

FOR PUBLICATION
UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

ZUCCO PARTNERS, LLC; REX
BOGGS; KENNARD McADAM; GLEN
THOMAS,

Plaintiffs-Appellants,

v.

DIGIMARC CORPORATION; BRUCE
DAVIS; E. K. RANJIT,

Defendants-Appellees.

No. 06-35758

D.C. No.

CV-04-01390-AJB

OPINION

Appeal from the United States District Court
for the District of Oregon
Anna J. Brown, District Judge, Presiding

Argued and Submitted
August 26, 2008—Seattle, Washington

Filed January 12, 2009

Before: Thomas G. Nelson, Michael Daly Hawkins, and
Jay S. Bybee, Circuit Judges.

Opinion by Judge Bybee

COUNSEL

David F. Rees, Gary M. Berne, and Mark A. Friel, Stoll Stoll Berne Lokting & Lokting P.C., Portland, Oregon; Lori G. Feldman and Karen T. Rogers, Milberg Weiss LLP, New York, New York, for the plaintiffs-appellants.

Barnes H. Ellis, Lois O. Rosenbaum, and Brad S. Daniels, Stoel Rives LLP, Portland, Oregon, for the defendants-appellees.

OPINION

BYBEE, Circuit Judge:

Zucco Partners, LLC and other named plaintiffs (collectively, “Zucco”), on behalf of those who purchased publicly-traded securities of Digimarc Corporation (“Digimarc” or “the Company”) between April 22, 2003 and July 28, 2004, appeal the District of Oregon’s dismissal of their Second Amended Complaint, which alleges that Digimarc (and two of its officers, Bruce Davis and E. K. Ranjit) violated sections 10(b) and 20(a) of the Securities Exchange Act of 1934 and the regulations promulgated thereunder, including Rule 10b-5. Zucco contends that the district court erred in determining that its complaint failed to allege a strong inference of scienter as required by the Private Securities Litigation Reform Act (“PSLRA”) because that court applied a more stringent stan-

dard than required by the Supreme Court's recent decision in *Tellabs, Inc. v. Makor Issues & Rights, Ltd.*, 127 S. Ct. 2499 (2007). Although we have previously evaluated the sufficiency of such claims under the PSLRA by the standards of *In re Silicon Graphics Inc. Securities Litigation*, 183 F.3d 970 (9th Cir. 1999), and *In re Daou Systems, Inc. Securities Litigation*, 411 F.3d 1006 (9th Cir. 2005), we have yet to fully explain how the Court's *Tellabs* decision relates to much of our analysis under those cases.

The district court determined that, pursuant to *Daou*, the plaintiffs' complaint failed to allege scienter with the requisite particularity to survive dismissal under the PSLRA's heightened pleading standard. Because we hold that the Court's decision in *Tellabs* does not materially alter the particularity requirements for scienter claims established in our previous decisions, but instead only adds an additional "holistic" component to those requirements, we affirm the district court's dismissal of the complaint with prejudice and hold that Zucco has failed to adequately plead a strong inference of scienter.¹

I

Accounting for the costs of internal software development is not a simple task. In order to comply with Generally Accepted Accounting Principles ("GAAP"), a company that engages in internal software development projects must make subtle differentiations between three stages of development that determine whether expenditures incurred must be "expensed" (recorded immediately on the company's financial

¹Because we find that the district court correctly dismissed Zucco's claims for failure to plead scienter, we do not reach the questions of whether the complaint adequately pleads loss causation, *see Daou*, 411 F.3d at 1025, or whether certain statements relied upon by the complaint as false representations are forward-looking statements protected from liability under the PSLRA's "safe harbor" provision, 15 U.S.C. § 78u-5. *See Employers Teamsters Local Nos. 175 & 505 Pension Trust Fund v. Clorox Co.*, 353 F.3d 1125, 1131-33 (9th Cir. 2004).

statement as a cost incurred) or “capitalized” (recorded as a cost incurred in increments over several financial statements). This distinction is important because if an expenditure is capitalized rather than expensed a company will (in the absence of other factors) look more profitable in the short term (albeit less profitable in the long term) and show a more consistent pattern of reported income—because its expenditures are spread out over a longer period of time. Under GAAP, if a software development project is in the “preliminary project stage,” wherein the company is evaluating development and marketing alternatives; or in the “post-implementation/operation stage,” in which the developed software is placed into service, most expenditures related to the project must be expensed. If, however, a project is in the “application development stage,” in which management authorizes the project and has settled on a comprehensive development and marketing strategy, most expenditures incurred must be capitalized. Capitalized expenditures are amortized on a straight-line basis over the estimated useful life of the software developed (which, for a company like Digimarc, is generally three to five years).

According to Zucco, Digimarc, a fledgling Delaware corporation headquartered in Oregon, whose business centers on providing secure personal identification documents (such as drivers licenses) based on digital watermarking technology, purposefully manipulated its financial prospects by, *inter alia*, capitalizing internal software development expenditures that should have been expensed. Zucco’s compendious 130-page Second Amended Complaint (“SAC”) claims that Digimarc “used two primary accounting manipulations to deceptively bolster Digimarc’s financial condition.” Namely, Digimarc “capitalize[d] on its asset balance sheet ordinary payroll costs that Digimarc paid to its software engineers and other employees so that the Company could avoid recognizing these expenses on its income statements.” Also, Digimarc allegedly “fail[ed] to recognize ordinary expenses incurred by the Company” and instead “improperly moved or retained these

expenses in Digimarc's inventory or property and equipment accounts as purported 'project development expenses.'” The net effect of these manipulations, Zucco contends, was to deceive investors into believing that the young corporation had “turned the corner” from its early losses and had become profitable.

On September 13, 2004, Digimarc publicly announced that it had erroneously accounted for internal software expenditures and that due to these accounting errors it had likely overestimated earnings for the previous six quarters. The September announcement listed the improper capitalization of internal software development costs as the most likely source of these accounting errors, and also cited “other project cost capitalization accounting practices” of Digimarc's ID Systems division (acquired from Polaroid in December 2001 and which represented 89 percent of the corporation's revenue in 2003 and 2004) as containing potential errors that “may also result in additional adjustments which may affect prior periods.” On September 13, Digimarc estimated these accounting errors to “be in the range of approximately \$1.2 million to \$2.0 million” and to possibly “require a restatement of prior period financial statements.”

Although the full extent of these accounting errors (approximately \$2.7 million in overstated earnings) was not revealed until April 5, 2005, when Digimarc's formal restatement was issued, the corporation's September 2004 announcement was enough to trigger a number of class action lawsuits. Zucco, which had purchased fifty shares of Digimarc stock in March 2004 (at a price of \$12.76 per share) filed a class action lawsuit in the District of Oregon fifteen days after the corporation's public announcement, alleging that defendants Digimarc, its Chief Executive Officer Bruce Davis, and its former Chief Financial Officer E. K. Ranjit violated sections 10(b) and 20(a) of the Securities Exchange Act of 1934 and its implementing regulations, including Rule 10b-5. Similar suits, which followed on October 5th and 6th, were eventually

consolidated with Zucco's action on December 16, 2004. Two unrelated actions alleging violations of California corporations law, meanwhile, were filed in California state court on October 19th, and subsequently re-filed in the District of Oregon. See *In re Digimarc Corp. Derivative Litig.*, ___ F.3d ___, No. 06-35838, 2008 WL 5171347 (9th Cir. Dec. 11, 2008).

Although there was no question that Digimarc erroneously capitalized expenditures that should have been expensed, the plaintiffs had difficulty providing detailed allegations that the defendants did so either intentionally or with deliberate recklessness. Indeed, Zucco provided the district court with three iterations of its allegations—none of which, according to that court, was sufficient to survive a motion to dismiss. First, after several additional named plaintiffs were added to its consolidated class action, Zucco amended its original class action complaint, adding significant detail to its formerly skeletal allegations. This First Amended Complaint was filed on May 16, 2005, on behalf of all those who purchased the publicly traded securities of Digimarc between April 22, 2003 and July 28, 2004 (the “class period”), and alleged that Digimarc and the individual defendants engaged in the manipulative accounting methods described above. Digimarc filed a Federal Rule of Civil Procedure 12(b)(6) motion to dismiss the First Amended Complaint, claiming that Zucco had failed to satisfy the loss causation and scienter requirements of section 10(b) of the Securities Exchange Act of 1934, as mandated by the Private Securities Litigation Reform Act, 15 U.S.C. § 78u-4. The district court granted this motion on November 30, 2005. In its order dismissing the complaint, the district court held that Zucco's First Amended Complaint had satisfied the loss causation pleading requirements, but had failed to properly allege scienter. See *Zucco Partners, LLC v. Digimarc Corp.*, No. CV 04-1390-BR (D. Or. Nov. 30, 2005).

