I. Introduction

Inventorship of a patent is central to the United States patent system. It identifies who conceived the invention and, if incorrect, jeopardizes the validity of the patent. Today, where collaborative research among a variety of entities is common, it is increasingly typical to have more than one inventor contributing to the patented invention, escalating the burden of identifying all proper inventors. This collaborative environment changes the landscape of protecting clients’ patent rights, in both patent applications and issued patents as well as the attendant assignment and license agreements that define clients’ patent ownership rights.

This paper first describes the differences between patent inventorship and ownership and then focuses on inventorship errors, how they arise, how they can be corrected, and the practical consequences of inventorship errors that occur regardless of whether those errors can be corrected or not.

II. Ownership v. Inventorship

A. The Difference Between Ownership and Inventorship

Inventorship and ownership are separate and distinct concepts. Inventorship arises from the conception of an invention. An “inventor” is a natural person who formulates a “definite and permanent idea” of the claimed invention as it is thereafter reduced to practice.1 There can be several joint inventors so long as each contributes to the conception of the claimed invention. 2 An inventor cannot be a corporation or any other business entity, an assignee, the supervisor or manager of the inventor(s), or one who merely reduces the invention to practice, carries out the inventor(s)’ instructions, or merely discovers (but does not solve) a problem.

Patent ownership, on the other hand, is derived from fundamental property law and follows inventorship. Ownership of a patent or patent application “initially vests in the named inventors of the invention of the patent,” or the inventor is considered the owner unless and until he transfers his interest to another.3 Only the inventor and/or those who derive title from the

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1 MPEP § 2138.04.
3 MPEP § 301 (citing Beech Aircraft Corp. v. EDO Corp., 990 F.2d 1237, 1248 (Fed. Cir. 1993)). See also 37 C.F.R. § 3.73(a) (“The inventor is presumed to be the owner of a patent application, and any patent that may issue therefrom . . . .”).
inventor may own a patent or patent application. An owner may be a natural person or a business or government entity, and as with inventors, there may be several joint owners.

As a default rule, a patent attorney or agent is neither an inventor nor an owner. While drafting a patent application and/or maintaining a patent through the United States Patent & Trademark Office requires intimate knowledge and understanding of the invention at hand, it does not rise to the level of an inventive contribution. In Solomon v. Kimberly-Clark Corp., an alleged infringer attempted to invalidate a patent under 35 U.S.C. 102(f) for incorrect inventorship, claiming the patent attorney was the true inventor. The Federal Circuit ostensibly concluded that, as a matter of law, a patent attorney can never be an inventor in a patent he is prosecuting. This is because a patent attorney’s role is to help his client define its invention to obtain maximum patent coverage, a role that should not force the patent attorney to compete with the client or force it to assert inventorship as a result of representing the client. As for patent ownership, a patent attorney may receive a reasonable contingent interest in the patent as payment for his services. Absent such an agreement, however, the patent attorney has no ownership interest in the patent.

B. Transfer of Patent Ownership Rights

Generally, patent ownership rights are transferred contractually through a patent assignment agreement. For example, employment agreements often contain intellectual property assignment provisions. Employers acquire ownership rights in their employees’ patentable work product through these express assignments, not through the mere existence of the employer/employee relationship. Because an individual inventor may only assign his own interest, assignment by a single joint inventor renders a subsequent assignee a partial assignee, or joint owner. Likewise, a partial assignee may only assign the interest it holds, making a subsequent assignee a joint owner, and so on.

There are two instances in which patent rights may transfer by operation of law, rather than through express agreement. First, under the “hired to invent” doctrine, a hiring party will own the rights to an invention without an express assignment agreement if the inventor was “hired to invent” the invention at issue. This concept is often confused with the situation in which an employee invents an invention within the scope of his employment, even though the employee was not actually hired to invent anything at all, or more specifically, was not hired to invent the specific invention at issue.

An example exists in a lab technician hired to calibrate sensitive laboratory equipment. The technician’s work requires him to use existing equipment and apply known testing methods.

