DIGIMARC

Annual Report

2023

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

☒ **Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

For the fiscal year ended December 31, 2023

OR

☐ **Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

For the transition period from_____to_____

Commission File Number 001-34108

DIGIMARC CORPORATION

(Exact name of registrant as specified in its charter)

Oregon	**26-2828185**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

8500 SW Creekside Place, Beaverton, Oregon 97008
(Address of principal executive offices) (Zip Code)
(503) 469-4800
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
Common Stock, $0.001 Par Value Per Share	**DMRC**	**The NASDAQ Stock Market LLC**

Securities registered pursuant to Section 12(g) of the Act: NONE

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
Emerging growth company	☐		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to § 240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value of common stock, par value $0.001 per share, held by non-affiliates of the registrant, based on the closing price of our common stock on the Nasdaq Global Market on the last business day of the registrant's most recently completed fiscal second quarter (June 30, 2023), was approximately $475 million. Shares of common stock beneficially held by each officer and director have been excluded from this computation because these persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for any other purposes.

As of February 22, 2024, 20,443,596 shares of the registrant's common stock were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's proxy statement pursuant to Regulation 14A (the "Proxy Statement") for its 2024 annual meeting of shareholders are incorporated by reference into Items 10, 11, 12, 13 and 14 of Part III of this Annual Report on Form 10-K. The registrant intends to file the Proxy Statement not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

Auditor Name: KPMG, LLP Auditor Location: Portland, Oregon Auditor Firm ID: 185

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PART I

Unless the context otherwise requires, references in this Annual Report on Form 10-K to "*Company,*" "*Digimarc,*" "*we,*" "*our*" *and* "*us*" *refer to Digimarc Corporation.*

All dollar amounts are in thousands except per share amounts or unless otherwise noted. The percentages within the tables may not sum to 100% due to rounding.

Digimarc, Digimarc Barcode, The Barcode of Everything, Barcode of Everything, and the circle-d logo are registered trademarks of Digimarc Corporation. EVRYTHNG and EVRYTHNG PRODUCT CLOUD are registered trademarks of EVRYTHNG Limited, a wholly owned subsidiary of Digimarc.

ITEM 1: BUSINESS

The following discussion of Digimarc's business contains forward-looking statements relating to future events or the future financial performance of Digimarc. Our actual results could differ materially from those anticipated in these forward-looking statements. Please see the discussion regarding forward-looking statements included in this Annual Report on Form 10-K in Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, under the caption "*Forward-Looking Statements.*"

The following discussion of our business should be read in conjunction with our consolidated financial statements and the related notes and other financial information appearing elsewhere in this Annual Report on Form 10-K.

On January 3, 2022, the Company completed the acquisition of EVRYTHNG Limited and its subsidiaries ("EVRYTHNG"), a London-based product cloud company. Unless context otherwise requires, references to EVRYTHNG refer to EVRYTHNG Limited and its subsidiaries following the acquisition.

Overview

Digimarc, an Oregon corporation, is a pioneer and global leader in digital watermarking technologies. For nearly 30 years, Digimarc innovations and intellectual property in digital watermarking have been deployed in solutions built upon one or both of the following two things: the identification and the authentication of physical and digital items, often at massive scale, and often where other methods of identification or authentication don't work well or don't work at all.

The Digimarc Illuminate platform is a distinctive software as a service ("SaaS") cloud-based platform for digital connectivity that provides the tools for the application of advanced digital watermarks and dynamic Quick Response ("QR") codes, software (digital twins) that enables various systems and devices to interact with those data carriers, and a centralized platform for capturing insights about digital interactions and automating activities based on that information.

The Digimarc product suite is built on top of the Digimarc Illuminate platform to power a trusted and scalable ecosystem that can address specific business needs in areas like automation, authenticity, sustainability, and customer trust and connectivity. All of the Company's products are complementary to each other, providing exponential benefits when combined. By enabling customers to create and connect digital twins to physical and digital items, Digimarc's products provide many benefits including:

- **Digimarc Validate** supports authentication in the physical and digital worlds to help ensure online interactions can be trusted and that real products and digital assets are genuine and in the right place. Digimarc's technology protects digital images, audio, product packaging, and other physical items by delivering exclusive, covert digital watermarks and/or dynamic QR codes and a cloud-based record of product authentication information. In addition, consumer engagement capabilities provide a direct, digital communications channel.

- **Digimarc Engage** activates products and multimedia to create and leverage an interactive, fully owned communications channel directly with consumers. Digimarc delivers dynamic QR codes and hyperlinks that provide contextual redirection capabilities for multiple consumer experiences based on a variety of factors such as time and location or previous behavior. Connecting engagements across the physical and digital worlds in a singular view results in powerful new capabilities and insights for brands.

- **Digimarc Recycle** increases the quality and quantity of recycled materials by digitizing products and packaging with digital watermarking technology. Coupled with consumer engagement capabilities, brands can leverage a direct, digital communications channel. Plus, brands can access a cloud-based record of never-before-seen post-consumption data that provides new insights.

- **Digimarc Retail Experience** delivers smarter, connected packaging that supports next-generation retail checkout systems, improved inventory management, advanced consumer engagement experiences, compliance with upcoming industry standards, and the collection of powerful first-party data and consumer insights.

Digimarc has maintained a relationship with a consortium of central banks (the "Central Banks") for over 25 years, providing trusted technology to help deter digital counterfeiting of currency. This relationship was the first commercially successful large-scale use of our technologies and protects billions of banknotes in circulation globally.

In January 2022, Digimarc announced the successful completion of its acquisition of EVRYTHNG, a market leader and pioneer in product cloud technology, linking every product item to a digital identity on the web and joining-up product data across the value chain for visibility, validation, real time intelligence and connection with people. Combining Digimarc's and EVRYTHNG's capabilities makes it possible to gather and apply traceability data from across the product lifecycle, unlocking end-to-end visibility and authenticity through item-level, real-time intelligence and analytics.

In December 2022, Digimarc announced an additional multi-year agreement with Walmart to help further optimize store operations. The agreement covers an expanded deployment of Digimarc Illuminate Platform capabilities beyond the scope of the existing agreement between the two companies.

In December 2022, Digimarc also announced a five-year extension of its agreement with the Central Banks. The agreement was renewed two years early and is effective through December 31, 2029. Digimarc has been a key, long-term partner in the central banks' worldwide effort to deter counterfeiting of currency and a major contributor to the program's success.

In May 2023, Digimarc announced a major new contract to protect the authenticity of precious metals and building materials and guard the integrity of a national deposit-return system for recycling. The 5-year contract with an international solutions provider is worth more than $32 million, with the potential to grow significantly based on other optional programs in 2024 and beyond.

In September 2023, Digimarc announced that Digimarc Validate has expanded its powerful identification and protection capabilities to the digital world. Digimarc Validate was the industry's first offering to empower content owners and creators with the ability to convey copyright ownership of images and digital media assets. The combination of Digimarc's SAFE™ digital watermarks and detection software enable the new offering to form the foundation of a trusted and scalable digital asset ecosystem, critical in an era of generative artificial intelligence.

Customers and Business Partners

We generate revenue through two primary markets: commercial and government. Commercial includes retailers, consumer brands, their suppliers and related solution providers, as well as media, entertainment, and other customers. Government includes the Central Banks and other government customers.

We derive our revenue primarily from software subscriptions and software development services. Subscriptions for our software products are generally sold to retailers, consumer brands, their suppliers and related solution providers. Software development services are generally provided to the Central Banks. During 2023, we generated 46% of our revenue under the long-term contract with the Central Banks, with whom we have been developing, deploying, supporting and enhancing a system to deter digital counterfeiting of currency for over 25 years. In December 2022, the 5-year extension option included in our contract with the Central Banks was exercised two years early. The contract now runs through December 31, 2029.

Technology and Intellectual Property

We seek patent protection for our inventions to differentiate our products and technologies, mitigate infringement risks, and develop opportunities for licensing. Our patent portfolio covers a wide range of methods, applications, system architectures and processes.

Our intellectual property contains many innovations in digital watermarking, content and object recognition, product authentication, and related fields. To protect our inventions, we have implemented an extensive intellectual property protection program that relies on a combination of patent, copyright, trademark and trade secret laws, and nondisclosure agreements and other contracts. As a result, we believe we have one of the world's most extensive patent portfolios in digital watermarking and related fields, with approximately 850 U.S. and foreign patents granted and applications pending as of December 31, 2023. The patents in our portfolio each have a life of approximately 20 years from the patent's effective filing date.

For a discussion of activities and costs related to our research and development in the last two years, see "Research, development and engineering" under Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Markets

Our patented technologies are used in various automatic identification products and solutions supporting a variety of media objects, from consumer goods to movies and music, digital images, and banknotes. Each media object enabled by our technology creates the potential for several applications including in the areas of automation, authentication, sustainability, and customer trust and connectivity.

We sell access to our platform and products through both direct and indirect sales channels. Our sales are generally focused in North America and Europe.

We believe that our existing products represent only a small portion of the potential market for our technology.

Competition

No single competitor or small number of competitors dominate our market. Our competitors vary depending on the application of our products and services. We generally compete with non-digital watermarking technologies. These alternatives include, among other things, encryption-based security systems and technologies and solutions based on fingerprinting, pattern recognition, and traditional barcodes. Our competitive position in digital watermarking applications is strong because of our large, high-quality, sophisticated patent portfolio, our trade secrets and know-how, and our substantial and growing amount of intellectual property in related innovations for the automatic identification of physical and digital media objects that span basic technologies, applications, system designs and business processes. Our intellectual property portfolio allows us to use proprietary technologies that are well-regarded by our customers and partners, and not available to our competitors without a license. We compete based on the variety of features we offer and a traditional cost/benefit analysis against alternative technologies and solutions. Our competitive position within some markets may be affected by factors such as reluctance to adopt new technologies and by changes in government regulations.

Backlog

Based on projected commitments we have for the periods under contract with our respective customers, we anticipate our current contracts as of December 31, 2023, will generate a minimum of $43.7 million in future revenue, compared to $44.2 million as of December 31, 2022. The slight decrease is related to the structure of our contract with the Central Banks, partially offset by new commercial contracts signed during the year. We expect approximately $27.1 million of the $43.7 million to be recognized as revenue during 2024.

Some factors that lead to increased backlog include:

- contracts with new customers;
- renewals with current customers;
- add-on orders with customers; and
- contracts with longer contractual periods replacing contracts with shorter contractual periods.

Some factors that lead to decreased backlog include:

- recognition of revenue associated with existing backlog;
- contracts with shorter contractual periods replacing contracts with longer contractual periods;
- modifications to existing contracts;
- contract minimum payments ending; and
- expiration of contracts with existing customers.

The mix of these factors, among others, dictates whether our backlog increases or decreases for any given period. Our backlog may not result in actual revenue in any particular period, because the orders, awards and contracts included in our backlog may be subject to modification, cancellation or suspension. We may not realize revenue on certain contracts, orders or awards included in our backlog, or the timing of any realization may change.

Human Capital Resources and Management

Employees and Labor Relations

At December 31, 2023, we had 248 full-time employees, including 86 in sales, marketing, product, operations and customer support; 123 in research, development and engineering; and 39 in finance, administration, information technology, intellectual property and legal.

Our employees are not covered by any collective bargaining agreement, and we have never experienced a work stoppage. We believe that our relations with our employees are good. Voluntary employee turnover was 4% for the year ended December 31, 2023.

Values

Culture is critically important to Digimarc's success. We incorporate our core values in daily interactions with colleagues, customers, vendors and other stakeholders. Our core values are embodied in the words Collaborative, Curious and Courageous.

		Digimarc Values	
	Collaborative	**Curious**	**Courageous**
We:	Ask for help	Support innovative thinking	Challenge our own biases
	Prioritize mentoring	Continuously seek clarity	Cultivate collective experiences
	Build trust and transparency	Listen to our stakeholders	Seek out and support ideas
We Do Not:	Avoid difficult conversations	Lose sight of our purpose	Assume we have all the answers

Digimarc follows a Purposeful Work approach which enables teams to determine the right balance of working between home and office locations, considering both the company and departmental needs, and those of our staff.

Diversity, Equity and Inclusion

We strive to create an environment where innovative ideas can flourish by demonstrating respect for each other and valuing the diverse opinions, backgrounds and viewpoints of our employees. We are committed to innovation and representing diversity in a myriad of ways, including race, color, national origin, ethnicity, gender, gender identity, sexual orientation, marital status, familial status, age, religion, expunged juvenile record, military or veteran status, physical or mental disability, and/or any other characteristic protected by law. This applies to decisions involving talent acquisition, hiring, job placement, transfer, promotion, compensation, benefits, training and company-sponsored programs. We believe that diversity is a competitive asset. We believe that diversity in our teams leads to new ideas, helps us solve problems and allows us to better connect with our global customer base.

We have taken specific actions to continue to foster Diversity, Equity and Inclusion ("DEI") in our culture, including transparency that we believe will lead to greater inclusion and innovation. Actions we have taken to promote DEI include the adoption of the Digimarc Methodology for organizational health, all-employee meetings, employee resource groups ("ERGs"), flexible work policies, diverse recruiting partners and fireside chats with our Chief Executive Officer. Additionally, we have implemented learning resources, like unconscious bias in interviewing, DEI training and workplace harassment training to support the acquisition of the skills and behaviors expected from our employees. Digimarc provides reasonable accommodation for qualified individuals with disabilities, for employee's religious practices or needs, and for pregnancy-related needs.

In 2023, we helped employees establish ERGs within our organization to help create a sense of belonging. Current ERGs include Women's Circle of Excellence, Culture Team, LGBTQIA+ Sparkle, and All 'Bout Career Development.

Compensation and Benefits

Our compensation program is designed to support, reinforce, and align our values, DEI initiatives, business strategy, and operational and financial goals of profitable growth and appreciation of our value in the public equity markets.

Digimarc's compensation program is designed to pay all our employees fairly for their performance and contributions. We do this by balancing a wide variety of important internal and external factors aligned to our Company culture and values. Compensation and benefits are reviewed against the market annually, at a minimum. In 2023, we engaged a third-party consulting firm to conduct a pay-equity analysis across the Company, which resulted in no material findings. We further enhanced our employee benefits program by offering a Health Savings Account and higher deductible PPO medical plan along with adding voluntary products including Critical Illness, Accident, Hospital Indemnity to further support employees with their health. Additionally, we enhanced our Employee Assistance Program ("EAP"), allowing employees to receive free virtual and in-person counseling sessions.

We strive to provide a base salary and restricted stock units that are competitive with the market and compensate above market for outstanding performance. The Company uses restricted stock units to incentivize employees that contribute to the strategic goals of the Company and drive Company value. Performance stock units are used with our executive management team and are awarded based upon delivering established financial and strategic goals. Equity incentive compensation promotes a sense of ownership and reinforces our philosophy that all employees are valued shareholders in the long-term success of the business. In alignment with our Company culture, we strive to communicate openly about the objectives of the Company and the design of the compensation program. The compensation process is intended to be fair so that all employees and managers understand the goals and the outcomes of the process.

Digimarc recognizes a fair compensation program is a key component of DEI. We are committed to administering the compensation program in a manner that is transparent, consistent, and free of discrimination. We post salary ranges for new positions and do not ask for the previous salary history of our candidates. We promote internal mobility and commit to transparency in how we level and promote our employees.

We also believe that employees require time to balance the many needs of their lives, both at work and outside of work. Our policies for Paid Time Off ("PTO") are designed to provide employees with time off for vacation, sick days, or other personal reasons. Full time employees at the exempt level in the U.S. are eligible for the Self-Managed PTO program. Non-exempt and part-time U.S. employees are eligible for the Granted PTO program. Under the Self-Managed PTO program, eligible employees may take as much paid time off from work as is consistent with their duties and ability to meet performance expectations.

We support our communities by providing focused outreach and support through our community outreach matching program, which matches donations made by our employees to their charities of choice.

Learning and Development

We invest resources to develop the talent needed to remain at the forefront of innovation. We have a performance management system to support continuous learning and development. Through frequent anonymous surveys, employees can voice their perceptions of the Company and their work experience, including learning and development opportunities. We have strong participation in our surveys and engage our managers to respond to areas that employees have identified as needing improvement or given lower scores.

We support training and development programs for our employees through tuition reimbursement, online training programs such as Digimarc University, LinkedIn Learning, conferences, seminars, on-the-job training, and skill certifications. We also encourage and foster onsite training programs and mentoring.

Health, Safety and Wellness

We are committed to a safe and drug-free workplace. We continually invest in programs designed to improve physical, mental, and social well-being. We provide access to a variety of innovative, flexible, and convenient health and wellness programs, for our employees and their families.

Governance and Oversight

The executive management team is entrusted with developing and advancing our key human capital strategy, which is reviewed by the Board of Directors. Our Chief People Officer is charged with developing and stewarding this strategy on a Company-wide basis. This incorporates a broad range of dimensions, including culture, values, labor and employee relations, leadership capabilities, performance management and total rewards. DEI is key to successfully achieve business and organizational objectives. Key processes include ongoing performance and development feedback, DEI reviews, and periodic engagement surveys reviewed by management and the Board of Directors. All employees have access to resources on topics regarding integrity, our code of conduct, diversity, compliance, and workplace harassment. Employees are encouraged to address any concerns through multiple channels, including anonymously whenever possible, without fear of retaliation or retribution.

Available Information

We make available free of charge through our website at *http://www.digimarc.com/about/investors* our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to these and other reports filed or furnished by us pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as soon as reasonably practicable after we file these materials with the Securities and Exchange Commission (the "SEC"). The content on any website referred to in this annual report is not incorporated by reference in this annual report unless expressly noted.

ITEM 1A: RISK FACTORS

Our business, financial condition, results of operations and cash flows may be affected by a number of factors. The following risk factors identify risks of which we are aware and that we consider to be material to our business. If any of the following risks and uncertainties develops into actual events, our business, financial condition, results of operations or cash flows could be materially adversely affected. In that case, the trading price of our common stock could decline.

RISKS RELATED TO OUR BUSINESS

(1) As a purveyor of disruptive technology, if our partners and potential customers defer or delay adopting and implementing our technology, or if competitors or other market participants successfully engage in campaigns to discredit our technology, our revenues will be negatively affected.

While the Company's business in the government market remains relatively strong and predictable, our primary source of revenue growth—the commercial market—is subject to the market forces and adoption curves common to other disruptive technologies. The commercial market is in its earlier stages of development. If widespread adoption of Digimarc technology in the commercial market takes longer than anticipated, we will continue to experience operating losses.

We expect companies marketing competing technologies to compete vigorously in the marketplace, and to seek to preserve their market share. To the extent these companies succeed in defending their market position, our ability to achieve profitable operations will be impeded.

With respect to anticipated sales growth and prospects for the commercial market, our two major avenues for revenue generation are direct sales to customers and indirect sales through partners. Our direct sales force is relatively new. Most of our partners are also relatively new to our products. Thus, the anticipated sources of revenue growth for the commercial market are unproven. We are executing strategies intended to make each of these means of revenue generation more effective, but we provide no assurance that we will execute these strategies successfully.

(2) Our future growth will depend to a material extent on the successful advocacy of our technology by our partners to their customers, and implementation of our technology in solutions propagated by our partners and provided by third parties.

Our business has long relied on the success of business partners. Continuing our success is largely dependent on a new generation of business partners supporting Digimarc technology in the commercial market. We have entered into agreements with numerous partners to propagate and support our technology, including brand deployment and pre-media service providers and consumer packaging solutions companies, all of which offer Digimarc digital watermarking services to consumer-packaged goods companies. We have also entered into agreements with numerous scanner manufacturers to enable their devices to read Digimarc watermarks. We provide no assurance that these collaborations will successfully generate revenue for our business.

If our partners are not successful in advocating and deploying our technology, we may not be able to achieve and sustain profitable operations. If other business partners who include our technology in their products cease to do so, or we fail to successfully collaborate with third parties or to obtain other partners who will do so, or these partners are unsuccessful in their efforts, expanding deployment of our technology will be adversely affected. Consequently, our ability to increase revenue could be adversely affected, and we may suffer other adverse effects to our business. In addition, if our technology does not perform according to market expectations, our future sales would suffer as customers employ alternative technologies.

(3) If leading companies in the consumer-packaged goods industry and related industries downplay, minimize or reject the use of our technology, our product deployment may be slowed, and we may be unable to achieve profitable operations.

Our business endeavors in the commercial market may be impeded or frustrated by larger, more influential companies or industry trade groups downplaying, minimizing or rejecting the value or use of our technology. A negative position by such companies or groups could result in obstacles for us that we would be incapable of overcoming and may block or impede the adoption of our technology. Such a development would make the achievement of our business objectives in this market difficult or impossible.

(4) We are subject to risks encountered by companies developing and relying upon new technologies, products, and services to achieve and sustain profitable operations.

Our business and prospects must be considered in light of the risks and uncertainties to which companies with new and rapidly evolving technology, products, and services are exposed. These risks include the following:

- we may be unable to develop sources of new revenue or sustainable growth in revenue because our current and anticipated technologies, products, and services may be inadequate or may be unable to attract or retain customers;
- intense competition from existing and new technologies and providers and rapid technological change could adversely affect the market's acceptance of our products and services; and
- we may be unable to develop and maintain new technologies upon which our products and services are dependent, which may cause our products and services to be less sustainable and competitive or which could make it harder for us to expand our revenue and business.

(5) A significant portion of our current and potential future revenue is subject to commercial and government contracts and the development of new markets that may involve unpredictable delays and other unexpected changes. Such volatility and uncertainty might limit our actual revenue in any given quarter or year.