The district court dismissed the complaint without prejudice, giving Zucco leave to amend. According to the district

court, the Second Amended Complaint was no better. After that complaint was filed on January 17, 2006, Digimarc responded with another motion to dismiss, contending that Zucco had again failed to plead scienter adequately under the PSLRA. This motion was granted on August 4, 2006, when the district court dismissed the complaint with prejudice. *See Zucco Partners, LLC v. Digimarc Corp.*, 445 F. Supp. 2d 1201 (D. Or. 2006). After dismissal, Zucco filed a timely appeal to this Court.

II

Zucco argues that the district court failed to properly analyze its allegations of scienter under the standard recently expounded by the Supreme Court in *Tellabs, Inc. v. Makor Issues & Rights, Ltd.*, 127 S. Ct. 2499 (2007). We review challenges to a dismissal for failure to state a claim under Federal Rule of Civil Procedure 12(b)(6) de novo. *Livid Holdings, Ltd. v. Solomon Smith Barney, Inc.*, 416 F.3d 940, 946 (9th Cir. 2005). Such review is generally limited to the face of the complaint, materials incorporated into the complaint by reference, and matters of which we may take judicial notice. *Metzler Inv. GMBH v. Corinthian Colls., Inc.*, 540 F.3d 1049, 1061 (9th Cir. 2008) (citing *Tellabs*, 127 S. Ct. at 2509). In undertaking this review, we will “accept the plaintiffs’ allegations as true and construe them in the light most favorable to plaintiffs,” *Gompper v. VISX, Inc.*, 298 F.3d 893, 895 (9th Cir. 2002), and will hold a dismissal inappropriate unless the plaintiffs’ complaint fails to “state a claim to relief that is plausible on its face.” *Bell Atl. Corp. v. Twombly*, 127 S. Ct. 1955, 1974 (2007). Where, as here, the district court dismisses the complaint without leave to amend, such prejudicial dismissal is reviewed for abuse of discretion, *see Gompper*, 298 F.3d at 898, and “is improper unless it is clear that the complaint could not be saved by any amendment.” *Livid Holdings*, 416 F.3d at 946.

A

[1] Section 10(b) of the Securities Exchange Act of 1934 makes it unlawful for “any person . . . [t]o use or employ, in connection with the purchase or sale of any security registered on a national securities exchange . . . any manipulative or deceptive device or contrivance in contravention of such rules and regulations as the Commission may prescribe as necessary or appropriate in the public interest or for the protection of investors.” 15 U.S.C. § 78j(b). One such rule promulgated under the Act is SEC Rule 10b-5, which provides, *inter alia*, “It shall be unlawful for any person . . . [t]o engage in any act, practice, or course of business which operates or would operate as a fraud or deceit upon any person, in connection with the purchase or sale of any security.” 17 C.F.R. § 240.10b-5(c).

Section 20(a) of the Act makes certain “controlling” individuals also liable for violations of section 10(b) and its underlying regulations. Specifically, section 20(a) provides:

Every person who, directly or indirectly, controls any person liable under any provision of this chapter or of any rule or regulation thereunder shall also be liable jointly and severally with and to the same extent as such controlled person to any person to whom such controlled person is liable, unless the controlling person acted in good faith and did not directly or indirectly induce the act or acts constituting the violation or cause of action.

15 U.S.C. § 78t(a). Thus, a defendant employee of a corporation who has violated the securities laws will be jointly and severally liable to the plaintiff, as long as the plaintiff demonstrates “a primary violation of federal securities law” and that “the defendant exercised actual power or control over the primary violator.” *No. 84 Employer-Teamster Joint Council Pension Trust Fund v. Am. W. Holding Corp.* (“America

West”), 320 F.3d 920, 945 (9th Cir. 2003) (quoting *Howard v. Everex Sys., Inc.*, 228 F.3d 1057, 1065 (9th Cir. 2000)) (quotation marks omitted); *Paracor Fin., Inc. v. Gen. Elec. Capital Corp.*, 96 F.3d 1151, 1161 (9th Cir. 1996). This inquiry is normally an “intensely factual question.” *Paracor Finance*, 96 F.3d at 1161 (quoting *Arthur Children’s Trust v. Keim*, 994 F.2d 1390, 1396 (9th Cir. 1993)). Section 20(a) claims may be dismissed summarily, however, if a plaintiff fails to adequately plead a primary violation of section 10(b). See *In re Verifone Sec. Litig.*, 11 F.3d 865, 872 (9th Cir. 1993). See, e.g., *In re Metawave Commc’ns Corp. Sec. Litig.*, 298 F. Supp. 2d 1056, 1087 (W.D. Wash. 2003).

Five elements are required in order to prove a primary violation of Rule 10b-5. In particular, a plaintiff must demonstrate “(1) a material misrepresentation or omission of fact, (2) scienter, (3) a connection with the purchase or sale of a security, (4) transaction and loss causation, and (5) economic loss.” *Daou*, 411 F.3d at 1014. At the pleading stage, a complaint stating claims under section 10(b) and Rule 10b-5 must satisfy the dual pleading requirements of Federal Rule of Civil Procedure 9(b) and the PSLRA.

Federal Rule of Civil Procedure 9(b) provides, “In alleging fraud or mistake, a party must state with particularity the circumstances constituting fraud or mistake. Malice, intent, knowledge, and other conditions of a person’s mind may be alleged generally.” This requirement has long been applied to securities fraud complaints. See *Semegen v. Weidner*, 780 F.2d 727, 729, 734-35 (9th Cir. 1985). Accordingly, before 1995 we required “falsity” to be pled with particularity, and “scienter” to be alleged generally. See *Ronconi v. Larkin*, 253 F.3d 423, 429 n.6 (9th Cir. 2001).

[2] All securities fraud complaints since 1995, however, are subject to the more exacting pleading requirements of the PSLRA, which “significantly altered pleading requirements” in securities fraud cases. *Gompper*, 298 F.3d at 895 (quotation

marks omitted). The PSLRA amended the Securities Exchange Act to require that a complaint “plead with particularity both falsity and scienter.” *Id.* (quoting *Ronconi*, 253 F.3d at 429). Thus, to properly allege falsity, a securities fraud complaint must now “specify each statement alleged to have been misleading, the reason or reasons why the statement is misleading, and, if an allegation regarding the statement or omission is made on information and belief, . . . state with particularity all facts on which that belief is formed.” *Id.* (quoting 15 U.S.C. § 78u-4(b)(1))(quotation marks omitted). To adequately plead scienter, the complaint must now “state with particularity facts giving rise to a strong inference that the defendant acted with the required state of mind.” 15 U.S.C. § 78u-4(b)(2). *See also Ernst & Ernst v. Hochfelder*, 425 U.S. 185, 193 (1976).

[3] The Supreme Court recently defined “strong inference” in *Tellabs*, concluding that a securities fraud complaint will survive a motion to dismiss under Federal Rule of Civil Procedure 12(b)(6) “only if a reasonable person would deem the inference of scienter *cogent and at least as compelling* as any opposing inference one could draw from the facts alleged.” 127 S. Ct. at 2510 (emphasis added). Thus, a court now reviewing a complaint’s scienter allegations under the PSLRA must “consider the complaint in its entirety, as well as other sources courts ordinarily examine when ruling on Rule 12(b)(6) motions to dismiss, in particular, documents incorporated into the complaint by reference, and matters of which a court may take judicial notice.” *Id.* at 2509. The court must determine whether “*all* of the facts alleged, taken collectively, give rise to a strong inference of scienter, not whether any individual allegation, scrutinized in isolation, meets that standard.” *Id.* Finally, when “determining whether the pleaded facts give rise to a ‘strong’ inference of scienter, the court must take into account plausible opposing inferences.” *Id.* This “inquiry is inherently comparative.” *Id.* at 2510. A court must compare the malicious and innocent inferences cognizable from the facts pled in the complaint, and only allow the

complaint to survive a motion to dismiss if the malicious inference is at least as compelling as any opposing innocent inference. *See id.* at 2510. *See also Metzler Investment*, 540 F.3d at 1066.

