Fellow Shareholders,

In late Q4, OpenAI unveiled ChatGPT – a generative AI model that was capable of writing, conversing at what seems like human or even beyond-human levels of intelligence, and coding.[1] It was a watershed event that captured – and has sustained – wide public interest. At the same time, it heralded an arms race of sorts emerging among the largest technology companies intent on competing for share. We believe we are positioned to benefit significantly from this: at the time of this writing, we are either actively working with - or hoping to soon begin working with - four of the five largest technology companies in the world regarding providing support to their AI and generative AI investments.[2]

Our mission is to deliver the promise of high-performing AI to the world's most prestigious companies. We aim to fulfill our mission by providing technology solutions to companies *building* these foundational AI technologies as well as companies *deploying* these technologies.

For large technology companies that may spend in the aggregate billions of dollars on developing generative AI models over the next several years, we believe we're a "picks and shovels" company.[3] We believe we are well-positioned to help them train and fine-tune foundation models – the heavy-lifting necessary to build high-performing AI.

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[1] ChatGPT is an example of a highly-trained generative AI algorithm. Generative AI algorithms generate new content (text, images, videos, audio, etc.) in response to prompts which can take the form of text, images, videos, audio, designs, musical notes, etc.

[2] With one of these companies, work is now rapidly expanding. Another has indicated that it expects to sign a significant agreement with us in the next several weeks; and we are in active discussions with two others that we believe may likely lead to business this year. While I believe that these opportunities, individually and in the aggregate, are potentially very large, I want to underscore that several of these are pipeline opportunities and at various stages of pipeline, from early-stage to late-stage. Pipeline opportunities are inherently difficult to forecast and often do not close.

[3] Amazon CEO Andy Jassy said on CNBC's "Squawk Box" April 13, 2023, "…the really good [large language models] take billions of dollars to train…".

Our services span collecting large-scale, real-world data for training; creating high-quality synthetic data when real-world training data is hard to come by; annotating training data; and providing reinforcement learning from human feedback – or RLHF – to fine-tune model performance and eliminate hallucinations, which is the tendency of these models to make up things on the fly. We believe our data-centric approach also helps minimize the risk that models generate unsafe or biased results and becomes critical to hyper-training generalized models for specialized domains.

We believe that as generative AI technology becomes more mainstream and as more companies seek to develop generative AI models (spanning coding, video, text, image etc.) within industry domains (healthcare, telecom, biology, etc.), additional heavy-lifting will be required to apply fragmented and difficult-to-access domain knowledge (financial, healthcare etc.).

Meanwhile, for companies that seek to harness these new technologies, we provide AI enablement solutions - reengineering legacy workflows around new conceptual models of integrating AI (including generative AI) and human expertise. We are entering an age in which entirely new concepts of human/AI integration will be developed and deployed, and we believe we can make a meaningful contribution in this regard. This is cutting-edge stuff, and we embrace the disruption. We focus on defining how humans can engage with AI in ways that take into account AI's limitations and reserve for humans essential aspects of strategic decision-making, creativity, and sign-off. Over the next several months, we anticipate being engaged in a significant number of these reengineering efforts, further cultivating our growing expertise in model fine-tuning and sophisticated integrations among foundation models, proprietary models, internal systems and proprietary data.[4]

In addition, we are integrating AI and generative AI models into platforms used by people to perform industry-specific workflows. We believe that few, if any, industries are going to be spared the need to change in light of these technologies, and thus we expect there will be significant opportunities for reinvention. For starters, we have focused on life insurance underwriting

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[4] "Foundation models" refer to large-scale, flexible, reusable AI neural networks pre-trained with broad data capable of performing a wide range of tasks. We believe that foundation models will dramatically accelerate AI adoption in enterprise.

workflows, public relations workflows, and financial compliance workflows. For life insurance, the technology promises automation in underwriting, new product opportunities and new ways of assessing risk. For public relations, it means helping amplify authentic messages in a world where misinformation created by malicious actors (a downside of generative AI) is likely to proliferate; hyper-personalizing outreach to media outlets; and helping distinguish authentic media mentions from misinformation. For financial services, it means being able to make connections between global regulatory events (actual and anticipated) and internal controls.

We believe that each of these focus areas supports and improves the others. Through our work with the largest technology companies, we build relationships of trust through which we gain exposure to cutting edge technologies and preview and review what's around the corner. This level of visibility and access in turn, we expect, strengthens our position to help enterprises stay ahead of the curve. At the same time, our work on enterprise solutions and platform development enables us to provide feedback to the large technology companies regarding real-world use cases and applications. Thus, our focus areas form a virtuous circle, which we believe makes us more valuable to large tech and enterprise alike.

We also believe that these are opportunities that will span the better part of the next decade, as companies seek to increase both languages served (right now it is primarily English) and modalities served (right now it is primarily text, image, and code, but in the future is destined to include video, audio, avatars, design, 3D digital twins, spatial data, etc.).

We believe that the Age of Artificial Intelligence is directly in front of us and that we are in the early innings of the emergence of a technology that will fundamentally change the way we live and the way we work. I equate the state of today's AI with where the automotive industry was when it released the first "horseless carriage" and where the electrical utility industry was when Edison released his first light bulb. The similarities are striking. The New York Times front page headline on December 28, 1879 was "Edison's Electric Light – Conflicting Statements as to its Utility", detailing Professor Morton's criticisms around reliability, production expense, lack of means to distribute electrical power, and the lack of means to store electrical power. Similarly, the criticisms of generative AI abound - it often makes up facts in what appears to be another wise convincing and coherent answer (a phenomenon known as "hallucinating" or "stochastic parroting"). It adapts imperfectly to new domains. It is often misaligned (meaning will do things that we do not want it to do). Its impact on society needs to be better understood. But herein, we expect, lies our opportunity. *We expect that the work we do is what will be required to overcome these limitations*.

In 2016, we decided to begin investing in AI. We were prescient. We anticipated, correctly, a reduction in cost of compute required for training, an acceleration in the performance of chips required for inferencing, and efficiency gains in AI architectures. We began by developing proprietary AI and deploying it within our managed services business. In 2019, we developed and deployed a proprietary large language model – again, well ahead of the curve. We also began developing platform businesses which we believed could likely be accelerated by AI at some point in the future when the technology became suitable. We used our new technology skills and our 30-year history in data engineering as a pivot point to begin addressing new, expanding markets.

We believe we are well-positioned to reap the benefits of these investments. We believe that we have earned a reputation for agility, technical prowess, breadth of capabilities, and high-quality data that is enabling us to forge trusted working relationships with many AI movers and shakers and these relationships hold the promise of significant growth.

We've never been more enthusiastic about our business prospects. Indeed, 2023 promises to be an exciting year with likely accelerating growth. We believe we are in a position of opportunity – getting traction with companies that may spend billions of dollars on AI initiatives in a contest for dominance around a significant technology innovation.

I want to take this opportunity to thank the amazing Innodata team for getting us to this exciting point. We're a diverse team spanning more than 20 countries united by a common culture and singular purpose. Our culture, built from the ground up over the past 30 years, emblemizes passion, dedication, empowerment, diversity, tenacity, adaptability, quality obsession, and customer-centricity. For most of our history, the missing piece to the puzzle was a sufficiently large addressable market. Suffice it to say, that piece is no longer missing.

Nick Toor (our board chairman) and I are Innodata's largest individual shareholders. Together with the rest of our Board of Directors and management team, we spend a great deal of time thinking through capital allocation and market opportunities, with the singular goal of creating sustainable shareholder value.

We are resolutely optimistic in our ability to extract significant value from the opportunities ahead of us.

Very truly yours,

Jack S. Abuhoff
President & CEO
April 24, 2023

Forward-Looking Statements

This letter may contain forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and Section 27A of the Securities Act of 1933, as amended. Words such as "project," "believe," "expect," "can," "continue," "could," "intend," "may," "should," "will," "anticipate," "indicate," "forecast," "predict," "likely," "goals," "estimate," "plan," "potential," "promises," or the negatives thereof and other similar expressions generally identify forward-looking statements, which speak only as of the date hereof.

These forward-looking statements are based on management's current expectations, assumptions and estimates and are subject to a number of risks and uncertainties, including without limitation, the expected or potential effects of the novel coronavirus ("COVID-19") pandemic and the responses of governments, the general global population, our customers, and the Company thereto; impacts resulting from the rapidly evolving conflict between Russia and the Ukraine; investments in large language models; that contracts may be terminated by customers; projected or committed volumes of work may not materialize; pipeline opportunities and customer discussions which may not materialize into work or expected volumes of work; continuing reliance on project-based work in the Digital Data Solutions ("DDS") segment and the primarily at-will nature of such contracts and the ability of these customers to reduce, delay or cancel projects; the likelihood of continued development of the markets, particularly new and emerging markets, that our services support; continuing DDS segment revenue concentration in a limited number of customers; potential inability to replace projects that are completed, canceled or reduced; our dependency on content providers in our Agility segment; difficulty in integrating and deriving synergies from acquisitions, joint venture and strategic investments; potential undiscovered liabilities of companies and businesses that we may acquire; potential impairment of the carrying value of goodwill and other acquired intangible assets of companies and businesses that we acquire; a continued downturn in or depressed market conditions; changes in external market factors; the ability and willingness of our customers and prospective customers to execute business plans that give rise to requirements for our services; changes in our business or growth strategy; the emergence of new or growth in existing competitors; various other competitive and technological factors; our use of and reliance on information technology systems, including potential security breaches, cyber-attacks, privacy breaches or data breaches that result in the unauthorized disclosure of consumer, customer, employee or Company information, or service interruptions; and other risks and uncertainties indicated from time to time in our filings with the Securities and Exchange Commission.

Our actual results could differ materially from the results referred to in forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, uncertainty around the COVID-19 pandemic and the effects of the global response thereto and the risks discussed in Part I, Item 1A. "Risk Factors," Part II, Item 7. “Management's Discussion and Analysis of Financial Condition and Results of Operations”, and other parts of our Annual Report on Form 10-K, filed with the Securities and Exchange Commission on February 24, 2023, as updated or amended by our other filings that we may make with the Securities and Exchange Commission. In light of these risks and uncertainties, there can be no assurance that the results referred to in the forward-looking statements will occur, and you should not place undue reliance on these forward-looking statements. We undertake no obligation to update or review any guidance or other forward-looking statements, whether as a result of new information, future developments or otherwise, except as may be required by the Federal securities laws. These forward-looking statements speak only as of the date hereof.

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

FORM 10-K

(Mark One)

☒ ANNUAL REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2022

☐ TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission file number 001-35774

INNODATA INC.

(Exact name of registrant as specified in its charter)

Delaware	**13-3475943**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
55 Challenger Road **Ridgefield Park, New Jersey**	**07660**
(Address of principal executive offices)	(Zip Code)

(201) 371-8000

(Registrant's telephone number)

Securities registered under Section 12(b) of the Exchange Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock	INOD	The NASDAQ Stock Market LLC

Securities registered under Section 12(g) of the Exchange 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 Exchange 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 (§232.405 of this chapter) 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 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 Act). Yes ☐ No ☒

The aggregate market value of the registrant's common stock held by non-affiliates of the registrant (based on the closing price reported on The Nasdaq Stock Market on June 30, 2022) was $119,621,374.

The number of outstanding shares of the registrant's Common Stock, $.01 par value, as of February 20, 2023 was 27,404,901

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's definitive proxy statement for the 2023 Annual Meeting of Stockholders are incorporated by reference in Items 10,11,12,13 and 14 of Part III of this Form 10-K.

INNODATA INC.

Form 10-K
For the Year Ended December 31, 2022

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PART I

Cautionary Note Regarding Forward-Looking Statements

Disclosures in this Annual Report on Form 10-K (this "Report") contain certain forward-looking statements within the meaning of Section 21E of the Securities and Exchange Act of 1934, as amended, and Section 27A of the Securities Act of 1933, as amended. These forward-looking statements include, without limitation, statements concerning our operations, economic performance, and financial condition. Words such as "project," "believe," "expect," "can," "continue," "could," "intend," "may," "should," "will," "anticipate," "indicate," "predict," "likely," "estimate," "plan," "potential," or the negatives thereof, and other similar expressions generally identify forward-looking statements.