We derive a significant portion of our revenue from contracts tied to development schedules or development of new markets, which could shift for months, quarters, or years as the needs of our customers and the markets in which they participate change. Government agencies and commercial customers also face budget pressures that introduce added uncertainty. Any shift in development schedules, the markets in which we or our partners participate, or customer procurement processes, which are outside our control and may not be predictable, could result in delays in revenues forecasted for any particular period, could affect the predictability of our quarterly and annual results, and might limit our actual revenue recognized in any given quarter or year, resulting in reduced and less predictable revenue, adversely affecting profitability.

We are expanding into new markets, which involve inherent risk and unpredictability. With our acquisition of EVRYTHNG, we expanded into applications of the product cloud in conjunction with Digimarc watermarks and other data carriers. As we seek to expand outside our areas of historical expertise, we lack the history and insight that benefited us in fields conventionally using digital watermarking. Although we have extensive experience in the commercial application of digital watermarking, we are investing in but may not be as well-positioned for these other opportunities. Accordingly, it may be difficult for us to achieve success in other technologies we might pursue.

(6) A small number of customers account for a substantial portion of our revenue, and the loss of any large contract could materially disrupt our business.

Historically, we have derived a significant portion of our revenue from a limited number of customers. Five customers represented approximately 78% of our revenue for the year ended December 31, 2023.

Nearly half of our revenue came from our contract with the Central Banks in 2022 and 2023. That contract was recently extended and now expires at the end of 2029. The customer contracts we enter into may contain termination for convenience provisions or may not include automatic renewal provisions. If we were to lose any such contract for any reason, or if our relationship with these customers or the Central Banks were materially modified, our financial results would be adversely affected.

We expect to continue to depend upon a small number of customers for a significant portion of our revenue for the foreseeable future. The loss of, or decline in, orders or backlog from one or more major customers could reduce our revenue and have a material adverse effect on our financial results.

(7) The market for our products is highly competitive, and alternative technologies or larger companies that compete with us may be more successful than us in gaining market share, which would decrease our revenue and profits.

The markets in which we compete for business are intensely competitive and rapidly evolving. We expect competition to continue from both existing competitors and new market entrants. We face competition from other companies and from alternative technologies, including some of our customers, partners, and licensees. We also may face competition from unexpected sources.

Alternative technologies that may directly or indirectly compete with our products include:

- generative Artificial Intelligence (“AI”) technologies — AI technologies that employ machine learning to train AI models to embed and detect identifying information within digital content;

- traditional anti-counterfeiting technologies — solutions designed to deter counterfeiting including optically sensitive ink, magnetic threads and other materials used in the printing of banknotes used by many government agencies (that compete for budgetary outlays);

- object and image recognition (e.g., trained classifiers employing machine learning) — technologies that recognize one or several pre-specified or learned objects or object classes, usually together with their two-dimensional positions in the image or three-dimensional poses in the scene;

- radio frequency tags — embedded chips that emit a signal when in close proximity with a receiver, used in some photo identification credentials, labels and tags;

- digital fingerprints and signatures — a metric, or metrics, computed solely from a source image or audio or video track, that can be used to identify an image or track, or authenticate the image; and

- object sorting technologies — chemical tracers, taggants, Near Infrared sorters, dot or matrix codes, used to identify and sort objects, and that can be used in connection with systems using a combination of these methods and machine learning.

In the competitive environments in which we operate, product creation, development and marketing processes relating to technology are uncertain and complex and require accurate prediction of demand as well as successful management of various risks inherent in technology development. In light of these uncertainties, it is possible that our failure to successfully accommodate future changes in technologies related to our technology could have a long-term negative effect on our growth and results of operations.

As we work to achieve market acceptance of our products and services, new developments are expected to continue, and discoveries by others, including current and potential competitors, could render our products and services uncompetitive. Moreover, because of rapid technological changes, we may be required to expend greater amounts of time and money than anticipated to develop new products and services, which in turn may require greater revenue streams from those products and services to cover developmental costs. Many of the companies that compete with us for some of our business, as well as other companies with whom we may compete with in the future, are larger and may have stronger brand recognition and greater technical, financial, marketing, and/or political resources than we do. These attributes could enable these companies to have more success in the market than we have, either by providing better products or better pricing than we can provide. We may be unable to compete successfully against current or future participants in our markets or against alternative technologies, and the competitive pressures we face may have a materially adverse effect on our financial position, results of operations or cash flows.

(8) An increase in our operations outside of the U.S. subjects us to risks additional to those to which we are exposed in our domestic operations.

We believe that revenue from sales of products and services to commercial customers outside the U.S. could represent a growing percentage of our total revenue in the future. Digimarc technology is not bounded geographically, and we believe our technology will be deployed globally. As such, certain contracts may be made and performed, in whole or in part, outside of the United States. Additionally, with the acquisition of EVRYTHNG, our workforce expanded significantly into the United Kingdom and other European countries.

International operations are subject to a number of risks that can adversely affect our sales of products and services to customers outside of the U.S., or expose us to additional expense or liabilities, including the following:

- difficulties and costs of staffing, developing and managing foreign operations as a result of distance, language, and cultural differences;
- the effect of laws governing our business, employee, and contractor relationships, and the existence of workers' councils and labor unions in some jurisdictions;
- changes in foreign government regulations and security requirements;
- export license requirements, tariffs, retaliatory trade measures;
- difficulty in protecting intellectual property;
- difficulty in collecting accounts receivable;
- currency fluctuations; and
- political and economic uncertainty or instability.

If we fail to comply with the many international laws and regulations to which we may be subject, we may be subject to significant fines, penalties, or liabilities for noncompliance. These factors may result in greater risk of performance problems or of reduced profitability with respect to our international programs in these markets. In addition, if foreign customers, in particular foreign government authorities, terminate or delay the implementation of our products and services, it may be difficult for us, or we may not be able, to recover our potential losses.

(9) We depend on our key employees for our future success. If we are not able to retain, hire, or integrate these employees, we may not be able to meet our commitments.

Due to the high level of technical expertise that our industry requires, our ability to successfully develop, market, sell, license and support our products, services, and intellectual property depends to a significant degree upon the continued contributions of our key personnel in engineering, sales, marketing, operations, and legal, many of whom would be difficult to replace. We believe our future success will depend in large part upon our ability to retain our current key employees and our ability to attract, integrate, and retain new personnel in the future. It may not be practical for us to match the compensation some of our employees could be offered by other employers. In addition, we may encounter difficulties in hiring and retaining employees because of concerns related to our financial performance. These circumstances may have a negative effect on the market price of our common stock, and employees and prospective employees may factor in any uncertainties relating to our stability and the value of any equity-based incentives in their decisions regarding employment opportunities and decide to leave our employ or decline employment offers. Increasingly, prospective and current employees hold certain expectations of their employer related to DEI, community involvement, and other material initiatives around sustainability, people and governance. Insufficient or slow progress in these areas may negatively affect our ability to attract, retain, and integrate key employees. Moreover, our business is based in large part on unique and sophisticated technology. New employees require substantial training, involving significant resources and management attention. Competition for experienced personnel in our business can be intense. If we do not succeed in attracting new, qualified personnel or in integrating, retaining, and motivating our current personnel, our growth and ability to deliver products and services that our customers require may be hampered. Although our employees generally have executed agreements containing non-competition clauses, these clauses are becoming increasingly disfavored by policymakers, and we do not assure you that a court would enforce all of the terms of these clauses or the agreements generally. If these clauses were not fully enforced, our employees could join our competitors. Although we generally attempt to control access to and distribution of our proprietary information by our employees, we do not assure you that the confidential nature of our proprietary information will be maintained in the course of such future employment. Any of these events could have a material adverse effect on our financial position, results of operations, or cash flows.

(10) We may acquire or invest in other companies or technologies in the future, which could divert management's attention, result in additional dilution to our shareholders, increase expenses, disrupt our operations and harm our operating results.

We acquired EVRYTHNG in January 2022, and we may in the future acquire or invest in businesses, products or technologies that we believe could complement or expand our current product and service offerings, enhance our technical capabilities, expand our operations into new markets, or otherwise offer growth opportunities. The pursuit of potential acquisitions or other strategic transactions may divert the attention of management and cause us to incur various expenses related to identifying, investigating, and pursuing suitable acquisitions or strategic transactions, whether or not they are completed.

There are inherent risks in integrating and managing acquisitions. We may not be able to assimilate or integrate the acquired personnel, operations and technologies successfully or effectively manage the combined business following an acquisition. We also may not achieve the anticipated benefits from an acquired business due to a number of factors, including:

- unanticipated costs or liabilities associated with the acquisition;
- incurrence of acquisition-related costs;
- inability to generate sufficient revenue to offset acquisition or investment costs;
- the inability to maintain relationships with customers and partners of the acquired business;
- the need to implement additional controls, procedures and policies;
- entry into geographic markets in which we have little or no prior experience, and challenges caused by distance, language, and cultural differences;
- differences in foreign labor and employment laws, including classification of employees and contractors;
- disruption of our ongoing business;
- the potential loss of key employees; and
- use of substantial portions of our available cash to complete the acquisition.

Acquisitions could also result in dilutive issuances of equity securities or the incurrence of debt, which could adversely affect our financial position. In addition, if an acquired business fails to meet our expectations, our operating results and business and financial condition may suffer.

(11) If our revenue models and pricing structures relating to products and services that are under development do not gain market acceptance, the products and services may fail to attract or retain customers and we may not be able to generate new revenue or sustain existing revenue.

Our revenues result from a combination of software subscriptions and software development services. We have not fully developed our revenue models for some products in the commercial market. Because some of our products and services are not yet well-established in the marketplace, and because some of these products and services will not directly displace existing solutions, we cannot be certain that the pricing structure for these products and services will gain market acceptance or be sustainable over time, or that the marketing for these products and services will be effective.

(12) An unfavorable assessment of digital watermarking technology by members of the HolyGrail 2.0 initiative could discourage adoption of our technology.

In September 2020, AIM – European Brands Association, in conjunction with over 85 companies and organizations including many of Europe's largest consumer-packaged goods companies, launched the HolyGrail 2.0 initiative. The purpose of the initiative is to assess whether digital watermarking technology can improve waste sorting and recycling rates for product packaging in the European Union. Digimarc is a technology provider for this ongoing assessment.

An unfavorable assessment of digital watermarking technology generally, or of Digimarc's digital watermarking technology particularly, could cause its members to consider alternative technologies. This outcome could dissuade HolyGrail 2.0 members and others following its lead from adopting digital watermarking technology for sortation and recycling. This in turn could have a materially adverse effect on our ability to grow adoption of our Digimarc Recycle product.

(13) The technological viability and economic attractiveness of competing technologies could cause the consumer-packaged goods industry and related industries to adopt a technology other than digital watermarking to support its waste sortation and recycling initiatives.

We have identified two technologies that could be perceived by industry participants to out-perform or be available on more economically favorable terms than Digimarc's digital watermarking technology for waste sortation and recycling: chemical tracers and/or artificial intelligence. Industry leaders in a position to influence the industry at large could determine that chemical tracers or artificial intelligence represent a more technologically viable and/or economically attractive solution, including due to the greater number of potential suppliers, which in turn could increase pricing competition and lower barriers to entry. Such a determination could result in the devaluation of digital watermarking technology's ability to support the product packaging lifecycle and negatively affect our revenue growth prospects.

(14) A future pandemic could disrupt our ability to effectively operate our business.

The coronavirus 2019 ("COVID-19") pandemic created significant risks to the Company, not all of which we are able to fully evaluate or foresee. A future pandemic could create similar or more severe risks to the Company. Some of the effects that could directly or indirectly result from a future pandemic include, without limitation, possible impacts on the health of the Company's management and employees, impairment of the Company's administrative, research, and development operations, disruption in supplier and customer relationships, changes in demand for our technology and services, and the collectability of accounts receivable. Some of our projects with commercial customers and partners could also be delayed negatively impacting our future financial results.

RISKS RELATED TO INFORMATION SECURITY

(15) The security systems used in our business and our product and service offerings may be circumvented or sabotaged by third parties, which could result in the disclosure of sensitive information or private personal information or cause other business interruptions that could damage our reputation and disrupt our business.

Our business relies on computers and other information technologies, both internal and external. The protective measures that we use may not prevent all security breaches, and failure to prevent security breaches may disrupt our business, damage our reputation, or expose us to litigation and liability. A party who circumvents our security measures or the security measures of our third-party vendors could misappropriate sensitive or proprietary information or materials or cause interruptions or otherwise damage our products, services, and reputation, and the property of our customers. If unintended parties obtain sensitive data and information or create bugs or viruses or otherwise sabotage the functionality of our or our third-party vendor's systems, we may receive negative publicity, incur liability to our customers, or lose the confidence of our customers, any of which may cause the termination or modification of our contracts. Further, our insurance coverage may be insufficient to cover losses and liabilities that may result from these events.

In addition, we may be required to expend significant capital and other resources to protect ourselves against the threat of security breaches or to alleviate problems caused by these breaches. Any protection or remedial measures may not be available at a reasonable price or at all or may not be entirely effective if commenced.

(16) We may experience outages and disruptions of our infrastructure that may harm our business, prospects, financial condition and results of operations.

We may be subject to outages or disruptions of our infrastructure, including information technology system failures and network disruptions. We use third-party cloud service providers, which are also susceptible to outages and disruptions. System redundancy may be ineffective or inadequate, and our disaster recovery planning may not be sufficient for all eventualities.

(17) Data breaches and cyber-attacks or cyber-fraud could compromise our intellectual property or other sensitive information or result in losses.

We maintain sensitive data on our networks and the networks of our business partners and third-party providers, including proprietary and confidential information relating to our intellectual property, personnel, and business, and that of our customers and third-party providers. Companies have been increasingly subject to a wide variety of security incidents, cyber-attacks, hacking, phishing, and other attempts to gain unauthorized access or engage in fraudulent behavior, resulting in risks that could adversely impact our business, financial condition, and reputation. These risks include but are not limited to:

- our policies and security measures cannot guarantee security, and our information technology infrastructure, including our networks and systems, may be vulnerable to data breaches, cyber-attacks, or fraud, leading to the disclosure of sensitive customer information;

- third parties may attempt to penetrate or infect our network and systems with malicious software and phishing attacks in an effort to gain unauthorized access to our network and systems;

- we may be subject to the risk of third parties falsifying invoices and similar fraud, frequently by obtaining unauthorized access to our vendors' and business partners' networks;

- other disruption of our operations due to cyberattacks or other malicious activities; and

- failure to comply with cybersecurity regulations, resulting in legal and financial consequences.

In some circumstances, we may partner with third-party providers and provide them with sensitive data. If these third parties fail to adopt or adhere to adequate data security practices, or in the event of a breach of their networks, this sensitive data may be improperly accessed, used, or disclosed. These data breaches and any unauthorized access or disclosure of sensitive data could compromise our intellectual property, expose sensitive business information, and subject us to liability.

The increase in cyber-attacks has resulted in an increased focus on cybersecurity by various government agencies. Cyber-attacks or any investigation or enforcement action related to cybersecurity could cause us to incur significant remediation costs, disrupt key business operations, and divert attention of management and key information technology resources. We may incur losses as a result of cyber-fraud, such as making unauthorized payments, irrespective of robust internal controls. Our reputation and business could be harmed, and we could be subject to third-party claims in the event of such a security breach.

RISKS RELATED TO FINANCIAL REPORTING

(18) Changes to financial accounting standards may affect our results of operations and could cause us to change our business practices.

We prepare our consolidated financial statements to conform to generally accepted accounting principles in the United States ("U.S. GAAP"). These accounting principles are subject to interpretation by the Securities and Exchange Commission and various bodies formed to interpret and create accounting rules and regulations. Changes in these rules, or guidance relating to interpretation and adoption of these rules, could have a significant effect on our financial results and could affect portions of our business differently.

(19) We were not profitable in 2023 or 2022 and may not be able to become profitable in the future, particularly if we were to lose large contracts or fail in our new market development initiatives. Sustained lack of profitability could cause us to incur asset impairment charges for long-lived assets or record valuation allowances against our deferred tax assets.

We incurred net losses in 2023 and 2022 largely due to increased levels of investments in our business to support product development and sales growth initiatives.

Becoming profitable in the future will depend upon a variety of factors, including our ability to maintain our current customers and to acquire new commercial customers. Profitability will also depend on our efficiency in executing our business strategy and capitalizing on new opportunities. Various adverse developments, including the loss of large contracts or cost overruns on our existing contracts, could adversely affect our revenue, margins, and profitability.

If we continue to incur operating losses, an impairment to the carrying value of our long-lived assets, including goodwill, acquired intangible assets, patent assets and property and equipment could result. We test for impairment of our long-lived assets when a triggering event occurs that would indicate that the carrying value may not be recoverable. Our methodology for assessing impairment may require management to make judgments and assumptions regarding future cash flows. Our projections of future cash flows are largely based on historical experience, and these projections may not be achieved. Changes to these financial projections used in our impairment analysis could lead to an impairment of all or a portion of our long-lived assets. Any such impairment charge could adversely affect our results of operations and our stock price. We evaluated our long-lived assets for impairment as of December 31, 2023, and 2022 and concluded there was no impairment for either period. We do not guarantee, however, that our long-lived assets will not become impaired in the future.

We record valuation allowances on our deferred tax assets if, based on available evidence, it is more-likely-than-not that all or some portion of the value of the assets will not be realized. The determination of whether our deferred tax assets are realizable requires management to identify and weigh all available positive and negative evidence. Management considers recent financial performance, projected future taxable income, scheduled reversals of deferred tax liabilities, tax planning strategies and other evidence in assessing the realizability of our deferred tax assets. Adjustments to our deferred tax assets could adversely affect our results of operations and our stock price. We have maintained a full valuation allowance against our deferred tax assets largely due to the cumulative loss we have incurred over the previous three years, which is considered a significant piece of negative evidence in assessing the realizability of deferred tax assets. As of December 31, 2023, and 2022, we determined a valuation allowance was still appropriate given the cumulative loss. We will not record tax benefits on any future losses until it is determined that those tax benefits will be realized.

(20) We may be adversely affected by variability of contracted arrangements.

We periodically agree to modify the terms of contractual arrangements with our customers, partners and licensees in response to changes in circumstances underlying the original contractual arrangements, and it is likely that we will do so in the future. As a result of this practice, the terms of our contractual arrangements with our customers, partners, and licensees may vary over time and, depending on the particular modification, could have a material adverse effect on our financial position, results of operations, or cash flows.

RISKS RELATED TO INTELLECTUAL PROPERTY AND LEGAL

(21) (a) We may not be able to adequately secure patent or other protection for our technologies.

Our business depends in part on securing protection for our proprietary technology. To protect our intellectual property portfolio, we rely on a combination of patent, copyright, trademark and trade secret rights, confidentiality procedures, and licensing arrangements. Although we regularly apply for patents to protect our intellectual property, there is no guarantee that we will secure patent protection for any particular technology we develop.

Changes in the U.S. and foreign patent laws, or in the interpretation of existing laws, may adversely affect our ability to secure or enforce patents. For example, the U.S. Supreme Court issued a decision in 2014 limiting patent eligibility of computer implemented inventions. The Leahy-Smith America Invents Act of 2011 (the "America Invents Act") also codifies several changes to the U.S. patent laws, including the creation of a post-grant *inter partes* review process to challenge patents after they have issued. The America Invents Act allows third parties to petition the U.S. Patent and

Trademark Office to review and reconsider the patentability of any of our inventions claimed in our issued patents. Similar laws and legal processes exist to challenge the validity of patents in other jurisdictions. Any such proceeding may result in one or more of our patent claims becoming limited or being invalidated altogether. Additionally, certain foreign jurisdictions may not recognize or enforce our patents in those jurisdictions. A limitation or invalidation of our patent claims could adversely affect our financial position and our operating results.

Patents have finite lives, and our ability to continue to rely on our patents as a barrier to entry is limited to the term of the patents. Our earliest patents began expiring in 2012, and the patents in our portfolio expire at various times between 2024 and 2041. The size and strength of our portfolio depends on the number of patents that have been granted, offset by the number of patents that expire, in any given year.

As part of our confidentiality procedures, we generally enter into non-disclosure agreements with our employees, directors, consultants, and corporate partners, and attempt to control access to and distribution of our technology, solutions, documentation, and other proprietary information. Despite these procedures, third parties could copy or otherwise obtain and make unauthorized use of our technology, solutions or other proprietary information or independently develop similar technologies, solutions, or information. The steps that we have taken to prevent misappropriation of our solutions, technology or other proprietary information may not succeed.

We do not assure you that the protection of our proprietary rights will be adequate or that our competitors will not independently develop similar technologies, duplicate our services, or design around any of our patents.

(b) We may be subject to infringement claims and other litigation, which could adversely affect our business.

As more companies engage in business activities relating to digital watermarking and product cloud services, and develop corresponding intellectual property rights, it is increasingly likely that claims may arise which assert that some of our products or services infringe other parties' intellectual property rights. These claims could subject us to costly litigation and divert management resources. These claims may require us to pay significant damages, cease production of infringing products, terminate our use of infringing technology, or develop non-infringing alternative technologies. In these circumstances, continued use of our technology may require that we acquire licenses to the intellectual property that is the subject of the alleged infringement, and we might not be able to obtain these licenses on commercially reasonable terms or at all. Our use of protected technology may result in liability that threatens our continuing operation.

Some of our contracts include indemnity and similar provisions regarding our non-infringement of third-party intellectual property rights. As deployment of our technology increases, and more companies enter our markets, the likelihood of a third-party lawsuit resulting from these provisions increases. If an infringement arose in a context governed by such a contract, we may have to expend significant sums to defend our customer, refund to our customer amounts already paid to us, pay significant damages, or cease distributing our allegedly infringing products entirely.

(22) We are periodically involved in litigation in the ordinary course of business, and an adverse resolution of such litigation may adversely affect our business, financial condition, results of operations, and cash flows.