To adequately demonstrate that the “defendant acted with the required state of mind,” a complaint must “allege that the defendants made false or misleading statements either intentionally or with deliberate recklessness.” *Daou*, 411 F.3d at 1014-15 (citing *Silicon Graphics*, 183 F.3d at 974). In *Silicon Graphics*, we defined the “deliberate recklessness” standard, noting that “we continue[] to view it as a form of intentional or knowing misconduct.” 183 F.3d at 976. More specifically, “although facts showing mere recklessness or a motive to commit fraud and opportunity to do so may provide some reasonable inference of intent, they are not sufficient to establish a *strong* inference of deliberate recklessness.” *Id.* at 974. Rather, the plaintiff must plead “a highly unreasonable omission, involving not merely simple, or even inexcusable negligence, but an extreme departure from the standards of ordinary care, and which presents a danger of misleading buyers or sellers that is either known to the defendant or is so obvious that the actor must have been aware of it.” *Id.* at 976 (quoting *Hollinger v. Titan Capital Corp.*, 914 F.2d 1564, 1569 (9th Cir. 1990); *Sundstrand Corp. v. Sun Chem. Corp.*, 553 F.2d 1033, 1045 (7th Cir. 1977)) (quotation marks omitted).

[4] Although we have developed a set of rules to analyze different types of scienter allegations, we recognize that *Tellabs* calls into question a methodology that relies exclusively on a segmented analysis of scienter. We read *Tellabs* to mean that our prior, segmented approach is not sufficient to dismiss an allegation of scienter. Although we have continued to employ the old standards in determining whether, a plaintiff’s allegations of scienter are as cogent or as compelling as an opposing innocent inference, *see, e.g., Metzler Investment*, 540 F.3d at 1065-69, we must also view the allegations as a

whole. See *South Ferry LP, No. 2 v. Killinger*, 542 F.3d 776, 784 (9th Cir. 2008) (“*Tellabs* counsels us to consider the totality of the circumstances, rather than to develop separately rules of thumb for each type of scienter allegation.”). Thus, following *Tellabs*, we will conduct a dual inquiry: first, we will determine whether any of the plaintiff’s allegations, standing alone, are sufficient to create a strong inference of scienter; second, if no individual allegations are sufficient, we will conduct a “holistic” review of the same allegations to determine whether the insufficient allegations combine to create a strong inference of intentional conduct or deliberate recklessness.

B

The SAC relies on several types of factual allegations to plead the requisite intentional or deliberately reckless conduct, including (1) statements of six confidential witnesses, (2) Digimarc’s April 5, 2005 restatement of earnings, (3) the resignations of Ranjit, two members of the accounting department, and the corporation’s auditing firm during the class period, (4) statements made in filing the corporation’s Sarbanes-Oxley certifications, (5) the compensation packages of the individual defendants, (6) the stock sales of the individual defendants occurring during the class period, and (7) a private placement by the corporation during the class period. We address each of these allegations in turn, and then, as *Tellabs* instructs, consider the allegations collectively to determine whether the complaint as a whole raises a strong inference of scienter.

1

Zucco first alleges scienter with respect to Digimarc’s improper capitalization of internal software development costs, including capitalization of the payroll costs of software engineers and other personnel. The SAC contends that Digimarc and its senior management deliberately capitalized inter-

nal software development costs, including payroll costs, that they knew should have been expensed under GAAP. This improper accounting, according to the SAC, occurred when Digimarc capitalized, rather than expensed, internal software development costs for software projects in the “preliminary stage” (where a company is in the process of evaluating alternatives for the software development) and in the “post-implementation/operation stage” (when the company places the software into service). To support this allegation of scienter, the SAC relies primarily on the statements of six confidential witnesses.

According to Confidential Witness # 2 (“CW2”), in early 2003 Digimarc (and CFO Ranjit in particular) “eliminated internal control processes intended to prevent the improper capitalization of payroll expenses.” CW2 states that in early 2003, he was personally instructed by Val Ford, who reported to Ranjit, to “reprogram the time and expense software to eliminate the required supervisor or manager approval of time” and to give administrative assistants in the finance department authority to enter time for software engineers. Moreover, CW2 reports that Confidential Witness # 1 (“CW1”) sent an email to Ranjit about the changes to the time-reporting software, and received in return an email saying “that it was what Ranjit wanted and that he expected CW1 to take care of it.” Confidential Witness # 4 (“CW4”), who worked at the company earlier, recalls that this accounting behavior was typical—specifically, that “decisions about what to capitalize were made either by highly-placed finance employees, or made by corporate-level employees at Digimarc and Digimarc ID Systems.”

Confidential Witness # 3 (“CW3”) indicates that Jennifer Walden, a Digimarc financial analyst, told him/her that Indra Paul, the President of Digimarc’s ID Systems business unit, instructed employees “to assign more payroll time to projects that were at a point where the payroll costs could be capitalized, even if the employee’s time was not spent working on

the projects that were appropriate for capitalization.” Additionally, CW3 states that several unnamed project managers told him/her that they were upset that their time was being assigned improperly, and that this was occurring “merely so that this time could be capitalized and not recognized as expenses, thereby improperly and falsely boosting the Company’s reported income.”

Confidential Witness # 5 (“CW5”) recounts that, following his/her departure from Digimarc, “he/she had discussions with employees who still worked at the Company, and heard that time was being changed and hours reassigned improperly, resulting in more payroll expense being capitalized improperly as assets.” CW5 also reports hearing “once or twice in mid-2003, from finance people,” that some expenses not directly related to a program were being charged to that program. Confidential Witness # 6 (“CW6”) reports he/she “understood that some employees were improperly capitalizing labor on contracts.”

CW1 states that Susan Scacchi, a former ID Systems controller who reported directly to Ranjit, told him/her that, Ranjit once ordered Scacchi to make last-minute journal entries that increased the amount of payroll that would be capitalized. CW1 reports that Scacchi objected, and later left as a result of this incident—and that Martin Day, then Digimarc’s Controller, told CW1 that the journal entries were made despite Scacchi’s objections. CW6, in corroboration, describes how Scacchi worked at Digimarc for only six weeks, and says that Scacchi announced publicly that she was leaving because her supervisors “asked her to do some things she believed were unethical.”

Finally, CW1 reports that Ranjit, at the close of every accounting period, required the IT Department to copy all the data from the corporation’s Great Plains accounting system into spreadsheets, so that management could analyze the data. CW1 asserts that the “real purpose” of this data extraction

was to allow management to determine what “adjustments” were necessary to meet analysts’ expectations.

The SAC also employs confidential witnesses to support its allegations of scienter with respect to Digimarc’s improper capitalization of inventory and fixed assets. According to Zucco, the corporation misrepresented its inventory numbers by (1) using an improperly low “scrap rate” to calculate inventory lost over the relevant period, (2) creating separate Access databases to track inventory that could be manipulated by Digimarc’s officers, (3) booking purchases to projects that would require the purchases to be capitalized, rather than expensed, and (4) leaving obsolete and overvalued inventory on its balance sheet.

The SAC alleges that “Digimarc purchased raw materials that went through several production processes with numerous vendors before [they were] ready for use, and that each production process resulted in a loss of some of the materials being processed.” When accounting for this loss of materials, the SAC contends that the “scrap rate” used to estimate the loss of raw materials was “unreasonably low.” CW1 states that he/she calculated the “correct” scrap rate (60 percent), met with a consultant for the company’s accounting system and Rahoul Banerja (then Digimarc’s ID Systems’ Vice President of Finance), and informed both that “the Company had a problem with ‘seriously overvalued inventory’ ” and that “the Company was not accounting for scrap properly.” CW1 also recalls meeting frequently with senior management to discuss the scrap rate, and sending senior management a detailed email describing why his/her scrap rate was preferable to Digimarc’s current scrap rates (between five and thirty percent).

Second, the SAC alleges that Digimarc set up “databases to track inventory separate from the Company’s Great Plains accounting system,” and then used these databases, rather than the Great Plains system, to record its inventory values at

the end of each quarter. According to CW1 and CW2, Ranjit and others in charge of these separate databases used them to improperly increase the amount of inventory reported by Digimarc. CW1 and CW2 claim that “Ford and other finance department personnel munged [sic] the data in the separate Access databases at the end of the month” to boost its reported income. Also, CW6 reports that Banerjea was “accessing Digimarc’s inventory accounts on his own and manipulating the value of the Company’s inventory.” CW6 recalls that Banerjea met frequently with Ranjit and other management to discuss “the Company’s problems accounting for inventory,” and that Ranjit “had to have known what was going on with respect to the Company’s inventory accounting manipulation.”