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5 Id.
6 37 C.F.R. § 10.64.
7 35 U.S.C. § 261 (stating that patents have the attributes of personal property and that interests in patents or patent applications are assignable by an instrument in writing).
8 MPEP § 301.
9 See Wommack v. Durham Pecan Co., Inc., 715 F.2d 962, 965 (5th Cir. 1983).
and generally requires nothing inventive. During the course of his employment, the technician invents an improvement to the calibration device. Because he was not specifically hired to invent anything, or in particular, because he was not hired to improve upon the existing calibration device, it is likely that the employer cannot obtain ownership rights in the improved device. Compare this to the situation in which the company hires an engineer to design an improvement to an inadequate calibration device. Because hired-to-invent issues are murky, it is best that employers contractually secure patent ownership rights.

Second, if an employee invents on company time and with company resources, the company retains “shop rights” in the invention. While the employer does not receive an assignment of patent rights and ownership of the patent belongs to the employee, the employer does retain a nontransferable, nonexclusive license to practice the invention royalty-free.¹⁰

C. Rights of Joint Owners

Joint owners of a patent (whether by way of inventorship or assignment) are at each other’s mercy. Unless otherwise agreed, they have equal, undivided rights to “make, use, offer to sell, or sell the patented invention within the United States, or import the patented invention into the United States, without the consent of and without accounting to the other owners.”¹¹ Regardless of the magnitude of each inventor’s inventive contribution, each owner may assign or license its rights in the invention without the consent of, or providing an accounting to, the other joint owners. Further, joint owners are considered indispensable parties to an infringement suit. If a joint inventor wants to sue an alleged infringer, it cannot do so unless all co-inventors voluntarily join in the suit.¹² Needless to say, express contracts are necessary to properly allocate patent rights when owners do not agree to share them equally.

III. Errors in Inventorship

A. How Inventorship Errors Arise

When a patent application misstates or excludes an inventor, both the application and the patent issuing therefrom contain inventorship errors in the form of nonjoinder, misjoinder, or a combination of both:

• Nonjoinder

  o A is named, but A and B are joint inventors.

• Misjoinder

  o A and B are named, but A is the sole inventor.

¹⁰ E.g., Wommack v. Durham Pecan Co., Inc., 715 F.2d 962, 965 (5th Cir. 1983); 8-22 CHISUM ON PATENTS § 22.03[3].
¹² Ethicon, Inc. v. United States Surgical Corp., 135 F.3d 1456, 1468 (Fed. Cir. 1998); Bendix Aviation Corp. v. Cury, 88 F. Supp. 243, 247-48 (E.D.N.Y. 1950) (requiring joinder of a joint owner because he was an indispensable party to the action); see also FED. R. CIV. P. 19(a-b) (joinder of necessary and indispensable parties).
• Combination of nonjoinder and misjoinder
  - A is named, but B is the true inventor.
  - A and B are named, but A and C are the true inventors.
  - A and B are named, but C and D are the true inventors.

Errors in patent inventorship typically arise in one of two ways. First, and most easily avoided, are errors that arise when the client is relatively unsophisticated and the patent attorney or agent is asleep at the wheel. Clients unfamiliar with patent law are naturally unaware of the strict inventorship requirements. These clients, without guidance from their patent attorneys, may gloss over inventorship issues without recognizing their importance. Thus, patent professionals must educate their clients and be diligent in identifying the true inventor or inventors before filing the patent application. Well placed questions regarding who did, and who did not, contribute to the invention will either confirm that inventorship is clearly defined or put the attorney or agent on notice of inventorship issues to resolve before filing. Patent attorneys and agents must never assume that their client contact, who may be a knowledgeable project manager, marketing associate, or engineering supervisor, is the sole inventor or even an inventor at all. Obviously, if the attorney’s probing reveals that inventorship is convoluted, he must take steps to discover the true inventors as well as address the contractual allocation of their patent rights.

Second are errors resulting from collaborative research and development. Collaborative research is common within and between both public and private entities and often involves several individuals working in numerous geographical locations to solve a problem or produce a potentially patentable invention. Because it can be difficult to determine who qualifies as an inventor, and because researchers commonly are uneducated regarding patent law, inventorship disputes frequently arise from collaborative research.

Monetary and reputational benefits are often derived from being listed as an inventor, so researchers do not always differentiate between a contribution to the conception of the invention and something less, such as a contribution that warrants authorship in a technical journal or merely recognizing a technical problem to be solved. There can also be a tendency to name individuals as inventors out of respect or deference to their position within the company, rather than because a person contributed to the conception of the invention. On the other hand, true inventors are sometimes inadvertently excluded because their contributions occurred early on in a long and complicated development process or because they were overlooked among the many contributors. Worse, true inventors are sometimes deceptively excluded for monetary, business, political, or even personal reasons.

