that the patents in the pool are substitutable,” the Commission concluded, “the agreement between the licensors to set a fixed royalty for the joint licenses under the pool is not price fixing per se in the market for licensing CD-R/RW patents.” Final Determination 26.

Although the majority suggests that Philips contended that the Lagadec technology “must already have been developed to the point of commercial viability before misuse could be found,” I read the Commission’s observations about the absence of evidence of substitutability to apply not only to the present but to the future as well. To the extent that the Commission did not deal in detail with the question whether there was a realistic possibility that the Lagadec technology could have been developed into a viable competing system, the fault for any such shortfall rests with Princo, which did not offer any evidence, or even argument, to that effect.

Princo was free to offer evidence that Lagadec was substitutable technology and that there was a realistic prospect that the invention of Lagadec could be refined in the future to the point that it could be used as a platform for technology that would compete with the technology used in the Orange Book compliant discs. But Princo did not offer any such evidence. The Commission did not require a showing that Lagadec could have been used without further development to create a commercially successful technology. To the contrary, even though Princo did not point to any evidence of a realistic possibility that the Lagadec invention could be developed into competing

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viability of a method that is prone to errors, unreliable, and unworkable is doubtful.” Final Determination 24 n.20. Moreover, the burden was on Princo to show that pool licensors would have competed in the technology licensing market, and the Commission found that Princo did not point to any evidence that Lagadec represented a commercially viable approach, either inside or outside the context of the Orange Book standards.

technology in the foreseeable future, the Commission's analysis encompassed the possibility of future developments. Nonetheless, the Commission found no evidence that Lagadec would have been likely to lead to competing technology but for the pooling arrangements. Princo failed to show a likelihood that the digital method of encoding position data recited in the Lagadec patent would lead to the development of discs that would use that technology instead of the Orange Book analog method of encoding position data, and that the digital encoding technology would be used in discs and disc readers that would compete with Orange Book compatible systems. As the Commission explained, unless the competing technology would have entered the market "to become a significant competitive force," it could not have augmented future competition in an important way. Yet the Commission found that the record contained no evidence that Sony would have entered the market and become a significant competitive force. Final Determination 98. Moreover, Princo offered no evidence that any potential licensee ever expressed an interest in licensing Lagadec for use in technology that would compete with the Orange Book compliant discs. Any suggestion that the Lagadec patent could have provided the basis for a competing system is thus entirely speculative and unsupported by argument or evidence before the Commission.

Finally, the majority's conclusion with respect to Princo's tying argument (with which I agree), that "Lagadec qualified as an 'essential' patent for purposes of the Orange Book pool," undermines Princo's price-fixing argument. Princo sets forth the legal rule that it contends governs this case: "the pooling of non-blocking, substitute patents [is] universally recognized as highly anticompetitive" and is unlawful. If the Lagadec patent is an "essential," or "blocking" patent, that rule by its own terms does

not apply. The majority's conclusion that the Lagadec patent was "essential" because claim 6 of that patent "reasonably might be necessary as a blocking patent to the Orange Book standard" thus takes this case outside of the legal rule on which Princo relies. See Standard Oil Co. v. United States, 283 U.S. 163, 171 & n.5 (1931) (recognizing that the pooling of blocking patents serves a legitimate purpose); Dep't of Justice & FTC, Antitrust Guidelines for the Licensing of Intellectual Property § 5.5, ex. 10 (1995) (noting that where manufacturers pool blocking patents, "the manufacturers are not in a horizontal relationship with respect to those patents").

Although the majority correctly notes that the Commission did not address the question whether Philips and Sony agreed not to license Lagadec as a competitor to the Orange Book, it is not clear that Princo squarely presented that argument to the Commission. In its briefing before the Commission, Princo argued that Orange Book licensees were not permitted to use the package patents for products outside the scope of the Orange Book, but it did not point to evidence that Sony was precluded from licensing Lagadec for non-Orange-Book uses. In any event, Princo still needed to show that any agreement not to allow Lagadec to be licensed outside the Orange Book would have had some anticompetitive effect in order for the agreement to constitute a form of horizontal price fixing. The Commission's finding that Princo failed to demonstrate that absent the patent pool agreement Sony would have competed with the Orange Book technology—either directly or by licensing the Lagadec patent—was sufficient to support the Commission's conclusion that the patent pool was not shown to have any such anticompetitive effect.

I would therefore affirm the Commission's final determination.