According to several confidential witnesses, these Access databases were used despite reassurances from Microsoft (the creator of the Great Plains accounting software) that the Great Plains system was producing accurate numbers. CW1 reports meeting with Ranjit and other senior management several times in Fort Wayne, Indiana, and discussing the inventory valuation and the use of the Great Plains system. CW1 also recounts talking over the telephone with a Microsoft representative about the Great Plains system while Ranjit and Banerjea observed. During this phone conversation, “the Microsoft consultant walked through the process of how the inventory numbers were created in the Great Plains system and confirmed that the numbers were correct.”

The SAC additionally alleges that Digimarc booked purchases of materials “to the wrong project so that the purchases could be capitalized, rather than expensed, thereby improving the Company’s bottom line.” Specifically, CW3 reports that Claudia Rao, a former staff accountant in the ID Systems division, told CW3 that “she was directed by senior management (who were in turn commanded by Defendant Ranjit) to improperly book [materials] purchases in an account for a drivers licence program that was still in the [application

development] stage so that the purchase expense could be capitalized.” Rao also told CW3 that Rao “was never instructed to close out projects with capitalized expenses and therefore the research and development expenses that were being capitalized were improperly accumulating on the Company’s balance sheet.”

Finally, Zucco contends that Digimarc left obsolete and overvalued inventory on its balance sheet, thereby over-reporting the value of inventory Digimarc purportedly owned. According to CW1, who early in 2004 became Director of Supply Chain Management, “the Company had approximately \$2 million in book value of cameras and laminate inventory in its warehouse that was obsolete and substantially overvalued on the Company’s balance sheet.” Also, CW1 states that Digimarc reported \$130,000 of inventory value on its books for worthless laminate inventory that had been shredded. CW1 says he/she was specifically ordered by Ranjit “not to write down obsolete inventory because, according to Ranjit . . . writing down obsolete inventory would result in the Company missing market expectations.”

As we have explained in *Daou*, a complaint relying on statements from confidential witnesses must pass two hurdles to satisfy the PSLRA pleading requirements. First, the confidential witnesses whose statements are introduced to establish scienter must be described with sufficient particularity to establish their reliability and personal knowledge. *Daou*, 411 F.3d at 1015-16 (citing *Nursing Home Pension Fund, Local 144 v. Oracle Corp.*, 380 F.3d 1226, 1233 (9th Cir. 2004); *Silicon Graphics*, 183 F.3d at 985). Second, those statements which are reported by confidential witnesses with sufficient reliability and personal knowledge must themselves be indicative of scienter. *See id.* at 1022.²

²Some circuits have questioned whether *Tellabs* requires a stricter standard for evaluating the sufficiency of securities fraud complaints relying

[5] The first prong of this two-part confidential witness test analyzes whether a complaint has provided sufficient detail about a confidential witness' position within the defendant company to provide a basis for attributing the facts reported by that witness to the witness' personal knowledge. In *Daou*, we explicitly adopted this approach as an amalgam of the "Second Circuit's standard for evaluating personal sources of information" and "the First Circuit's suggested criteria for assessing reliability of confidential witness." 411 F.3d at 1015. Under this approach, therefore, a complaint may rely on confidential witnesses in two situations. Where a complaint relies on both confidential witnesses and other factual information, such as documentary evidence, the plaintiffs " 'need not name their sources as long as the latter facts provide an adequate basis for believing that the defendants' statements were false.' " *Id.* (quoting *Novak v. Kasaks*, 216 F.3d 300, 314 (2d Cir. 2000)).

[6] Where as here, however, such additional evidence is absent, confidential witness statements may only be relied upon where the confidential witnesses are described "with sufficient particularity to support the probability that a person in the position occupied by the source would possess the information alleged." *Id.* (quoting *Novak*, 216 F.3d at 314). Accordingly, the complaint must provide an adequate basis

on confidential witnesses. *See Ind. Elec. Workers Pension Trust Fund IBEW v. Shaw Group, Inc.*, 537 F.3d 527, 535 (5th Cir. 2008) ("Following *Tellabs*, courts must discount allegations from confidential sources."); *Higginbotham v. Baxter Int'l, Inc.*, 495 F.3d 753, 756-57 (7th Cir. 2007) (*Tellabs* requires courts to "discount allegations that the complaint attributes to . . . 'confidential witnesses' " because "it is hard to see how information from anonymous sources could be deemed 'compelling' or how we could take account of plausible opposing inferences" when the confidential witnesses could be lying or nonexistent). Because we conclude the complaint here fails the PSLRA's strong inference requirement even under our standard in *Daou*, we need not decide whether *Tellabs* requires us to further "discount" the use of confidential witness statements.

for determining that the witnesses in question have personal knowledge of the events they report. *Id.* (citing *In re Cabletron Sys., Inc.*, 311 F.3d 11, 29 (1st Cir. 2002)). To determine whether the complaint has done so, we look to “ ‘the level of detail provided by the confidential sources, the corroborative nature of the other facts alleged (including from other sources), the coherence and plausibility of the allegations, the number of sources, the reliability of the sources, and similar indicia.’ ” *Id.* (quoting *Cabletron*, 311 F.3d at 29-30).

Although the SAC describes the confidential witnesses’ job titles and employment information with ample detail to satisfy *Daou*’s requirement that a complaint make apparent a confidential witnesses’ position within the defendant corporation, we conclude that the SAC fails to allege with particularity facts supporting its assumptions that the confidential witnesses were in a position to be personally knowledgeable of the information alleged.

As in *Daou*, the plaintiffs here “describe the confidential witnesses with a large degree of specificity”—the SAC “number[s] each witness and describe[s] his or her job description and responsibilities.” *Id.* at 1016. CW1 is described as “Director of the IT Department of Digimarc’s ID Systems” who “report[ed] directly to . . . Ranjit.” He is alleged to have “worked extensively on Digimarc’s accounting system software” and on Digimarc’s attempt to “track[] and value[] inventory.” CW2 is identified as an anonymous IT employee, who “worked extensively on Digimarc’s implementation of the Great Plains accounting system, and had direct knowledge of how Digimarc accounted for its inventory during the [relevant time period].” CW3 was purportedly a “financial analyst in Digimarc’s ID Systems finance department” who “worked closely with other finance department employees involved in creating forecasts of Digimarc’s financial performance” and “worked extensively attempting to resolve the Company’s serious accounting problems regarding its inventory in 2004.”³

³Although the SAC does not reveal the exact job titles of CW2 and CW3, this is not fatal to the complaint. In *Daou*, we held that plaintiffs

CW4, according to the SAC, was a Human Resources manager until 2002 who reported to John Munday, a former ID Systems President. CW5 was ostensibly the ID Systems Controller who reported to Ranjit from December 2001 until mid-2002. Finally, CW6 was the Vice President of Supply Chain Management at the ID Systems unit from 2002 until early 2005. He was based in Fort Wayne, Indiana, and was “involved in tracking inventory, and purchasing and distribution of materials.” Such descriptions are undoubtedly sufficient under *Daou*.

[7] The SAC, however, does not provide the requisite particularity to establish that certain statements of these confidential witnesses are based on the witnesses’ personal knowledge. *See Cabletron*, 311 F.3d at 30 (validating the confidential source statements in a securities fraud complaint only when they “are not conclusory allegations of fraud, but specific descriptions of the precise means through which it occurred, provided by persons said to have personal knowledge of them”). Some of the confidential witnesses were simply not positioned to know the information alleged, many report only unreliable hearsay, and others allege conclusory assertions of scienter. These allegations are not sufficient to raise a strong inference of scienter because they demonstrate that the confidential witnesses are not reliable. *See Daou*, 411 F.3d at 1015.

Two of the witnesses, CW4 and CW5, were not employed by Digimarc during the time period in question and have only secondhand information about accounting practices at the corporation during that year. CW4 was a human-resources employee who, even while employed at Digimarc, had no firsthand knowledge of the workings of the finance or corpo-

had pled facts sufficient to meet the PSLRA standard when plaintiffs relied on six confidential witnesses described in several cases simply by business department and general duties. *See* 411 F.3d at 1016.

rate departments. He supplies no basis for his claim that “decisions about what to capitalize were made . . . by highly-placed finance employees.” Likewise, although CW5 was the ID Systems Controller for at least six months between 2001 and 2002, and may have had some personal knowledge about the inner workings of Digimarc’s accounting and financial reporting at that time, the only facts he reports to indicate scienter are hearsay statements from anonymous finance personnel employed by Digimarc in mid-2003. The lack of detail in CW5’s allegations (he claims only that sometime in 2003, “some expenses not directly related to a program were charged to that program” and that “[employee] time was being changed,” and fails to provide specifics or dates for these activities) further support the conclusion that CW5’s allegations are not reliable enough to support the SAC’s allegations of scienter. *See Daou*, 411 F.3d at 1015.