Correct inventorship is a cornerstone of conscientiously protecting the client’s patent rights because inventorship errors in an application or patent are often reflected in the client’s collaboration/assignment agreements. Because these attendant agreements are crucial for full protection, patent assignees seeking to own patent rights in inventions arising from the collaborative research of their employees need collaboration/assignment agreements that are mindful of all possible contributors and that specifically define ownership of any inventions that
arise from the collaboration. This is because later corrected inventorship errors, while maintaining the validity of the patent itself, will not convey patent rights to the assignee as discussed above.

B. Correcting Inventorship Errors

If and when inventorship errors in an application or issued patent do occur, they can generally be corrected if they occurred without deceptive intent. Because ownership and inventorship are separate concepts, however, an error in inventorship cannot be cured through a transfer of ownership, or through assignment to the true inventor(s). If correctable, errors in inventorship must be corrected through the processes set forth in the Patent Act.

1. Correcting Errors in Patent Applications

Section 116 of the Patent Act allows for the correction of good faith inventorship errors in patent applications. Rule 48 of the Code of Federal Regulations sets forth five requirements to correct inventorship under Section 116: (1) a request to correct inventorship that sets forth the desired inventorship change; (2) a statement from each person being added or deleted as an inventor that the error occurred without deceptive intent on his or her part; (3) an oath or declaration by the actual inventor or inventors; (4) a processing fee; and (5) the written consent of any assignees.

Alternatively, applicants may file a continuation application with a new oath signed by the correct inventors and expressly abandon the earlier application.

2. Correcting Errors in Issued Patents

Section 256 addresses correction of inventorship errors in issued patents. As with Section 116, the PTO has set forth requirements for the correction of an issued patent in Rule 324, which requires a petition to correct inventorship to the PTO accompanied by (1) a statement from each person added that the error occurred without deceptive intent on his or her part; (2) a statement from the named inventors either agreeing to the change or stating that they have no disagreement with it; (3) a statement of agreement from all assignees; and (5) a processing fee.

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13 35 U.S.C. § 116, in pertinent part, states:

Whenever through error a person is named in an application for patent as the inventor, or through error an inventor is not named in an application, and such error arose without any deceptive intention on his part, the Director may permit the application to be amended accordingly . . . .

14 37 C.F.R. 1.48(a) (emphasis added).


16 35 U.S.C. § 256, in pertinent part, states:

Whenever through error a person is named in an issued patent as the inventor, or through error an inventor is not named in an issued patent and such error arose without any deceptive intention on his part, the Director may, on application of all the parties and assignees, with proof of the facts and such other requirements as may be imposed, issue a certificate correcting such error.

17 37 C.F.R. § 1.324(a-b).
Section 256 mirrors Section 116 with the exception of a missing comma after the mention of nonjoinder and before the requirement of lack of deceptive intent. Though a seemingly minor difference, the Federal Circuit has held that this comma distinguishes Sections 116 and 256 in that Section 116 allows for the correction of misjoinder and nonjoinder in patent applications only when the error was made without deceptive intent on the part of the misnamed or unnamed party. In contrast, Section 256 allows for the correction of all issued patents containing a misjoinder error (i.e., regardless of intent) and in issued patents containing a nonjoinder error where the unnamed inventor is free of deceptive intent.18

With respect to nonjoinder, Section 256 notably requires inquiry into the intent of the unnamed inventors, not those already named in the patent.19 Thus, if a party attempts to pass off another’s invention as its own, the patent is not rendered invalid for misnaming of inventors and an innocent, unnamed party may pursue correction under Section 256. While this rule attempts to protect innocent, unnamed inventors from the deceptive practices of their named co-inventors, deceptive conduct on the part of named inventors that rises to the level of inequitable conduct may render the patent unenforceable, such that even an innocent co-inventor granted correction under Section 256 cannot enforce the patent.20