These forward-looking statements are based on management's current expectations, assumptions and estimates and are subject to a number of risks and uncertainties, including, without limitation, the expected or potential effects of the novel coronavirus ("COVID-19") pandemic and the responses of governments, the general global population, our customers, and the Company thereto; impacts resulting from the rapidly evolving conflict between Russia and the Ukraine; that contracts may be terminated by customers; projected or committed volumes of work may not materialize; continuing reliance on project-based work in the DDS segment and the primarily at-will nature of such contracts and the ability of these customers to reduce, delay or cancel projects; the likelihood of continued development of the markets, particularly new and emerging markets, that our services support; continuing DDS segment revenue concentration in a limited number of customers; potential inability to replace projects that are completed, canceled or reduced; our dependency on content providers in our Agility segment; difficulty in integrating and deriving synergies from acquisitions, joint ventures and strategic investments; potential undiscovered liabilities of companies and businesses that we may acquire; potential impairment of the carrying value of goodwill and other acquired intangible assets of companies and businesses that we acquire; a continued downturn in or depressed market conditions, whether as a result of the COVID-19 pandemic or otherwise; changes in external market factors; the ability and willingness of our customers and prospective customers to execute business plans that give rise to requirements for our services; changes in our business or growth strategy; the emergence of new, or growth in existing competitors; various other competitive and technological factors; the Company's use of and reliance on information technology systems, including potential security breaches, cyber-attacks, privacy breaches or data breaches that result in the unauthorized disclosure of consumer, customer, employee or Company information, or service interruptions; and the risks discussed in Part I, Item 1A. "Risk Factors", "Part II, Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations," and other parts of this Report and in our other filings that we may make with the Securities and Exchange Commission (the "SEC").

Our actual results could differ materially from the results referred to in forward-looking statements. In light of these risks and uncertainties, there can be no assurance that the results referred to in the forward-looking statements will occur, and you should not place undue reliance on these forward-looking statements. These forward-looking statements speak only as of the date hereof.

We undertake no obligation to update or review any guidance or other forward-looking statements, whether as a result of new information, future developments or otherwise, except as may be required by the federal securities laws.

Item 1. Business.

Business Overview

Innodata Inc. (NASDAQ: INOD) (including its subsidiaries, the "Company", "Innodata", "we", "us" or "our") is a leading data engineering company. Our mission is to help the world's most prestigious companies deliver the promise of ethical, high-performing artificial intelligence ("AI"), which we believe will contribute to a safer and more prosperous world.

Innodata was founded on a simple idea: engineer the highest quality data so organizations across broad industry segments could make smarter decisions. Today, we believe that we're delivering the highest quality data for some of the world's most innovative technology companies to use to train the AI models of the future.

AI holds the promise that computers can perceive and understand the world, enabling products and services that would have been previously unimaginable and impossible with traditional coding. AI learns from data, and the highest-performing AI will have learned from the highest-quality data. We believe that we can contribute meaningfully by harnessing our capabilities, honed over 30 years, in collecting and annotating data at scale with consistency and high accuracy.

We're also helping companies deploy and integrate AI into their operations and products and providing innovative AI-enabled industry platforms, helping ensure that our customers' businesses are prepared for a world in which machines augment human activity in ways previously unimaginable.

Market Opportunities

AI Data Preparation

AI applications are *trained* with large quantities of data, unlike traditional computer applications that use languages such as Python and Java to tell computers what to do. AI applications *learn* from the data through a series of regressions. Today's highest performing AI applications (such as OpenAI's ChatGPT) would never have been possible to build through traditional programming.

Data science teams at some of the largest technology companies are accelerating development of generative AI technologies that produce high quality text, code, and images in response to user prompts. At their core, they rely upon large language models (LLMs), which are deep neural networks (an artificial intelligence architecture) with billions of parameters and requiring massive amounts of training data to encode the essence of human language. They also require fine-tuning through supervised learning and reinforcement learning from human feedback (RLHF) to render them suitable for specialized tasks and domains, to control hallucinations (the tendency of these models to make up things on the fly), and to minimize the risk that they generate unsafe or biased results.

In addition, companies across industry verticals are seeking to develop AI-based applications for an ever-increasing variety of use cases such as self-driving cars, surveillance systems, automated medical diagnostics, digital assistants, chatbots, content moderation, robotics, fraud detection and contract review.

Developing high-quality training data is critical for the AI to perform correctly, but often requires technology and skilled human resources that data science teams lack. Moreover, developing high-quality data takes up 80% of the time for most AI and ML projects.[1]

Data sciences teams seek partners that can perform these data preparation functions for them at large-scale and at high quality, while using automated tools to minimize cost. As AI projects become more specialized and mission-critical and data preparation becomes increasingly complex, data science teams seek partners with deep domain knowledge and an infrastructure in which data security is assured.

We believe that Innodata is ideally situated to partner with data science teams.

We collect or create training data, annotate training data, and train AI algorithms for social media companies, robotics companies, financial services companies, and many others, working with images, text, video and audio. We utilize a variety of leading third-party image and video annotation tools. For text, we use our proprietary data annotation platform that incorporates AI to reduce cost while improving consistency and quality of output. Our proprietary data annotation platform features auto-tagging capabilities that apply to both classical and generative AI tasks. Our platform encapsulates many of the innovations we have conceived of in the course of our 30-year history of creating high-quality data.

In addition, because collecting real-world data is often impracticable (due to data privacy regulations or rarity of cohorts and outliers), we create high-quality synthetic data that maintains all of the statistical properties of real-world data, using a combination of domain specialists and machine technologies that leverage LLMs.

We are presently working with or in pilots or advanced discussions with four of the five largest technology companies, and several of the world's leading brands spanning multiple verticals, to enable, accelerate or

1 *Data Preparation & Labeling for AI 2020*, Cognilytica Research (Jan. 31, 2020)

enrich the services they deliver to end users around chatbot assistance, facial recognition, social networking, gaming, drones, medical diagnostics and robotics, to name a few.

The AI data training market is estimated to have been $8.8 billion in 2022, projected to grow at a CAGR of 24% to reach $74.5 billion by 2032,[2] essentially proxying the enormous growth expected in AI system spending overall ($118 billion in 2022, $301 billion in 2026, a 26.5% CAGR).[3] Similarly, the global data annotation tools market was valued at $1 billion in 2021, projected to reach $10 billion by 2028, which is a CAGR of 30%.[4]

AI Model Deployment and Integration

We believe that over the next decade, almost all industries will be fundamentally reinvented through the advent of high-performing AI models. We help businesses leverage the latest AI technologies to achieve their goals. We develop custom AI models (where we select the appropriate algorithms, tune hyperparameters, train and validate the models, and update the models as required). We also help businesses fine-tune their own custom versions of our proprietary models and third-party foundation models (including LLMs) to address domain-specific and customer-specific use cases.

The current pace of AI innovation is accelerating. The algorithms and techniques used today will likely be obsolete in the next several years. Therefore, we have built our solutions and platforms in such a way as to enable us to incorporate new open source or proprietary software innovations.

Many of our customers provide products and solutions that require intensive text data processing and analytics. For these customers, in addition to deploying and integrating AI models, we often provide a range of data engineering support services including data transformation, data curation, data hygiene, data consolidation, data extraction, data compliance, and master data management. For many of our longest-tenured customers, we continuously innovate and deploy models into their workflows and digital operations.

Our customers span a diverse range of industries and a wide range of AI use cases, benefiting from the short time-to-value and high economic returns our AI solutions and platforms offer.

The document analytics market — a subset of the overall AI market — is expected to grow at a CAGR of 49.6% from $1.1 billion in 2021 to $8.15 billion by 2026.[5] Meanwhile, overall enterprise AI spend is projected to reach $102.9 billion by 2030, up from $16.8 billion in 2021, registering a CAGR of 47.2%.[6]

AI-Enabled Industry Platforms

Our AI-enabled industry platforms address specific, niche market requirements that we believe we can innovate with AI/ML technologies. We deploy these industry platforms as software-as-a-service (SaaS) and as managed services. These platforms benefit from our technology infrastructure, our industry-specific knowledge, our strong customer relationships and experience merging technology with the business processes of our customers. To date, we have built an industry platform for medical records data extraction and transformation (which we brand as “Synodex®”) and an industry platform for public relations (which we brand as “Agility PR Solutions”). We are in development with an additional AI-enabled industry platform to serve financial services institutions.

Our Synodex industry platform transforms medical records into useable digital data organized in accordance with our proprietary data models or customer data models. At the end of 2022, we had 18 customers utilizing our Synodex platform, including John Hancock Insurance, the insurance operating unit of John Hancock Financial (a division of Manulife) and one of the largest life insurers in the United States. As we further integrate AI into the platform, we aim to address the needs of the healthcare sector,

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2 *Data Labeling Solution and Services Market*, FactMR (Feb. 2022)

3 *Worldwide Artificial Intelligence Systems Spending Guide,* IDC (Aug. 2022)

4 *Data Annotation Tools Market, Global Market Insights,* (Feb. 2022)

5 *Document Analytics Global Market Report, Reportlinker Analytics (Sept. 2022)*

6 *Enterprise Artificial Intelligence (AI) Market, Precedence Research (Nov. 2022)*

which is increasingly seeking to search, analyze, and interpret vast volumes of patient data, improve clinical documentation and make computer-assisted coding more efficient. The global artificial intelligence (AI) in healthcare market is forecast to reach a market size of $102.7 billion by 2028, up from $14.6 billion in 2023, with a CAGR of 47.6%.[7]

Our Agility industry platform provides marketing communications and public relations professionals with the ability to target and distribute content to journalists and social media influencers world-wide and to monitor and analyze global news (print, web, radio and TV) and social media. Agility is now ranked by software review site G2 Crowd as meeting the requirements of customers better than its two largest competitors that have combined revenues of over $1 billion.[8] Agility operates in the $5.5 billion media intelligence solutions market.[9]

The Company's operations are presently classified and reported in three reporting segments: Digital Data Solutions (DDS), Synodex and Agility.

Competitive Strengths

Our Data Quality

We believe we achieve industry-leading data quality by leveraging our technology, our large staff of human experts, and the culture we have cultivated over many years of providing high-quality data to the most demanding customers.

For the past seven years, we have been designing and refining our approach for combining human experts and AI to produce large-scale, highly accurate data. In our approach, AI networks automatically perform much of the required processing and human experts perform processing that the AI cannot perform at a high level of confidence. The human output is fed back into the AI networks, which, as a result, "learn" and become "smarter" over time, achieving progressively greater levels of automation while maintaining the highest levels of quality. (*See "Our Technology", below.*)

Our 4,000+ experts have deep domain knowledge in a wide diversity of data domains. They are selected on the basis of data acumen, analytical ability, and deep domain proficiency. (*See "Our Global Delivery Framework", below.*)

Our culture of quality is critical to achieving and sustaining high data quality. Our culture has been cultivated over our decades of experience performing data-related tasks for leading global companies, including the four largest global information companies with which we have 10-plus year relationships building and maintaining many of their leading data products.

We maintain independent quality assurance centers that comply with the ISO 9001:2008 quality management system standards.

Our Global Delivery Framework

We have over 4,000 employees and associates across 23 countries. Many of them have data domain expertise in various fields, including law, sciences, health, finance, and technology and hold advanced degrees. We also have access to a large population of "crowdsourced" workers that we maintain in our databases. Our delivery locations are strategically located to give us access to a diverse talent base spanning multiple time zones and more than 40 languages.

We have also invested in building a proprietary resource management platform geared specifically to managing remote staff and freelancers. Prior to the global pandemic, our operating model was to almost exclusively use full-time employees working from large production centers. Propelled by the need to shift to

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7 *Artificial Intelligence In Healthcare Market, Markets and Markets Research Private Ltd. (Jan. 2023)*

8 *https://www.agilitypr.com/wp-content/uploads/2023/02/G2-Comparison.pdf*

9 *Strong Growth in Spending on Media Intelligence Software & Information — Burton-Taylor Report,* Burton-Taylor International Consulting, (Apr 2022)

remote working, we are presently approximately 75% cloud-based and remote, which has enabled us to lower fixed operating costs and achieve greater scalability.