From time to time, in our normal course of business, we are a party to various legal claims, actions and complaints. Given the uncertain nature of litigation, we are not able to estimate the amount or range of gain or loss that could result from an outcome of litigation. Litigation can be expensive, lengthy, and disruptive to normal business operations. The results of complex legal proceedings are often uncertain and difficult to predict. We could incur costs in excess of any established accruals and, to the extent available, excess liability insurance. An unfavorable outcome in any legal proceedings could have a material adverse effect on our business, financial condition, results of operations, and cash flows.

(23) The terms and conditions of our contracts could subject us to damages, losses and other expenses if we fail to meet delivery and performance requirements.

Our service contracts typically include provisions imposing:

- development and delivery schedules;
- customer acceptance and testing requirements; and
- other performance requirements.

To the extent these provisions involve performance over extended periods of time, risks of noncompliance may increase. From time to time, we have experienced delays in system implementation, timely acceptance of deliverables, concerns regarding deliverable performance, and other contractual disputes. If we fail to meet contractual performance requirements as promised, or to successfully resolve customer disputes, we could incur liability for damages, as well as increased costs, lower margins, or compensatory obligations in addition to other losses, such as harm to our reputation. Any unexpected increases in costs to meet our contractual obligations or any other requirements necessary to address claims and damages with regard to our customer contracts could have a material adverse effect on our business and financial results.

RISKS RELATED TO OUR CAPITAL STOCK

(24) Our corporate governance documents and Oregon law may delay or prevent an acquisition of us that shareholders may consider favorable, which could decrease the value of your shares.

Our articles of incorporation, bylaws and Oregon law contain provisions that could make it more difficult for a third party to acquire us without the consent of our Board of Directors. These provisions include supermajority voting requirements for shareholders to amend our organizational documents and limitations on actions by our shareholders by written consent. In addition, our Board of Directors has the right to issue preferred stock without shareholder approval, which could be used to dilute the stock ownership of a potential hostile acquirer. Oregon law restricts the ability to vote shares of stock acquired in a transaction that causes the acquiring person to control at least one-fifth, one-third or one-half of the votes entitled to be cast in the election of directors (a “control share acquisition”). Shares acquired in a control share acquisition have no voting rights except as authorized by a vote of the shareholders. Although we believe these provisions protect our shareholders from coercive or otherwise unfair takeover tactics and thereby provide for an opportunity to receive a higher bid by requiring potential acquirers to negotiate with our Board of Directors, these provisions apply even if the offer may be considered beneficial by some shareholders.

(25) Our common stock price may be volatile, and you could lose all or part of your investment in shares of our common stock.

The price of shares of our common stock may fluctuate as a result of changes in our operating performance or prospects and other factors. Some specific factors that may have a significant effect on the price of shares of our common stock include:

- the public’s reaction to our public disclosures;
- actual or anticipated changes in our operating results or future prospects;
- strategic actions by us or our competitors, such as acquisitions or restructurings;
- impact of acquisitions on our liquidity and financial performance;
- new laws or regulations or new interpretations of existing laws or regulations applicable to our business;
- changes in accounting standards, policies, guidance, interpretations or principles applicable to us;
- conditions of the industry as a result of changes in financial markets or general economic or political conditions;
- the failure of securities analysts to cover our common stock in the future, or changes in financial estimates by analysts;
- changes in analyst recommendations or revenue and earnings estimates regarding us, other comparable companies or the industry generally, and our ability to meet those estimates;
- changes in the amount of dividends paid, if any;
- changes in our financing strategy or capital structure;
- future issuances of our common stock or the perception that future sales could occur; and
- volatility in the equity securities market.

GENERAL RISK FACTORS

(26) If we are unable to respond to regulatory or industry standards effectively, or if we are unable to develop and integrate new technologies effectively, our growth and the development of our products and services could be delayed or limited.

Our future success will depend in part on our ability to enhance and improve the responsiveness, functionality, and features of our products and services, and those of our business partners, in accordance with regulatory or industry standards. Our ability to remain competitive will depend in part on our ability to comply with emerging industry and governmental standards in a timely and cost-effective manner. If we are unable to meet these standards effectively, our growth and the development of various products and services could be delayed or limited.

(27) We may need to hire additional employees or contract labor in the future in order to take advantage of new business opportunities arising from increased demand, which could increase costs and impede our ability to achieve or sustain profitability in the short term.

We have staffed our company with the intent of accelerating our product development and sales growth initiatives while also focusing on achieving and sustaining profitability. Our current staffing levels could affect our ability to respond to increased demand for our products and services. In addition, to meet any increased demand and take advantage of new business opportunities in the future, we may need to increase our workforce through additional employees or contract labor. Although we believe that increasing our workforce would potentially support anticipated growth and profitability, it would increase our costs. If we experience such an increase in costs, we may not succeed in achieving or sustaining profitability in the short term.

(28) Products deploying our technology could have unknown defects or errors, which may give rise to claims against us, divert application of our resources from other purposes or increase our project implementation and support costs.

Products and services as complex as ours may contain undetected defects or errors. Furthermore, we often provide complex implementation, integration, customization, consulting, and other technical services in connection with the implementation and ongoing maintenance of our products. Despite testing, defects or errors in our products and services may occur, which could result in delays in the development and implementation of our products, inability to meet customer requirements or expectations in a timely manner, loss of revenue or market share, increased implementation and support costs, failure to achieve market acceptance, diversion of development resources, injury to our reputation, increased insurance costs, increased service and warranty costs, and warranty or breach of contract claims. Although we attempt to reduce the risk of losses resulting from warranty or breach of contract claims through warranty disclaimers and liability limitation clauses in our agreements when we can, these contractual provisions are sometimes rejected or limited and may not be enforceable in every instance. If a court refuses to enforce the liability limiting provisions of our contracts for any reason, or if liabilities arise that were not contractually limited or adequately covered by insurance, the expense associated with defending these actions or paying the resultant claims could be significant.

ITEM 1B: UNRESOLVED STAFF COMMENTS

None.

ITEM 1C: CYBERSECURITY

Cybersecurity risk management is a critical component of our overall risk management program. We have implemented robust information security processes for assessing, identifying, and managing material risks from cybersecurity breaches that could adversely affect our business, financial condition and reputation. Although we have implemented measures to safeguard against cybersecurity risks, there is no assurance that these measures will prevent all incidents or fully mitigate their impact. We continuously work to enhance our information security processes and risk management program. Our cybersecurity risk management program is led by our Senior Director of Information Security with direction and oversight from the Company’s executive management team. The Senior Director of Information Security and the Company’s executive leaders directly involved have extensive experience in information security, risk management, and technology, and a track record of successful leadership in areas relevant to cybersecurity.

On a regular basis, we conduct thorough cybersecurity risk assessments that encompass both financial and non-financial risks, to identify vulnerabilities within our information systems. We also engage third-party experts and consultants to assist with cybersecurity risk assessments and to perform black box and white box penetration testing. We have implemented continuous enterprise-wide monitoring tools to detect and assess cybersecurity threats. In addition, we maintain and practice our incident response plans to facilitate timely identification and reporting of cybersecurity events. Aligned with our broader risk management framework, our materiality assessment criteria are determined based on a comprehensive review of potential cybersecurity impacts on our operations, financials and reputation. Our risk mitigation strategies include a broad variety of technical and operational measures, including, but not limited to, cross-functional collaboration among the information security, legal and risk management and operational teams, and Company-wide training on cybersecurity and privacy. We conduct regular and ongoing information security training and maintain a compliance program, which includes live and virtual training and periodic testing to ensure compliance with corporate standards and procedures. New employees must acknowledge that they have completed all the information security training and adhere to standards and procedures upon hire. All other employees acknowledge completion of this training annually.

In 2023, the Company achieved SOC 2 (System and Organization Controls 2) Type II certification ("SOC 2") for its product digitization platform. An independent auditor provided this certification after conducting a comprehensive audit, confirming that from August 15, 2022, to February 15, 2023, our information security controls were well-designed and worked effectively. The Company is working diligently to continue to maintain compliance with SOC 2.

Our Board of Directors plays a vital role in overseeing the Company's enterprise risk management program and has delegated cybersecurity risk management to the Audit Committee of the Board of Directors. The Audit Committee is responsible for ensuring that management has processes in place designed to identify and evaluate cybersecurity risks to which the Company is exposed, and to implement processes to manage cybersecurity risks and mitigate cybersecurity incidents. Our Senior Director of Information Security provides semi-annual updates to the Audit Committee, although all of the members of our Board of Directors are invited to attend the Audit Committee meetings at which these updates are provided, on the current cybersecurity threat landscape, emerging risks, remediation plans, and the effectiveness of related internal controls. When applicable, additional cybersecurity updates are provided to our Audit Committee in interim periods in the event of a significant cybersecurity threat.

The Audit Committee regularly engages in risk assessments specifically focused on cybersecurity, considering potential impacts on operations, financial results, and reputation, and periodically reviews cybersecurity policies and procedures to ensure they align with best practices and evolving cyber threats. In addition, the Audit Committee participates in the allocation of resources for cybersecurity initiatives, ensuring that investments align with the Company's risk appetite and strategic objectives. The Audit Committee is also briefed on the Company's crisis management and incident response plans, ensuring preparedness for potential cybersecurity incidents. The full Board of Directors participates with management in security tabletop exercises to test our incident response plans.

In 2023, we did not identify any cybersecurity threats that have materially affected or are reasonably likely to materially affect our business strategy, results of operations, or financial condition. However, despite our efforts, we cannot eliminate all risks from cybersecurity threats, or provide assurances that we have not experienced undetected cybersecurity incidents. For additional information about these risks, see Part I, Item 1A, "Risk Factors" in this Annual Report on Form 10-K.

ITEM 2: PROPERTIES

In February 2022, we entered into a sublease agreement and lease extension agreement on a new facility in Beaverton, Oregon in order to move our corporate headquarters. The new facility is approximately 65,500 square feet in size. The term of the sublease and lease extension runs through September 2030. The remaining rent payments as of December 31, 2023 were $8.8 million plus operating expenses, payable in monthly installments. The first 26 months of rent payments and operating expenses are abated to cover the remaining term of the lease on our former corporate headquarters.

We continue to lease our former corporate headquarters, which is approximately 47,000 square feet in size and also located in Beaverton, Oregon. The lease expires in March 2024. The remaining rent payments as of December 31, 2023 were $0.2 million plus operating expenses, payable in monthly installments.

We believe that our existing office space is suitable and adequate for our current and foreseeable future needs.

ITEM 3: LEGAL PROCEEDINGS

We are subject from time to time to legal proceedings and claims arising in the ordinary course of business. At this time, we do not believe that the resolution of any such matters will have a material adverse effect on our financial position, results of operations or cash flows.

ITEM 4: MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5: MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock began trading on the Nasdaq Stock Market LLC in October 2008 under the symbol "DMRC."

As of February 22, 2024, we had 263 shareholders of record of our common stock, as shown in the records of our transfer agent. Since many holders hold shares in "street name," we believe that there is a significantly larger number of beneficial owners of our common stock than the number of shareholders of record.

We withhold (purchase) shares of common stock in connection with the vesting of restricted shares, restricted stock units, and performance restricted stock units, to satisfy required tax withholding obligations.

The following table sets forth information regarding purchases of our equity securities during the three-month period ended December 31, 2023:

Period	(a) Total number of shares purchased (1)	(b) Average price paid per share (1)	(c) Total number of shares purchased as part of publicly announced plans or programs	(d) Approximate dollar value of shares that may yet be purchased under the plans or programs
Month 1				
October 1, 2023 to October 31, 2023	—	$ —	—	$ —
Month 2				
November 1, 2023 to November 30, 2023	20,422	$ 33.73	—	$ —
Month 3				
December 1, 2023 to December 31, 2023	—	$ —	—	$ —
Total	20,422	$ 33.73	—	$ —

(1) Fully vested shares of common stock withheld (purchased) by us in satisfaction of required withholding tax liability upon the vesting of restricted stock awards, restricted stock units, and performance restricted stock units.

ITEM 7: MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following Management's Discussion and Analysis of Financial Condition and Results of Operations contains forward-looking statements relating to future events or the future financial performance of Digimarc, which involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements. Please see the discussion regarding forward-looking statements included at the end of this discussion, under the caption "Forward-Looking Statements," and Item 1A, "Risk Factors" for a discussion of some of the uncertainties, risks and assumptions associated with these statements.

The following discussion should be read in conjunction with our consolidated financial statements and the related notes and other financial information appearing elsewhere in this Annual Report on Form 10-K.

All dollar amounts in the following tables are in thousands except per share amounts or unless otherwise noted. The percentages within the tables included in this section may not sum to 100% due to rounding.

Overview

Digimarc, an Oregon corporation, is a pioneer and global leader in digital watermarking technologies. For nearly 30 years, Digimarc innovations and intellectual property in digital watermarking have been deployed in solutions built upon one or both of the following two things: the identification and the authentication of physical and digital items, often at massive scale, and often where other methods of identification or authentication don't work well or don't work at all.

The Digimarc Illuminate platform is a distinctive SaaS cloud-based platform for digital connectivity that provides the tools for the application of advanced digital watermarks and dynamic QR codes, software (digital twins) that enables various systems and devices to interact with those data carriers, and a centralized platform for capturing insights about digital interactions and automating activities based on that information.

The Digimarc product suite is built on top of the Digimarc Illuminate platform to power a trusted and scalable ecosystem that can address specific business needs in areas like automation, authenticity, sustainability, and customer trust and connectivity. All of the Company's products are complementary to each other, providing exponential benefits when combined. By enabling customers to create and connect digital twins to physical and digital items, Digimarc's products provide many benefits including:

- **Digimarc Validate** supports authentication in the physical and digital worlds to help ensure online interactions can be trusted and that real products and digital assets are genuine and in the right place. Digimarc's technology protects digital images, audio, product packaging, and other physical items by delivering exclusive, covert digital watermarks and/or dynamic QR codes and a cloud-based record of product authentication information. In addition, consumer engagement capabilities provide a direct, digital communications channel.

- **Digimarc Engage** activates products and multimedia to create and leverage an interactive, fully owned communications channel directly with consumers. Digimarc delivers dynamic QR codes and hyperlinks that provide contextual redirection capabilities for multiple consumer experiences based on a variety of factors such as time and location or previous behavior. Connecting engagements across the physical and digital worlds in a singular view results in powerful new capabilities and insights for brands.

- **Digimarc Recycle** increases the quality and quantity of recycled materials by digitizing products and packaging with digital watermarking technology. Coupled with consumer engagement capabilities, brands can leverage a direct, digital communications channel. Plus, brands can access a cloud-based record of never-before-seen post-consumption data that provides new insights.

- **Digimarc Retail Experience** delivers smarter, connected packaging that supports next-generation retail checkout systems, improved inventory management, advanced consumer engagement experiences, compliance with upcoming industry standards, and the collection of powerful first-party data and consumer insights.

Digimarc has maintained a relationship with the Central Banks for over 25 years, providing trusted technology to help deter digital counterfeiting of currency. The relationship was the first commercially successful large-scale use of our technologies and protects billions of banknotes in circulation globally.

Our intellectual property contains many innovations in digital watermarking, content and object recognition, product authentication, and related fields. To protect our inventions, we have implemented an extensive intellectual property protection program that relies on a combination of patent, copyright, trademark and trade secret laws, and nondisclosure agreements and other contracts. As a result, we believe we have one of the world's most extensive patent portfolios in digital watermarking and related fields, with approximately 850 U.S. and foreign patents granted and applications pending as of December 31, 2023. The patents in our portfolio each have a life of approximately 20 years from the patent's effective filing date.

On January 3, 2022, we completed the acquisition of EVRYTHNG. The EVRYTHNG Product Cloud allows the combined company to offer a complete SaaS product digitization platform to existing customers and prospective customers. The aggregate consideration for the acquisition was 804 thousand shares of common stock of the Company and warrants to purchase 231 thousand shares of common stock of the Company. The warrants expired unexercised. We also paid $4.0 million of closing costs on behalf of the EVRYTHNG sellers. The financial results of EVRYTHNG are consolidated with Digimarc's financial results for the post-acquisition period.

Critical Accounting Policies and Estimates

The preparation of financial statements in accordance with U.S. GAAP requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingent assets and liabilities. On an on-going basis, we evaluate our estimates, including those related to bad debts, contingencies, goodwill, income taxes, intangible assets, marketable securities, property and equipment and revenue recognition. We base our estimates on historical experience and on other assumptions we believe to be reasonable in the circumstances. Actual results may differ from these estimates under different assumptions and/or conditions.

Some of our accounting policies require higher degrees of judgment than others in their application. We believe the following critical accounting policies affect our more significant judgments and estimates used in the preparation of our consolidated financial statements.

Revenue recognition:

Revenue is recognized in accordance with Accounting Standards Codification ("ASC") 606 "*Revenue from Contracts with Customers*" by applying the following steps:

Step 1: Identify the contract(s) with a customer.

Step 2: Identify the performance obligation(s) in the contract.

Step 3: Determine the transaction price.

Step 4: Allocate the transaction price to the performance obligation(s) in the contract.

Step 5: Recognize when (or as) the entity satisfies the performance obligation(s).

We derive our revenue primarily from software subscriptions and software development services. Applicable revenue recognition criteria are considered separately for each performance obligation as follows:

- Subscription revenue consists primarily of revenue earned from subscription fees for access to our SaaS platform and products, and, to a lesser extent, licensing fees for our software products. The majority of subscription contracts are recurring, paid in advance and recognized over the term of the subscription, which is typically one to three years.

- Service revenue consists primarily of revenue earned from the performance of software development services and, to a lesser extent, professional services. The majority of software development contracts are structured as time and materials consulting agreements. Revenue for services is generally recognized as the services are performed. Billing for services rendered generally occurs within one month after the services are provided.

Customer arrangements may contain multiple performance obligations such as software subscriptions, software products, and professional services. We account for individual products and services separately if they are distinct. To determine the transaction price, we consider the terms of the contract and our customary business practices. Some contracts may contain variable consideration. In those cases, we estimate the amount of variable consideration based on the sum of probability-weighted amounts in a range of possible consideration amounts. As part of this assessment, we will evaluate whether any of the variable consideration is constrained and if it is, we will not include it in the transaction price. The consideration is allocated between distinct products and services based on their stand-alone selling prices. For items that are not sold separately, we estimate the standalone selling price based on reasonably available information, including market conditions, specific factors affecting us, and information about the customer. For distinct products and services, we typically recognize the revenue associated with these performance obligations as they are delivered to the customer. Products and services that are not capable of being distinct are combined with other products or services until a distinct performance obligation is identified.

All revenue recognized in the Consolidated Statements of Operations is considered to be revenue from contracts with customers.

Results of Operations—the Years Ended December 31, 2023 and December 31, 2022

The following tables present our consolidated statements of operations data for the periods indicated.

	Year Ended December 31,	
	2023	**2022**
Revenue:		
Subscription	$ 18,973	$ 15,219
Service	15,878	14,978
Total revenue	34,851	30,197
Cost of revenue:		
Subscription [(1)]	2,975	3,878
Service [(1)]	7,252	6,557
Amortization expense on acquired intangible assets	4,459	4,439
Total cost of revenue	14,686	14,874
Gross profit	20,165	15,323
Operating expenses:		
Sales and marketing	22,409	29,718
Research, development and engineering	26,577	26,490
General and administrative	18,071	18,945
Amortization expense on acquired intangible assets	1,065	1,064
Impairment of lease right of use assets and leasehold improvements	250	915
Total operating expenses	68,372	77,132
Operating loss	(48,207)	(61,809)
Other income, net	2,452	2,108
Loss before income taxes	(45,755)	(59,701)
Provision for income taxes	(204)	(97)
Net loss	$ (45,959)	$ (59,798)

	Year Ended December 31, 2023	2022
Percentages are percent of total revenue		
Revenue:		
Subscription	54%	50%
Service	46%	50%
Total revenue	100%	100%
Cost of revenue:		
Subscription [(1)]	9%	13%
Service [(1)]	21%	22%
Amortization expense on acquired intangible assets	13%	15%
Total cost of revenue	42%	49%
Gross profit	58%	51%
Operating expenses:		
Sales and marketing	64%	98%
Research, development and engineering	76%	88%
General and administrative	52%	63%
Amortization expense on acquired intangible assets	3%	4%
Impairment of lease right of use assets and leasehold improvements	1%	3%
Total operating expenses	196%	255%
Operating loss	(138)%	(205)%
Other income, net	7%	7%
Loss before income taxes	(131)%	(198)%
Provision for income taxes	(1)%	—%
Net loss	(132)%	(198)%

(1) Cost of revenue for Subscription and Service excludes Amortization expense on acquired intangible assets

Summary

Total revenue increased $4.7 million, or 15%, to $34.9 million, primarily due to $4.9 million of higher subscription revenue from new and existing commercial contracts, and $1.9 million of higher service revenue from the Central Banks, reflecting a larger annual budget for program work, partially offset by $0.9 million of lower subscription revenue as a result of sunsetting our Piracy Intelligence product in 2022, and $0.8 million of lower service revenue from the timing of HolyGrail 2.0 recycling projects.

Total operating expenses decreased $8.8 million, or 11%, to $68.4 million, primarily due to $4.2 million of lower compensation costs due to lower headcount, partially offset by annual compensation adjustments, $1.5 million of lower contractor and consulting costs, $1.1 million of lower travel and training costs, $0.9 million of lower legal costs, $0.8 million of lower facility costs, and $0.7 million of lower lease impairment expense, partially offset by higher severance costs of $0.7 million incurred for organizational changes.