In addition to correction through petition to the PTO, Section 256 authorizes a reviewing court to order the PTO to issue a certificate of correction, allowing a putative inventor to sue under Section 256 to be named as a joint inventor.21 While a useful tool, patent professionals and inventors alike should be aware of the recent case Xechem International, Inc. v. Univ. of Texas, in which the Federal Circuit recognized the limited ability of putative inventors to sue state universities for correction of inventorship.22

In Xechem, the Federal Circuit acknowledged that state universities are considered “arms of the state,” and as such, they are properly accorded Eleventh Amendment immunity from federal civil suit to correct inventorship under Section 256. The Court explained that sovereign immunity applies unless it would violate the Fourteenth Amendment by depriving an individual of property rights in a patent without due process of law or unless the state (or an arm of it) has clearly, voluntarily, and expressly declared its intent to be subject to federal jurisdiction.23 The Court went on to clarify that immunity from federal suit does not violate a putative inventor’s due process rights because an unnamed inventor may bring suit in state court to correct patent ownership issues.24 The Court reasoned that property ownership issues are “generally the province of state courts” and, therefore, federal preemption of causes arising under the Patent Act does not include matters of ownership and license. Although “uncertain” and “less

19 Id. at 1552.
20 PerSeptive Biosystems, Inc. v. Pharmacia Biotech, Inc., 225 F.3d 1315 (Fed. Cir. 2000); Univ. of West Virginia v. Van Voorhis, 278 F.3d 1288, 1302 (Fed. Cir. 2002) (explaining that an “innocent inventor may not enforce a patent that has been tainted by inequitable conduct” (internal citation omitted));
21 Id.
22 Xechem Int’l, Inc. v. Univ. of Tex., 832 F.3d 1324 (Fed. Cir. 2004).
23 Id. at 1328-31.
24 Id. at 1332.
convenient,” state court proceedings will suffice. 25 Further, the court confirmed that the act of obtaining a patent, or a state university’s entry into the federal patent system, does not constitute a constructive waiver of immunity. 26 While there are ways to circumvent the Xechem decision, 27 the Xechem case poses significant obstacles to correction of inventorship errors resulting from collaborative research with state universities.

Finally, good faith inventorship errors in an issued patent may be corrected via a reissue application. 28

C. Consequences of Inventorship Errors

A patent is invalid unless it lists the first and true inventor or inventors of the claimed invention. 29 Accordingly, if the inventive entity listed on an issued patent is incorrect and the patent cannot be corrected due to deceptive intent, the patent is invalid and the owners cannot enforce it. 30 Conversely, where errors are made in good faith, the patent laws generally allow for correction as discussed above. The fact that most errors are correctible causes unwary patent attorneys and agents to underestimate the importance of getting inventorship right the first time. This is unfortunate because the mere existence of an inventorship issue, however curable, can cost the client dearly.

First, though an error may be technically correctable, it can be time consuming and expensive to locate each inventor and obtain the statements of intent, agreement, and/or consent required to correct inventorship under Sections 116 and 256. Worse, unnamed inventors are often bitter about being excluded and may be hostile to requests for cooperation. Beyond correction of the patent itself, the rights of inventors not identified in the patent application are unlikely to be assigned. Because these inventors are joint patent owners with equal patent rights, they may independently license the invention to third parties, thereby reducing the value of the assignee’s rights in the invention and/or giving the third-party assignee a complete defense to infringement claims.

In litigation, a defendant to an infringement suit can assert a defense grounded in joint inventorship/ownership principles. For example, a defendant could find a disgruntled unnamed joint inventor to license the patent to defendant, allowing it to sidestep the claim of infringement

25 Id.
26 Id. at 1330-31.
27 For example, a putative inventor could infringe the patent to provoke an infringement suit by the university assignee. By suing, the university plaintiff consents to federal jurisdiction. The putative inventor can then defend on grounds that the patent is invalid under 35 U.S.C. 102(f) for incorrect inventorship. To avoid having the patent invalidated altogether, the university plaintiff has incentive to ask the court to issue an order correcting patent inventorship under Section 256. See infra Part III. C.
29 Stark v. Advanced Magnetics, 119 F.3d 1551, 1553, 1556 (Fed. Cir. 1997); 35 U.S.C. § 102(f) (“A person shall be entitled to a patent unless . . . he did not himself invent the subject matter sought to be patented). See also 35 U.S.C. §§ 111, 115-16, 256.
30 Univ. of Colo. Found., Inc. v. Am. Cyanamid Co., 196 F.3d 1366, 1374 (Fed. Cir. 1999) (internal quotations omitted).
entirely. Or the defendant could persuade the unnamed inventor to refuse to voluntarily join the infringement suit and cause the suit to be dismissed.  