Our Technology

Over the past seven years, we have built a technology infrastructure that automates complex data annotation and other data engineering tasks. Our technology infrastructure combines advanced dataflow, orchestration and cognitive processing, and purpose-built applications used by human experts, which we refer to as "workbenches". This infrastructure enables us to perform data annotation and other data engineering tasks at progressively higher levels of efficiency without compromising quality as it continuously learns from human experts. Our workbenches incorporate data verification and validation algorithms to detect human expert inconsistencies and to catch difficult auto-annotation errors such as LLM hallucinations.

Our proprietary, state-of-the-art Goldengate platform is our core AI technology stack. Goldengate ingests unstructured data and performs a series of cognitive tasks to extract intelligence and create analytical data that people can use for generating inferences and powering analytical applications. It serves up low-code AI with transfer learning, orchestrating generative LLMs we have developed over the past seven years of deploying industrial deep neural networks as well as third-party foundation models. It integrates both with our internal systems and customer environments through application programming interfaces ("APIs").

Goldengate serves as the foundational technology for the AI projects we perform for customers, as well as the AI-under-the-hood that powers our data annotation platform and our industry platforms. One of the main benefits of the platform is that it is "low-code", so it does not require a large number of data scientists to build models or require a data science platform to orchestrate models and update models. Using Goldengate in combination with our SMEs, we are able to build high-performing, cutting-edge models that address real-world problems. In 2021 we further AI-enabled Synodex, Agility and our data annotation platform using Goldengate; in 2022, we commercialized it further as both a customer-facing technology and as the engine under other potential industry solutions.

To support our Agility industry platform, we have built a fully scalable, cloud-based infrastructure that powers a SaaS experience for global customers on a 24/7 basis. It includes (i) an AI/ML-powered big data media intelligence platform that indexes two billion media items per year, powering media monitoring, media enrichment, and media database APIs; (ii) a full targeting workflow platform that integrates media targeting, content curation, content distribution, integrated newswires, and a newsroom; (iii) a comprehensive database of more than one million global media influencers and journalists; (iv) a media monitoring and analytics engine; and (v) a workflow platform for media database research combining AI and machine learning to streamline research workflows for discovery and maintenance of our database.

In January 2023, we released a module within our Agility product called PR CoPilot™ that augments the work communications professionals do to generate press releases and media outreach. It leverages proprietary Innodata technology and OpenAI's GPT large language models. We believe PR CoPilot is the first AI writing assistant built natively into a fully-integrated PR platform.

To support our Synodex industry platform, we have built technologies for transforming imaged medical records and HL7/FHIR electronic health records (EHR) systems into digital data conforming to proprietary insurance medical data dictionaries that span diseases and impairments, diagnostic tests, and pharmacology and support industry standard codes such as ICD-10 as well as rules engines for processing, analyzing and displaying the digital data.

Our Infrastructure

Our infrastructure supports a range of strategies to suit our customers' requirements for data security, compliance, scalability and reliability. Our user endpoints are secured with cloud-managed security solutions consisting of firewall, IDS/IPS, vulnerability scanning and patch management engines. We host data and applications in our own data centers at our operations centers, in our customers' data centers, and on third-party cloud services including Amazon Web Services ("AWS"), Microsoft Azure ("Azure"), Oracle Cloud Infrastructure ("OCI"), and Google Cloud Platform ("GCP") that provide the benefit of "infinite scalability" of information technology resources. Our data operations are linked by multiple redundant network connections. Our Wide Area Network — along with our Local Area Networks, Storage Area Networks, Network Attached Storage and data centers — are configured with industry standard redundancy, often with more than one backup to establish 24x7 availability. In 2022, our Wide Area Network had 99.98% uptime excluding scheduled maintenance. We encrypt all sensitive information, both at rest and in transit, to the Advanced Encryption Standard (AES) 256 or similar standard, and we employ a range of security features, including industry-leading managed firewalls and intrusion detection and prevention services. (*See "Information Security", below.*)

Our Breadth of Capabilities

We are able to address customers at their highest point of need. For example, we may provide data annotation for a data sciences team at a bank that is building an AI application to manage complex loan agreements. For another banking customer with the same requirement but without access to sophisticated data sciences support, we might provide a full AI/ML solution built on our proprietary Goldengate AI platform that extracts key data points from the loan agreements and outputs normalized digital data via an API to the bank's existing application. For still another banking customer that also lacks an application to analyze and manage the data, we might provide a data analytics platform.

Data science teams that utilize our data annotation services also often have other related needs that include data transformation, data curation, data hygiene, data consolidation, data compliance, and master data management. Unlike many of our data annotation competitors — that are essentially staffing companies — as a full-service data engineering company we are able to address these attendant requirements.

Our Legacy

We developed our capabilities and honed our approaches progressively over the last 30 years creating high-quality data for many of the world's most demanding information companies. Approximately seven years ago, we formed Innodata Labs, a research and development center, to research, develop and apply machine learning and emerging AI to our large-scale, human-intensive data operations. In 2019, we began packaging the capabilities that emerged from our R&D efforts in order to align with several fast-growing new markets and help companies use AI/ML to drive performance benefits and business insights.

Our historical core competency in high-quality data, combined with these R&D efforts in applied AI, created the foundation for the evolution of our offerings, which include AI Data Preparation, AI Model Deployment and Integration, and AI-Enabled Industry Platforms.

Our Culture

We have developed a strong customer- and quality-centric culture over 30 years serving many of the world's most successful companies that trust us with their data needs. We believe in communicating honestly, transparently and broadly. We are optimistic in the promise of technology to augmenting human initiative and talent. We embrace diversity (and began doing so long before it was in vogue). We prize empathy and respect in our relationships with customers and colleagues alike while at the same time honing direct communication that best promotes optimal business outcomes for our customers. We believe our culture helps us best serve our customers and helps us attract and retain top people.

Growth Strategy

We believe that we are living in a unique time — that AI will soon become the "brains" of our computers, our robots and our cars; and that AI will be adopted by thousands of enterprises to deliver services and products that would have been impossible with traditional coding.

In AI, the software writes itself by learning from large amounts of data. Nowhere does the phrase "garbage in, garbage out" apply better. A data-centric approach for collection and annotation of consistent, high-quality data will separate the winners from the losers.

Our strategy for growth is to leverage our 30+ year experience creating high quality data. We intend to align to and serve large, dynamic and rapidly growing markets related to the creation and commercialization of increasingly sophisticated AI and deployment of AI in businesses. Our solutions and platforms leverage the technology, human resources, and culture of fanaticism for data quality that we have developed over the past 30 years, as well as the AI/ML research and development we have invested in over the past seven years.

Key elements of our growth strategy include:

Driving New Customer Acquisition

We believe we are still in the early stages of penetrating our addressable markets. We intend to pursue new long-term, strategic customer relationships, especially with customers with large and growing commitments to AI innovation, where we can deliver a wide range of our capabilities and have meaningful impact.

Beginning in 2021, we substantially scaled our sales organization, most notably the sales organization supporting our Agility PR solutions product. In late 2021 and early 2022, we experienced challenges in retaining sales hires primarily in our Austin, Texas sales office. We have since closed that sales office, have focused on hiring and retaining sales talent in other locations and in building a data-driven sales organization. We believe that the current sales organization is operating well and will likely enable us to achieve our near-term growth targets.

Expanding Relationships with Existing Customers

We believe we have demonstrated a clear ability to "land-and-expand" within customer accounts. Once we engage with a customer within a specific line of business and specific use cases, and the customer experiences the benefits of working with us, it will often increase the number of use cases for which it engages us and expand to additional lines of business.

Continuing to Develop New Capabilities

We intend to develop new capabilities designed around emerging customer needs and advances in AI technologies. We intend to develop additional charter customer relationships, like the ongoing relationship we formed with one of the world's largest banks to co-develop an AI-enabled compliance platform.

Continuing to Innovate

We believe that our ability to innovate will continue to be an important contributor to our growth and market traction. We work closely with our customers, assessing their requirements for enhancements to our existing capabilities and new capabilities with the goal of better serving them. We have well-defined roadmaps for our AI industry platforms to introduce new features and functions that we believe will enable us to generate growth by broadening the appeal of our platforms to potential new customers as well as increasing the opportunities for further expansions with existing customers.

We expect to fund these investments for growth from our internal resources and we may access capital through debt or equity financing.

Our Customers

Our customers include leading businesses across multiple verticals including banking, insurance, financial services, technology, digital retailing and information/media. One customer in the DDS segment generated approximately 11% of the Company's total revenues in the fiscal year ended December 31, 2022. Another customer in the DDS segment generated approximately 11% of the Company's total revenues in the fiscal year ended December 31, 2021. No other customer accounted for 10% or more of total revenues during these periods. Further, in the years ended December 31, 2022 and 2021, revenues from non-U.S. customers accounted for 38% and 45%, respectively, of the Company's revenues.

We have long-standing relationships with many of our customers. Our track record of delivering high-quality services helps us to solidify customer relationships. Many of our customers are recurring customers, meaning that they have continued to provide additional projects to us after our initial engagement with them.

Our agreements with our customers are in many cases terminable on 30 to 90 days' notice. A substantial portion of the services we provide to our customers is subject to their requirements.

Sales and Marketing

We market and sell our solutions and platforms directly through our professional staff, senior management and direct sales personnel operating primarily from various locations in the U.S., Canada, the United Kingdom and Europe. In addition, we are increasingly developing and expanding our use of strategic partnerships and channel relationships for the establishment and development of new and existing customers.

In addition to our executive-level business development professionals and sales and marketing personnel, we also deploy solutions architects, technical support experts and consultants who support the development of new customers and new customer engagements. These resources work within teams (both permanent and ad hoc) that provide support to customers.

Our marketing department and sales professionals work together to generate leads. Our sales professionals identify and qualify prospects, securing direct personal access to decision makers at existing and prospective customers. They facilitate interactions between customer personnel and our service teams to define ways in which we can assist customers with their goals. For each prospective customer engagement, we assemble a team of our senior employees drawn from various disciplines within our Company. The team members assume assigned roles in a formalized process, using their combined knowledge and experience to understand the customer's goals and collaborate with the customer on a solution.

Our marketing organization is responsible for developing and increasing the visibility and awareness of our brand and our service offerings, defining and communicating our value proposition, generating qualified, early-stage leads and furnishing effective sales support tools.

As part of our marketing strategy, we partner with media organizations to build awareness, establish a reputation as an industry thought leader and generate leads. Media partners include trade associations and publications, trade show producers and consulting organizations. These partnerships are particularly valuable in enterprise industries as we build our presence among digital content leaders and decision makers.

Primary marketing outreach activities include content marketing, event marketing (including exhibiting at trade shows, virtual summits, conferences and seminars), direct and database marketing, public and media relations (including speaking engagements), and web marketing (including integrated marketing campaigns, search engine optimization, search engine marketing and the maintenance and continued development of external websites).

Sales activities include lead generation, nurturing leads, engaging in discussions with prospective customers to understand their needs, demonstrating our products, designing solutions, responding to requests for proposals, and managing account and customer relationships and activities.

Personnel from our solutions analysis group, our customer services group and our engineering services group closely support our direct sales effort. These individuals assist the sales force in understanding the technical needs of customers and providing responses to these needs, including demonstrations, prototypes, pricing quotations and time estimates. In addition, account managers from our customer service group support our direct sales effort by providing ongoing project-level support to our customers.

Competition

Major competitors across industry verticals include Amazon Sagemaker Ground Truth, Appen, CloudFactory, Defined Crowd, Deepen.ai, Telus, Samasource, and Scale AI, several of which are large firms with established customer bases, as well as technology service providers such as Cognizant Technology Solutions, ExlService Holdings, Inc., Genpact Limited, Infosys, and Tata Consultancy Services.

We compete by offering high-quality, competitively-priced solutions that leverage our technical platforms, IT infrastructure, offshore domain experts and economies of scale. Our competitive advantages are especially attractive to customers for undertakings that are complex, mission-critical, sizable in scope or scale, or that require high levels of information security.

Each of our industry platforms has its discrete set of competitors. Major competitors for our Synodex industry platform are Risk Righter, eNoah, Parameds, Aosta and a few BPO companies, several of which are large firms with established customer bases. We also compete with in-house personnel at existing or prospective customers who may attempt to duplicate our services in-house or use alternative approaches to fulfill their needs.

Our Agility industry platform competes with Meltwater, Cision, Kantar, and Intrado, several of which are large firms with established customer bases, as well as PR firms that provide media monitoring and analysis services and journalist and influencer databases. Our competitors also include social media listening companies and start-ups offering platforms to amplify messages by targeting social media influencers.