A majority of the confidential witnesses base their knowledge on vague hearsay, which is not enough to satisfy *Daou*’s reliability standard.⁴ For example, CW3 reports that Jennifer Walden, a Digimarc financial analyst, told him/her that Indra Paul, the President of Digimarc’s ID Systems business unit, instructed employees “to assign more payroll time to projects that were at a point where the payroll costs could be capitalized, even if the employee’s time was not spent working on

⁴We agree with Zucco that, under the Court’s test in *Tellabs*, which explicitly rejected any standard which would “transpose to the pleading stage the test that is used at the summary judgment and judgment-as-a-matter-of-law stages,” 127 S. Ct. at 2510 n.5 (quotation marks omitted), the fact that a confidential witness reports hearsay does not automatically disqualify his statement from consideration in the scienter calculus. *See Cabletron*, 311 F.3d at 33 (noting that “the rigorous standards for pleading securities fraud do not require a plaintiff to plead evidence.”). However, a hearsay statement, while not automatically precluded from consideration to support allegations of scienter, may indicate that a confidential witnesses’ report is not sufficiently reliable, plausible, or coherent to warrant further consideration under *Daou*. *See Daou*, 411 at 1015 (quoting *Cabletron*, 311 F.3d at 29).

the projects that were appropriate for capitalization.” This triple hearsay, accompanied by no details describing which projects or what employees were affected, is not detailed enough to pass muster under *Daou*. Likewise, CW1’s statement that Susan Scacchi, a former ID Systems controller who reported directly to Ranjit, told him/her that, “at the close of the first quarter of 2003 . . . Ranjit ordered [Scacchi] to make last-minute journal entries that improperly increased the amount of payroll that was capitalized” is based on at least one level of hearsay, and includes no details specifying the nature of these entries. CW1’s additional hearsay statements (that Martin Day, then Digimarc’s Controller, told CW1 that the journal entries were made despite Scacchi’s objections, and that Raoul Banerjea told CW1 that Digimarc had eliminated inventory reserves at the bequest of Ranjit to meet market expectations⁵) are similarly vague and unreliable, as are CW3’s statements that Claudia Rao, a Digimarc staff accountant, told him/her that she was instructed by Ranjit to book purchases “improperly.” Even more unreliable are suggestive statements by several confidential witnesses that some employees were upset about their time being reassigned, that corporate officers “munged” the financial data through separate spreadsheets at the end of each month, and that Banerjea was “accessing Digimarc’s inventory accounts on his own and manipulating the value of the Company’s inventory.” None of these confidential witness statements establishes the witnesses’ personal

⁵It is also notable that despite the many allegations in the SAC relating to Digimarc’s fraudulent use of inventory reserves the corporation did not restate inventory reserves when it formally published its restatement on April 5, 2005. Since we find that Zucco has failed to properly allege scienter, however, we need not also analyze whether the falsity of Zucco’s inventory reserve representations is pled with the requisite particularity. *See Daou*, 411 F.3d at 1014 (“A securities fraud complaint must now ‘specify each statement alleged to have been misleading, the reason or reasons why the statement is misleading, and, if an allegation regarding the statement or omission is made on information and belief, the complaint shall state with particularity all facts on which that belief is formed.’” (quoting *Gompper*, 298 F.3d at 895)).

knowledge or reliability by recounting the particulars of the alleged transgressions.

Finally, several confidential witnesses report only conclusory assertions about the defendants' scienter. We have previously cautioned that such assertions are usually insufficient, standing alone, to adequately allege scienter. *See In re Worlds of Wonder Securities Litigation*, 35 F.3d 1407, 1426-27 (9th Cir. 1994). For example, CW6 claims that Ranjit "had to have known what was going on with respect to the Company's inventory accounting manipulation," and CW3 contends that certain project managers *knew* that the controls on the time-entry system were altered "merely so that this time could be capitalized and not recognized as expenses, thereby improperly and falsely boosting the Company's reported income." These generalized claims about corporate knowledge are not sufficient to create a strong inference of scienter, since they fail to establish that the witness reporting them has reliable personal knowledge of the defendants' mental state.

The few allegations that have the requisite level of particularity to withstand the first prong of the *Daou* confidential witness test fail to demonstrate the deliberate recklessness required to survive the second prong. Instead, these remaining allegations demonstrate only that there was some disagreement within the corporation over its accounting processes, and not that Digimarc's management was deliberately reckless in its capitalization of certain software development costs in violation of GAAP. *See Silicon Graphics*, 183 F.3d at 974.

CW2 recounts that he/she was personally instructed by Ford (and Ranjit) to "re-program the time and expense software to eliminate the required supervisor or manager approval of time" and to allow "administrative assistants working in the finance department [to] enter time for the [software] engineers, rather than having the engineers enter their time directly." But, as the district court concluded, "it is questionable whether it is inherently improper to allow finance personnel

access to the payroll system in order to categorize engineers' time spent on software development as ordinary expenses or capital expenses." *Zucco Partners*, 445 F. Supp. 2d at 1205. There is nothing so necessarily nefarious about a time-entry system supervised by the finance department to suggest that an inference of deliberate recklessness in such a situation is equally as cogent and as compelling as an innocent explanation. Indeed, this allegation demonstrates only "motive and opportunity," which, without more, is not enough to establish a cogent and compelling inference of scienter. *See DSAM Global Value Fund v. Altris Software, Inc.*, 288 F.3d 385, 389 (9th Cir. 2002) (quoting *Silicon Graphics*, 183 F.3d at 974 ("To allege a strong inference of deliberate recklessness, Appellants must state facts that come closer to demonstrating intent, as opposed to mere motive and opportunity.") (internal quotation marks omitted)).

CW1, who was the Director of the IT Department, reports from personal knowledge that Ranjit, at the close of every accounting period, required the IT Department to copy all the data from the corporation's Great Plains accounting system into spreadsheets, so that management could analyze the data. But the existence of the separate databases, which were allegedly used in preparing Digimarc's financials, indicates only motive and opportunity—not scienter. In fact, the SAC supplies facts indicating that management sincerely believed the numbers generated by the Great Plains system were incorrect and wanted to confirm these numbers through the use of separate databases. The SAC describes several meetings wherein Digimarc's management openly questioned the formulae used by the Great Plains system to calculate inventory levels, and at least one telephone call between management and a Microsoft representative to resolve the perceived issues. At best, CW1's account establishes "disagreement and questioning within [Digimarc] about the [accounting numbers]," and fails to demonstrate that "[Digimarc's] external auditors counseled against the practice or that [management] admitted or was aware that [using the separate databases] was improper." *Met-*

zler Investment, 540 F.3d at 1069. This is far from the deliberate, conscious recklessness required for a strong inference of scienter under the PSLRA.

Likewise, the SAC's many specific allegations about improper inventory scrap rates and obsolete inventory only demonstrate disagreement within Digimarc over the proper percentage of raw materials that should have been recorded on its balance sheets. CW1 alleges that his scrap rate of sixty percent was "correctly calculated," but that management at Digimarc refused to implement such a high (or individualized) scrap rate, and instead applied a uniform scrap rate of between five and thirty percent. CW1 specifically recollects sending an email to management about his preferred scrap rates. Mere knowledge of alternative scrap rates, however, or disagreement among employees with regard to the proper scrap rate, is not enough to establish a cogent or compelling scienter allegation—especially where, as here, there is no indication that Digimarc's management acted with deliberate recklessness in choosing the lower uniform scrap rates. Indeed, nothing in the SAC suggests using the chosen scrap rate violated GAAP. *See Metzler Investment*, 540 F.3d at 1069. Likewise, CW1's statements about specific obsolete inventory held within the corporation do not present a cogent and compelling inference of scienter. Obsolete inventory may be retained for a variety of reasons, including to satisfy the repair demands of prior customers.