Alternatively, a defendant can claim the allegedly infringed patent is invalid under Section 102(f) for failure to name the proper inventors and place the burden on the plaintiff to show that the patent is correctable. There are three steps to this process: First, the defendant must show by clear and convincing evidence that the omitted inventor contributed to the patent. Then the burden shifts to the plaintiff to prove the patent can be corrected under Section 256 (or that the unnamed inventor acted without deceptive intent). Finally, the patentee must ask the court to order correction of the patent under Section 256. If the inventorship is successfully corrected, it is saved from a finding of invalidity under 102(f). Even if the patent is ultimately correctable, however, this process creates a costly and time consuming “case-within-a-case” scenario. This is especially true if the defendant can find more than one allegedly unnamed inventor.

In the PTO, a patent or application containing inventorship errors is vulnerable to interference proceedings. For example, an unnamed inventor could file a patent application copying claims from the disputed invention but listing the correct inventors to provoke an interference proceeding under Section 135 of the Patent Act. During the interference proceeding, the PTO determines “who among multiple patent applicants (or an applicant and a patentee) was the first to invent the claimed subject matter.” The PTO resolves the interference by allowing the patent with the correct inventorship and rejecting the others. Again, even if inventorship can ultimately be corrected, the interference process itself is long and costly.

In business, knowledge of potential unnamed inventors discovered in due diligence inquiries can jeopardize a sale or license agreement because prospective licensees, assignees, or purchasers may be leery of the scope of the rights they are acquiring. If the deal is salvageable, prospective purchasers may ask that inventorship issues, including the correction of inventorship and execution of any necessary assignment agreements, be resolved prior to the sale at the seller’s expense. If such acquisition is impossible or impracticable due to deceptive intent, expense, or missing or recalcitrant inventors, the single transaction or larger business relationship could sour.

Finally, and as explained above, dishonest conduct on the part of the correctly named inventors can rise to the level of inequitable conduct and render the patent entirely unenforceable, regardless of whether inventorship may be corrected under the relevant statutes.

33 Pannu, 155 F.3d at 1350-51.
34 35 U.S.C. § 135; 37 C.F.R. subpart E. An interference proceeding is declared when two or more applications or an application and an issued patent claim the same patentable invention.
36 PerSeptive Biosystems, Inc. v. Pharmacia Biotech, Inc., 225 F.3d 1315 (Fed. Cir. 2000). Each person associated with the filing and prosecution of a patent application has a duty to disclose information material to the patentability of the invention to the PTO. 37 C.F.R. § 1.56. As a critical requirement for obtaining a patent, inventorship is considered material. Id. at 1321; 35
IV. Avoiding Malpractice

Published cases addressing legal malpractice arising from an attorney’s failure to name the correct inventor(s) in a patent application are uncommon because these disputes typically settle out of court. That said, it takes no leap of faith to realize that when an attorney jeopardizes the validity of a patent by failing to conduct a sufficient investigation when defining inventorship, that attorney risks a malpractice claim.

Consider a dispute in which scientists at Baylor College of Medicine invented a new cancer treatment and retained a large New York law firm to prosecute the patent application. Baylor transferred its rights in the invention to Houston-based Sennes Drug Innovations Inc., who located a blue-chip company, Upjohn Co., willing to buy rights to the invention for $4 million. Ultimately the patent issued but the sale fell through after Upjohn, during its due diligence inquiries, discovered that the scientist listed on the patent may not have been the sole inventor. Sennes sued Baylor College for transferring an invalid patent, and the college responded by suing its patent attorney for not fully investigating the technology and its development, claiming legal malpractice, professional negligence, and breach of fiduciary duty. It was not long before Sennes followed with a similar suit of its own, miring the patent attorney and his firm in malpractice litigation.37

The lesson is clear: Do your homework. Don’t let an expensive lawsuit, failed business deal, or costly correction procedure fall on your shoulders.