Intellectual Property

We depend, in part, upon our proprietary technologies and methodologies, including our Goldengate AI platform, various applications of our platforms, our proprietary data models and other intellectual property rights. We have a patent and several patent applications pending and believe that the duration of these patents is adequate relative to the expected lives of their applications. We rely on a combination of trade secret, license, nondisclosure and other contractual agreements and copyright and trademark laws to protect our intellectual property rights.

We enter into confidentiality agreements with our employees, contractors and customers, and limit access to and distribution of our proprietary information and that of our customers. We cannot assure that these arrangements will be adequate to deter misappropriation of our proprietary information or that we will be able to detect unauthorized use and take appropriate steps to enforce our intellectual property rights.

Information Security

Our operations facilities in Asia and our data centers are certified to information security management standard — ISO27001:2013. We have deployed multi-layered security consisting of a wide range of security controls and measures such as two-factor authentication, patch management, full disk encryption system, anti-virus with firewall and IDS/IPS capability, redundant next generation firewalls with intrusion detection and prevention feature sets, and we utilize appropriately certified cloud resources. When we are processing personally identifiable information covered by HIPAA, we utilize U.S.-based, co-located data centers or HIPAA compliant cloud computing services with advanced data encryption (AES 256 or comparable) applied to data at rest and in motion.

Government Regulation

We are subject to a number of U.S. federal and state and foreign laws and regulations that relate to our business, including those governing privacy and data protection. We comply with the requirements of the United States Health Insurance Portability and Accountability Act of 1996 as amended (including by the Health Information Technology for Economic and Clinical Health Data (HITECH)) (HIPAA), the United Kingdom's General Data Protection Regulation as tailored by the Data Protection Act 2018, the EU General Data Protection Regulation, and local laws regulating data privacy, as applicable.

Research and Development

Our Innodata Labs researches and develops AI-based technologies that we utilize in our operations and with our customers. The Innodata Labs team is comprised of data scientists, including data scientists who have published leading papers on discrete topics in data science and have earned PhD degrees in fields such as data entity extraction.

Our product engineering teams also engage in research and development efforts focused on enhancing the functionality and utility of our AI industry platforms, addressing new use cases and developing additional innovative technologies. Timely development of new functionality to support existing and new use cases is essential to maintaining our competitive position, and we release new versions of our software on a regular basis.

Customer feedback enables us to ensure that we stay aligned to our customers' priorities and that we stay ahead of market needs. Our culture of innovation helps us attract and retain a highly motivated and talented team of AI experts and technologists. Our research and development center spans several geographical locations across North America and Asia-Pacific.

In mid-2022, we formed an Advisory Board dedicated to helping drive growth through innovation initiatives and advancing dialogue related to ethical AI and the future of AI technologies. The advisory board is currently comprised by a Chief Data Officer for Microsoft and the director of University of Michigan's Artificial Intelligence Laboratory. We are presently seeking additional members.

Environmental, Social, and Governance

We have built a robust corporate ESG program focused on social responsibility; improving how we perform as a steward of the environment; and sustainability.

Social Responsibility

We are driven by the vision of ushering in an era of broadly distributed, sustainable prosperity that can result from ethical AI and broad access to the benefits of AI. We have two programs underway designed to help ensure a future level playing field for marginalized or economically-disadvantaged communities that might otherwise be at a disadvantage in an increasingly AI-driven world.

The first of these programs is our i-Hope Program. The aim of our i-Hope Program is to provide the gift of computer literacy to 25,000 children by 2025. From 2016 to 2022, our employees contributed over 2,300 person days to the program, building 17 fully-functional computer labs and smart classrooms across India, the Philippines, and Sri Lanka. As a result, we believe approximately 10,300 children in these communities are now more technology proficient and better prepared to participate in opportunities that AI presents. Our efforts have been well-recognized. In 2022, we (through our operating subsidiaries) received the 2022 CSR Company of the Year Excellence Award at the Asia CEO Awards-2022 and the 2021 Salamat Po Award from the Philippines Department of Social Welfare & Development.

The second program is our i-Matter Program. It involves assisting leading technology companies in their efforts to ensure that facial recognition technologies of the future perform equally well across ethnic and gender identities. As a Forbes article explained, "Suppose the data used to train your AI system doesn't have sufficient data about specific classes of individuals. In that case, it may not learn what to do when it encounters those individuals. Would a facial recognition system used for check-in to a hotel recognize a person with freckles? If the system stops working and makes check-in harder for a person with freckles, what should the company do? How does the company address this ethical dilemma?"[10]

Our global efforts at AI inclusivity span nations, geographies, gender identities, etc., with a focus on minority communities and identity groups. For example, we recently began working with Native American tribes to ensure that they are in no respect disadvantaged by next generation facial recognition systems.

Environmental Stewardship

We are also committed to conducting our business in a manner that manages environmental issues responsibly and contributes to global efforts to curb carbon emissions. We fulfill this commitment by our efforts to conduct operations in an environmentally-sound manner; to manage our supply chains toward appropriate environmental practices; and sponsor grass-roots efforts designed to preserve the environment in the communities in which we operate.

We have set metrics to monitor and target the reduction of greenhouse gas emissions, energy usage, and water usage. We believe that this transparency and reporting has enabled us to improve our sustainability program continuously. We track and share with customers our emissions data for scopes 1, 2, and 3.

Across all our global operations, we recycle e-waste and paper. In India, the Philippines, and Sri Lanka, we have planted over 1,100 saplings in nature reserves in 2022 and in Q1 2023 we aim to increase this to 4,400

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10 *https://www.forbes.com/sites/glenngow/2021/07/11/google-facebook-and-microsoft-are-working-on-ai-ethics-heres-what-your-company-should-be-doing/*

saplings. Our program has practices in place to ensure that the trees will receive proper care and attention during their initial growth phase, which is crucial for their survival.

Sustainability

Our sustainability program is based on the following core elements: health and safety, business continuity management, information security, labor standards, anti-bribery and corruption, and management engagement and social impact. Our sustainability program is backed by ISO 27001:2013 (information security) certification, policies, and employee training for these core areas.

Employees

As of December 31, 2022, we employed 4,209 employees, 4,205 of which are full-time, with 181 persons in the United States, Canada and the United Kingdom, and 4,028 persons in the Philippines, India, Sri Lanka, Canada, Germany, and Israel. Many of our employees hold advanced degrees in specialized fields such as law, business, technology, medicine, and social sciences. No employees are currently represented by a labor union, and we believe that our relations with our employees are satisfactory.

Corporate Offices

Our principal executive offices are located at 55 Challenger Road, Ridgefield Park, New Jersey 07660, just outside New York City, and our telephone number is (201) 371-8000. We were founded in 1988.

Our website is www.innodata.com; information contained on our website is not included as a part of, or incorporated by reference into, this Annual Report on Form 10-K. There we make available, free of charge, our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and any amendments to those reports, as soon as reasonably practicable after we electronically file that material with, or furnish it to, the SEC. Our SEC reports can be obtained through the Investor Relations section of our website or from the Securities and Exchange Commission at www.sec.gov.

Item 1A. Risk Factors.

The risk factors set forth below describe what the Company believes to be the material factors, risks, and uncertainties related to our business, financial condition, and results of operations. The risks and uncertainties set forth below, as well as other factors described elsewhere in this Form 10-K or in other filings by the Company with the SEC, could adversely affect the Company's business, financial condition and results of operations. Additional risks and uncertainties that are not currently known to the Company or that are not currently believed by the Company to be material may also harm the Company's business, financial condition and results of operations.

Risks Related to Our Business and Operations

We have historically relied on a limited number of customers that have accounted for a significant portion of our revenues, and our results of operations could be adversely affected if we were to lose one or more of these significant customers.

We have historically relied on a limited number of customers that have accounted for a significant portion of our revenues. One customer in the DDS segment generated approximately 11% of the Company's total revenues in the fiscal year ended December 31, 2022. Another customer in the DDS segment generated approximately 11% of the Company's total revenues in the fiscal year ended December 31, 2021. No other customer accounted for 10% or more of total revenues during these periods. Further, in the years ended December 31, 2022 and 2021, revenues from non-U.S. customers accounted for 38% and 45%, respectively, of the Company's revenues. We may lose one or more of these customers, or our other major customers, as a result of our failure to meet or satisfy our customer's requirements, the completion or termination of a project or engagement, or the customer's selection of another service provider.

In addition, the volume of work performed for our major customers may vary from year to year, and services they require from us may change from year to year. They may also request that we modify certain key terms of our agreements with them as a condition of continuing to do business with us. If the volume of work performed for our major customers varies, if the services they require from us change, or if they require price concessions, our revenues and results of operations could be adversely affected, and we may incur a loss from operations. If certain key terms of our agreements with our major customers are modified, our revenues and results of operations may be adversely affected. Our services are typically subject to customer requirements, and in many cases are terminable upon 30 to 90 days' notice. The loss of these customers or a significant variation in the volume of work performed for these customers may have a material adverse effect upon our business, financial condition and results of operations.

A portion of our services is provided on a non-recurring basis for specific projects, and our inability to replace large projects when they are completed or otherwise terminated has adversely affected, and could in the future adversely affect, our revenues and results of operations.

We provide a portion of our services for specific projects that generate revenues that terminate on completion of a defined task. While we seek, whenever possible, on completion or termination of large projects, to counterbalance periodic declines in revenues with new arrangements to provide services to the same customer or others, our inability to obtain sufficient new projects to counterbalance any decreases in such work may adversely affect our future revenues and results of operations.

New acquisitions, joint ventures or strategic investments or partnerships could harm our operating results.

We may pursue acquisitions, joint ventures or engage in strategic investments or partnerships to grow and enhance our capabilities. There can be no assurance that we will successfully consummate any acquisitions or joint ventures, or realize profit from strategic investments, or achieve desired financial and operating results. Further, such activities involve a number of risks and challenges, including proper evaluation, diversion of management's attention and proper integration with our current business. Accordingly, we might fail to realize the expected benefits or strategic objectives of any such venture we undertake. If we are unable to complete the kind of acquisitions for which we plan, we may not be able to achieve our planned rates of growth, profitability or competitive position in specific markets or services.

Our new customers may sunset their products because of lack of sufficient revenues or declining revenues, or a change in their business direction, and this may result in termination of our work for these customers.

As we obtain new opportunities and win new business, our customers may not generate the level of revenues that we initially anticipated at the time of signing a contract with them. Our customers may experience declining revenues with their existing products, or may change their business direction. This could be due to various reasons beyond our or their control, and it could lead to termination of projects or contracts. As we normally invest in people and technology and incur other costs in anticipation of revenues, any such deviation from our expected plan or anticipated results could impact our margins and earnings.

Our success is dependent on our ability to successfully develop new services, platforms and solutions and enhance our existing services, platforms and solutions, and market acceptance of these offerings. Our success is also dependent on our ability to compete with new vendors with lean cost and flexible cost models.

The information technology and artificial intelligence (AI) industries are characterized by rapid technological change, evolving industry standards, changing customer preferences, new product and service introductions and the emergence of new vendors with lean cost and flexible cost models. Our future success will depend on our ability to successfully develop services, platforms and solutions that keep pace with changes in our addressable markets, and the acceptance of these services, platforms and solutions by our existing and target customers. We cannot guarantee that we will be successful in developing new services, platforms and solutions, addressing evolving technologies on a timely or cost-effective basis or, if these services, platforms and solutions are developed, that we will be successful in the marketplace. We also cannot guarantee that we will be able to compete effectively with new vendors offering lean cost and flexible cost models, or that products, services or technologies developed by others will not render our services, platforms and solutions non-competitive or obsolete. Our failure to address these developments could have a material adverse effect on our business, results of operations and financial condition.

We operate in highly competitive markets. While we invest in developing and pursuing new services, platforms and solutions, our profitability could be reduced if these services, platforms and solutions do not yield the profit margins we expect, or if the new offerings do not generate the planned revenues.

The markets for our services, platforms and solutions are highly competitive. Some of our competitors have longer operating histories, significantly greater financial, human, technical and other resources and greater name recognition than we do. There are relatively few barriers preventing companies from entering the markets in which we operate. As a result, new market entrants also pose a threat to our business. We also compete with in-house personnel at current and prospective customers who may attempt to duplicate our offerings using their own personnel.