Revenue

	Year Ended December 31, 2023	2022	Dollar Increase/(Decrease)	Percent Increase/(Decrease)
Revenue:				
Subscription	$ 18,973	$ 15,219	$ 3,754	25%
Service	15,878	14,978	900	6%
Total	$ 34,851	$ 30,197	$ 4,654	15%
Revenue (as % of total revenue):				
Subscription	54%	50%		
Service	46%	50%		
Total	100%	100%		

Subscription. Subscription revenue consists primarily of revenue earned from subscription fees for access to our SaaS platform and products and, to a lesser extent, licensing fees for our software products. The majority of subscription contracts are recurring, paid in advance and recognized over the term of the subscription, which is typically one to three years.

The $3.8 million increase in subscription revenue was primarily due to $4.9 million of higher subscription revenue from new and existing commercial contracts, partially offset by $0.9 million of lower subscription revenue as a result of sunsetting our Piracy Intelligence product in 2022.

Service. Service revenue consists primarily of revenue earned from the performance of software development services and, to a lesser extent, professional services. The majority of software development contracts are structured as time and materials agreements. Revenue for services is generally recognized as the services are performed. Billing for services rendered generally occurs within one month after the services are provided. Service contracts can range from days to several years in length. Our contract with the Central Banks, which accounts for the majority of our service revenue, has a contract term through December 31, 2029. The contract is subject to work plans that are reviewed and agreed upon quarterly. The contract provides for predetermined billing rates, which are adjusted annually to account for cost of living variables, and provides for the reimbursement of third party costs incurred to support the work plans.

The $0.9 million increase in service revenue was primarily due to $1.9 million of higher service revenue from the Central Banks, reflecting a larger annual budget for program work, partially offset by $0.8 million of lower service revenue from the timing of HolyGrail 2.0 recycling projects.

Revenue by geography

	Year Ended December 31,		Dollar	Percent
	2023	2022	Increase/(Decrease)	Increase/(Decrease)
Revenue by geography:				
Domestic	$ 11,380	$ 10,029	$ 1,351	13%
International	23,471	20,168	3,303	16%
Total	$ 34,851	$ 30,197	$ 4,654	15%
Revenue (as % of total revenue):				
Domestic	33%	33%		
International	67%	67%		
Total	100%	100%		

Domestic. The $1.4 million increase in domestic revenue was primarily due to $2.5 million of higher domestic subscription revenue from new and existing commercial contracts, partially offset by $0.6 million of lower domestic subscription revenue as a result of sunsetting our Piracy Intelligence product in 2022.

International. The $3.3 million increase in international revenue was primarily due to $2.4 million of higher international subscription revenue from new and existing commercial contracts, and $1.9 million of higher service revenue from the Central Banks, reflecting a larger annual budget for program work, partially offset by $0.8 million of lower service revenue from the timing of HolyGrail 2.0 recycling projects, and $0.3 million of lower international subscription revenue as a result of sunsetting our Piracy Intelligence product in 2022.

Revenue by market

	Year Ended December 31, 2023	Year Ended December 31, 2022	Dollar Increase/(Decrease)	Percent Increase/(Decrease)
Commercial:				
Subscription	$ 17,773	$ 13,832	$ 3,941	28%
Service	1,042	2,056	(1,014)	(49)%
Total Commercial	$ 18,815	$ 15,888	$ 2,927	18%
Government:				
Subscription	$ 1,200	$ 1,387	$ (187)	(13)%
Service	14,836	12,922	1,914	15%
Total Government	$ 16,036	$ 14,309	$ 1,727	12%
Total	$ 34,851	$ 30,197	$ 4,654	15%

Commercial. The $2.9 million increase in commercial revenue was primarily due to $4.9 million of higher subscription revenue from new and existing commercial contracts, partially offset by $0.9 million of lower subscription revenue as a result of sunsetting our Piracy Intelligence product in 2022, and $0.8 million of lower service revenue from the timing of HolyGrail 2.0 recycling projects.

Government. The $1.7 million increase in government revenue was primarily due to $1.9 million of higher service revenue from the Central Banks, reflecting a larger annual budget for program work.

Annual Recurring Revenue ("ARR")

	As of December 31, 2023	As of December 31, 2022	Dollar Increase (Decrease)	Percent Increase (Decrease)
ARR	$ 22,251	$ 13,013	$ 9,238	71%

ARR increased $9.2 million, or 71%, primarily driven by new commercial subscription contracts, and, to a lesser extent, increased subscription fees on existing commercial contracts.

We provide an ARR performance metric to help investors better understand and assess the performance of our business because our mix of revenue generated from recurring sources has increased in recent years. ARR is calculated as the aggregation of annualized subscription fees from all of our commercial contracts as of the measurement date. ARR does not have any standardized meaning and is therefore unlikely to be comparable to similarly titled measures presented by other companies. ARR should be viewed independently of revenue and deferred revenue and is not intended to be combined with, or to replace, either of those items. ARR is not a forecast and the active contracts at the end of a reporting period used in calculating ARR may or may not be extended or renewed by our customers.

Cost of revenue

Subscription. Cost of subscription revenue primarily includes:

- internet cloud hosting costs and image search data fees to support our software subscriptions; and
- amortization of capitalized patent costs and patent maintenance fees.

Service. Cost of service revenue primarily includes:

- compensation, benefits, incentive compensation in the form of stock-based compensation and related costs for our software developers, quality assurance personnel, professional services team and other personnel where we bill our customers for time and materials costs;
- payments to outside contractors that are billed to customers;

- charges for equipment and software directly used by customers; and

- travel costs that are billed to customers.

Amortization expense on acquired intangible assets. Amortization expense includes:

- amortization expense recognized on the developed technology intangible asset acquired in the EVRYTHNG acquisition.

Gross profit

	Year Ended December 31, 2023	Year Ended December 31, 2022	Dollar Increase/(Decrease)	Percent Increase/(Decrease)
Gross Profit:				
Subscription (1)	$ 15,998	$ 11,341	$ 4,657	41%
Service (1)	8,626	8,421	205	2%
Amortization expense on acquired intangible assets	(4,459)	(4,439)	(20)	—%
Total	$ 20,165	$ 15,323	$ 4,842	32%
Gross Profit Margin:				
Subscription (1)	84%	75%		
Service (1)	54%	56%		
Total	58%	51%		

(1) Gross Profit and Gross Profit Margin for Subscription and Service excludes amortization expense on acquired intangible assets.

The $4.8 million increase in total gross profit was primarily due to higher subscription gross profit contribution reflecting higher subscription revenue and a more favorable mix of subscription revenue in 2023.

The 9 percentage point increase in subscription gross profit margin, excluding amortization expense on acquired intangible assets, was primarily due to higher subscription revenue combined with a more favorable mix of subscription revenue in 2023.

The 2 percentage point decrease in service gross profit margin, excluding amortization expense on acquired intangible assets, was primarily due to a more favorable mix of service revenue in 2022.

Operating expenses

Sales and marketing

	Year Ended December 31, 2023	Year Ended December 31, 2022	Dollar Increase/(Decrease)	Percent Increase/(Decrease)
Sales and marketing	$ 22,409	$ 29,718	$ (7,309)	(25)%
Sales and marketing (as % of total revenue)	64%	98%		

Sales and marketing expenses consist primarily of:

- compensation, benefits, incentive compensation in the form of stock-based compensation and related costs for our sales, marketing, product, operations and customer support personnel;

- travel and market research costs, and costs associated with marketing programs, such as trade shows, public relations and new product launches;

- professional services, consulting and outside contractor costs for sales and marketing and product initiatives; and

- the allocation of facilities and information technology costs.

The $7.3 million decrease in sales and marketing expenses was primarily due to:

- decreased compensation costs of $3.9 million, reflecting lower headcount, partially offset by annual compensation adjustments;

- decreased allocation of facility and information technology costs of $1.5 million due to lower headcount;

- decreased contractor and consulting costs of $1.3 million;

- decreased travel and training costs of $0.9 million; and

- decreased severance costs of $0.2 million incurred for organizational changes.

Research, development and engineering

	Year Ended December 31,		Dollar	Percent
	2023	2022	Increase/(Decrease)	Increase/(Decrease)
Research, development and engineering	$ 26,577	$ 26,490	$ 87	—%
Research, development and engineering (as % of total revenue)	76%	88%		

Research, development and engineering expenses arise primarily from three areas that support our business model: fundamental research, platform development and product development.

Research, development and engineering expenses consist primarily of:

- compensation, benefits, incentive compensation in the form of stock-based compensation and related costs for our software and hardware developers and quality assurance personnel;

- payments to outside contractors for software development services;

- the purchase of materials and services used in product development; and

- the allocation of facilities and information technology costs.

The $0.1 million increase in research, development and engineering expenses was primarily due to:

- increased severance costs of $0.9 million incurred for organizational changes;

- increased contractor and consulting costs of $0.6 million; and

- increased hardware, software and maintenance costs of $0.5 million; partially offset by

- decreased allocation of facility and information technology costs of $1.3 million due to lower headcount; and
- decreased compensation costs of $0.6 million, reflecting lower headcount, partially offset by annual compensation adjustments.

General and administrative

	Year Ended December 31,		Dollar	Percent
	2023	2022	Increase/(Decrease)	Increase/(Decrease)
General and administrative	$ 18,071	$ 18,945	$ (874)	(5)%
General and administrative (as % of total revenue)	52%	63%		

We incur general and administrative costs in the functional areas of finance, legal, human resources, intellectual property, executive, and board of directors. Costs for facilities and information technology are also managed as part of the general and administrative processes and are allocated to this area as well as each of the areas in sales and marketing and research, development and engineering, based on relative headcount.

General and administrative expenses consist primarily of:

- compensation, benefits and incentive compensation in the form of stock-based compensation and related costs for our general and administrative personnel;
- third party and professional fees associated with legal, accounting and human resources functions;
- costs associated with being a public company;
- third party costs, including filing and governmental regulatory fees and outside legal fees and translation costs, related to the filing and maintenance of our intellectual property; and
- the allocation of facilities and information technology costs.

The $0.9 million decrease in general and administrative expenses was primarily due to:

- decreased legal costs of $0.9 million;
- decreased contractor and consulting costs of $0.8 million;
- decreased hardware, software and maintenance costs of $0.6 million;
- decreased operating taxes of $0.3 million, largely reflecting the U.K. stamp tax owed on the EVRYTHNG acquisition in 2022; and
- decreased travel and training costs of $0.1 million; partially offset by
- increased allocation of facility and information technology costs of $2.8 million, offset by $0.8 million of lower facilities costs; and
- increased compensation costs of $0.2 million, reflecting annual compensation adjustments, partially offset by lower headcount.

Amortization expense on acquired intangible assets

	Year Ended December 31, 2023	Year Ended December 31, 2022	Dollar Increase/(Decrease)	Percent Increase/(Decrease)
Amortization expense on acquired intangible assets	$ 1,065	$ 1,064	$ 1	—%
Amortization expense on acquired intangible assets (as % of total revenue)	3%	4%		

Amortization expense on acquired intangible assets relates to amortization expense recognized on the customer relationships intangible asset acquired in the EVRYTHNG acquisition.

The increase in amortization expense on acquired intangible assets was primarily due to the impact of changes in foreign currency exchange rates.

Impairment of lease right of use assets and leasehold improvements

	Year Ended December 31, 2023	Year Ended December 31, 2022	Dollar Increase/(Decrease)	Percent Increase/(Decrease)
Impairment of lease right of use assets and leasehold improvements	$ 250	$ 915	$ (665)	(73)%
Impairment of lease right of use assets and leasehold improvements (as % of total revenue)	1%	3%		

The $0.7 million decrease in impairment of lease right of use assets and leasehold improvements was primarily due to the differences in the amount of impairment charges recorded for each respective year on our former corporate headquarters.

Stock-based compensation

	Year Ended December 31, 2023	Year Ended December 31, 2022	Dollar Increase/(Decrease)	Percent Increase/(Decrease)
Cost of revenue	$ 1,126	$ 913	$ 213	23%
Sales and marketing	2,640	3,842	(1,202)	(31)%
Research, development and engineering	2,962	2,646	316	12%
General and administrative	4,430	3,888	542	14%
Total stock-based compensation	$ 11,158	$ 11,289	$ (131)	(1)%

The $0.1 million decrease in stock-based compensation expense was primarily due to a lower amount of employee equity grants made in 2023 than in 2022.

We anticipate incurring an additional $15.4 million in stock-based compensation expense through December 31, 2027 for awards outstanding as of December 31, 2023.

Leases

In February 2022, we entered into a sublease agreement and lease extension agreement for office space in Beaverton, Oregon in order to move our corporate headquarters. The new facility is approximately 65,500 square feet in size. The term of the sublease and lease extension runs through September 2030. The remaining rent payments as of December 31, 2023 were $8.8 million plus operating expenses, payable in monthly installments. The first 26 months of rent payments and operating expenses are abated to cover the remaining term of the lease on our former corporate headquarters.

We continue to lease our former corporate headquarters, which is approximately 47,000 square feet in size and also located in Beaverton, Oregon. The lease expires in March 2024. The remaining rent payments as of December 31, 2023 were $0.2 million plus operating expenses, payable in monthly installments.

Other income, net

	Year Ended December 31, 2023	Year Ended December 31, 2022	Dollar Increase/(Decrease)	Percent Increase/(Decrease)
Other income, net	$ 2,452	$ 2,108	$ 344	16%
Other income, net (as % of total revenue)	7%	7%		

The $0.3 million increase in other income, net was primarily due to $0.9 million of higher interest income due to higher interest rates on our marketable securities, partially offset by $0.6 million of lower estimated refundable research and development tax credits in the U.K. because of recent changes in the tax laws.

Provision for income taxes

The provision for income taxes reflects current taxes and deferred taxes.

For the year ended December 31, 2023, our effective tax rate was 0%, reflecting a valuation allowance recorded against our deferred tax assets. The valuation allowance against deferred tax assets as of December 31, 2023 was $95,256, an increase of $12,256 from $83,000 as of December 31, 2022. We continually assess the applicability of a valuation allowance against our deferred tax assets. Based upon the positive and negative evidence available as of December 31, 2023, and largely due to the cumulative loss incurred by us over the preceding three years, which is considered a significant piece of negative evidence when assessing the realizability of deferred tax assets, a valuation allowance is recorded against our deferred tax assets. We will not record tax benefits on any future losses until it is determined that those tax benefits will be realized. All future reversals of the valuation allowance would result in a tax benefit in the period recognized.

For the year ended December 31, 2022, our effective tax rate was 0%, reflecting a valuation allowance recorded against our deferred tax assets. The valuation allowance against deferred tax assets as of December 31, 2022, was $83,000, an increase of $18,727 from $64,273 as of December 31, 2021.

Non-GAAP Financial Measures

The following discussion and analysis include both financial measures in accordance with U.S. GAAP ("GAAP") as well as non-GAAP financial measures. Generally, a non-GAAP financial measure is a numerical measure of a company's performance, financial position or cash flows that excludes amounts that are not normally excluded in the most directly comparable measure calculated and presented in accordance with GAAP. Non-GAAP financial measures should be viewed as supplemental to, and should not be considered as alternatives to, GAAP financial measures. Non-GAAP financial measures may not be indicative of the historical operating results of the Company nor are they intended to be predictive of potential future results. Investors should not consider non-GAAP financial measures in isolation or as substitutes for performance measures calculated in accordance with GAAP. Our management uses and relies on Non-GAAP gross profit, Non-GAAP gross profit margin, Non-GAAP operating expenses, Non-GAAP net loss, and Non-GAAP loss per common share (diluted), which are all non-GAAP financial measures. We believe that both management and shareholders benefit from referring to the following non-GAAP financial measures in planning, forecasting and analyzing future periods.

Our management uses these non-GAAP financial measures in evaluating its financial and operational decision making and as a means to evaluate period-to-period comparisons. Our management recognizes that the non-GAAP financial measures have inherent limitations because of the described excluded items.

We define Non-GAAP gross profit, Non-GAAP gross profit margin, Non-GAAP operating expenses, Non-GAAP net loss, and Non-GAAP loss per common share (diluted) excluding the adjustments in the table below. These non-GAAP financial measures are an important measure of our operating performance because they allow management, investors and analysts to evaluate and assess our core operating results from period-to-period after removing non-cash and non-recurring activities that can affect comparability.

We have included a reconciliation of our financial measures calculated in accordance with GAAP to the most comparable non-GAAP financial measures. We believe that providing the non-GAAP financial measures, together with the reconciliation to GAAP, helps investors make comparisons between us and other companies. In making any comparisons to other companies, investors need to be aware that companies use different non-GAAP measures to evaluate their financial performance. Investors should pay close attention to the specific definition being used and to the reconciliation between such measures and the corresponding GAAP measures provided by each company under applicable SEC rules.

The following table presents a reconciliation of Non-GAAP gross profit, Non-GAAP gross profit margin, Non-GAAP operating expenses, Non-GAAP net loss, and Non-GAAP loss per common share (diluted) for the years ended December 31, 2023 and 2022:

	Year Ended December 31,	
	2023	2022
GAAP gross profit	$ 20,165	$ 15,323
Amortization of acquired intangible assets	4,459	4,439
Amortization and write-off of other intangible assets	573	576
Stock-based compensation	1,126	913
Non-GAAP gross profit	$ 26,323	$ 21,251
Non-GAAP gross profit margin	76%	70%
GAAP operating expenses	$ 68,372	$ 77,132
Depreciation and write-off of property and equipment	(1,121)	(1,372)
Amortization of acquired intangible assets	(1,065)	(1,064)
Amortization and write-off of other intangible assets	(393)	(163)
Amortization of lease right of use assets under operating leases	(517)	(965)
Stock-based compensation	(10,032)	(10,376)
Impairment of lease right of use assets and leasehold improvements	(250)	(915)
Acquisition-related expenses	—	(447)
Non-GAAP operating expenses	$ 54,994	$ 61,830
GAAP net loss	$ (45,959)	$ (59,798)
Total adjustments to gross profit	6,158	5,928
Total adjustments to operating expenses	13,378	15,302
Non-GAAP net loss	$ (26,423)	$ (38,568)
GAAP loss per share (diluted)	$ (2.26)	$ (3.12)
Non-GAAP net loss	$ (26,423)	$ (38,568)
Non-GAAP loss per share (diluted)	$ (1.30)	$ (2.02)

Non-GAAP gross profit increased by $5.1 million primarily due to higher gross profit contribution from higher subscription revenue and a more favorable mix of subscription revenue in 2023.

Non-GAAP gross profit margin increased by 6 percentage points primarily due to higher subscription revenue combined with a more favorable mix of subscription revenue in 2023, partially offset by a more favorable mix of service revenue in 2022.

Non-GAAP operating expenses decreased by $6.8 million primarily due to $4.1 million of lower cash compensation costs due to lower headcount, partially offset by annual compensation adjustments, $1.5 million of lower contractor and consulting costs, $1.1 million of lower travel and training costs, and $0.9 million of lower legal costs, partially offset by higher cash severance costs of $0.7 million as a result of organizational changes.

Liquidity and Capital Resources

	December 31, 2023	December 31, 2022
Working capital	$ 24,555	$ 54,007
Current ratio [(1)]	3:1	6.3:1
Cash, cash equivalents and short-term marketable securities	$ 27,182	$ 52,542
Long-term marketable securities	—	—
Total cash, cash equivalents and marketable securities	$ 27,182	$ 52,542

(1) The current (liquidity) ratio is calculated by dividing total current assets by total current liabilities.

The $25.4 million decrease in cash, cash equivalents and marketable securities at December 31, 2023, from December 31, 2022, resulted primarily from:

- cash used in operations;
- purchases of common stock related to tax withholding in connection with the vesting of restricted stock, restricted stock units, and performance stock units; and
- purchases of property and equipment and capitalized patent costs.

Financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash and cash equivalents, marketable securities, and trade accounts receivable. We place our cash and cash equivalents with major banks and financial institutions and at times deposits may exceed insured limits. Marketable securities include commercial paper, U.S. treasuries, federal agency notes, and corporate notes. Our investment policy requires our portfolio to be invested to ensure that the greater of $3.0 million or 7% of the invested funds will be available within 30 days' notice.

Other than cash used for operating needs, which may include short-term marketable securities, our investment policy limits our credit exposure to any one financial institution or type of financial instrument by limiting the maximum of 5% of our cash and cash equivalents and marketable securities or $1.0 million, whichever is greater, to be invested in any one issuer except for the U.S. government, U.S. federal agencies and U.S.-backed securities, which have no limits, at the time of purchase. Our investment policy also limits our credit exposure by limiting to a maximum of 40% of our cash and cash equivalents and marketable securities, or $15.0 million, whichever is greater, to be invested in any one industry category, (e.g., financial, energy, etc.), at the time of purchase. As a result, we believe our credit risk associated with cash and investments to be minimal.

A decline in the market value of any security that is deemed to be other-than-temporary is charged to earnings. To determine whether an impairment is other-than-temporary, we consider whether we have the ability and intent to hold the investment until a market price recovery and evidence indicating that the cost of the investment is recoverable outweighs evidence to the contrary. There have been no other-than-temporary impairments identified or recorded by us in the years ended December 31, 2023 and 2022.

Cash flows from operating activities

	Year Ended December 31,		Dollar	Percent
	2023	2022	Increase/(Decrease)	Increase/(Decrease)
Net loss	$ (45,959)	$ (59,798)	$ (13,839)	(23)%
Non-cash items	19,556	20,872	1,316	6%
Changes in operating assets and liabilities	4,408	(5,482)	(9,890)	(180)%
Net cash used in operating activities	$ (21,995)	$ (44,408)	$ (22,413)	(50)%

Cash flows used in operating activities in 2023 compared to 2022 decreased by $22.4 million, from $44.4 million to $22.0 million, respectively, primarily due to a $13.8 million lower net loss, and favorable changes in operating assets and liabilities of $9.9 million, partially offset by $1.3 million of lower non-cash items included in net loss. Changes in operating assets and liabilities primarily reflect changes in the timing and amounts of cash receipts and cash payments from 2022 to 2023. The change in non-cash items primarily reflects lower impairment on lease right of use assets and amortization expense.