V. Conclusion

The “first-to-invent” patent system in the United States emphasizes identifying the true and original inventor or inventors on each patent. This requirement allows the chain-of-title to consistently begin with the inventor and recognizes the inventor’s contribution to scientific progress.

While the first-to-invent system has its merits, it creates obligations that patent professionals must heed to competently serve their clients. Though the Patent Act allows for liberal correction of inventorship errors, avoidable mistakes should be a rarity because of the time and money required to correct them. Ultimately, ownership stems from inventorship. If inventorship is wrong, the entire chain of title, as well as the agreements based upon it, are tainted. An old adage says it best: An ounce of prevention is worth a pound of cure.

U.S.C. § 102(f). Thus, if the correctly named inventors misrepresented or failed to disclose material inventorship information with an intent to deceive the PTO, a court may find the conduct sufficiently culpable to hold the patent unenforceable, regardless of the innocence of unnamed or misnamed inventors. PerSeptive Biosystems, 225 F.3d at 1318-23.

INVENTORSHIP:

What Happens When You Don’t Get It Right?

Donald A. Degnan
ddegnan@hollandhart.com
(303) 473-2724

What Happens When You Don’t Get It Right?

POTENTIALLY BIG PROBLEMS

- Patent may be Invalid
- Potential Loss of Exclusive Ownership in Patent
- Possible Inability to Assert Patent
How Inventorship Problems Arise

- Name person who is not an "inventor" (misjoinder)
- Fail to name a person who is an "inventor" (nonjoinder)

Who is an "Inventor?"

Any person that contributes to the conception of the claimed invention.
In Joint “Inventor” Context

- Need only contribute to the conception of one claim
- Joint inventor owns an undivided interest in the entire patent (even if contributed to only 1 of 50 claims)

How To Correct (Patent Application)

- Section 116 of the Patent Act Governs
  - Misjoinder and nonjoinder both curable if error made without deceptive intent
  - Requires statement(s) from all persons being added or deleted that the error occurred without deceptive intent (see 37 C.F.R. 1.48(a))
How To Correct (Issued Patent)

- Section 256 of the Patent Act Governs
  - A misjoined inventor may be removed even if deceptive intent shown (differs from Section 116)
  - A nonjoined (or omitted) inventor may be added only if no deceptive intent
- Method
  - File Petition to Correct with the PTO (see 37 C.F.R. 1.324(a-b))
  - File Action to Correct Inventorship with Court

Proof Necessary to Correct

- show contribution to the conception of the claimed invention
- by “clear and convincing” evidence
  - testimony from inventor insufficient
  - testimony must be corroborated by other evidence
- no time limit as to when to correct (but laches, estoppel may act as a bar)
- ultimately an issue of law for the Court
Potential Unenforceability

- Intentional misrepresentations (or omissions) during prosecution relating to inventorship may rise to the level of inequitable conduct—rendering the patent unenforceable.
  
1. Collaborative R&D
2. Hired Consultant
3. Customer/Supplier/Distributor
4. Research Assistant
5. Others
XYZ Corp. discovers existence of collaboration with Third Party
XYZ Corp. enters license with Third Party

XYZ CORP.

- Files motion to correct inventorship
- Once corrected, XYZ Corp. files a motion to dismiss for failure to join an indispensable party (the Third Party, now co-inventor)
  - An action for infringement must join as plaintiffs all co-owners
  - A co-owner has the right to refuse to voluntarily join an infringement action
Company A licenses or sells to XYZ Corp. during due diligence. XYZ Corp. discovers the existence of a Third Party. During due diligence, XYZ Corp. discovers the existence of a Third Party.
Clouds Title--which may

- Reduce value of Deal
- Increase cost of Deal
- Kill the Deal

Potential Malpractice Concerns

- Potential claim against attorney who drafted patent for failing to name ALL inventors
- Potential claim against attorney who drafted collaboration agreement for failing to include present assignment
Best Practices

- Fully investigate the development of the technology in order to identify all persons who contributed to the conception of any claim.
  - Once identified, enter into agreement that presently assigns rights in invention (patent) to the company.
  - If you cannot obtain assignment, consider dropping claim from patent.

Undertake Analysis

- When patent application is filed/prosecuted.
- Prior to filing suit for patent infringement.
- Prior to licensing or selling the technology/patent.
- When sued for patent infringement.