We have made and continue to make significant investments towards building-out new capabilities to pursue growth. These investments increase our costs, and if these new capabilities do not yield the revenues or profit margins we expect, and we are unable to grow our business and revenue proportionately, our profitability may be reduced, or we may incur losses. If we are not able to compete effectively in the markets we serve or if we are not able to successfully develop new services, platforms and solutions, our revenues and results of operations could be adversely affected.

We depend on third-party technology in the provision of our services.

We rely upon certain software that we license from third parties, including software integrated with our internally developed software used in the provision of our services. These third-party software licenses may not continue to be available to us on commercially reasonable or competitive terms, if at all. The loss of, or inability to maintain or obtain any of these software licenses, could result in delays in the provision of our services until we develop, identify, license and integrate equivalent software. Any delay in the provision of our services could damage our business and adversely affect our results of operations. In addition, our Company utilizes third party data centers to serve our customers and generate revenue. Any disruption in the provision of services from these data centers could result in loss of revenue, customer dissatisfaction and loss of customers.

Our Agility segment relies on third parties to provide certain content and data for our solutions. The cessation by third parties to provide their content has adversely affected, and could in the future adversely affect, our revenue and results of operations.

Our Agility segment relies on third parties to provide or make available certain data for our information databases and our news and social media monitoring service. These third parties, in the past, have restricted access to certain content and may not renew agreements to provide content to us or may increase the price they charge for their content. Additionally, the quality of the content provided to us may not be acceptable to us and we may need to enter into agreements with additional third parties. In the event we are unable to use or have access to such third-party content or are unable to enter into agreements with new third parties, current customers may discontinue their relationship with us, and it may be difficult to acquire new customers.

Our businesses are reliant on key employees, and we may face high attrition in our talent. We may not be able to replace displaced talent with new talent on a timely basis or with equivalent skill sets.

We are, to a considerable degree, reliant on the continuing leadership of our Chief Executive Officer and would be materially and adversely affected should he unexpectedly cease to be employed by us. In addition, our businesses are subject to fierce competition for talent, which could result in high attrition of our employees, or we may not be able to find the requisite talent to operate our businesses. A significant increase in the attrition rate among employees with specialized skills could decrease our operating efficiency and productivity. Our failure to attract, train and retain personnel with the qualifications necessary to fulfill the needs of our existing and future customers or to assimilate new employees successfully could have a material adverse effect on our business, results of operations, financial condition and cash flows. In addition, fluctuations in our business may require that we lay off employees with possible negative effects on employee morale. We try to minimize these risks by actively promoting employee relationships and offering competitive salaries, but if we cannot mitigate these risks, our business and our operating performance could be adversely affected.

We operate from multiple locations and our employees are very diverse, so we have significant coordination risks.

We are headquartered in Ridgefield Park, New Jersey, just outside New York City. We have delivery centers in the Philippines, India, Sri Lanka, Canada, the United Kingdom, Israel, and Germany. Our employees are geographically dispersed, as well as culturally diverse. Our personnel need to work together to successfully execute our business plans and we invest in various measures to improve coordination and teamwork. Should we fail in these efforts, our ability to execute our business plans may be adversely affected.

Our intellectual property rights are valuable and if we are unable to protect them or are subject to intellectual property rights claims, our business may be harmed.

Our intellectual property rights include certain trademarks, trade secrets, domain name registrations, a patent and patent applications. Although we take precautions to protect our intellectual property rights, these efforts may not be sufficient or effective. If we are unable to protect our intellectual property, we may experience difficulties in achieving and maintaining brand recognition.

Disruptions in telecommunications, system failures, data corruption or virus attacks could harm our ability to execute our global resource model, which could result in customer dissatisfaction and a reduction of our revenues.

We use a distributed global resource model. Our North American workforce provides services from the U.S. and Canada, and the balance of our workforce provides services from the Philippines, India, Sri Lanka, the United Kingdom, Israel and Germany. Our global facilities are linked with a telecommunications network that uses multiple service providers. We may not be able to maintain active voice and data communications between our various facilities and our customers' sites at all times due to disruptions in these networks, system failures, data corruption or virus attacks. Any significant failure in our ability to communicate, or the availability of our platforms, could result in a disruption in our business, which could hinder our performance, or our ability to complete customer projects on time, or provide services to our customers. This, in turn, could lead to customer dissatisfaction and an adverse effect on our business, results of operations and financial condition.

Even though we have implemented network security measures, our information technology systems may be vulnerable to computer viruses, cyber-attacks, break-ins and similar disruptions from unauthorized tampering or intentional and unintentional disclosure of sensitive and /or confidential personal information by employees and non-employees. Additionally, the Company may not be able to effectively identify and resolve such issues on a timely basis. The occurrence of any of the events described above could result in interruptions, delays, the loss or corruption of data, cessations in the availability of systems or liability under privacy laws or contracts, each of which could have a material adverse effect on our financial position and results of operations.

Our international operations subject us to risks inherent in doing business on an international level, any of which could increase our costs and hinder our growth.

The major part of our operations is carried on in the Philippines, India, Sri Lanka, Canada, the United Kingdom, Israel, and Germany, while our headquarters are in the U.S., and our customers are primarily located in North America and Europe. While we do not depend on significant revenues from sources internal to the Asian countries in which we operate, we are nevertheless subject to certain adverse economic factors relating to overseas economies generally, including inflation, external debt, a negative balance of trade and underemployment. In certain of the countries in which we operate, tax authorities have exercised, and may continue to exercise, significant discretionary and arbitrary powers to make tax demands or decline to refund payments that may be due to us as per tax returns. Other risks associated with our international business activities include:

- difficulties in staffing international projects and managing international operations, including overcoming logistical and communications challenges;
- local competition, particularly in the Philippines, India and Sri Lanka;
- imposition of public sector controls;
- trade and tariff restrictions;

- price or exchange controls;
- currency control regulations;
- foreign tax consequences;
- data privacy laws and regulations;
- labor disputes and related litigation and liability;
- intellectual property laws and enforcement practices;
- limitations on repatriation of earnings; and
- changing laws and regulations, occasionally with retroactive effect.

One or more of these factors could adversely affect our business, financial condition and results of operations.

Political uncertainty, political unrest, terrorism, and natural calamities in the Philippines, India, Sri Lanka and Israel could adversely affect business conditions in those countries, which in turn could disrupt our business and adversely impact our results of operations and financial condition.

Our operations located in the Philippines, India, Sri Lanka and Israel are in countries that remain vulnerable to disruptions from political uncertainty, political unrest, terrorist acts, and natural calamities.

Any damage to our network and/or information systems would damage our ability to provide services, in whole or in part, and/or otherwise damage our operations and could have an adverse effect on our business, financial condition or results of operations. Further, political tensions and escalation of hostilities in any of these countries could adversely affect our operations in these countries and therefore adversely affect our revenues and results of operations.

Our global operations expose us to risks associated with public health crises.

We use a distributed global resource model, which exposes us to risks associated with public health crises, such as pandemics and epidemics. A public health crisis in one or more of the geographic areas in which we operate could affect our ability to provide services to our customers and adversely affect our results of operations.

The continuing effects of the COVID-19 pandemic could materially adversely affect our results of operations and financial condition.

The novel coronavirus disease 2019 ("COVID-19"), which the World Health Organization declared a pandemic on March 11, 2020, continues to spread throughout the world. COVID-19 has created significant global economic downturn, disrupted global trade and supply chains, adversely impacted many industries, and contributed to significant volatility in financial markets. In response to COVID-19, countries and local governments have at times imposed restrictions on the operations of non-essential businesses and services, imposed travel restrictions and implemented societal lockdowns. Additionally, companies have at times taken precautions, such as requiring employees to work remotely and temporarily closing businesses. All of these factors have had, and may continue to have, an adverse effect on global economic conditions, underemployment and unemployment, consumer spending and reductions in non-essential spending by governments and private companies, as well as uncertainty in financial markets. We have experienced limited operational disruptions and declines in customer demand for services to date as a result of COVID-19; however, depending upon the evolution of the COVID-19 pandemic, including the introduction of new COVID-19 variants or the spread of existing COVID-19 variants, we may experience a material adverse effect on our results of operations and financial condition as a result of the effects of COVID-19.

Terrorist attacks or a war could adversely affect our results of operations.

Terrorist attacks and other acts of violence or war could affect us or our customers by disrupting normal business practices for extended periods of time and reducing business confidence. In addition, acts of violence or war may make travel more difficult and may effectively curtail our ability to serve our customers' needs, any of which could adversely affect our results of operations.

We may face various risks associated with shareholder activists or shareholder demands for better performance.

There is no assurance that we will not be subject to shareholder activism or demands. Such activities could interfere with our ability to execute our strategic plan, be costly and time-consuming, disrupt our operations, and divert the attention of management and our employees.

We are the subject of continuing litigation, including litigation by certain of our former employees.

In 2008, a judgment was rendered in the Philippines against a Philippine subsidiary of the Company that is no longer active and purportedly also against Innodata Inc., in favor of certain former employees of the Philippine subsidiary. The potential payment amount aggregates to approximately $5.9 million, plus legal interest that accrued at 12% per annum from August 13, 2008 to June 30, 2013, and thereafter accrued and continues to accrue at 6% per annum. The potential payment amount as expressed in U.S. dollars varies with the Philippine peso to U.S. dollar exchange rate. In December 2017, a group of 97 of the former employees of the Philippine subsidiary indicated that they proposed to record the judgment as to themselves in New Jersey. In January 2018, in response to an action initiated by Innodata Inc., the United States District Court for the District of New Jersey ("USDC") entered a preliminary injunction that enjoins these former employees from pursuing or seeking recognition or enforcement of the judgment against Innodata Inc. in the U.S. during the pendency of the action and until further order of the USDC. In June 2018, the USDC entered a consent order administratively closing the action subject to return of the action to the active docket upon the written request of Innodata Inc. or the former employees, with the USDC retaining jurisdiction over the matter and the preliminary injunction remaining in full force and effect. The principal relevant cases in the Philippines are Court of Appeals Case Nos. CA-G.R. SP No. 93295 Innodata Employees Association (IDEA), Eleanor Tolentino, et al. vs. Innodata Philippines, Inc., et al., and CA-G.R. SP No. 90538 Innodata Philippines, Inc. vs. Honorable Acting Secretary Manuel G. Imson, et al. (28 June 2007), the Department of Labor and Employment National Labor Relations Commission, Republic of the Philippines (NLRC-NCR-Case No.07-04713-2002, et al., Innodata Employees Association (IDEA) and Eleanor A. Tolentino, et al. vs. Innodata Philippines, Inc., et al), and the Department of Labor and Employment Office of the Secretary of Labor and Employment, Republic of the Philippines (Case No. OS-AJ-0015-2001, In Re: Labor Dispute at Innodata Philippines, Inc.). The U.S. District Court action is Civil Action No.: 2:17-cv-13268-SDW-LDW Innodata Inc. v. Myrna C. Augustin-Simon; et al.

We are also subject to various other legal proceedings and claims that have arisen in the ordinary course of business. While we believe that we have adequate reserves for those losses that we believe are probable and can be reasonably estimated, the ultimate results of legal proceedings and claims cannot be predicted with certainty.

While we currently believe that the ultimate outcome of these proceedings will not have a material adverse effect on our consolidated financial position or overall trends in our consolidated results of operations, litigation is subject to inherent uncertainties. Substantial recovery against us in the above- referenced Philippines action could have a material adverse impact on us, and unfavorable rulings or recoveries in the other proceedings could have a material adverse impact on the consolidated operating results of the period in which the ruling or recovery occurs. In addition, our estimate of potential impact on our consolidated financial position or overall consolidated results of operations for the above referenced legal proceedings could change in the future. See "Legal Proceedings".

Our reputation could be damaged, or our profitability could suffer if we do not meet the controls and procedures in respect of the services, platforms and solutions we provide to our customers, or if we contribute to our customers' internal control deficiencies.