The lone fact in the SAC reported by a confidential witness that is in any way indicative of scienter is too contradictory to be compelling. CW1 specifically reports that he/she was directly ordered by Ranjit in 2004 "not to write down obsolete inventory because, according to Ranjit . . . writing down obsolete inventory would result in the Company's missing market expectations." Although this statement, considered in isolation, might be enough to demonstrate scienter, it is notable that Digimarc *did* write down significant amounts of obsolete inventory in 2004. CW1's statement, therefore, is simply

incongruous with Digimarc's public actions alleged in the complaint. As we have recently noted, "a plaintiff cannot avoid dismissal by reliance on an isolated statement that stands in contrast to a host of other insufficient allegations." *Metzler Investment*, 540 F.3d at 1069. Especially as here, where a single statement indicative of scienter is contradicted by readily available physical evidence, it is impossible to conclude that the statement creates an inference of scienter sufficiently cogent or compelling to survive under *Tellabs*.

[8] As a whole, the SAC's plethora of confidential witness statements fail to create an inference of scienter more cogent or compelling than an alternative innocent inference. *Tellabs*, 127 S. Ct. at 2510. The complaint's only specific allegation that could be used to infer scienter (that Ranjit ordered CW1 to write-down inventory) is contradicted by other physical evidence. The remaining confidential witness statements are either not indicative of scienter or so vague and of such unreliable origin as to be unpersuasive.

2

In addition to the number of confidential witnesses Zucco relies upon in its Second Amended Complaint, it also contends that certain of Digimarc's public actions support an inference of scienter—first among which is the issuance of the restatement of earnings on April 5, 2005.

In general, the mere publication of a restatement is not enough to create a strong inference of scienter. In particular, we have previously found inadequate complaints alleging that "facts critical to a business's core operations or an important transaction generally are so apparent that their knowledge may be attributed to the company and its key officers." *In re Read-Rite Corp. Sec. Litig.*, 335 F.3d 843, 848 (9th Cir. 2003) (quotation and emphasis omitted). *See also DSAM Global Value Fund*, 288 F.3d at 390 ("Thus, mere allegations that an

accountant negligently failed to closely review files or follow GAAP cannot raise a strong inference of scienter.”).

Recently, however, we have recognized two exceptions to this general rule, and have found bare allegations of falsely reported information probative under certain narrow conditions. *See South Ferry*, 542 F.3d at 785 (summarizing the exceptions). Specifically, falsity may itself be indicative of scienter where it is combined with “allegations regarding a management’s role in the company” that are “particular and suggest that the defendant had actual access to the disputed information,” and where “the nature of the relevant fact is of such prominence that it would be ‘absurd’ to suggest that management was without knowledge of the matter.” *Id.* at 786 (quotation marks and citation omitted).

[9] The first exception permits general allegations about “management’s role in a corporate structure and the importance of the corporate information about which management made false or misleading statements” to create a strong inference of scienter when these allegations are buttressed with “detailed and specific allegations about management’s exposure to factual information within the company.” *Id.* at 785. To satisfy this standard, plaintiffs might include in their complaint “specific admissions from top executives that they are involved in every detail of the company and that they monitored portions of the company’s database,” *id.* (quoting *Daou*, 411 F.3d at 1022-23), a specific admission from a top executive that “[w]e know exactly how much we have sold in the last hour around the world,” *id.* (quoting *Nursing Home*, 380 F.3d at 1231), or other particular “details about the defendants’ access to information within the company.” *Id.*

[10] The SAC fails to allege such particular details. Although the SAC includes allegations that senior management (and Ranjit, in particular) closely reviewed the accounting numbers generated by Digimarc each quarter (through the use of the Access databases), and that top executives had sev-

eral meetings in which they discussed quarterly inventory numbers, this is not enough to satisfy the narrow exception to *Read-Rite*. Allegations that Digimarc's management had access to the purportedly manipulated quarterly accounting numbers, or that the management analyzed the inventory numbers closely, do not support the inference that management was in a position to know that such data was being manipulated. Nothing in the complaint suggests that Ranjit had access to the underlying information from which the accounting numbers were derived.

[11] The second exception to *Read-Rite* permits an inference of scienter where the information misrepresented is readily apparent to the defendant corporation's senior management. Where the defendants "must have known" about the falsity of the information they were providing to the public because the falsity of the information was obvious from the operations of the company, the defendants' awareness of the information's falsity can be assumed. *See Berson v. Applied Signal Tech., Inc.*, 527 F.3d 982, 987-89 (9th Cir. 2008). Nevertheless, reporting false information will only be indicative of scienter where the falsity is patently obvious—where the "facts [are] prominent enough that it would be 'absurd to suggest' that top management was unaware of them." *Id.* at 989 (quoting *America West*, 320 F.3d at 943 n.21). In *Berson* we found that the defendant company's misrepresentation of the status of stop-work orders was enough to infer scienter when the four stop-work orders had respectively "halted between \$10 and \$15 million of work on the company's largest contract with one of its most important customers," "halted \$8 million of work," "caused the company to reassign 50-75 employees," and "required [Defendant] to complete massive volumes of paperwork." *See id.* at 988 n.5 (quotation marks omitted).

[12] In this case, unlike in *Berson*, the alleged misrepresentations do not concern especially prominent facts. In particular, Digimarc admitted in its restatement that "certain costs

had been erroneously capitalized because either a portion of such costs did not qualify for capitalization (e.g., costs related to the preliminary or post-implementation stages [of a software project]) or the project itself did not qualify as internal-use software (e.g., costs related to a non-software project).” Because these misrepresentations are largely definitional, the falsity of the original representations would not be immediately obvious to corporate management. For example, management would have to be aware that a software development project had reached the “post-implementation” stage or that computer engineers were working on software that did not qualify for “internal use.” There is no indication that the differences between the “preliminary project” stage, the “application development” stage, and the “post-implementation” stage of a software project would be operationally visible to executives not intimately connected with the development process and GAAP’s definitions. Although the difference between an “internal software project” and a more general research and development software project might be slightly more apparent to the lay observer, some research and development projects might be closely integrated with software development. In any case, there is no indication that the reclassification of a development project along these lines would, as in *Berson*, “cause [Digimarc] to reassign 50-75 employees” or “complete a massive volume of paperwork.” *Id.* These misrepresentations are not the type that qualifies for the narrow exception to the general rule that falsity alone cannot create a strong inference of scienter.

3

Zucco also claims that the resignation of several members of Digimarc’s financial department can be used to infer scienter. The SAC points to the resignation of (1) Digimarc’s CFO Ranjit, in early 2004, (2) two Digimarc controllers (Scacchi, after only six weeks of work, and Diana King, in late 2003); and (3) KPMG as Digimarc’s independent accounting firm on June 14, 2005, shortly after the restate-

ment was issued as evidence that Digimarc was conscious of the accounting misrepresentations.

[13] Although resignations, terminations, and other allegations of corporate reshuffling may in some circumstances be indicative of scienter, the resignations at issue here are not so numerous or suspicious as to raise such an inference. Where a resignation occurs slightly before or after the defendant corporation issues a restatement, a plaintiff must plead facts refuting the reasonable assumption that the resignation occurred as a result of restatement's issuance itself in order for a resignation to be strongly indicative of scienter. *See, e.g., In re U.S. Aggregates, Inc. Sec. Litig.*, 235 F. Supp. 2d 1063, 1074 (N.D. Cal. 2002) ("Plaintiff can point to no particularized allegation refuting the reasonable assumption that [defendant's employee] was fired simply because the errors that lead to the restatement occurred on his watch or because he failed adequately to supervise his department."). Here, the resignation of KPMG as Digimarc's independent accounting firm a month after the restatement was issued is not surprising—it had just been partially responsible for the corporation's failure to adequately control its accounting procedures. This is not enough to support a strong inference of scienter.

For other resignations occurring during the relevant time period, a plaintiff must allege sufficient information to differentiate between a suspicious change in personnel and a benign one. Mere conclusory allegations that a financial manager resigns or retires during the class period or shortly before the corporation issues its restatement, without more, cannot support a strong inference of scienter. *Cf. Silicon Graphics*, 183 F.3d at 986 (holding that stock sales of individual defendants are only indicative of scienter where they are "dramatically out of line with prior trading practices" (quoting *In re Apple Computer Sec. Litig.*, 886 F.2d 1109, 1117 (9th Cir. 1989))). Absent allegations that the resignation at issue was uncharacteristic when compared to the defendant's typical hiring and termination patterns or was accompanied by suspicious cir-

cumstances, the inference that the defendant corporation forced certain employees to resign because of its knowledge of the employee's role in the fraudulent representations will never be as cogent or as compelling as the inference that the employees resigned or were terminated for unrelated personal or business reasons.