Cash flows from investing activities

Cash flows provided by investing activities in 2023 compared to 2022 increased by $8.8 million, from $3.8 million to $12.6 million, primarily as a result of $4.6 million higher net maturities of marketable securities, $3.5 million of net cash paid in 2022 for the acquisition of EVRYTHNG, and $0.6 million of lower purchases of property and equipment.

Cash flows from financing activities

Cash flows from financing activities in 2023 compared to 2022 decreased by $63.3 million, from $60.5 million of cash provided to $2.8 million of cash used, primarily as a result of net proceeds of $62.9 million from the issuance of common stock in 2022.

Future cash expectations

Under the rules of ASC Subtopic 205-40 "*Presentation of Financial Statements-Going Concern*" ("ASC 205-40"), companies are required to evaluate whether conditions and/or events raise substantial doubt about their ability to meet their future financial obligations as they become due within one year after the date that the financial statements are issued. This evaluation takes into account a company's current available cash and projected cash needs over the one-year evaluation period but may not consider things beyond its control. We have incurred operating losses and negative cash flows from operating activities during the last several years, and depending on future results, may continue to incur such losses and negative cash flows in the future. We believe our currently available cash and marketable securities will satisfy our projected working capital and capital expenditure requirements for at least the next 12 months.

Registered Direct Offering

On February 24, 2024, we entered into purchase agreements with certain investors providing for the issuance and sale by us of 929 thousand common shares in a registered direct stock offering. The common shares were offered at a price of $35.00 per share, and the gross cash proceeds to us were $32.5 million. We incurred $0.2 million of legal costs related to the offering. The closing of the registered direct offering occurred on February 27, 2024.

On April 5, 2022, we entered into purchase agreements with certain investors providing for the issuance and sale by us of 2.25 million common shares in a registered direct stock offering. The common shares were offered at a price of $25.90 per share, and the gross cash proceeds to us were $58.3 million. We incurred $0.1 million of legal costs related to the offering. The closing of the registered direct offering occurred on April 7, 2022.

Equity Distribution Agreement

On May 16, 2019, we entered into an Equity Distribution Agreement, whereby we may sell from time to time through Wells Fargo Securities, LLC, as our sales agent, our common stock having an aggregate offering price of up to $30.0 million. Wells Fargo Securities, LLC will receive from us a commission equal to 2.50% of the gross sales price per share of common stock for shares having an aggregate offering price of up to $10.0 million, and a commission of 2.25% of the gross sales price per share of common stock thereafter, for shares sold under the Equity Distribution Agreement. During the year ended December 31, 2022, we sold 222 thousand shares at an average price of $22.42 per share under this Equity Distribution Agreement, totaling $5.0 million of cash proceeds, less $0.1 million of commissions and $0.2 million of stock issuance costs. We did not sell any shares under this Equity Distribution Agreement during the year ended December 31, 2023. As of December 31, 2023, $1.9 million remains available for future issuance under the Equity Distribution Agreement. On February 27, 2024, we provided notice to Wells Fargo Securities, LLC of our intention to terminate the Equity Distribution Agreement effective March 1, 2024.

Shelf Registration

On June 23, 2023, we filed a new shelf registration statement on Form S-3 that included $34.6 million of unsold securities from our prior shelf registration statement filed on June 5, 2020. The new shelf registration statement became effective on July 19, 2023, and expires on July 19, 2026. Under the new shelf registration statement, we may sell securities in one or more offerings up to $100.0 million. As of December 31, 2023, $100.0 million remained available under the new shelf registration statement. After the $32.5 million registered direct stock offering closed on February 27, 2024, only $67.5 million remained available under the new shelf registration statement.

We may sell shares under the shelf registration and/or use similar or other financing means to raise working capital in the future, if necessary, to support continued investment in our growth initiatives. We may also raise capital in the future to fund acquisitions and/or investments in complementary businesses, technologies or product lines. If it becomes necessary to obtain additional financing, we may not be able to do so, or if these funds are available, they may not be available on satisfactory terms. These factors may inhibit our near-term ability to obtain financing.

Forward-Looking Statements

This Annual Report on Form 10-K includes "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934 and Section 27A of the Securities Act of 1933. Words such as "may," "might," "plan," "should," "could," "expect," "anticipate," "intend," "believe," "project," "forecast," "estimate," "continue," and variations of such terms or similar expressions are intended to identify such forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements, or other statements made by us, are made based on our expectations and beliefs concerning future events impacting us, and are subject to uncertainties and factors (including those specified below), which are difficult to predict and, in many instances, are beyond our control. As a result, our actual results could differ materially from those expressed in or implied by any such forward-looking statements, and investors are cautioned not to place undue reliance on such statements. We believe that the following factors, among others (including those described in Item 1A. "Risk Factors"), could affect our future performance and the liquidity and value of our securities and cause our actual results to differ materially from those expressed or implied by forward-looking statements made by us. Forward-looking statements include but are not limited to statements relating to:

- our expectations regarding the acquisition of EVRYTHNG and its impact on our business;
- the concentration of most of our revenue among few customers and the trends and sources of future revenue;
- anticipated successful advocacy of our technology by our partners;
- our belief regarding the global deployment of our products;
- our belief in the utility of Digimarc Validate;
- our beliefs regarding potential outcomes of participating in the HolyGrail 2.0 initiative and the utility of our products in the recycling industry;
- our initiatives around sustainability, people and governance;
- our future level of investment in our business, including investment in research, development and engineering of products and technology, development of our intellectual property, sales growth initiatives and development of new market opportunities;
- anticipated expenses, costs, margins, provision for income taxes and investment activities in the foreseeable future;
- our assumptions and expectations related to stock awards;
- our belief that we have one of the world's most extensive patent portfolios in digital watermarking and related fields;
- anticipated effects of our adoption of accounting pronouncements;
- our beliefs regarding our critical accounting policies;
- our expectations regarding the impact of accounting pronouncements issued but not yet adopted;
- anticipated revenue to be generated from current contracts, renewals, and as a result of new programs;
- our estimates, judgments and assumptions related to impairment testing;
- variability of contracted arrangements in response to changes in circumstances underlying the original contractual arrangements;
- business opportunities that could require that we seek additional financing and our ability to do so;

- the size and growth of our markets and our assumptions and beliefs related to those markets;
- the existence of international growth opportunities and our future investment in such opportunities;
- our expected short-term and long-term liquidity positions;
- our capital expenditure and working capital requirements and our ability to fund our capital expenditure and working capital needs through cash flow from operations or financing;
- our expectations regarding our ability to meet future financial obligations as they become due within the coming fiscal year;
- the effect of computerized trading on our stock price;
- capital market conditions, our expectations regarding credit risk exposure, interest rate volatility and other limitations on the availability of capital, which could have an impact on our cost of capital and our ability to access the capital markets;
- our use of cash, cash equivalents and marketable securities in upcoming quarters and the possibility that our deposits of cash and cash equivalents with major banks and financial institutions may exceed insured limits;
- the strength of our competitive position and our ability to innovate and enhance our competitive differentiation;
- our beliefs related to our existing facilities;
- protection, development and monetization of our intellectual property portfolio;
- our beliefs related to our relationship with our employees and the effect of increasing diversity within our workforce;
- our beliefs regarding cybersecurity incidents;
- our beliefs related to certain provisions in our bylaws and articles of incorporation;
- our beliefs related to legal proceedings and claims arising in the ordinary course of business; and
- other risks detailed in our filings with the Securities and Exchange Commission, including the risk factors set forth in Item 1A. “Risk Factors.”

We believe that the risk factors specified above and the risk factors contained in Item 1A, “Risk Factors,” among others, could affect our future performance and the liquidity and value of our securities and cause our actual results to differ materially from those expressed or implied by forward-looking statements made by us or on our behalf. Investors should understand that it is not possible to predict or identify all risk factors and that there may be other factors that may cause our actual results to differ materially from the forward-looking statements. All forward-looking statements made by us or by persons acting on our behalf apply only as of the date of this Annual Report on Form 10-K. We do not undertake any obligation to publicly update or revise any forward-looking statements to reflect future events, information or circumstances that arise after the date of the filing of this Annual Report on Form 10-K.

ITEM 7A: QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not applicable.

ITEM 8: FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Our Consolidated Financial Statements and the accompanying Notes that are filed as part of this Annual Report are listed under Part III, Item 15, Exhibits and Financial Statement Schedules and are set forth beginning on page F-1 immediately following the signature page of this Form 10-K.

ITEM 9: CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None

ITEM 9A: CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, have carried out an evaluation of the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934) as of the end of the period covered by this Form 10-K. These disclosure controls and procedures are designed to ensure that information required to be disclosed by us in reports that we file or submit under the Securities Exchange Act of 1934 is (i) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and (ii) accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Based on our evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures, as of the end of the period covered by this Form 10-K, were effective.

Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. GAAP.

Because of inherent limitations, any control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Management is committed to continue monitoring our internal controls over financial reporting and will modify or implement additional controls and procedures that may be required to ensure the ongoing integrity of our consolidated financial statements.

With the participation of our Chief Executive Officer and Chief Financial Officer, management conducted an evaluation of the effectiveness of internal control over financial reporting based on the framework established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, ("COSO"). Based on this evaluation, management has concluded that internal control over financial reporting was effective as of the end of the period covered by this Form 10-K based on those criteria.

Changes in Internal Control Over Financial Reporting

There was no change in our internal control over financial reporting that occurred during the quarter ended December 31, 2023, that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B: OTHER INFORMATION

During the three months ended December 31, 2023, no director or officer of the Company adopted or terminated a "Rule10b5-1 trading arrangement" or "non-Rule10b5-1 trading arrangement", as each term is defined in Item 408(a) of Regulation S-K.

ITEM 9C: DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable

PART III

Certain information required by Part III of this Annual Report on Form 10-K is incorporated herein by reference to the Proxy Statement for our 2024 annual meeting of shareholders, which we intend to file no later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

ITEM 10: DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Code of Ethics

We have adopted a Code of Business Conduct that applies to our principal executive officer, principal financial officer and controller, as well as a Code of Ethics for Financial Professionals that applies to our principal financial officer and controller. We have made these codes available in the Corporate Governance section of our website at *http://www.digimarc.com/about/company/corporate-governance*. If we waive, or implicitly waive, any material provision of the codes, or substantively amend the codes, we will disclose that fact on our website within four business days.

The other information required by this item is incorporated herein by reference to the information in the Proxy Statement, which we intend to file with the SEC no later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K under the captions "Election of Directors," "Management Team," "Report of the Governance, Nominating, and Sustainability Committee of the Board of Directors—Audit Committee," and "Other Matters—Delinquent Section 16(a) Reports."

ITEM 11: EXECUTIVE COMPENSATION

The information required by this item is incorporated herein by reference to the information in the Proxy Statement, which we intend to file with the SEC no later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K, under the captions "Director Compensation" and "Executive Compensation."

ITEM 12: SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this item is incorporated herein by reference to the information in the Proxy Statement, which we intend to file with the SEC no later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K, under the captions "Security Ownership of Certain Beneficial Owners and Management" and "Equity Compensation Plan Information."

ITEM 13: CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this item is incorporated herein by reference to the information in the Proxy Statement, which we intend to file with the SEC no later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K under the captions "Determinations of Board Member Independence" and "Related Party Transactions."

ITEM 14: PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this item is incorporated herein by reference to the information in the Proxy Statement, which we intend to file with the SEC no later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K, under the captions "Audit and Other Fees Paid to KPMG LLP" and "Approval of Audit Fees and Pre-Approval Policy."

ITEM 15: EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a)(1) Financial Statements

The following documents are filed as part of this Annual Report on Form 10-K:

(i) Report of Independent Registered Public Accounting Firm
Consolidated Balance Sheets as of December 31, 2023 and 2022
Consolidated Statements of Operations and Comprehensive Loss for the years ended December 31, 2023 and 2022
Consolidated Statements of Shareholders' Equity for the years ended December 31, 2023 and 2022
Consolidated Statements of Cash Flows for the years ended December 31, 2023 and 2022

(ii) Notes to Consolidated Financial Statements

(a)(2) Financial Statement Schedules

All schedules have been omitted since they are not required or are not applicable or the required information is shown in the consolidated financial statements or related notes.

(a)(3) Exhibits

EXHIBIT INDEX

The agreements included or incorporated by reference as exhibits to this report may contain representations and warranties by each of the parties to the applicable agreement. These representations and warranties have been made solely for the benefit of the other party or parties to the applicable agreement and:

- were not intended to be treated as categorical statements of fact, but rather as a means of allocating the risk to one of the parties if those statements prove to be inaccurate;
- were qualified by disclosures that were made to the other party or parties in connection with the negotiation of the applicable agreement, which disclosures are not necessarily reflected in the agreement;
- may apply standards of "materiality" that are different from "materiality" under the securities laws; and
- were made only as of the date of the applicable agreement or other date or dates that may be specified in the agreement.

Accordingly, these representations and warranties may not describe the actual state of affairs as of the date they were made or at any other time. Additional information about Digimarc may be found elsewhere in this Annual Report on Form 10-K and in Digimarc's other public filings, which are available without charge through the SEC's website at *http://www.sec.gov*.

Exhibit Number	Exhibit Description
2.1	Separation Agreement among DMRC Corporation, DMRC LLC, Digimarc Corporation and, with respect to certain sections, L-1 Identity Solutions, Inc. (incorporated by reference to Exhibit 2.1 to Amendment No. 2 to the Company's Registration Statement on Form 10, filed with the Commission on August 13, 2008 (File No. 001-34108))†
2.2	Agreement and Plan of Merger dated April 30, 2010 between Digimarc Corporation, a Delaware corporation, and Digimarc Oregon Corporation, an Oregon corporation (incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K, filed with the Commission on May 4, 2010 (File No. 001-34108))
2.3	Share Purchase Agreement dated November 15, 2021 between Digimarc Corporation, an Oregon corporation, and EVRYTHNG Limited, a company incorporated and registered in England, the sellers party thereto, and Fortis Advisors LLC, a Delaware limited liability company (incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K, filed with the Commission on January 4, 2022 (File No. 001-34108))
3.1	Articles of Incorporation of Digimarc Corporation (incorporated by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q, filed with the Commission on October 30, 2020 (File No. 001-34108))
3.2	Bylaws of Digimarc Corporation (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K, filed with the Commission on May 4, 2010 (File No. 001-34108))
4.1	Specimen common stock certificate of Digimarc Corporation (incorporated by reference to Exhibit 4.1 to the Company's Quarterly Report on Form 10-Q, filed with the Commission on July 25, 2014 (File No. 001-34108))
4.2	Description of Securities (incorporated by reference to Exhibit 4.2 to the Company's Annual Report on Form 10-K, filed with the Commission on February 27, 2020 (File No. 001-34108))
4.3	Warrant Agency Agreement, dated January 3, 2022, between Digimarc Corporation and Broadridge Corporate Issuer Solutions, Inc. (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed with the Commission on January 4, 2022 (File No. 001-34108))
10.1	License Agreement, dated as of August 1, 2008, between DMRC Corporation and L-1 Identity Solutions Operating Company (incorporated by reference to Exhibit 10.2 to Amendment No. 4 to the Company's Registration Statement on Form 10, filed with the Commission on October 2, 2008 (File No. 001-34108))(1)
10.2	Counterfeit Deterrence System Development and License Agreement, dated as of December 6, 2012, between Digimarc Corporation and the Bank for International Settlements (incorporated by reference to Exhibit 10.2 to the Company's amended Annual Report on Form 10-K/A, filed with the Commission on August 7, 2013 (File No. 001-34108))(4)
10.3	Counterfeit Deterrence System Development and License Agreement Amendment, dated December 1, 2022, and effective January 1, 2023, between Digimarc Corporation and Bank for International Settlements
*10.4	Digimarc Corporation 2008 Incentive Plan, as amended (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed with the Commission on April 25, 2014 (File No. 001-34108))
*10.5	Form of Indemnification Agreement between Digimarc Corporation and each of its executive officers and directors (incorporated by reference to Exhibit 10.1 to Digimarc Corporation's Annual Report on Form 10-K, as filed by Digimarc Corporation with the Securities and Exchange Commission on March 13, 2006 (File No. 000-28317))
*10.6	Form of Change of Control Retention Agreement entered into by and between Digimarc Corporation and each of Messrs. Chamness, Meyer, Beck, and Rodriguez (incorporated by reference to Exhibit 10.6 to the Company's Annual Report on Form 10-K, filed with the Commission on February 22, 2019 (File No. 001-34108))
10.7	Patent License Agreement, dated as of June 11, 2009, between Digimarc Corporation and The Nielsen Company (US), LLC (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed with the Commission on July 31, 2009 (File No. 001-34108))(2)

10.8	Limited Liability Company I Agreement, dated June 11, 2009, between Digimarc Corporation and The Nielsen Company (US), LLC (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q, filed with the Commission on July 31, 2009 (File No. 001-34108))(2)
10.9	Limited Liability Company II Agreement, dated June 11, 2009 between Digimarc Corporation and The Nielsen Company (US), LLC (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q, filed with the Commission on July 31, 2009 (File No. 001-34108))(2)
10.10	Lease Agreement, dated March 22, 2004, between Digimarc Corporation and PS Business Parks, L.P., as amended on May 13, 2010 (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed with the Commission on July 30, 2010 (File No. 001-34108))
10.11	Second Amendment to Lease, dated July 31, 2015, by and between PD Office Owner 9, L.P. and Digimarc Corporation (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed with the Commission on October 30, 2015 (File No. 001-34108))
10.12	Patent License Agreement, effective as of October 5, 2010, between Digimarc Corporation and IV Digital Multimedia Inventions, LLC (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed with the Commission on April 28,2016 (File No. 001-34108))(3)
10.13	Patent Rights Agreement, dated October 5, 2010, between Digimarc Corporation and IV Digital Multimedia Inventions, LLC (incorporated by reference to Exhibit 10.14 to the Company's Annual Report on Form 10-K, filed with the Commission on March 3, 2011 (File No. 001-34108))
*10.14	Digimarc Corporation 2018 Incentive Plan, as amended (incorporated by reference to Appendix A of the Company's Definitive Proxy Statement on Schedule 14A, filed with the Commission on March 28, 2023 (file No. 001-34108))
*10.15	Equity Compensation Program for Non-Employee Directors Under the Digimarc 2018 Incentive Plan (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed with the Commission on August 8, 2023 (File No. 001-34108))
10.16	Grant-Back License Agreement, dated October 5, 2010, between Digimarc Corporation and IV Digital Multimedia Inventions, LLC (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed with the Commission on May 2, 2019 (File No. 001-34108)) (5)
10.17	Equity Distribution Agreement, dated May 16, 2019 by and between the Company and Wells Fargo Securities, LLC (incorporated by reference to Exhibit 1.1 to the Company's Current Report on Form 8-K, filed with the Commission on May 17, 2019 (File No. 001-34108))
10.18	Amendment No. 1 to Equity Distribution Agreement, dated August 6, 2020, by and between the Company and Wells Fargo Securities, LLC (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed with the Commission on October 30, 2020 (File No. 001-34108))
*10.19	Employment Agreement, effective as of August 10, 2020, between Digimarc Corporation and Bruce Davis (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed with the Commission on August 14, 2020 (File No. 001-34108))
10.20	Subscription Agreement, dated September 29, 2020, by and between the Company and TCM Strategic Partners L.P. (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed with the Commission on September 29, 2020 (File No. 001-34108))
10.21	Registration Rights Agreement, dated September 29, 2020, by and between the Company and TCM Strategic Partners L.P. (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K, filed with the Commission on September 29, 2020 (File No. 001-34108))
10.22	Work Agreement, dated October 5, 2010, by and among Digimarc Corporation, Invention Law Group, P.C. and IV Digital Multimedia Inventions, LLC (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q, filed with the Commission on April 29, 2021 (File No. 001-34108)) +
*10.23	Separation Agreement and General Release, dated April 12, 2021, between Digimarc Corporation and Bruce Davis (incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q, filed with the Commission on April 29, 2021 (File No. 001-34108))
*10.24	Employment Agreement, dated April 12, 2021, between Digimarc Corporation and Riley McCormack (incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q, filed with the Commission on April 29, 2021 (File No. 001-34108))

*10.25	Amendment No. 1 to Employment Agreement, dated as of February 27, 2023, between Digimarc Corporation and Riley McCormack
*10.26	Separation Agreement and General Release, dated December 28, 2021, between Digimarc Corporation and Robert Chamness (incorporated by reference to Exhibit 10.24 to the Company's Annual Report on Form 10-K, filed with the Commission on March 7, 2022 (File No. 001-34108)).
10.27	Sublease Agreement, dated February 4, 2022, by and between Fiserv Solutions, LLC and Digimarc Corporation (incorporated by reference to Exhibit 10.25 to the Company's Annual Report on Form 10-K, filed with the Commission on March 7, 2022 (File No. 001-34108)).
10.28	Lease Extension Agreement, dated February 4, 2022, by and between Portland 1 LLC and Digimarc Corporation (incorporated by reference to Exhibit 10.26 to the Company's Annual Report on Form 10-K, filed with the Commission on March 7, 2022 (File No. 001-34108)).
*10.29	Form of Change of Control Retention Agreement entered into by and between Digimarc Corporation and each of Messrs. McCormack, Beck, Meyer, Rodriguez and Sickles incorporated by reference to Exhibit 10.27 to the Company's Annual Report on Form 10-K, filed with the Commission on March 7, 2022 (File No. 001-34108)).
10.30	Digimarc Corporation Short-Term Incentive Plan
10.31	Consulting Agreement, entered into as of January 9, 2024, by and between the Company and Andrew Walter
21.1	List of Subsidiaries
23.1	Consent of Independent Registered Public Accounting Firm
31.1	Rule 13a-14(a)/15d-14(a) Certification of Chief Executive Officer
31.2	Rule 13a-14(a)/15d-14(a) Certification of Chief Financial Officer
32.1	Section 1350 Certification of Chief Executive Officer
32.2	Section 1350 Certification of Chief Financial Officer
97	Digimarc Corporation Incentive Compensation Recovery Policy
101.INS	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Label Linkbase Document
104	Cover Page Interactive Data File (formatted in Inline XBRL and contained in Exhibit 101)

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* Management contract or compensatory plan or arrangement.