Our customers may perform audits or require us to perform audits, provide audit reports or obtain certifications with respect to the controls and procedures that we use in the performance of services for such customers, especially when we process data or information belonging to them. Our ability to acquire new customers and retain existing customers may be adversely affected and our reputation could be harmed if we receive a qualified opinion, or if we cannot obtain an appropriate certification or opinion with respect to our controls and procedures in connection with any such audit in a timely manner. Additionally, our profitability could suffer if our controls and procedures were to fail or to impair our customer's ability to comply with its own internal control requirements.

In the past, we have determined that our disclosure controls and procedures were not effective. If we determine again in the future that our disclosure controls and procedures are not effective, it is possible that our disclosure controls and procedures will not prevent or detect all errors and all instances of fraud. The ineffective disclosure controls and procedures could cause investors to lose confidence in our reported financial information and have a negative effect on the market prices for our common stock.

We are required to maintain disclosure controls and procedures designed to provide reasonable assurance that material information required to be disclosed by us in the reports we file or submit under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that the information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure. We performed an evaluation, under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2022 and concluded that our disclosure controls and procedures were effective as of December 31, 2022. However, we previously performed this evaluation and concluded that our disclosure controls and procedures were not effective as of December 31, 2021.

If we determine again in the future that we have ineffective disclosure controls and procedures, this could restrict our ability to access the capital markets, require significant resources to correct, subject us to fines, penalties or judgments, harm our reputation or otherwise cause a decline in investor confidence and cause a decline in the market price of our common stock.

<u>Risks Related to Our Contracts</u>

A portion of our revenue is generated from projects that we characterize as recurring in nature. Projects that we characterize as recurring are nevertheless subject to termination.

Our operating performance is materially dependent on the continuation of these projects. However, we are exposed to the risks that these projects may not be renewed by our customers or they could be terminated by our customers and we may not be able to replace these terminated projects with new recurring projects with similar profitability or customers may ask for a price reduction, which could adversely affect our revenue and results of operations.

Our solutions for the Agility segment are sold pursuant to subscription agreements, and if subscription customers elect either not to renew these agreements, or to renew these agreements for less expensive services, our revenues and results of operations will be adversely affected.

Our Agility segment derives its revenues primarily from subscription arrangements. Our customers may choose not to renew subscription agreements when they expire or may renew them at lower prices or for a significantly narrower scope of work. If large numbers of existing subscription customers do not renew these agreements or renew these agreements on terms less favorable to us, and if we cannot replace or supplement those non-renewals with new subscription agreements generating the same or greater levels of revenue, our revenues and results of operations will be adversely affected.

If our customers are not satisfied with our services, they may terminate our contracts with them or our services and we may suffer reputational damage, which could have an adverse impact on our business.

Our business model depends in large part on our ability to attract additional work from our base of existing customers. Our business model also depends on relationships our account teams develop with our customers so that we can understand our customers' needs and deliver solutions and services that are tailored to those needs. If a customer is not satisfied with the quality of work performed by us, or with the type of services or solutions delivered, then we could incur additional costs to address the situation, the profitability of that work might be impaired, and the customer's dissatisfaction with our services could damage our ability to obtain additional work from that customer. In particular, customers that are not satisfied might seek to terminate existing contracts, which could mean that we could incur costs for the services performed with no associated revenue upon termination of a contract. This could also direct future business to our competitors. In addition, negative publicity related to our customer services or relationships, regardless of its accuracy, may further damage our business by affecting our reputation and our ability to compete for new contracts with current and prospective customers.

Risks Related to Financial Performance or General Economic Conditions

We have no bank facilities or line of credit.

We believe that our existing cash and cash equivalents and cash flows from operations will provide sufficient sources of liquidity to satisfy our financial needs for the next 12 months. However, we have no bank facilities or lines of credit, and reductions in our cash and cash equivalents from operating losses, capital expenditures, adverse legal decisions, acquisitions or other events affecting our access to capital could materially and adversely affect the Company. See "Management Discussion and Analysis — Liquidity and Capital Resources" for additional information.

A large portion of our accounts receivable is payable by a limited number of customers; the inability of any of these customers to pay its obligations could adversely affect our results of operations.

Several significant customers account for a large percentage of our accounts receivable. If any of these customers were unable, or refused, for any reason, to pay our accounts receivable, our financial condition and results of operations could be materially adversely affected. As of December 31, 2022, 50% or $4.7 million, of our accounts receivable was due from five customers.

In addition, we evaluate the financial condition of our customers prior to extending credit to them. We maintain specific allowances against doubtful receivables. Actual losses on customer balances could differ from those that we currently anticipate and, as a result, we might need to adjust our allowances. There is no guarantee that we will accurately assess the creditworthiness of our customers. Macroeconomic conditions could also result in financial difficulties, including limited access to the credit markets, insolvency or bankruptcy, for our customers, and, as a result, could cause customers to delay payments to us, request modifications to their payment arrangements that could increase our receivables balance, or default on their payment obligations to us. If we are unable to timely collect from our customers, our cash flows could be adversely affected.

Quarterly fluctuations in our revenues and results of operations could make financial forecasting difficult and could negatively affect our stock price.

We have experienced, and expect to continue to experience, significant fluctuations in our quarterly revenues and results of operations. During the past eight quarters, our net income (loss) ranged from income of approximately $0.4 million in the first quarter of 2021 to a loss of approximately $3.8 million in the second quarter of 2022.

We experience fluctuations in our revenue and results of operations as we replace and begin new projects, which may have some normal start-up delays, or we may be unable to replace a project entirely or on terms that are as attractive to us as the project that is being replaced. These and other factors may contribute to fluctuations in our results of operations from quarter to quarter.

A high percentage of our operating expenses, particularly personnel and rent, are relatively fixed in advance of any particular quarter. As a result, unanticipated variations in the number and timing of our projects, or in employee wage levels and utilization rates, may cause us to significantly underutilize our production capacity and employees, resulting in significant variations in our operating results in any particular quarter, and have resulted in losses.

Weakness in the global economy, and in particular in the United States, Europe and the United Kingdom, could negatively impact our revenue and operating results.

The United States, Europe, the United Kingdom and other economies may suffer from uncertainty, volatility, disruption, and other adverse conditions, such as inflation, and these conditions have adversely impacted and may continue to adversely impact the business community and the financial markets. Adverse economic and financial market conditions may negatively affect our customers and our markets, thereby negatively impacting our revenue and operating results. For example, weak market conditions have extended, and could continue to extend, the length of our sales cycle and cause potential customers to delay, defer, or decline to make purchases of our services, platforms, and solutions due to uncertainties surrounding the future performance of their businesses, limitations on their expenditures due to internal budget constraints, and the adverse effects of the economy on their business and financial condition. As a result, if economic and financial market conditions weaken or deteriorate, then our revenue and operating results, including our ability to grow and expand our business and operations, could be materially and adversely affected.

Pricing pressures could negatively impact our revenues and operating results.

Due to the intense competition involved in outsourcing and information technology services, we generally face pricing pressures from our customers due to competition from other companies in our markets. Our ability to maintain or increase pricing is restricted as customers generally expect to receive volume discounts or special pricing incentives as we do more business with them; moreover, our large customers may exercise pressure for discounts outside of agreed terms.

Our profitability could suffer if we are not able to maintain pricing on our existing projects and win new projects at appropriate margins. If our pricing structures do not accurately anticipate the cost and complexity of performing our services and providing our platforms and solutions, then our contracts could be unprofitable.

Our profit margin, and therefore our profitability, is dependent on the rates we are able to charge for our services, platforms and solutions measured against the costs of providing the service, platform or solution. If we are not able to maintain pricing on our existing services, platforms and solutions and win new projects at profitable margins, or if we underestimate the costs or complexities of new projects and incur losses, our profitability could suffer. The amounts we are able to recover for our services, platforms and solutions are affected by a number of factors, including competition, volume fluctuations, productivity of employees and processes, the value our customer derives from our services, platforms and solutions and general economic and political conditions.

Furthermore, we provide services and solutions either on a time-and-materials basis or on a fixed-price basis. Our pricing is highly dependent on our internal forecasts and predictions about our projects, which might be based on limited data and could turn out to be inaccurate. If we do not accurately estimate the costs and timing for completing projects, our contracts could prove unprofitable for us or yield lower profit margins than anticipated.

We may not be able to obtain price or volume increases that are necessary to offset the effect of wage inflation and other government mandated cost increases.

We have experienced wage inflation and other government mandated cost increases in the Asian countries where we have the majority of our operations. In addition, we may experience adverse fluctuations in foreign currency exchange rates. These global events have put pressure on our profitability and our margins. Although we have tried to partially offset wage increases, foreign currency fluctuations and other such increases through price increases and improving our efficiency, we cannot ensure that we will be able to continue to do so in the future, which could negatively impact our results of operations.

Our international operations subject us to currency exchange fluctuations, which could adversely affect our results of operations.

Although most of our revenues are denominated in U.S. dollars, a significant portion of our revenues are denominated in Canadian dollars, Pound Sterling and Euros. In addition, a significant portion of our expenses, primarily labor expenses in the Philippines, India, Sri Lanka, Germany, Canada, the United Kingdom and Israel, are incurred in the local currencies of the countries in which we operate. For financial reporting purposes, we translate all non-U.S. denominated transactions into U.S. dollars in accordance with accounting principles generally accepted in the United States (U.S. GAAP). Fluctuations in the value of these currencies relative to the U.S. dollar have in the past and could in the future continue to have a direct impact on our revenues and our results of operations.

The Philippines, India and Sri Lanka have, at times, experienced high rates of inflation, as well as major fluctuations in the exchange rate between such foreign currencies and the U.S. dollar.

We are also subject to fluctuations in exchange rates that affect the value of funds held by our foreign subsidiaries.

Although we selectively undertake hedging activities to mitigate certain of these risks, our hedging activities may not be effective and may result in losses. See Note 14, “Derivatives,” to the consolidated financial statements.

In the event that the governments of India or the Philippines or the government of another country changes its tax policies, rules and regulations, our tax expense may increase and affect our effective tax rates.

We are subject to income taxes in both the U.S. and numerous foreign jurisdictions. We are subject to the continual examination by tax authorities in India and in the Philippines, and we assess the likelihood of outcomes resulting from these examinations to determine the adequacy of its provision for income taxes. Although we believe our tax estimates are reasonable, the final determination of tax audits could be materially different from what is reflected in historical income tax and indirect tax provisions and accruals, and could result in a material effect on our income tax provision, indirect tax expenses, net income or cash flows in the period or periods for which that determination is made. If additional taxes are assessed, it could have an adverse impact on our financial results.

In addition, changes in the tax rates, tax laws or the interpretation of tax laws in the jurisdictions where we operate, could affect our future results of operations.

In September 2015, the Company’s Indian subsidiary was subject to an inquiry by the Service Tax Department in India regarding the classification of services provided by this subsidiary, asserting that the services provided by this subsidiary fall under the category of online information and database access or retrieval services (“OID Services”), and not under the category of business support services (“BS Services”) that are exempt from service tax as historically indicated in the subsidiary’s service tax filings. Our management disagrees with the Service Tax Department’s position. In November 2019, the Commissioner of Central Tax, GST & Central Excise issued an order confirming the Service Tax Department’s position. The Company is contesting this order in an appeal to the Customs, Excise and Service Tax Appellate Tribunal. In the event the Service Tax Department is ultimately successful in proving that the services fall under the category of OID Services, the revenues earned by the Company’s Indian subsidiary for the period July 2012 through November 2016 would be subject to a service tax of between 12.36% and 15%, and this subsidiary may also be liable to pay interest and penalties. The revenue of our Indian subsidiary during this period was approximately $57.0 million. In accordance with new rules promulgated by the Service Tax Department, as of December 1, 2016 service tax is no longer applicable to OID or BS Services. Based on the Company’s assessment, in consultation with our tax counsel, the Company has not recorded any tax liability for this case.

In a separate action relating to service tax refunds, in October 2016, the Company’s Indian subsidiary received notices from the Indian Service Tax Department in India seeking to reverse service tax refunds of approximately $121,000 previously granted to our Indian subsidiary for three quarters in 2014, asserting that the services provided by this subsidiary fall under the category of OID Services and not BS Services. The appeal was determined in favor of the Service Tax Department. Management disagrees with the basis of this decision and is contesting it. The Company expects delays in its Indian subsidiary receiving further service tax refunds until this matter is adjudicated with finality, and currently has service tax credits of approximately $0.8 million recorded as a receivable. Based on the Company’s assessment, in consultation with our tax counsel, the Company has not recorded any tax liability for this case.