In this case, the SAC alleges that Digimarc's CFO Ranjit retired "just prior to the disclosure of Digimarc's improper accounting and lack of financial controls during his tenure." The complaint does not indicate whether Ranjit was nearing retirement age, whether he left to pursue other opportunities, or even the length of his tenure. Thus the bare fact of Ranjit's retirement cannot support Zucco's allegations of scienter. Similarly, the SAC's allegations that Scacchi and King (two Digimarc controllers) resigned during the class period are not enough, absent particular facts about Digimarc's hiring and firing of controllers during the class period, to create a compelling inference of scienter. Although Zucco contends that both left because they believed management was unethical, these accounts are based on vague hearsay allegations and are not specific enough to extract a strong inference of scienter from otherwise mundane turnover in the corporation's financial department.

4

The SAC also alleges that boilerplate Sarbanes-Oxley certifications signed by the individual defendants, Davis and Ranjit, are strongly indicative of scienter. Specifically, pursuant to section 302(a) of the Sarbanes-Oxley Act, a company's "principal executive officer or officers and the principal financial officer or officers" must certify the accuracy and reliability of its quarterly financial reports. *See* 15 U.S.C. § 7241(a). A signing officer must certify that he has reviewed the report, that based on his knowledge the report "does not contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements made . . . not

misleading,” and that the report and any information included within the report “fairly present in all material respects the financial condition and results of operations of the issuer” 15 U.S.C. § 7241(a)(1), (2), (3). Moreover, the officer must certify that he is “responsible for establishing and maintaining internal controls,” 15 U.S.C. § 7241(a)(4)(A), and that he has “evaluated the effectiveness of the issuer’s internal controls” within the past ninety days and has “presented in the report [his] conclusions about the effectiveness of [the corporation’s] internal controls based on [his] evaluation as of that date.” 15 U.S.C. § 7241 (a)(4)(B)-(D). Zucco alleges that compliance with section 302(a)—and in particular, specific language in Digimarc’s “Controls and Procedures” section of its Form 10-Q for the second quarter of 2003 announcing its compliance with that section—is indicative of scienter.⁶

The SAC alleges that the following language in the “controls and procedures” section of Digimarc’s Form 10-Q for the second quarter of 2003, certified by Davis and Ranjit, can raise an inference of scienter:

As of June 30, 2003 our management evaluated, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, the effectiveness of the design and operation

⁶Zucco also erroneously alleges that the omission of certain language in Digimarc’s March 31, 2004 10-Q, which was present in its March 31, 2003 10-Q, is indicative of scienter. The language in question read:

The registrant’s other certifying officer and I have indicated in this quarterly report *whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls* subsequent to the date of our most recent evaluation . . .

As the district court correctly pointed out, however, this language was omitted from subsequent certifications by governmental mandate (through amendments to the SEC rules which became effective August 14, 2003). Thus, the changes cannot be indicative of scienter. *See Zucco Partners*, 445 F. Supp. 2d at 1208-09.

of our disclosure controls and procedures. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures are effective in timely alerting them to material information required to be included in this report. Our management also evaluated, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, any change that occurred in our internal control over financial reporting during the fiscal quarter ended June 30, 2003. No such change materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Although this language is mandated by the Securities and Exchange Commission, Zucco argues that at least one district court, *see In re Lattice Semiconductor Corp. Sec. Litig.*, No. CV04-1255-AA, 2006 WL 538756, at *18 (D. Or. Jan. 3, 2006), has held that such language gives rise to a strong inference of scienter (once the language's falsity is shown).

[14] Boilerplate language in a corporation's 10-K form, or required certifications under Sarbanes-Oxley section 302(a), however, add nothing substantial to the scienter calculus. Our sister circuits to rule on such questions have unanimously agreed that allowing Sarbanes-Oxley certifications to create an inference of scienter in "every case where there was an accounting error or auditing mistake made by a publicly traded company" would "eviscerat[e] the pleading requirements for scienter set forth in the PSLRA." *Garfield v. NDC Health Corp.*, 466 F.3d 1255, 1266 (11th Cir. 2006); *accord In re Ceridian Corp. Sec. Litig.*, 542 F.3d 240, 248 (8th Cir. 2008); *Ind. Elec. Workers' Pension Trust Fund IBEW v. Shaw Group, Inc.*, 537 F.3d 527, 545 (5th Cir. 2008); *Central Laborers' Pension Fund v. Integrated Elec. Servs. Inc.*, 497 F.3d 546, 555 (5th Cir. 2007). We have recently joined these circuits and have ruled that "Sarbanes-Oxley certifications are not sufficient, without more, to raise a strong inference of

scienter.” *Glazer Capital Mgmt., LP v. Magistri*, ___ F.3d ___, No. 06-16899, 2008 WL 5003306 at *9 (9th Cir. Nov. 26, 2008). Thus, we reject Zucco’s invitation to undermine the PSLRA’s distinct requirements for pleading falsity and scienter, and hold that Zucco’s Sarbanes-Oxley certifications are not enough to create a strong inference of scienter and do not make Zucco’s otherwise insufficient allegations more compelling by their presence in the same complaint.

5

The SAC additionally alleges that Davis’ and Ranjit’s executive compensation packages, which included significant bonuses tied to Digimarc’s financial performance, are indicative of scienter because they demonstrate that the individual defendants had a pecuniary motive to inflate the corporation’s financial performance. In particular, the SAC notes that Davis’ compensation was being evaluated during the class period, that his bonus was “based in part on Digimarc’s ‘operating profit,’ ” and that based on the financial results reported in 2003, Davis received a bonus of \$113,000. Zucco’s complaint also alleges that Davis and Ranjit were rewarded for Digimarc’s 2003 financial performance with substantial stock option grants: specifically, on January 2, 2004, Digimarc granted Davis 110,000 stock options and Ranjit 25,000 stock options (which effectively doubled the amount of shares Ranjit beneficially owned).

A strong correlation between financial results and stock options or cash bonuses for individual defendants may occasionally be compelling enough to support an inference of scienter. *See America West*, 320 F.3d at 944. In *America West*, we noted that because “none of the [defendant’s] executive officers received options awards in 1997 . . . [but defendant] awarded [thousands of options to executive officers] in March 1998 [for performance allegedly increased by misrepresentations] . . . a strong inference of scienter can be inferred from Plaintiffs’ allegations.” *Id.*; *see also Tellabs*, 127 S. Ct.

at 2511 (“[P]ersonal financial gain may weigh heavily in favor of a scienter inference.”).

Zucco, however, has failed to provide the particularity we found persuasive in *America West*. Although Zucco’s SAC alleges that Davis and Ranjit received bonuses and stock option grants in part based on Digimarc’s financial performance, there is no allegation indicating how intimately the bonuses were tied to the company’s financials. In *America West*, we found it significant that the individual defendants’ compensation was based “principally” on the defendant company’s financial performance. 320 F.3d at 944. The complaint at issue in *America West* established this fact by comparison of the individual defendants’ prior year’s compensation with the year in question, noting that while “none of the executive officers received option awards in 1997 for the previous year,” in the year in question “America West awarded Franke 350,000 options . . . [and] awarded 110,000 options to Goodman, 35,000 options to Parker, and 20,000 options to Garel in March 1998.” *Id.*

[15] Here, Zucco’s SAC makes only the bare assertion that executive-level bonuses were “based in part” on Digimarc’s financial performance—the complaint fails to provide specifically, with comparisons to prior years bonuses, the correlation between Davis’ and Ranjit’s compensation and Digimarc’s bottom line. Such “generalized assertions of motive, without more, are inadequate to meet the heightened pleading requirements of *Silicon Graphics*” and *Tellabs. Lipton v. Pathogenesis Corp.*, 284 F.3d 1027, 1038 (9th Cir. 2002). If simple allegations of pecuniary motive were enough to establish scienter, “virtually every company in the United States that experiences a downturn in stock price could be forced to defend securities fraud actions.” *Id.* (quoting *Acito v. IMC-ERA Group, Inc.*, 47 F.3d 47, 54 (2d Cir. 1995).

Next, Zucco alleges that the individual defendants’ stock sales during the class period are strongly indicative of

scienter. The SAC notes several sales during the class period, alleging that Davis sold approximately 4.5% and Ranjit sold approximately 48% of their “total personal Digimarc stock holdings, including options,” during the period between May 23, 2003 and May 4, 2004. During this period, according to the SAC, Davis sold 38,750 shares of stock for a total of \$610,375.00, and Ranjit sold 30,000 shares of stock for a total of \$392,750.00. The SAC also alleges that Davis sold a substantially greater percentage of his stock options that were “in the money” during the class period (those exercisable options that had a stock price above the market price of Digimarc’s stock).