† Schedules and certain exhibits to this agreement have been omitted pursuant to Item 601(b)(2) of Regulation S-K. Digimarc hereby undertakes to furnish to the Securities and Exchange Commission (the "Commission") copies of the omitted schedules and exhibits upon request by the Commission.

\+ Certain identified portions of this exhibit have been omitted in accordance with Item 601(b)(10)(iv) of Regulation S-K.

(1) Confidential treatment has been granted for certain portions omitted from this exhibit pursuant to an order granted by the Commission on October 21, 2008, under Rule 24b-2 of the Securities Exchange Act of 1934, as amended. Confidential portions of this exhibit have been separately filed with the Securities and Exchange Commission.

(2) Confidential treatment has been granted for certain portions omitted from this exhibit pursuant to an order granted by the Commission on September 10, 2009, under Rule 24b-2 under the Securities Exchange Act of 1934, as amended. Confidential portions of this exhibit have been separately filed with the Securities and Exchange Commission.

(3) Confidential treatment has been granted for certain portions omitted from this exhibit pursuant to an order granted by the Commission on May 6, 2016, under Rule 24b-2 under the Securities Exchange Act of 1934, as amended. Confidential portions of this exhibit have been separately filed with the Securities and Exchange Commission.

(4) Confidential treatment has been granted for certain portions omitted from this exhibit pursuant to an order granted by the Commission on September 3, 2013, under Rule 24b-2 under the Securities Exchange Act of 1934, as amended. Confidential portions of this exhibit have been separately filed with the Securities and Exchange Commission.

(5) Confidential treatment has been requested for certain portions omitted from this exhibit pursuant to Rule 24b-2 under the Exchange Act. Confidential portions of this exhibit have been separately filed with the SEC.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

DIGIMARC CORPORATION

Date: February 29, 2024

By: /S/ CHARLES BECK

Charles Beck

Title: Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

Signature	Title	Date
/S/ RILEY MCCORMACK **Riley McCormack**	President, Chief Executive Officer and Director (Principal Executive Officer)	February 29, 2024
/S/ CHARLES BECK **Charles Beck**	Chief Financial Officer and Treasurer (Principal Financial and Accounting Officer)	February 29, 2024
/S/ ALICIA SYRETT **Alicia Syrett**	Chair of the Board of Directors	February 29, 2024
/S/ MILENA ALBERTI-PEREZ **Milena Alberti-Perez**	Director	February 29, 2024
/S/ LASHONDA ANDERSON-WILLIAMS **LaShonda Anderson-Williams**	Director	February 29, 2024
/S/ SANDEEP DADLANI **Sandeep Dadlani**	Director	February 29, 2024
/S/ KATIE KOOL **Katie Kool**	Director	February 29, 2024
/S/ MICHAEL PARK **Michael Park**	Director	February 29, 2024

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Digimarc Corporation:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Digimarc Corporation and subsidiaries (the Company) as of December 31, 2023 and 2022, the related consolidated statements of operations and comprehensive loss, shareholders' equity, and cash flows for each of the years in the two-year period ended December 31, 2023, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2023, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Revenue recognition for new contracts

As discussed in Note 3 to the consolidated financial statements, the Company recorded $34,851 thousand of total revenue for the year ended December 31, 2023, of which $18,973 thousand was subscription revenue and $15,878 thousand was service revenue. Customer arrangements may contain multiple performance obligations such as software subscriptions, software products, software development services, and/or maintenance and support fees. The Company accounts for individual products and services separately if they are distinct. The Company derives its revenue primarily from software subscriptions and software development services with a wide range of software and service offerings.

We identified the evaluation of the Company's revenue recognition related to new contracts entered during the year as a critical audit matter. Challenging auditor judgment was required to evaluate the potential impact of specific contract terms on revenue recognition due to the unique nature of new revenue contracts within each software and service offering.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design of certain internal controls related to the Company's revenue recognition process, including a control over the Company's assessment of the contract terms and applicable revenue recognition requirements for new contracts. For a selection of new contracts, we read the contract and evaluated the Company's assessment of the contract terms and revenue recognition. For certain contracts, we confirmed the relevant contract terms directly with the Company's customers and compared them to the terms utilized by the Company to record revenue. We assessed the recorded revenue by selecting a sample of transactions and comparing the revenue recognized for consistency with the terms of the underlying documentation, including contracts with customers. For a selection of revenue contracts entered during the year, we interviewed personnel outside of the accounting function to consider any other relevant facts and circumstances and their impact on revenue recognition.

/s/ KPMG LLP

We have served as the Company's auditor since 2010.

Portland, Oregon
February 29, 2024

DIGIMARC CORPORATION
CONSOLIDATED BALANCE SHEETS
(In thousands, except per share data)

	December 31, 2023	December 31, 2022
ASSETS		
Current assets:		
Cash and cash equivalents	$ 21,456	$ 33,598
Marketable securities	5,726	18,944
Trade accounts receivable, net	5,813	5,427
Other current assets	4,085	6,172
Total current assets	37,080	64,141
Property and equipment, net	1,570	2,390
Intangibles, net	28,458	33,170
Goodwill	8,641	8,229
Lease right of use assets	4,017	4,720
Other assets	786	1,127
Total assets	$ 80,552	$ 113,777
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and other accrued liabilities	$ 6,672	$ 5,989
Deferred revenue	5,853	4,145
Total current liabilities	12,525	10,134
Long-term lease liabilities	5,994	5,977
Other long-term liabilities	106	76
Total liabilities	18,625	16,187
Commitments and contingencies (Note 17)		
Shareholders' equity:		
Preferred stock (par value $0.001 per share, 2,500 authorized, 10 shares issued and outstanding at December 31, 2023 and December 31, 2022)	50	50
Common stock (par value $0.001 per share, 50,000 authorized, 20,379 and 20,260 shares issued and outstanding at December 31, 2023 and December 31, 2022, respectively)	20	20
Additional paid-in capital	376,189	367,692
Accumulated deficit	(311,768)	(265,809)
Accumulated other comprehensive loss	(2,564)	(4,363)
Total shareholders' equity	61,927	97,590
Total liabilities and shareholders' equity	$ 80,552	$ 113,777

See Notes to Consolidated Financial Statements

DIGIMARC CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(In thousands, except per share data)

	Year Ended December 31, 2023	2022
Revenue:		
Subscription	$ 18,973	$ 15,219
Service	15,878	14,978
Total revenue	34,851	30,197
Cost of revenue:		
Subscription (1)	2,975	3,878
Service (1)	7,252	6,557
Amortization expense on acquired intangible assets	4,459	4,439
Total cost of revenue	14,686	14,874
Gross profit	20,165	15,323
Operating expenses:		
Sales and marketing	22,409	29,718
Research, development and engineering	26,577	26,490
General and administrative	18,071	18,945
Amortization expense on acquired intangible assets	1,065	1,064
Impairment of lease right of use assets and leasehold improvements	250	915
Total operating expenses	68,372	77,132
Operating loss	(48,207)	(61,809)
Other income, net	2,452	2,108
Loss before income taxes	(45,755)	(59,701)
Provision for income taxes	(204)	(97)
Net loss	$ (45,959)	$ (59,798)
Loss per share:		
Loss per share — basic	$ (2.26)	$ (3.12)
Loss per share — diluted	$ (2.26)	$ (3.12)
Weighted average shares outstanding — basic	20,322	19,140
Weighted average shares outstanding — diluted	20,322	19,140
Comprehensive loss:		
Unrealized gain (loss) on marketable securities, net of tax of $0	$ 138	$ (144)
Foreign currency translation adjustment, net of tax of $0	1,661	(4,219)
Other comprehensive income (loss)	$ 1,799	$ (4,363)
Net loss	(45,959)	(59,798)
Comprehensive loss	$ (44,160)	$ (64,161)

(1) Cost of revenue for Subscription and Service excludes amortization expense on acquired intangible assets.

See Notes to Consolidated Financial Statements

DIGIMARC CORPORATION
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY
(In thousands)

	Preferred Stock		Common Stock		Additional Paid-in	Accumulated	Accumulated Other Comprehensive	Total Shareholders'
	Shares	Amount	Shares	Amount	Capital	Deficit	Loss	Equity
Year Ended December 31, 2023								
Balance at December 31, 2022	10	$ 50	20,260	$ 20	$ 367,692	$ (265,809)	$ (4,363)	$ 97,590
Issuance of common stock	—	—	10	—	—	—	—	—
Issuance of restricted common stock	—	—	45	—	—	—	—	—
Vesting of restricted stock units	—	—	161	—	—	—	—	—
Vesting of performance stock units	—	—	2	—	—	—	—	—
Forfeiture of restricted common stock	—	—	(6)	—	—	—	—	—
Purchase of common stock	—	—	(93)	—	(2,724)	—	—	(2,724)
Stock-based compensation	—	—	—	—	11,221	—	—	11,221
Unrealized gain on marketable securities	—	—	—	—	—	—	138	138
Foreign currency translation adjustments	—	—	—	—	—	—	1,661	1,661
Net loss	—	—	—	—	—	(45,959)	—	(45,959)
Balance at December 31, 2023	10	$ 50	20,379	$ 20	$ 376,189	$ (311,768)	$ (2,564)	$ 61,927
Year Ended December 31, 2022								
Balance at December 31, 2021	10	$ 50	16,940	$ 17	$ 261,324	$ (206,011)	$ —	$ 55,380
Issuance of common stock	—	—	3,266	3	95,706	—	—	95,709
Issuance of warrants for acquisition	—	—	—	—	1,601	—	—	1,601
Issuance of restricted common stock	—	—	54	—	—	—	—	—
Vesting of restricted stock units	—	—	144	—	—	—	—	—
Forfeiture of restricted common stock	—	—	(31)	—	—	—	—	—
Purchase of common stock	—	—	(113)	—	(2,356)	—	—	(2,356)
Stock-based compensation	—	—	—	—	11,417	—	—	11,417
Unrealized loss on marketable securities	—	—	—	—	—	—	(144)	(144)
Foreign currency translation adjustments	—	—	—	—	—	—	(4,219)	(4,219)
Net loss	—	—	—	—	—	(59,798)	—	(59,798)
Balance at December 31, 2022	10	$ 50	20,260	$ 20	$ 367,692	$ (265,809)	$ (4,363)	$ 97,590

See Notes to Consolidated Financial Statements

DIGIMARC CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended December 31, 2023	Year Ended December 31, 2022
Cash flows from operating activities:		
Net loss	$ (45,959)	$ (59,798)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and write-off of property and equipment	1,121	1,372
Amortization of acquired intangible assets	5,524	5,503
Amortization and write-off of other intangible assets	966	739
Amortization of lease right of use assets under operating leases	517	965
Stock-based compensation	11,158	11,289
Impairment of lease right of use assets and leasehold improvements	250	915
Increase in allowance for doubtful accounts	20	89
Changes in operating assets and liabilities:		
Trade accounts receivable	(335)	2,232
Other current assets	2,200	(1,933)
Other assets	299	(520)
Accounts payable and other accrued liabilities	660	(3,856)
Deferred revenue	1,627	(371)
Lease liability and other long-term liabilities	(43)	(1,034)
Net cash used in operating activities	(21,995)	(44,408)
Cash flows from investing activities:		
Net cash paid for acquisition	—	(3,512)
Purchase of property and equipment	(314)	(934)
Capitalized patent costs	(426)	(533)
Proceeds from maturities of marketable securities	27,664	21,425
Purchases of marketable securities	(14,363)	(12,689)
Net cash provided by investing activities	12,561	3,757
Cash flows from financing activities:		
Issuance of common stock, net of issuance costs	—	62,890
Purchase of common stock	(2,724)	(2,356)
Repayment of loans	(36)	(35)
Net cash (used in) provided by financing activities	(2,760)	60,499
Effect of exchange rate on cash	52	(39)
Net (decrease) increase in cash and cash equivalents	(12,142)	19,809
Cash and cash equivalents at beginning of period	33,598	13,789
Cash and cash equivalents at end of period	$ 21,456	$ 33,598
Supplemental disclosure of cash flow information:		
Cash paid for income taxes, net	$ (233)	$ (61)
Supplemental schedule of non-cash activities:		
Property and equipment and patent costs in accounts payable	$ 6	$ (9)
Stock-based compensation capitalized to software and patent costs	$ 63	$ 128
Common stock issued for acquisition	$ —	$ 32,393
Warrants issued for acquisition	$ —	$ 1,601
Right of use assets obtained in exchange for lease obligations	$ 31	$ 5,176

See Notes to Consolidated Financial Statements

(1) Description of Business and Summary of Significant Accounting Policies

Description of Business

Digimarc, an Oregon corporation, is a pioneer and global leader in digital watermarking technologies. For nearly 30 years, Digimarc innovations and intellectual property in digital watermarking have been deployed in solutions built upon one or both of the following two things: the identification and the authentication of physical and digital items, often at massive scale, and often where other methods of identification or authentication don't work well or don't work at all.

The Digimarc Illuminate platform is a distinctive SaaS cloud-based platform for digital connectivity that provides the tools for the application of advanced digital watermarks and dynamic QR codes, software (digital twins) that enables various systems and devices to interact with those data carriers, and a centralized platform for capturing insights about digital interactions and automating activities based on that information.

The Digimarc product suite is built on top of the Digimarc Illuminate platform to power a trusted and scalable ecosystem that can address specific business needs in areas like automation, authenticity, sustainability, and customer trust and connectivity. All of the Company's products are complementary to each other, providing exponential benefits when combined. By enabling customers to create and connect digital twins to physical and digital items, Digimarc's products provide many benefits including:

- **Digimarc Validate** supports authentication in the physical and digital worlds to help ensure online interactions can be trusted and that real products and digital assets are genuine and in the right place. Digimarc's technology protects digital images, audio, product packaging, and other physical items by delivering exclusive, covert digital watermarks and/or dynamic QR codes and a cloud-based record of product authentication information. In addition, consumer engagement capabilities provide a direct, digital communications channel.

- **Digimarc Engage** activates products and multimedia to create and leverage an interactive, fully owned communications channel directly with consumers. Digimarc delivers dynamic QR codes and hyperlinks that provide contextual redirection capabilities for multiple consumer experiences based on a variety of factors such as time and location or previous behavior. Connecting engagements across the physical and digital worlds in a singular view results in powerful new insights for brands.

- **Digimarc Recycle** increases the quality and quantity of recycled materials by digitizing products and packaging with digital watermarking technology. Coupled with consumer engagement capabilities, brands can leverage a direct, digital communications channel. Plus, brands can access a cloud-based record of never-before-seen post-consumption data that provides new capabilities and insights.

- **Digimarc Retail Experience** delivers smarter, connected packaging that supports next-generation retail checkout systems, improved inventory management, advanced consumer engagement experiences, compliance with upcoming industry standards, and the collection of powerful first-party data and consumer insights.

Principles of Consolidation

The consolidated financial statements include the accounts of Digimarc and its wholly-owned subsidiaries. All intercompany transactions and balances have been eliminated. Digimarc acquired EVRYTHNG on January 3, 2022. The financial results of EVRYTHNG are consolidated with Digimarc's financial results for the post-acquisition period. See Note 8 for more information related to the EVRYTHNG acquisition.

Use of Estimates

The preparation of the consolidated financial statements in accordance with U.S. GAAP requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingent assets and liabilities. The Company's accounting policy for revenue recognition requires a higher degrees of judgment than others in their application. Management bases its estimates on historical experience and on other assumptions that are believed to be reasonable in the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Cash Equivalents

The Company considers all highly liquid marketable securities with original maturities of 90 days or less at the date of acquisition to be cash equivalents. Cash equivalents include money market securities, commercial paper, federal agency notes and U.S. treasuries totaling $17,362 and $31,452 at December 31, 2023 and 2022, respectively. Cash equivalents are carried at either cost or fair value depending on the type of security.

Marketable Securities

The Company considers all investments with original maturities over 90 days that mature in less than one-year from the balance sheet date to be short-term marketable securities. Short-term marketable securities primarily include commercial paper and U.S. treasuries.

The Company's marketable securities are now classified as available-for-sale, as the Company sold a marketable security during 2022, which was previously classified as held-to-maturity. The Company has reassessed classification of the remaining marketable securities and therefore adjusted them to be reported at fair value. Unrealized holding gains and losses are excluded from earnings and are reported net of tax in "accumulated other comprehensive income (loss)" in the Consolidated Balance Sheets until realized. Realized gains and losses are included in "other income (loss), net" in the Consolidated Statements of Operations and are derived using the specific identification method for determining the cost of marketable securities sold.

A decline in the market value of any security that is deemed to be other-than-temporary is charged to earnings. To determine whether an impairment is other-than-temporary, the Company considers whether it has the ability and intent to hold the investment until a market price recovery and considers whether evidence indicating that the cost of the investment is recoverable outweighs evidence to the contrary. There have been no other-than-temporary impairments identified or recorded by the Company.

Concentrations of Business and Credit Risk

A significant portion of the Company's business depends on a limited number of large contracts. The loss of any large contract may result in loss of revenue and margin on a prospective basis. Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents, marketable securities, and accounts receivable.

The Company places its cash and cash equivalents with major banks and financial institutions and at times deposits may exceed insured limits. Other than cash used for operating needs, which may include short-term marketable securities with the Company's principal banks, the Company's investment policy limits its credit exposure to any one financial institution or type of financial instrument by limiting the maximum of 5% of its cash equivalents and marketable securities or $1,000, whichever is greater, to be invested in any one issuer except for the U.S. government, U.S. federal agencies and U.S. backed securities, which have no limits, at the time of purchase. The Company's investment policy also limits its credit exposure by limiting the maximum of 40% of its cash equivalents and marketable securities, or $15,000, whichever is greater, to be invested in any one industry category, (e.g., financial, energy, etc.), at the time of purchase. As a result, the Company's credit risk associated with cash and cash equivalents and marketable securities is believed to be minimal.

The Company manages credit risk on accounts receivable by evaluating a customer's credit worthiness before extending any significant amount of credit. There is a significant concentration of accounts receivable at various times from our two largest customers. Both customers have significant financial means and a history of paying their invoices timely. The Company does not have a history of significant bad debt write-offs. As a result, the Company's credit risk associated with accounts receivable is believed to be low.

Contingencies

The Company evaluates all pending or threatened contingencies or commitments, if any, that are reasonably likely to have a material adverse effect on the Company's operations or financial position. The Company assesses the probability of an adverse outcome and determines if it is remote, reasonably possible or probable as defined in accordance with ASC 450 "*Contingencies*." If information available prior to the issuance of the financial statements indicates that it is probable that an asset has been impaired or a liability has been incurred at the date of the financial statements, and the amount of the loss, or the range of probable loss can be reasonably estimated, then the loss is accrued and charged to operations. If no accrual is made for a loss contingency because one or both of the conditions pursuant to ASC 450 are not met, but the probability of an adverse outcome is at least reasonably possible, the Company will disclose the nature of the contingency and provide an estimate of the possible loss or range of loss, or state that such an estimate cannot be made.

Goodwill

The Company tests goodwill for impairment annually and whenever events or changes in circumstances indicate that the carrying value may exceed the fair value, in accordance with ASC 350 "*Intangibles – Goodwill and Other.*" The Company operates as a single reporting unit. The Company estimates the fair value of its single reporting unit using a market approach, which takes into account the Company's market capitalization plus an estimated control premium. In connection with the Company's annual impairment test of goodwill as of June 30, 2023 and 2022, it was concluded that there was no impairment to goodwill as the estimated fair value of the Company's reporting unit significantly exceeded the carrying value.

Impairment of Long-Lived Assets

The Company assesses long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable, in accordance with ASC 360 "*Property, Plant and Equipment*."

Recoverability of assets to be held and used is evaluated by a comparison of the carrying amount of the assets to future net undiscounted cash flows expected to be generated by the assets over their remaining useful life. If such assets are considered to be impaired, the impairment would be recognized in operating results at the amount by which the carrying amount of the assets exceeds the fair value of the assets. Fair value is determined based on discounted cash flows, observable market values or appraised values, depending on the nature of the assets.

Assets to be disposed of are reported at the lower of the carrying amount or fair value less costs to sell.

Research and Development

Research and development costs are expensed as incurred in accordance with ASC 730 "*Research and Development*."

Software Development Costs

Under ASC 985 "*Software*," software development costs are to be capitalized beginning when a product's technological feasibility has been established and ending when a product is made available for general release to customers. To date, the establishment of technological feasibility of the Company's products has occurred shortly before general release and, therefore, software development costs qualifying for capitalization have been immaterial. Accordingly, the Company has not capitalized any software development costs and has charged all such costs to research and development expense.

Patent Costs

Costs associated with the application and award of patents in the U.S. and various other countries are capitalized and amortized on a straight-line basis over the term of the patents as determined at award date, which varies depending on the pendency period of the application. Capitalized patent costs, also referred to as patent prosecution costs, include internal legal labor, professional legal fees, government filing fees and translation fees related to expanding the Company's patent portfolio.