Substantial recovery against us in the above referenced 2015 Service Tax Department case could have a material adverse impact on us, and unfavorable rulings or recoveries in other tax proceedings could have a material impact on the consolidated operating results of the period in which the rulings or recovery occurs.

If tax authorities in any of the jurisdictions in which we operate contest the manner in which we allocate our profits, our net loss could be higher.

A significant portion of the services we provide to our customers are provided by our Asian subsidiaries located in different jurisdictions. Tax authorities in some of these jurisdictions have from time to time challenged the manner in which we allocate our profits among our subsidiaries, and we may not prevail in any future challenge of this type. If such a challenge were successful, our worldwide effective tax rate could increase, thereby decreasing our profitability.

An expiration or termination of our preferential tax rate incentives could adversely affect our results of operations.

Two of our foreign subsidiaries are subject to preferential tax rates. This tax incentive provides that we pay reduced income taxes with respect to those jurisdictions for a fixed period of time. An expiration or termination of these incentives could increase our worldwide effective tax rate, or increase our tax expense, thereby decreasing our net income and adversely affecting our results of operations.

Our earnings may be adversely affected if we change our intent not to repatriate our foreign earnings and profits or if such earnings and profits become subject to U.S. tax on a current basis.

A significant portion of our operations are conducted outside the U.S. Despite our access to the overseas earnings and the resulting toll charge, we intend to indefinitely reinvest the foreign earnings in our foreign subsidiaries on account of the foreign jurisdiction withholding tax that the Company has to incur on the actual remittances. Unremitted earnings of foreign subsidiaries amounted to approximately $50.9 million at December 31, 2022. If such earnings are repatriated in the future, or are no longer deemed to be indefinitely reinvested, the Company would have to accrue as a liability the applicable amount of foreign jurisdiction withholding taxes associated with such remittances.

It is unlikely that we will pay dividends.

We have not paid any cash dividends since our inception and do not anticipate paying any cash dividends in the foreseeable future. We expect that our earnings, if any, will be used to finance our growth.

Risks Related to Laws and Regulations

Governmental and customer focus on data security could increase our costs of operations. In addition, any incident in which we fail to protect our customer's information against security breaches may result in monetary damages against us, and termination of our engagement by our customer, and may adversely impact our results of operations.

Certain laws and regulations regarding data privacy and security affecting our customers impose requirements regarding the privacy and security of information maintained by these customers, as well as notification to persons whose personal information is accessed by an unauthorized third party. As a result of any continuing legislative initiatives and customer demands, we may have to modify our operations with the goal of further improving data security. The cost of compliance with these laws and regulations is high and is likely to increase in the future. Any such modifications may result in increased expenses and operating complexity, and we may be unable to increase the rates we charge for our services sufficiently to offset these increases. In addition, as part of the services we perform, we have access to confidential customer data, including personal data. As a result, we are subject to numerous laws and regulations designed to protect this information. We may also be bound by certain customer agreements to use and disclose the confidential customer information in a manner consistent with the privacy standards under regulations applicable to such customer. Any failure on our part to comply with these laws and regulations can result in negative publicity and diversion of management's time and effort and may subject us to significant liabilities and other penalties.

If customer confidential information is inappropriately disclosed due to a breach of our computer systems, system failures or otherwise, or if any person, including any of our employees, negligently disregards or intentionally breaches controls or procedures with which we are responsible for complying with respect to such data or otherwise mismanages or misappropriates that data, we may have substantial liabilities to our customers. Any incidents with respect to the handling of such information could subject us to litigation or indemnification claims with our customers and other parties. In addition, any breach or alleged breach of our confidentiality agreements with our customers may result in termination of their engagements, resulting in associated loss of revenue and increased costs.

Our business is subject to applicable laws and regulations relating to foreign corrupt practices, the violation of which could adversely affect our operations.

We must comply with all applicable anti-bribery laws and regulations of the U.S. and other jurisdictions where we operate. For example, we are subject to the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act of 2010 relating to corrupt and illegal payments to government officials and others. Although we have policies and controls in place that are designed to ensure compliance with these laws and regulations, it is possible that an employee or an agent acting on our behalf could fail to comply with applicable laws and regulations, and due to the complex nature of the risks, it may not always be possible for us to ascertain compliance with such laws and regulations. In such event, we could be exposed to civil penalties, criminal penalties and other sanctions, including fines or other unintended punitive actions, and we could incur substantial legal fees and related expenses. In addition, such violations could damage our business and/or our reputation. All of the foregoing could have a material adverse effect on our financial condition and operating results.

Anti-outsourcing legislation, if adopted, could adversely affect our business, financial condition and results of operations and impair our ability to service our customers.

The issue of outsourcing of services abroad by U.S. companies is a topic of political discussion in the U.S. While no substantive anti-outsourcing legislation has been adopted to date, given the ongoing debate over this issue, the introduction of such legislation is possible. If introduced, our business, financial condition and results of operations could be adversely affected and our ability to service our customers could be impaired.

Our growth could be hindered by visa restrictions.

Occasionally, we have employees from our other facilities visit or transfer to the U.S. to meet our customers or work on projects at a customer's site. Any visa restrictions or new legislation putting a restriction on issuing visas could affect our business.

Immigration and visa laws and regulations in the U.S. and other countries are subject to legislative and administrative changes, as well as changes in the application of standards. Immigration and visa laws and regulations can be significantly affected by political forces and levels of economic activity. Our business, results of operations and financial condition may be materially adversely affected if legislative or administrative changes to immigration or visa laws and regulations impair our ability to staff projects with our professionals who are not citizens of the country where the work is to be performed.

New and changing corporate governance and public disclosure requirements add uncertainty to our compliance policies and increase our costs of compliance.

Changing laws, regulations and standards relating to accounting, corporate governance and public disclosure, including SEC regulations and the Nasdaq Stock Market rules, create uncertainty for companies like ours. These laws, regulations and standards may lack specificity and are subject to varying interpretations. Their application in practice may evolve over time, as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs of compliance as a result of revisions to such corporate governance standards.

Although we are committed to maintaining high standards of corporate governance and public disclosure, and complying with evolving laws, regulations and standards, if we fail to comply with new or changed laws, regulations or standards of corporate governance, our business and reputation may be harmed.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Our services are primarily performed from our Ridgefield Park, New Jersey headquarters and overseas delivery centers in the Philippines, India, Sri Lanka, Canada, the United Kingdom Israel and Germany all of which are leased. The square footage of all our leased properties totals approximately 179,000. Our leased properties in the Philippines, Sri Lanka, Germany and Israel are primarily used by our DDS segment; and our leased property in India is primarily used by our DDS and Synodex segments and our leased property in Canada and the United Kingdom is primarily used by our Agility segment. Our leased property in the United States is our corporate headquarters and is used by all segments.

In addition, we may need to lease additional property in the future. We believe that we will be able to obtain suitable additional facilities on commercially reasonable terms on an "as needed" basis.

Item 3. Legal Proceedings.

Reference is made to Note 6, "Commitments and Contingencies — Litigation," to the consolidated financial statements in Item 8 of this Report, which is incorporated by reference herein.

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.

Innodata Inc. (the "Company") Common Stock is quoted on The Nasdaq Stock Market LLC under the symbol "INOD". On February 21, 2023, there were 59 stockholders of record of the Company's Common Stock based on information provided by the Company's transfer agent. The number of stockholders of record is based upon the actual number of holders registered at such date and does not include holders of shares in "street names" or persons, partnerships, associates, corporations, or other entities identified in security position listings maintained by depositories. We did not have any sales of unregistered securities during the year ended December 31, 2022. We do not anticipate paying any dividends in the foreseeable future.

Securities Authorized for Issuance Under Equity Compensation Plans

The following table sets forth the aggregate information for the Company's equity compensation plans in effect as of December 31, 2022:

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights(3)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans
	(a)	(b)	(c)
Equity compensation plans approved by security holders(1)	6,890,490	$3.09	523,797
Equity compensation plans approved by security holders(2)	1,527,500	$3.46	2,972,500
Equity compensation plans not approved by security holders	—	—	—
Total	8,417,990		3,496,297

(1) 2013 Stock Plan, approved by the stockholders, see Note 10, "Stock Options", to the consolidated financial statements.

(2) 2021 Equity Compensation Plan, approved by stockholders, see Note 10, "Stock Options", to the consolidated financial statements.

(3) Restricted stock units were excluded when determining the weighted-average exercise price of outstanding options, warrants and rights.

Purchase or Unregistered Sales of Equity Securities

We did not repurchase any shares of our common stock during the year ended December 31, 2022.

We did not have any sales of unregistered equity securities during the year ended December 31, 2022.

Item 6. [Reserved]

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following discussion should be read in conjunction with our consolidated financial statements and the related notes thereto included elsewhere in this Report. In addition to historical information, this discussion includes forward-looking information that involves risks and assumptions based upon management's current expectations. Our actual results could differ materially from the results referred to in any forward-looking statements. See "Cautionary Note Regarding Forward-Looking Statements" included elsewhere in this Report.

Executive Overview

We are a global data engineering company. We operate in three reporting segments: Digital Data Solutions (DDS), Synodex and Agility.

The following table sets forth certain financial data for the two years ended December 31, 2022 and 2021:

	(Dollars in millions) Years Ended December 31,			
	2022	% of revenue	2021	% of revenue
Revenues	$ 79.0	100.0%	$69.7	100.0%
Direct operating costs	51.5	65.1%	43.5	62.4%
Selling and administrative expenses	38.0	48.2%	27.9	40.0%
Loss from operations	(10.5)	(13.3)%	(1.7)	(2.4)%
Interest income (expense)	0.0		0.1	
Gain on loan forgiveness	—		0.6	
Loss before provision for income taxes	(10.5)		(1.0)	
Provision for income taxes	1.5		0.8	
Net Loss	$(12.0)		$ (1.8)	

For a summary of our Critical Accounting Estimates and Policies, please refer to Note 1 of the Notes to our Consolidated Financial Statements, which are included elsewhere in this Report.

Non-GAAP Financial Measures

In addition to the financial information prepared in conformity with U.S. GAAP ("GAAP"), we provide certain non-GAAP financial information. We believe that these non-GAAP financial measures assist investors in making comparisons of period-to-period operating results. In some respects, management believes non-GAAP financial measures are more indicative of our ongoing core operating performance than their GAAP equivalents by making adjustments that management believes are reflective of the ongoing performance of the business.

We believe that the presentation of this non-GAAP financial information provides investors with greater transparency by providing investors a more complete understanding of our financial performance, competitive position, and prospects for the future, particularly by providing the same information that management and our Board of Directors use to evaluate our performance and manage the business. However, the non-GAAP financial measures presented in this Annual Report on Form 10-K have certain limitations in that they do not reflect all of the costs associated with the operations of our business as determined in accordance with GAAP. Therefore, investors should consider non-GAAP financial measures in addition to, and not as a substitute for, or as superior to, measures of financial performance prepared in accordance with GAAP. Further, the non-GAAP financial measures that we present may differ from similar non-GAAP financial measures used by other companies.

Adjusted EBITDA

We define Adjusted EBITDA as net income (loss) attributable to Innodata Inc. and its subsidiaries in accordance with U.S. GAAP before interest expense, income taxes, depreciation and amortization of intangible assets (which derives EBITDA), plus additional adjustments for loss on impairment of intangible assets and goodwill, stock-based compensation, income (loss) attributable to non-controlling interests and other one-time costs. We use Adjusted EBITDA to evaluate core results of operations and trends between fiscal periods and believe that these measures are important components of our internal performance measurement process.

The following table contains a reconciliation of GAAP net income (loss) attributable to Innodata Inc. and its subsidiaries to Adjusted EBITDA (loss) for the years ended December 31, 2022 and 2021 (in thousands).