As we have previously articulated, “[a]lthough ‘unusual’ or ‘suspicious’ stock sales by corporate insiders may constitute circumstantial evidence of scienter, insider trading is suspicious only when it is ‘dramatically out of line with prior trading practices at times calculated to maximize the personal benefit from undisclosed inside information.’” *Silicon Graphics*, 183 F.3d at 986 (citing *Apple Computer*, 886 F.2d at 1117) (internal citation and quotation marks omitted). Among three factors that must be considered to determine whether stock sales raise a strong inference of deliberate recklessness are: “(1) the amount and percentage of shares sold by insiders; (2) the timing of the sales; and (3) whether the sales were consistent with the insider’s prior trading history.” *Id.* at 986.

[16] As the district court correctly noted, the SAC “fail[s] to provide any information on the trading history of Davis or Ranjit for purposes of comparison to the stock sales at issue.” *Zucco Partners*, 445 F. Supp. 2d at 1210. For individual defendants’ stock sales to raise an inference of scienter, plaintiffs must provide a “meaningful trading history” for purposes of comparison to the stock sales within the class period. *See In re Vantive Corp. Sec. Litig.*, 283 F.3d 1079, 1095-96 (9th Cir. 2002). Even if the defendant’s trading history is simply not available, for reasons beyond a plaintiff’s control, the

plaintiff is not excused from pleading the relevant history. *See id.* at 1095 (noting that “[b]ecause [the defendant] joined Van-tive four months into the class period, he has no relevant trading history,” and thus finding that “[b]ecause [the defendant] had no trading history, we cannot conclude that his trades were out of line with his past practice”); *Ronconi*, 253 F.3d at 435-36; *Silicon Graphics*, 183 F.3d at 987-88 (rejecting an inference of scienter when a defendant sold over 75.3 percent of stock holdings during the class period, because the defendant was “legally forbidden to trade” for a long period before the class period and thus had no meaningful trading history). There is no indication that *Tellabs* has altered our pleading standard based on suspicious stock sales. *See Metzler Investment*, 540 F.3d at 1066-67 (reaffirming the tripartite *Silicon Graphics* test after *Tellabs*). Thus, since there is no allegation within the SAC that Davis and Ranjit’s stock sales, though significant, are inconsistent with their usual trading patterns, no inference of scienter can be gleaned from Zucco’s stock sale assertions.

7

[17] Similarly, the SAC’s allegations about Digimarc’s private placement of stock during the class period do not contain enough relevant comparative history to create a strong inference of scienter. Zucco alleges that on August 25, 2003, Digimarc “completed a private placement offering whereby it sold 1,785,996 units to institutional and accredited investors, raising net proceeds of \$23.5 million for Digimarc.” Each unit included one share of stock and a warrant to purchase 0.15 shares of common stock at an exercise price of \$14 per share.

Although “corporate acquisitions” may, when combined with “specific allegations of deliberate accounting misfeasance,” create a strong inference of scienter, *see Daou*, 411 F.3d at 1024, mere generalized assertions about “routine business objectives, without more” cannot support such an inference. *See Lipton*, 284 F.3d at 1038. To create a strong

inference of scienter, therefore, the corporate stock sales must be significant enough and uncharacteristic enough to cast doubt on the defendant company's motives. In *Daou*, for example, we held that a company's *eleven* stock-funded acquisitions during the class period were at least partially indicative of scienter where the company "exchang[ed] over 6.6 million shares" of its stock and, if the stock had been properly valued, would have been required to exchange 19,642,865 more shares of its stock to accomplish the same purpose. 411 F.3d at 1023-24. The stock placement in this case is far less disproportionate than in *Daou*. Moreover, Zucco has failed to allege that the Digimarc's stock placement was in any way inconsistent with the corporation's traditional business practices. See *Silicon Graphics*, 183 F.3d at 986. Thus, the SAC's allegations about Digimarc's private placement do not create a strong inference of scienter.

C

Although none of the SAC's allegations of scienter is individually cogent or compelling enough to survive under the PSLRA, we must also "consider the complaint in its entirety" to determine whether "*all* of the facts alleged, taken collectively, give rise to a strong inference of scienter." *Tellabs*, 127 S. Ct. at 2509. As we have recently articulated, "*Tellabs* permits a series of less precise allegations to be read together to meet the PSLRA requirement." *South Ferry*, 542 F.3d at 784. Accordingly, even "[v]ague or ambiguous allegations are now properly considered as a part of a holistic review when considering whether the complaint raises a strong inference of scienter." *Id.* When conducting this holistic review, however, we must also "take into account plausible opposing inferences" that could weigh against a finding of scienter. *Tellabs*, 127 S. Ct. at 2509. Even if a set of allegations may create an inference of scienter greater than the sum of its parts, it must still be more compelling than an alternative innocent explanation.

[18] Although the allegations in this case are legion, even together they are not as cogent or compelling as a plausible alternative inference—namely, that although Digimarc was experiencing problems controlling and updating its accounting and inventory tracking practices, there was no specific intent to fabricate the accounting misstatements at issue here. Instead, the facts alleged by Zucco point towards the conclusion that Digimarc was simply overwhelmed with integrating a large new division into its existing business. The SAC notes that Digimarc in 2001 significantly expanded the scope of its business by acquiring its ID Systems unit from Polaroid. This acquisition eventually mandated the integration of several accounting systems into the new Great Plains system. As the SAC reports, Digimarc’s 2004 Form 10-K admitted that this integration resulted in problems including inadequate training of personnel in the new Great Plains system, duplicate recording of purchases, and other classification errors. It is more plausible that Digimarc’s management was unable to control the accounting processes within the corporation during this integration than that it was systematically using accounting manipulations to make the company seem slightly more financially successful. As a result, we hold that the district court did not err when it dismissed Zucco’s Second Amended Complaint for failure to sufficiently allege scienter under Federal Rule of Civil Procedure 9(b) and the PSLRA.

III

Because the district court dismissed the complaint with prejudice, we must finally consider whether the district court abused its discretion in refusing to grant Zucco leave to amend its complaint. *See Gompper*, 298 F.3d at 898. Under Federal Rule of Civil Procedure 15(a)(2), federal courts are instructed to “freely give leave [to amend] when justice so requires.” A district court, however, may in its discretion deny leave to amend “due to ‘undue delay, bad faith or dilatory motive on the part of the movant, repeated failure to cure deficiencies by amendments previously allowed, undue prejudice

to the opposing party by virtue of allowance of the amendment, [and] futility of amendment.’ ” *Leadsinger, Inc. v. BMG Music Publ’g*, 512 F.3d 522, 532 (9th Cir. 2008) (quoting *Foman v. Davis*, 371 U.S. 178, 182 (1962)). Since the district court determined that any attempt to amend would be futile, “we will affirm the district court’s dismissal on this basis if it is clear, upon *de novo* review, that the complaint could not be saved by any amendment.” *Id.* (quotation marks and citation omitted). As here, where the plaintiff has previously been granted leave to amend and has subsequently failed to add the requisite particularity to its claims, “[t]he district court’s discretion to deny leave to amend is particularly broad.” *Read-Rite*, 335 F.3d at 845 (quoting *Vantive*, 283 F.3d at 1097-98).

[19] The district court, when dismissing the First Amended Complaint, held that Zucco had failed to satisfy the scienter requirements of the PSLRA with respect to its allegations based on confidential witness statements and stock sales. The fact that Zucco failed to correct these deficiencies in its Second Amended Complaint is “a strong indication that the plaintiffs have no additional facts to plead.” *Vantive*, 283 F.3d at 1098. Accordingly, the district court did not err when it dismissed the SAC with prejudice, since it was clear that the plaintiffs had made their best case and had been found wanting. *See Metzler Investment*, 540 F.3d at 1072 (upholding a dismissal with prejudice where, *inter alia*, the deficiencies at issue “persisted in every prior iteration of the [complaint]”).

IV

The allegations of scienter in the SAC, though voluminous, are not pled with the particularity required to survive a Federal Rule of Civil Procedure 12(b)(6) dismissal under the standards enumerated in Federal Rule of Civil Procedure 9(b) and the PSLRA. Instead, the plaintiffs in this case assume that compiling a large quantity of otherwise questionable allegations will create a strong inference of scienter through the complaint’s emergent properties. Although *Tellabs* instructs

us to view such compilations holistically, even such a comprehensive perspective of Zucco's complaint cannot transform a series of inadequate allegations into a viable inference of scienter. We therefore affirm the district court's dismissal of the Second Amended Complaint with prejudice.

AFFIRMED.