Costs associated with the maintenance and annuity fees of patents are accounted for as prepaid assets at the time of payment and amortized over the shorter of the maintenance period or remaining life of the related patent.

Revenue Recognition

See Note 3 for detailed disclosures of the Company's revenue recognition policy.

Stock-Based Compensation

The Company accounts for stock-based compensation in accordance with ASC 718 "*Compensation—Stock Compensation*," which requires the measurement and recognition of compensation for all stock-based awards made to employees and directors including stock options, restricted stock awards, restricted stock units and performance stock units based on estimated fair values. The estimated fair value of stock-based awards is recognized over the vesting period of the award using the straight-line method.

Income Taxes

The Company accounts for income taxes in accordance with ASC 740 "*Income Taxes*" utilizing the asset and liability method. Under the asset and liability method, deferred income taxes reflect the future tax consequences of differences between the tax basis of assets and liabilities and their financial reporting amounts. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in earnings in the period of enactment.

The Company records valuation allowances on deferred tax assets if, based on available evidence, it is more-likely-than-not that all or some portion of the assets will not be realized.

The Company is subject to income taxes within the U.S. and other countries, and, in the ordinary course of business, there are transactions and calculations where the ultimate tax determination is uncertain. The Company reports a liability (or contra asset) for unrecognized tax benefits resulting from uncertain tax positions taken (or expected to be taken) on a tax return. The Company recognizes interest and penalties, if any, related to the unrecognized tax benefits in the provision for income taxes.

Business Combinations

The Company allocates the purchase price consideration to tangible and intangible assets acquired and liabilities assumed based on their estimated fair values. The purchase price is determined based on the fair value of the assets transferred, liabilities assumed and equity interests issued, after considering any transactions that are separate from the business combination. The fair value of equity issued as part of a business combination is determined based on the closing price of the Company's stock on the date the acquisition closed. The excess of fair value of purchase price consideration over the fair values of the identifiable assets and liabilities is recorded as goodwill. Such fair value calculations require the Company to make significant estimates and assumptions, especially with respect to intangible assets and contingent liabilities. Significant estimates in valuing certain intangible assets include, but are not limited to, future expected cash flows from acquired customers, customer attrition rates, the costs to develop acquired technology, useful lives, and discount rates.

The estimates are inherently uncertain and subject to revision as additional information is obtained during the measurement period for an acquisition, which may last up to one year from the acquisition date. During the measurement period, the Company may record adjustments to the fair value of tangible and intangible assets acquired and liabilities assumed, with a corresponding offset to goodwill. After the conclusion of the measurement period or the final determination of the fair value of assets acquired or liabilities assumed, whichever comes first, any subsequent adjustments are recorded to earnings.

Liquidity

Under ASC 205-40 "*Presentation of Financial Statements-Going Concern*"*,* companies are required to evaluate whether conditions and/or events raise substantial doubt about their ability to meet their future financial obligations as they become due within one year after the date that the financial statements are issued. This evaluation takes into account a company's current available cash and projected cash needs over the one year evaluation period but may not consider things beyond its control. The Company has incurred operating losses and negative cash flows from operating activities the last several years and depending on future results may continue to incur such losses and negative cash flows in the future. The Company believes its currently available cash and marketable securities will satisfy the Company's projected working capital and capital expenditure requirements for at least the next 12 months.

Accounting Pronouncements Adopted

In June 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-13 "*Financial Instruments - Credit Losses (Topic 326)*: *Measurement of Credit Losses on Financial Instruments*"*,* which amends the guidance on the impairment of financial instruments. The amendments in this update remove the thresholds that entities apply to measure credit losses on financial instruments measured at amortized cost, such as loans, trade receivables, reinsurance recoverables, off-balance-sheet credit exposures, and held-to-maturity securities. Under current U.S. GAAP, entities generally recognize credit losses when it is probable that the loss has been incurred. The guidance removes all current recognition thresholds and introduces the new current expected credit loss ("CECL") model, which will require entities to recognize an allowance for credit losses for the difference between the amortized cost basis of a financial instrument and the amount of amortized cost that an entity expects to collect over the instrument's contractual life. The new CECL model is based upon expected losses rather than incurred losses. The amendments in this update are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2022. Early adoption is permitted. The Company adopted this new standard on January 1, 2023. The adoption of this standard did not have a material impact on the Company's financial condition, results of operations and disclosures.

Accounting Pronouncements Issued But Not Yet Adopted

In November 2023, the FASB issued ASU No. 2023-07 "*Segment Reporting (Topic 280) - Improvements to Reportable Segment Disclosures*". The ASU requires interim and annual disclosure of significant segment expenses that are regularly provided to the chief operating decision-maker ("CODM") and included within the reported measure of a segment's profit or loss, requires interim disclosures about a reportable segment's profit or loss and assets that are currently required annually, requires disclosure of the position and title of the CODM, clarifies circumstances in which an entity can disclose multiple segment measures of profit or loss and contains other disclosure requirements. This authoritative guidance will be effective for the Company starting in the fiscal year ending December 31, 2024 for annual periods and in the first quarter of the fiscal year ending December 31, 2025 for interim periods, with early adoption permitted. The Company is currently evaluating the effect of this new standard on the Company's disclosures.

In December 2023, the FASB issued ASU No. 2023-09 "*Income Taxes (Topic 740) - Improvements to Income Tax Disclosures*". The ASU requires greater disaggregation of income tax disclosures primarily on the income tax rate reconciliation and income taxes paid. This authoritative guidance will be effective for the Company starting in the fiscal year ending December 31, 2025, with early adoption permitted. The Company is currently evaluating the effect of this new standard on the Company's disclosures.

(In thousands, except per share data)

(2) Fair Value of Financial Instruments

The Company's fair value hierarchy for its cash equivalents and marketable securities as of December 31, 2023 and 2022, respectively, was as follows:

December 31, 2023	**Level 1**	**Level 2**	**Level 3**	**Total**
Money market securities	$ 1,515	$ —	$ —	$ 1,515
Commercial Paper	—	14,622	—	14,622
U.S. Treasuries	—	5,953	—	5,953
Federal agency notes	—	998	—	998
Total	$ 1,515	$ 21,573	$ —	$ 23,088

December 31, 2022	**Level 1**	**Level 2**	**Level 3**	**Total**
Money market securities	$ 2,073	$ —	$ —	$ 2,073
Commercial paper	—	35,468	—	35,468
Corporate notes	—	4,423	—	4,423
Federal agency notes	—	8,432	—	8,432
Total	$ 2,073	$ 48,323	$ —	$ 50,396

The fair value maturities of the Company's cash equivalents and marketable securities as of December 31, 2023 are as follows:

	Maturities by Period				
	Total	**Less than 1 year**	**1-5 years**	**5-10 years**	**More than 10 years**
Cash equivalents and marketable securities	$ 23,088	$ 23,088	$ —	$ —	$ —

(3) Revenue Recognition

The Company recognizes revenue in accordance with ASC 606 by applying the following steps:

Step 1: Identify the contract(s) with a customer.

Step 2: Identify the performance obligation(s) in the contract.

Step 3: Determine the transaction price.

Step 4: Allocate the transaction price to the performance obligation(s) in the contract.

Step 5: Recognize when (or as) the entity satisfies the performance obligation(s).

The Company derives its revenue primarily from software subscriptions and software development services. Applicable revenue recognition criteria are considered separately for each performance obligation as follows:

- Subscription revenue consists primarily of revenue earned from subscription fees for access to the Company's SaaS platform and products and, to a lesser extent, licensing fees for software products. The majority of subscription contracts are recurring, paid in advance and recognized over the term of the subscription, which is typically one to three years.

- Service revenue consists primarily of revenue earned from the performance of software development services and, to a lesser extent, professional services. The majority of software development contracts are structured as time and materials agreements. Revenue for services is generally recognized as the services are performed. Billing for services rendered generally occurs within one month after the services are provided.

(In thousands, except per share data)

Customer arrangements may contain multiple performance obligations such as software subscriptions, software products, and professional services. The Company accounts for individual products and services separately if they are distinct. To determine the transaction price, the Company considers the terms of the contract and the Company's customary business practices. Some contracts may contain variable consideration. In those cases, the Company estimates the amount of variable consideration based on the sum of probability-weighted amounts in a range of possible consideration amounts. As part of this assessment, the Company will evaluate whether any of the variable consideration is constrained and if it is the Company will not include it in the transaction price. The consideration is allocated between distinct products and services based on their stand-alone selling prices. For items that are not sold separately, the Company estimates the standalone selling price based on reasonably available information, including market conditions, specific factors affecting the Company, and information about the customer. For distinct products and services, the Company typically recognizes the revenue associated with these performance obligations as they are delivered to the customer. Products and services that are not capable of being distinct are combined with other products or services until a distinct performance obligation is identified.

All revenue recognized in the Consolidated Statements of Operations is considered to be revenue from contracts with customers.

The following table provides information about disaggregated revenue by major target market in the Company's single reporting segment:

	Year Ended December 31, 2023	Year Ended December 31, 2022
Commercial:		
Subscription	$ 17,773	$ 13,832
Service	1,042	2,056
Total Commercial	18,815	15,888
Government:		
Subscription	$ 1,200	$ 1,387
Service	14,836	12,922
Total Government	16,036	14,309
Total	$ 34,851	$ 30,197

The Company has contract assets from contracts with customers that are classified as "trade accounts receivable" in the Consolidated Balance Sheets. See Note 7 for more information about trade accounts receivable.

The Company has contract assets from capitalized contract acquisition costs that are classified as "other current assets" and "other assets." These contract acquisition costs are recognized in proportion to the revenue recognized from the contract they are associated with.

The following table provides information about contract assets:

	December 31, 2023	December 31, 2022
Contract acquisition costs, current	$ 113	$ 197
Contract acquisition costs, long-term	9	104
Total	$ 122	$ 301

The Company has contract liabilities from contracts with customers that are classified as "deferred revenue" in the Consolidated Balance Sheets. Deferred revenue consists of billings in advance for subscriptions and services for which the performance obligation has not been satisfied.

(In thousands, except per share data)

The following table provides information about contract liabilities:

	December 31, 2023	December 31, 2022
Deferred revenue, current	$ 5,853	$ 4,145
Deferred revenue, long-term	7	15
Total	$ 5,860	$ 4,160

The Company recognized $4,085 of revenue during the year ended December 31, 2023 that was included in the contract liability balance as of December 31, 2022.

The aggregate amount of the transaction prices from contractual obligations that are unsatisfied or partially unsatisfied was $31,798 and $29,600, as of December 31, 2023 and 2022, respectively.

(4) Segment Information

Geographic Information

The Company derives its revenue from a single reporting segment: product digitization solutions. Revenue is generated in this segment primarily through software subscriptions and software development services. The Company markets its products in the U.S. and in non-U.S. countries through its sales personnel and partners.

Revenue by geographic area, based upon the “bill-to” location, was as follows:

	Year Ended December 31,	
	2023	2022
Domestic	$ 11,380	$ 10,029
International [1]	23,471	20,168
Total	$ 34,851	$ 30,197

(1) Revenue from the Central Banks, consisting of a consortium of central banks around the world, is classified as international revenue. Reporting revenue by country for this customer is not practicable.

Major Customers

The following customers accounted for 10% or more of revenue:

	Year Ended December 31,	
	2023	2022
Customer A	46%	46%
Customer B	21%	17%

Long-lived tangible assets by geographical area

Long-lived tangible assets by geographic area were as follows:

	December 31, 2023	December 31, 2022
United States	$ 1,535	$ 2,324
Europe	35	66
Total	$ 1,570	$ 2,390

(5) Stock-Based Compensation

Stock-based compensation includes expense charges for all stock-based awards to employees and directors. These awards include stock options, restricted stock awards, restricted stock units, and performance restricted stock units.

Stock-based compensation expense related to internal labor is capitalized to software and patent costs based on direct labor hours charged to capitalized software and patent costs.

Determining Fair Value

Stock Options

The Company estimates the fair value of stock options on the date of grant (measurement date) using the Black-Scholes option pricing model. The Company recognizes the fair value of stock option awards on a straight-line basis over the vesting period of the award.

No stock options were granted during the year ended December 31, 2023. There were 1 stock options granted during the year ended December 31, 2022 as replacement equity awards for vested stock options held by EVRYTHNG employees.

Restricted Stock Awards

The fair value of restricted stock awards ("RSA") that vest upon meeting a service condition is based on the fair market value of the Company's common stock on the date of the grant (measurement date) and is recognized on a straight-line basis over the service period of the award, which is generally three to four years for employee grants and one to three years for director grants.

Restricted Stock Units

The fair value of restricted stock unit ("RSU") awards that vest upon meeting a service condition is based on the fair market value of the Company's common stock on the date of the grant (measurement date) and is recognized on a straight-line basis over the service period of the award, which is generally three to four years for employee grants.

Performance Restricted Stock Units

The fair value of performance restricted stock unit ("PRSU") awards that vest upon meeting a service condition and a performance condition, such as the Company exceeding a future annual recurring revenue target, is determined based on the probability of achievement of the performance criteria as of each reporting date (measurement date). The probability of achievement is subject to judgment, and could change from period to period, impacting the amount of expense to be recognized. The Company recognizes the fair value of the award, after adjusting for any changes in the probability of achievement, on a straight-line basis over the service period of the award, which is generally three years for employee grants.

The fair value of performance restricted stock units awards that vest upon meeting a service condition and a market condition, such as the Company exceeding shareholder returns as compared to an index of peer companies, is determined on the date of grant (measurement date) using the Monte Carlo valuation model. The Company recognizes the fair value of the award on a straight-line basis over the service period of the award, which is generally three years for employee grants.

The following inputs are used in the Monte Carlo Simulation model to estimate the fair value:

Stock Price. The stock price represents the fair market value of the Company's common stock on the date of the grant.

Expected Volatility. The Company estimates the volatility of its common stock at the date of grant based on the historical volatility of its common stock based on historical prices over the most recent period commensurate with the term of the award.

Risk-Free Interest Rate. The Company determines the risk-free interest rate using current U.S. treasury yields for bonds with a maturity commensurate with the term of the award.

(In thousands, except per share data)

Monte Carlo Simulation Inputs:

	Year Ended December 31, 2023	Year Ended December 31, 2022
Stock price	$ 22.37	$ 32.02
Expected volatility	74.7%	82.8%
Risk-free interest rate	4.3%	1.8%

Stock-based Compensation

	Year Ended December 31, 2023	Year Ended December 31, 2022
Stock-based compensation:		
Cost of revenue	$ 1,126	$ 913
Sales and marketing	2,640	3,842
Research, development and engineering	2,962	2,646
General and administrative	4,430	3,888
Stock-based compensation expense	11,158	11,289
Capitalized to software and patent costs	63	128
Total stock-based compensation	$ 11,221	$ 11,417

The following table sets forth total unrecognized compensation cost related to non-vested stock-based awards granted under the Company's equity compensation plans:

	December 31, 2023	December 31, 2022
Total unrecognized compensation costs	$ 15,370	$ 16,051

Total unrecognized compensation costs will be adjusted for any future forfeitures if and when they occur.

The Company expects to recognize the total unrecognized compensation costs as of December 31, 2023 for all non-vested stock-based awards over weighted average periods through December 31, 2027 as follows:

	RSAs	RSUs	PRSUs
Weighted average period (in years)	0.76	1.50	1.64

As of December 31, 2023, under the Company's stock-based compensation plan, an additional 1,447 shares remained available for future grants. Of this total, 137 shares require re-registration with the SEC. The Company issues new shares upon exercises of stock options, grants of restricted stock awards and vesting of restricted stock units and performance restricted stock units awards.

(In thousands, except per share data)

Stock Option Activity

The following tables present the outstanding stock option activity:

	Number of Options	Weighted Average Exercise Price	Weighted Average Grant Date Fair Value	Aggregate Intrinsic Value
Options outstanding, December 31, 2021	50	$ 39.54	$ 22.23	
Granted	1	$ 22.15	$ —	
Exercised	—	$ —	$ —	
Forfeited or expired	—	$ —	$ —	
Options outstanding, December 31, 2022	51	$ 39.14	$ 21.72	
Granted	—	$ —	$ —	
Exercised	—	$ —	$ —	
Forfeited or expired	(50)	$ 39.54	$ 22.23	
Options outstanding, December 31, 2023	1	$ 22.15	$ —	$ 16
Options exercisable, December 31, 2023	1	$ 22.15		$ 16
Options unvested, December 31, 2023	—	$ —		$ —

The aggregate intrinsic value is based on the closing price of $36.12 per share of Digimarc common stock on December 31, 2023, which would have been received by the optionees had all of the options with exercise prices less than $36.12 per share been exercised on that date.

The following table summarizes information about stock option awards outstanding December 31, 2023:

	Options Outstanding			Options Exercisable		
Exercise Price	Number Outstanding	Remaining Contractual Life (Years)	Weighted Average Exercise Price	Number Outstanding	Remaining Contractual Life (Years)	Weighted Average Exercise Price
$21-$24	1	6.85	$ 22.15	1	6.85	$ 22.15

Restricted Stock Awards Activity

The following table reconciles the unvested balance of RSAs:

	Number of Shares	Weighted Average Grant Date Fair Value
Unvested balance, December 31, 2021	360	$ 34.90
Granted	54	$ 18.36
Vested	(187)	$ 32.72
Forfeited	(31)	$ 36.90
Unvested balance, December 31, 2022	196	$ 32.06
Granted	45	$ 22.10
Vested	(130)	$ 30.18
Forfeited	(6)	$ 34.89
Unvested balance, December 31, 2023	105	$ 29.89

(In thousands, except per share data)

The fair value of RSAs vested is as follows:

	Year Ended December 31,	
	2023	2022
Fair value of RSA vested	$ 3,273	$ 4,445

Restricted Stock Units Activity

The following table reconciles the unvested balance of RSU awards:

	Number of Units	Weighted Average Grant Date Fair Value
Unvested balance, December 31, 2021	—	$ —
Granted	601	$ 26.31
Vested	(144)	$ 30.25
Forfeited	(87)	$ 26.31
Unvested balance, December 31, 2022	370	$ 24.77
Granted	298	$ 23.20
Vested	(161)	$ 24.46
Forfeited	(65)	$ 25.17
Unvested balance, December 31, 2023	442	$ 23.77

The fair value of RSU awards vested is as follows:

	Year Ended December 31,	
	2023	2022
Fair value of RSU awards vested	$ 4,893	$ 2,509

Performance Restricted Stock Units Activity

The following table reconciles the unvested balance of PRSU awards:

	Number of Units	Weighted Average Grant Date Fair Value
Unvested balance, December 31, 2020	124	$ 11.08
Granted	—	$ —
Vested (1)	(82)	$ 15.54
Forfeited (1)	(42)	$ 11.08
Unvested balance, December 31, 2021	—	$ —
Granted	73	$ 31.93
Vested	—	$ —
Forfeited	(6)	$ 32.02
Unvested balance, December 31, 2022	67	$ 31.92
Change in units based on performance expectations	(6)	$ 32.02
Granted	134	$ 27.75
Vested	(2)	$ 32.02
Forfeited	(1)	$ 32.02
Unvested balance, December 31, 2023	192	$ 29.01

(1) Includes the impact of modification of 21 PRSUs which were cancelled and reissued at a grant date fair value of $28.93.

(In thousands, except per share data)

The fair value of PRSU awards vested is as follows:

	Year Ended December 31, 2023	Year Ended December 31, 2022
Fair value of PRSU awards vested	$ 54	$ —

(6) Earnings Per Common Share

The Company calculates basic and diluted earnings per common share in accordance with ASC 260 "*Earnings Per Share*," using the treasury stock method.

Basic earnings per common share excludes dilution and is calculated by dividing earnings to common shares by the weighted-average number of common shares outstanding for the period. Diluted earnings per common share is calculated by dividing earnings to common shares by the weighted-average number of common shares, as adjusted for the potentially dilutive effect of stock options, and unvested RSUs and PRSUs. The dilutive effect of stock options, and unvested RSUs and PRSUs is determined using the treasury stock method. RSAs are included in shares outstanding on the date of grant.

The following table reconciles earnings (loss) per common share:

	Year Ended December 31, 2023	Year Ended December 31, 2022
Basic Earnings (Loss) per Share:		
Net loss — basic	$ (45,959)	$ (59,798)
Weighted average shares outstanding — basic	20,322	19,140
Basic loss per share	$ (2.26)	$ (3.12)
Diluted Earnings (Loss) per Share:		
Net loss — diluted	$ (45,959)	$ (59,798)
Weighted average shares outstanding — diluted	20,322	19,140
Diluted loss per share	$ (2.26)	$ (3.12)

The following table indicates the common stock equivalents related to stock options, and unvested RSAs, RSUs and PRSUs that were anti-dilutive and excluded from diluted earnings (loss) per common share calculations:

	Year Ended December 31, 2023	Year Ended December 31, 2022
Anti-dilutive shares due to:		
Exercise prices higher than the average market price	—	50
Net loss	134	—

(7) Trade Accounts Receivable

Trade Accounts Receivable

Trade accounts receivable are recorded at the contractual or invoiced amount.

	December 31, 2023	December 31, 2022
Trade accounts receivable, current	$ 5,947	$ 5,541
Trade accounts receivable, long-term	9	37
Allowance for doubtful accounts	(134)	(114)
Trade accounts receivable, net	$ 5,822	$ 5,464
Unpaid deferred revenue included in trade accounts receivable	$ 2,073	$ 2,183

(In thousands, except per share data)

Allowance for Doubtful Accounts

The Company's accounts receivables are subject to concentrations of credit risk. The Company maintains an allowance for its doubtful accounts receivable to reflect any estimated credit losses. The allowance is established in accordance with the current expected credit loss model, which requires the estimation of expected credit losses over the contractual life of financial assets. The allowance is calculated using a forward-looking probability-weighted approach based on historical loss experience, current economic conditions, and reasonable and supportable forecasts. The Company records the allowance in "general and administrative" expense in the Consolidated Statements of Operations, up to the amount of revenue recognized to date for each account. Any incremental allowance is recorded as an offset to "deferred revenue" in the Consolidated Balance Sheets. Account receivables are written off and charged against the recorded allowance when the Company has exhausted collection efforts without success.

Unpaid Deferred Revenue

The unpaid deferred revenue that is included in trade accounts receivable is billed in accordance with the provisions of the contracts with the Company's customers.

Major Customers

The following customers accounted for 10% or more of trade accounts receivable, net:

	December 31, 2023	December 31, 2022
Company A	56%	55%
Company B	13%	*

* Less than 10%

(8) Business Combination

On January 3, 2022, the Company completed its acquisition of EVRYTHNG, a London-based product cloud company. The aggregate preliminary purchase price for the acquisition was $36,634, which included the fair value of the 772 shares issued of common stock of the Company of $31,519 and the warrants issued to purchase 231 shares of common stock of the Company of $1,601. The fair value of the warrants was determined using the Black-Scholes option pricing model using the Company's stock price on the date of issuance of $40.84, the strike price of the warrants of $36.56 and expected volatility of 60%. The aggregate preliminary purchase price also included $3,986 of cash paid by the Company to pay closing costs on behalf of the EVRYTHNG sellers, less cash acquired of $474. A portion of the consideration was held back by the Company to secure any post-closing adjustments to the initial consideration and the indemnification obligations of the EVRYTHNG sellers.

In August 2022, the Company issued 22 additional shares of common stock of the Company at the fair value of $872, that were originally held back for post-closing adjustments.

In January 2023, the Company issued 10 additional shares of common stock of the Company at the fair value of $428, that were originally held back for indemnification obligations.

The Company entered into a Loan Agreement with EVRYTHNG (the "Loan Agreement") on December 10, 2021 pursuant to the terms of the acquisition. The Loan Agreement provided a loan facility of $2,000 to EVRYTHNG at an interest rate of 1% per annum. The original loan maturity date was December 9, 2022. The loan balance of $2,001 on January 3, 2022, was included in the purchase price allocation below, as the liability was assumed by the combined company.

(In thousands, except per share data)

The following table presents the final purchase price allocation:

	Purchase Price Allocation January 3, 2022
Trade accounts receivable, net	$ 762
Other current assets	2,178
Property and equipment, net	99
Lease right of use assets and other long-term assets	484
Intangibles	35,720
Goodwill	7,970
Accounts payable and other accrued liabilities	(5,395)
Deferred revenue	(1,678)
Loan payable to related party	(2,001)
Lease liability and other long-term liabilities	(205)
Total purchase price	$ 37,934

The Company allocated $35,720 of the purchase price to intangible assets, which was comprised of $24,170 of developed technology and $11,550 of customer relationships. Goodwill recognized of $7,970 from the acquisition was primarily attributed to an assembled workforce and expected synergies. The Company incurred transaction costs related to the acquisition of $1,140 during 2021 and $447 in 2022, respectively.

Developed Technology

Developed technology primarily consists of intellectual property of proprietary software products and platforms that are marketed for sale. The Company valued the developed technology by applying the cost method. The significant assumption and estimate used under the cost method was development costs. The Company is amortizing the developed technology intangible asset on a straight-line basis over an estimated useful life of five years.

Customer Relationships

The Company recorded the customer relationships intangible asset separately from goodwill based on determination of the length, strength and contractual nature of the relationships that EVRYTHNG shared with its customers. The Company valued the single group of customer relationships using the multi-period excess earnings method, which is an income approach. The significant assumptions used in the income approach include estimates about future expected cash flows from customer contracts, the customer attrition rate and the discount rate. The Company is amortizing the customer relationships intangible asset on a straight-line basis over an estimated useful life of 10 years.

The following unaudited pro forma consolidated results of operations include the financial results of Digimarc and EVRYTHNG assuming the acquisition was completed on January 1, 2021, the beginning of the earliest period presented. Pro forma adjustments are primarily comprised of transaction expenses. The pro forma results of operations are presented for informational purposes only and are not indicative of the results of operations that would have been achieved or of results that may occur in the future.

	Year Ended December 31,	
	2023	2022
Revenue	$ 34,851	$ 30,197
Net loss	$ (45,959)	$ (59,326)
Loss per share:		
Basic	$ (2.26)	$ (3.10)
Diluted	$ (2.26)	$ (3.10)

(In thousands, except per share data)

(9) Property and Equipment

Property and equipment are stated at cost. Repairs and maintenance are charged to expense when incurred.

Depreciation on property and equipment is calculated using the straight-line method over the estimated useful lives of the assets, generally two to ten years. Leasehold improvements are amortized using the straight-line method over the shorter of the estimated useful life or the lease term.

	December 31, 2023	December 31, 2022
Office furniture and fixtures	$ 1,435	$ 1,613
Software	5,497	5,747
Equipment	2,472	4,785
Leasehold improvements	1,861	1,861
Gross property and equipment	11,265	14,006
Less accumulated depreciation	(9,695)	(11,616)
Property and equipment, net	$ 1,570	$ 2,390

(10) Goodwill

Balance at December 31, 2021	$ 1,114
Goodwill acquired on January 3, 2022 and measurement period adjustments (1)	7,970
Currency translation adjustments	(855)
Balance at December 31, 2022	8,229
Currency translation adjustments	412
Balance at December 31, 2023	$ 8,641

(1) Measurement period adjustments include adjustments to acquired intangible assets, accounts receivable, income tax receivables, deferred revenue, and accounts payable as well as the release of holdback shares.

(11) Intangibles

Patent costs associated with the application and award of patents in the U.S. and various other countries are capitalized and amortized on a straight-line basis over the term of the patents as determined at the award date, which varies depending on the pendency period of the application, but generally approximates seventeen years.

Amortization of intangible assets acquired is calculated using the straight-line method over the estimated useful lives of the assets.

	Estimated Life (years)	December 31, 2023	December 31, 2022
Capitalized patent costs	~17	$ 9,231	$ 10,646
Intangible assets acquired:			
Purchased intellectual property	10	250	250
Developed technology	5	22,836	21,661
Customer relationships	10	10,913	10,351
Gross intangible assets		43,230	42,908
Accumulated amortization		(14,772)	(9,738)
Intangibles, net		$ 28,458	$ 33,170

(In thousands, except per share data)

The amortization of capitalized patent costs, purchased intellectual property, and developed technology is recorded in "cost of revenue" and the amortization of customer relationships is recorded in "operating expenses" in the Consolidated Statements of Operations.

Amortization expense on intangible assets was as follows:

	Year Ended December 31, 2023	Year Ended December 31, 2022
Amortization expense	$ 6,097	$ 6,078

For intangible assets recorded at December 31, 2023, the estimated future aggregate amortization expense for the years ending December 31, 2024 through December 31, 2028 is as follows:

Year Ended December 31,	Amortization Expense
2024	$ 6,194
2025	6,175
2026	6,142
2027	1,542
2028	1,531

(12) Leases

The Company accounts for leases in accordance with ASC 842, "*Leases.*"

The Company entered into a sublease agreement and lease extension agreement for office space in Beaverton, Oregon in February 2022 to move the Company's corporate headquarters. The term of the sublease and lease extension runs through September 2030. The remaining rent payments as of December 31, 2023 were $8,756 plus operating expenses, payable in monthly installments. The first 26 months of rent payments and operating expenses are abated to cover the remaining lease term on the Company's former corporate headquarters.

The Company continues to lease its former corporate headquarters in Beaverton, Oregon. The lease expires in March 2024. The remaining rent payments as of December 31, 2023 were $218 plus operating expenses, payable in monthly installments. The Company stopped using this office space as its corporate headquarters in March 2022 and attempted to sublease the space.

The Company leased office space in London, England under a lease entered into by EVRYTHNG in July 2019. The term of the lease ended in July 2023, with no remaining rent payments as of December 31, 2023.

All of the Company's leases are operating leases. The following table provides additional details of leases presented in the Consolidated Balance Sheets:

	December 31, 2023	December 31, 2022
Lease right of use assets	$ 4,017	$ 4,720
Lease liabilities, current	$ 582	$ 939
Lease liabilities, long-term	$ 5,994	$ 5,977
Weighted-average remaining life (in years)	6.5	6.7
Weighted-average discount rate	9%	9%

The current lease liabilities are included in "accounts payable and other accrued liabilities" in the Consolidated Balance Sheets.

(In thousands, except per share data)

The carrying value of the lease right of use assets is evaluated for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. The Company recorded an "impairment of lease right of use assets and leasehold improvements" of $250 and $915 in the Consolidated Statements of Operations for the years ended December 31, 2023 and 2022, respectively. The impairments were triggered when the Company vacated its former corporate offices in the United States and the United Kingdom. The impairment charges were determined by comparing the carrying value of the assets to the net present value of estimated cash flows from the future sublease of the office spaces over their remaining lease terms.

Operating lease expense is included in "operating expenses" in the Consolidated Statements of Operations and in "cash flows from operating activities" in the Consolidated Statements of Cash Flows. The operating leases include variable lease payments, which are included in operating lease expense. Additional details of the Company's operating leases are presented in the following table:

	Year Ended December 31,	
	2023	2022
Operating lease expense	$ 1,556	$ 1,905
Cash paid for operating leases	$ 1,151	$ 1,572

The table below reconciles the cash payment obligations for the next five years and total of the remaining years for the operating lease liability recorded in the Consolidated Balance Sheet as of December 31, 2023:

Year Ended December 31,	Cash Payment Obligations
2024	$ 1,186
2025	1,317
2026	1,356
2027	1,397
2028	1,296
Thereafter	2,455
Total lease payments	9,007
Imputed interest	(2,431)
Total minimum lease payments	$ 6,576

(13) Shareholders' Equity

Preferred Stock

In June 2008, the Board of Directors authorized 2,500 shares of preferred stock, par value $0.001 per share. The Board of Directors has the authority to issue the undesignated preferred stock in one or more series and to determine the powers, preferences and rights and the qualifications, limitations or restrictions granted to or imposed upon any wholly unissued series of undesignated preferred stock and to fix the number of shares constituting any series and the designation of such series, without any further vote or action by the shareholders. The issuance of preferred stock may have the effect of delaying, deferring or preventing a change of control of the Company without further action by shareholders and may adversely affect the voting and other rights of the holders of common stock.

The Board of Directors authorized 10 shares of Series A Redeemable Nonvoting Preferred stock ("Series A Preferred") that were issued to certain executive officers at the time of formation. The Series A Preferred has no voting rights, except as required by law, and may be redeemed at the option of the Company's Board of Directors at any time.

The Series A Preferred is redeemable based on the stated fair value of $5.00 per share. The Series A Preferred has no dividend rights and no rights to the undistributed earnings of the Company.

Common Stock

In June 2008, the Board of Directors authorized 50,000 shares of common stock, par value $0.001 per share. The holders of Digimarc common stock are entitled to one vote for each share held of record on all matters submitted to a vote of its shareholders, including the election of directors. Subject to preferences that may be granted to any then outstanding preferred stock, holders of common stock are entitled to receive ratably those dividends as may be declared by the Board of Directors out of funds legally available for such purpose, as well as any distributions to the Company's shareholders. In the event of the Company's liquidation, dissolution or winding up, holders of common stock are entitled to share ratably in all of the Company's assets remaining after payment of liabilities and the liquidation preference of any then outstanding preferred stock. Holders of common stock have no preemptive or other subscription or conversion rights. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are fully paid and non-assessable.

In May 2019, the Company entered into an Equity Distribution Agreement, whereby the Company may sell from time to time through Wells Fargo Securities, LLC, as its sales agent, the Company's common stock having an aggregate offering price of up to $30,000.

For the year ended December 31, 2022, the Company sold 222 shares at an average price of $22.42 under this Equity Distribution Agreement totaling $4,984 of cash proceeds, less $112 of commissions and $202 of stock issuance costs. As of December 31, 2022, the Company had sold a total of 720 shares at an average price of $38.97 under this Equity Distribution Agreement, totaling $28,052 of cash proceeds. There were no shares sold for the year ended December 31, 2023.

As of December 31, 2023, $1,948 remained available for future issuance under the Equity Distribution Agreement.

Registered Direct Offering

On April 5, 2022, the Company entered into purchase agreements with certain investors providing for the issuance and sale by the Company of 2,250 common shares in a registered direct offering. The common shares were offered at a price of $25.90 per share, and the gross cash proceeds to the Company were $58,275. The Company incurred $55 of legal costs related to the offering. The closing of the registered direct offering occurred on April 7, 2022.

Stock Incentive Plan

In March 2018, the Company's Board of Directors approved the 2018 Incentive Plan ("2018 Plan") which was later approved by the Company's shareholders at the Company's 2018 Annual Meeting of Shareholders in April 2018. The 2018 Plan replaced the 2008 Incentive Plan ("2008 Plan"). The 2018 Plan provides for the grant of incentive and non-qualified stock options, stock appreciation rights, stock awards, restricted stock awards, restricted stock units, performance shares, performance units, and other stock or cash-based awards, which may be granted to officers, directors, employees, consultants, agents, advisors and independent contractors who provide services to the Company and its affiliated companies.

In May 2023, the 2018 Plan was modified as approved by the Company's shareholders at the Company's 2023 Annual Meeting of Shareholders. The amendment added 1,200 shares to the pool of shares authorized for issuance.

The 2018 Plan authorizes the issuance of 2,200 shares of common stock. In addition, up to 770 shares of common stock subject to awards outstanding under the 2008 Plan became available for issuance under 2018 Plan to the extent that those shares cease to be subject to the awards (as a result of, for example, expiration, cancellation or forfeiture of the award). The shares authorized under the 2018 Plan are subject to adjustment in the event of a stock split, stock dividend, recapitalization or similar event. Shares issued under the 2018 Plan will consist of authorized and unissued shares or shares held by the Company as treasury shares. If an award granted under the 2018 Plan lapses, expires, terminates or is forfeited or surrendered without having been fully exercised or without the issuance of all the shares subject to the award, the shares covered by that award will again be available for issuance under the 2018 Plan. Shares that are (i) tendered by a participant or retained by the Company as payment for the purchase price of an award or to satisfy tax withholding obligations or (ii) covered by an award that is settled in cash, or in some manner that some or all of the shares covered by the award are not issued, will again be available for issuance under the 2018 Plan. In addition, awards granted as substitute awards in connection with acquisition transactions will not reduce the number of shares authorized for issuance under the 2018 Plan.

(In thousands, except per share data)

(14) Defined Contribution Plan

The Company sponsors an employee retirement savings plan (the “Plan”) which qualifies as a deferred salary arrangement under Section 401(k) of the Internal Revenue Code. The Plan combines both an employee savings plan and company matching plan into one plan under Section 401(k), including a 401(k) Roth option. Employees become eligible to participate in the Plan at the beginning of the month following the employee’s hire date. Employees may contribute up to 75% of their pay to the Plan, subject to the limitations of the Internal Revenue Service Code. Company matching contributions are mandatory under the Plan.

The Company made matching contributions in the aggregate amount as follows:

	Year Ended December 31,	
	2023	2022
Matching contributions	$ 1,217	$ 1,365

(15) Other Income

The following table provides information about other income, net:

	Year Ended December 31,	
	2023	2022
Interest income	$ 1,680	$ 744
Refundable tax credit	684	1,260
Foreign currency gains (losses)	96	86
Other income (loss)	(8)	18
Total other income, net	$ 2,452	$ 2,108

(16) Income Taxes

The provision for income taxes reflects current taxes and deferred taxes. The effective tax rate for each of the years ended December 31, 2023 and 2022 was 0%. The Company continues to provide for a valuation allowance to offset its net deferred tax assets until such time it is more likely than not the tax assets or portions thereof will be realized.

Components of the provision for income taxes allocated to continuing operations include the following:

	Year Ended December 31,	
	2023	2022
Current:		
Federal	$ (141)	$ (60)
State	(9)	(20)
Foreign	(37)	(34)
Sub-total	$ (187)	$ (114)
Deferred:		
Federal	$ (17)	$ 17
State	—	—
Foreign	—	—
Sub-total	$ (17)	$ 17
Total	$ (204)	$ (97)

(In thousands, except per share data)

The reconciliation of the statutory federal income tax rate to the Company's effective income tax rate is as follows:

	Year Ended December 31, 2023	%	Year Ended December 31, 2022	%
Income taxes computed at statutory rates	$ 9,609	(21)%	$ 12,537	(21)%
(Increases) decreases resulting from:				
Change in valuation allowance	(11,716)	26%	(13,463)	22%
NOL surrendered for refundable tax credit	(1,607)	4%	(2,164)	4%
Foreign research deductions and credits	803	(2)%	1,329	(2)%
Federal and state research and experimentation credits	1,412	(3)%	1,037	(2)%
State income taxes, net of federal tax benefit	468	(1)%	491	(1)%
Other	827	(3)%	136	—%
Total	$ (204)	—%	$ (97)	$ —

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The tax effects of significant items comprising the Company's deferred tax assets and deferred tax liabilities are as follows:

	December 31, 2023	December 31, 2022
Deferred tax assets:		
Federal and state net operating losses	$ 77,201	$ 74,270
Federal and state research and experimentation credits	12,406	10,869
Research and experimental costs	9,458	4,837
ASC 842 - lease liabilities	1,468	1,508
Stock based compensation	1,474	482
Fixed asset differences	185	87
Goodwill	—	36
Accrued compensation	610	69
Other	59	43
Total gross deferred tax assets	102,861	92,201
Less valuation allowance	(95,256)	(83,000)
Net deferred tax assets	$ 7,605	$ 9,201
Deferred tax liabilities:		
Patent expenditures	$ (1,096)	$ (1,464)
ASC 842 - right of use assets	(897)	(1,049)
Fixed asset differences	(9)	(28)
Intangible asset differences	(5,603)	(6,644)
Total gross deferred tax liabilities	$ (7,605)	$ (9,185)
Total net deferred tax assets and liabilities	$ —	$ 16

The Company had a valuation allowance of $95,256 and $83,000 on deferred tax assets as of December 31, 2023 and 2022, respectively, an increase of $12,256 during the year ended December 31, 2023.

As of December 31, 2023, the Company has federal, state, and foreign net operating loss carryforwards of $247,472, $178,519, and $68,925 respectively, which have a carryforward of 5 years to indefinite depending on the jurisdiction.

As of December 31, 2023, the Company has federal and state research and experimental tax credits of $13,469 and $11,915, respectively, which have a carryforward of 20 years.

(In thousands, except per share data)

A summary reconciliation of the Company's uncertain tax positions is as follows:

	Year Ended December 31,	
	2023	2022
Beginning balance	$ 1,046	$ 918
Addition for current year tax positions	94	98
Addition for prior year tax positions	—	30
Reduction for prior year positions	(77)	—
Reduction for prior year positions resolved during the current year	—	—
Ending balance	$ 1,063	$ 1,046

The Company records accrued interest and penalties associated with uncertain tax positions in the "provision for income taxes" in the Consolidated Statements of Operations. For the years ended December 31, 2023 and 2022, the Company recognized accrued interest and penalties associated with uncertain tax positions of $0 and $0, respectively. The Company does not anticipate any of its unrecognized benefits will significantly increase or decrease within the next 12 months.

The Company's open tax years subject to examination in the U.S. federal jurisdiction are 2020 through 2022, in applicable state jurisdictions for the tax years 2020 through 2022, and in applicable foreign jurisdictions for tax year 2022. To the extent allowed by law, the taxing authorities may have the right to examine prior periods where net operating losses or tax credits were generated and carried forward, and make adjustments up to the amount of the net operating loss or tax credit carryforward.

(17) Commitments and Contingencies

Certain of the Company's product and services agreements include an indemnification provision for claims from third parties relating to the Company's intellectual property. Such indemnification provisions are accounted for in accordance with ASC 450 "*Contingencies*." To date, there have been no claims made under such indemnification provisions.

The Company is subject from time to time to other legal proceedings and claims arising in the ordinary course of business. At this time, the Company does not believe that the resolution of any such matters will have a material adverse effect on its financial position, results of operations or cash flows.

(18) Subsequent Events

On February 24, 2024, the Company entered into purchase agreements with certain investors providing for the issuance and sale by the Company of 929 common shares in a registered direct stock offering. The common shares were offered at a price of $35.00 per share, and the gross cash proceeds to the Company were $32,500. We incurred $240 of legal costs related to the offering. The closing of the registered direct offering occurred on February 27, 2024.

On February 27, 2024, the Company provided notice to Wells Fargo Securities, LLC of the Company's intention to terminate the Equity Distribution Agreement effective on March 1, 2024.

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BOARD OF DIRECTORS

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Chair of the Board
Chief Executive Officer at Pantegrion Capital

Milena Alberti-Perez
Independent Director
Former Chief Financial Officer at Getty Images, Inc.

LaShonda Anderson-Williams
Independent Director
Global EVP and Chief Revenue Officer of Healthcare and Lifesciences at Salesforce

Sandeep Dadlani
Independent Director
Executive Vice President, Chief Digital and Technology Officer at UnitedHealth Group

Katie Kool
Independent Director
Former Chief Executive Officer at Tide Cleaners, a wholly owned subsidiary of The Procter & Gamble Company

Riley McCormack
Chief Executive Officer and President at Digimarc Corporation

Michael Park
Independent Director
Chief Marketing Officer at ServiceNow

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Executive Vice President and Chief Revenue Officer

Joel Meyer
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Tony Rodriguez
Executive Vice President and Chief Technology Officer

Ken Sickles
Executive Vice President and Chief Product Officer

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