Consolidated	Year Ended December 31, 2022	2021
Net loss attributable to Innodata Inc. and Subsidiaries	$(11,935)	$(1,673)
Provision for income taxes	1,522	842
Interest expense (income), net	11	(108)
Gain on loan forgiveness	—	(580)
Depreciation and amortization	3,889	2,869
Stock-based compensation	3,283	1,750
Non-controlling interests	(70)	(132)
Adjusted EBITDA / (loss) – Consolidated	$ (3,300)	$ 2,968

DDS Segment	Year Ended December 31, 2022	2021
Net income (loss) attributable to DDS Segment	$ (711)	$4,989
Provision for income taxes	1,423	958
Interest expense (income), net	10	(110)
Gain on loan forgiveness	—	(580)
Depreciation and amortization	694	638
Stock-based compensation	2,690	1,286
Non-controlling interests	4	—
Adjusted EBITDA – DDS Segment	$4,110	$7,181

Synodex Segment	Year Ended December 31, 2022	2021
Net loss attributable to Synodex Segment	$(2,525)	$(1,394)
Depreciation and amortization	$ 656	62
Stock-based compensation	258	98
Non-controlling interests	(74)	(132)
Adjusted EBITDA (loss) – Synodex Segment	$(1,685)	$(1,366)

Agility Segment	Year Ended December 31, 2022	2021
Net loss attributable to Agility Segment	$(8,699)	$(5,268)
Provision for income taxes	99	(116)
Interest expense, net	1	2
Depreciation and amortization	2,539	2,169
Stock-based compensation	335	366
Adjusted EBITDA (loss) – Agility Segment	$(5,725)	$(2,847)

Results of Operations

Amounts in the MD&A below are after elimination of any inter-segment profit and have been rounded. All percentages have been calculated using rounded amounts.

Year Ended December 31, 2022 Compared to the Year Ended December 31, 2021

Revenues

Total revenues were $79.0 million and $69.7 million for the years ended December 31, 2022 and 2021, respectively, an increase of $9.3 million or approximately 13%.

Revenues from the DDS segment were \$56.5 million and \$52.6 million for the years ended December 31, 2022 and 2021, respectively, an increase of \$3.9 million or approximately 8%. The net increase was due to higher volume from two customers, partially offset by lower volume from several customers.

Revenues from the Synodex segment were \$7.1 million and \$4.2 million for the years ended December 31, 2022 and 2021, respectively, an increase of \$2.9 million or approximately 71%. The increase was primarily due to higher volume from three customers.

Revenues from the Agility segment were \$15.4 million and \$13.0 million for the year ended December 31, 2022 and 2021 respectively, an increase of \$2.4 million or approximately 18%. The increase was attributable to higher volumes from subscriptions to our Agility AI-enabled industry platform and newswire product.

One customer in the DDS segment generated approximately 11% of the Company's total revenues in the fiscal year ended December 31, 2022. Another customer in the DDS segment generated approximately 11% of the Company's total revenues in the fiscal year ended December 31, 2021. No other customer accounted for 10% or more of total revenues during these periods. Further, in the years ended December 31, 2022 and 2021, revenues from non-U.S. customers accounted for 38% and 45%, respectively, of the Company's revenues.

Direct Operating Costs

Direct operating costs consist of direct and indirect labor costs, occupancy costs, data center hosting fees, cloud services, content acquisition costs, depreciation and amortization, travel, telecommunications, computer services and supplies, realized gain (loss) on forward contracts, foreign currency revaluation gain (loss), and other direct expenses that are incurred in providing services to our customers.

Direct operating costs were \$51.5 million and \$43.5 million for the years ended December 31, 2022 and 2021, respectively, an increase of \$8.0 million or approximately 18%. These cost increases primarily supported our growth initiatives. The increase in Direct operating costs includes direct and indirect labor related costs primarily on account of higher headcount and salary increases of \$5.6 million; depreciation and amortization of capitalized developed software of \$1.0 million; cloud services of \$0.4 million, content costs of \$0.3 million, severance cost of \$0.3 million, an unfavorable impact of foreign exchange rate fluctuations of \$0.3 million and other direct operating costs of \$0.1 million. Direct operating costs as percentage of total revenues were approximately 65% and 62% for the years ended December 31, 2022 and 2021, respectively. The increase in direct operating costs as a percentage of revenues during the year was primarily due to an increase in direct operating costs, offset in part by an increase in revenues.

Direct operating costs for the DDS segment were \$35.1 million and \$31.8 million for the years ended December 31, 2022 and 2021, respectively, an increase of \$3.3 million or approximately 10%. These cost increases primarily supported our growth initiatives. The increase in Direct operating costs includes direct and indirect labor related costs primarily on account of higher headcount and salary increases of \$2.4 million; severance cost of \$0.3 million, cloud services of \$0.2 million, an unfavorable impact of foreign exchange rate fluctuations of \$0.2 million and other direct operating costs of \$0.2 million. Direct operating costs for the DDS segment as a percentage of DDS segment revenues were approximately 62% and 60% for the years ended December 31, 2022 and 2021, respectively. The increase in direct operating costs of the DDS segment as a percentage of DDS segment revenues during the year was primarily due to an increase in direct operating costs, offset in part by an increase in revenues.

Direct operating costs for the Synodex segment were approximately \$8.0 million and \$4.4 million for the years ended December 31, 2022 and 2021, respectively, an increase of \$3.6 million or approximately 82%. The cost increase primarily supported our growth initiatives combined with the timing of new technology roll-out. The increase in Direct operating costs was primarily due to an increase in direct labor costs on account of higher headcount and salary increases of \$2.9 million, depreciation and amortization of capitalized developed software of \$0.6 million, and cloud services of \$0.2 million, offset in part by a decrease in other direct operating costs of \$0.1 million. Direct operating costs for the Synodex segment as a percentage of segment revenues were approximately 113% and 105% for the years ended December 31, 2022 and 2021, respectively. The increase in direct operating costs of the Synodex segment as a percentage of Synodex segment revenues during the year was primarily due to an increase in direct operating costs, offset in part by an increase in revenues.

Direct operating costs for the Agility segment were approximately \$8.4 million and \$7.3 million for the years ended December 31, 2022 and 2021, respectively, an increase of \$1.1 million or approximately 15%. The cost increase was primarily due to higher amortization of capitalized developed software of \$0.4 million, content costs of \$0.3 million, higher labor related costs of \$0.3 million, and an unfavorable impact of foreign exchange rate fluctuations of \$0.1 million. Direct operating costs for the Agility segment as a percentage of Agility segment revenues were approximately 55% and 56% for the years ended December 31, 2022 and 2021, respectively. The decrease in direct operating costs of the Agility segment as a percentage of Agility segment revenues during the year was primarily due to higher volumes from subscriptions to our Agility AI-enabled industry platform and newswire product, offset in part by an increase in direct operating costs.

Selling and Administrative Expenses

Selling and administrative expenses consist of sales, marketing, new services research and related software development, administrative payroll and related costs including commissions, bonuses, stock-based compensation, marketing costs, third-party software, advertising, trade conferences, professional fees and consultant costs, and other administrative overhead costs.

Selling and administrative expenses were approximately \$38.0 million and \$27.9 million for the years ended December 31, 2022 and 2021, respectively, an increase of \$10.1 million or approximately 36%. The cost increase primarily supported our growth initiatives across all business segments. The selling and administrative cost increase includes payroll related costs for new hires, stock-based compensation, commissions, incentives, and bonuses of \$6.3 million, marketing activity related costs of \$1.6 million, recruitment and professional fees of \$0.6 million, provisions for doubtful accounts of \$0.4 million, severance costs of \$0.3 million, leasehold improvement write-offs from lease terminations of \$0.2 million, an unfavorable impact of foreign exchange rate fluctuations of \$0.1 million and other selling and administrative costs of \$0.6 million. Selling and administrative expenses as a percentage of total revenues were approximately 48% and 40% for the years ended December 31, 2022 and 2021, respectively. The increase in selling and administrative expenses as a percentage of revenues during the year was primarily due to increased selling and administrative costs, offset in part by an increase in revenues.

Selling and administrative expenses for the DDS segment were approximately \$20.7 million and \$15.5 million for the years ended December 31, 2022 and 2021 respectively, an increase of \$5.2 million or approximately 32%. The cost increase primarily supported our growth initiatives. The selling and administrative cost increase includes payroll related costs for new hires, stock-based compensation, commissions, incentives, and bonuses of \$2.9 million, marketing activity related costs of \$0.9 million, recruitment and professional fees of \$0.4 million, provisions for doubtful accounts of \$0.3 million, leasehold improvement write-offs from lease terminations of \$0.1 million, and other selling and administrative costs of \$0.6 million. Selling and administrative expenses for the DDS segment as a percentage of DDS segment revenue were approximately 37% and 29% for the years ended December 31, 2022 and 2021, respectively. The increase in selling and administrative expenses of the DDS segment as a percentage of DDS segment revenues was due to increased selling and administrative expenses, offset in part by an increase in revenues.

Selling and administrative expenses for the Synodex segment were \$1.7 million and \$1.3 million for the years ended December 31, 2022 and 2021 respectively, an increase of \$0.4 million or approximately 31%. The cost increase was primarily attributable to payroll related costs and recruitment fees for new hires and other professional fees of \$0.4 million to support our growth initiatives. Selling and administrative expenses for the Synodex segment as a percentage of Synodex segment revenues were approximately 24% and 31% for the years ended December 31, 2022 and 2021, respectively. The decrease in selling and administrative expenses of the Synodex segment as a percentage of Synodex segment revenues was due to an increase in revenues, offset in part by an increase in selling and administrative expenses.

Selling and administrative expenses for the Agility segment were \$15.6 million and \$11.1 million for the years ended December 31, 2022 and 2021, respectively, an increase of \$4.5 million or approximately 41%. The selling and administrative costs increase includes payroll related costs for new hires, stock-based compensation, commissions, incentives of \$3.5 million, marketing activity related costs of \$0.7 million, severance costs of \$0.3 million, provisions for doubtful accounts of \$0.1 million, leasehold improvement write-offs from lease terminations of \$0.1 million, and an unfavorable impact of foreign exchange rate fluctuations of \$0.1 million; partly offset by decreases in recruitment and professional fees of \$0.3 million.

Selling and administrative expenses for the Agility segment as a percentage of Agility segment revenues were approximately 101% and 85% for the years ended December 31, 2022 and 2021, respectively. The increase in selling and administrative expenses of the Agility segment as a percentage of Agility segment revenues was due to increased selling and administrative expenses, offset in part by an increase in revenues.

Goodwill and Intangible Asset Impairment

As of September 30, 2022, we performed our annual goodwill impairment analysis on one of our reporting units, the Agility segment. We also tested the intangible assets of the Agility and Synodex segments for impairment. The impairment test involves estimating the fair value based on a combination of income (estimates of future discounted cash flows) and the market approach (market multiples for similar companies) using unobservable inputs (Level 3). The income approach uses a discounted cash flow ("DCF") method that utilizes the present value of cash flows to estimate the segment's fair value. The income approach uses a discounted cash flow ("DCF") method that utilizes the present value of cash flows to estimate the segment's fair value. The future cash flows of the segment were projected based on our estimates of future revenue, operating income, and other factors such as working capital and capital expenditures. As part of the DCF analysis, we projected revenue and operating profits and assumed long-term revenue growth rates in the terminal year. The market approach utilizes multiples of revenues and earnings before interest expense, taxes, depreciation, and amortization ("EBITDA") to estimate the segment's fair value. The market multiples used for the segment were based on a group of comparable companies' market multiples applied to our revenue. We concluded that there is no impairment of goodwill or intangible assets for the Agility segment, and no impairment of intangible assets for the Synodex segment.

Gain on PPP Loan Forgiveness

On May 4, 2020, we received loan proceeds of $579,700 under the Paycheck Protection Program ("PPP") which was established as part of the Coronavirus Aid, Relief and Economic Security Act of 2020, as amended. On May 21, 2021, our loan forgiveness application was approved for 100% of the amount loaned to the Company by the Small Business Administration ("SBA").

Income Taxes

We recorded a provision for income taxes of approximately $1.5 million and $0.8 million for the years ended December 31, 2022 and 2021, respectively. Tax-related charges primarily consisted of a provision for foreign taxes recorded in accordance with the local tax regulations by our foreign subsidiaries. Effective income tax rates are disproportionate primarily due to the valuation allowance recorded on the deferred taxes of the U.S., and Canadian, German and the United Kingdom subsidiaries. See Note 4, "Income Taxes" of the notes to the consolidated financial statements for additional information.

The reconciliation of the U.S. statutory rate with the Company's effective tax rate for the years ended December 31, 2022 and 2021 are summarized in the table below:

	2022	2021
Federal income tax expense (benefit) at statutory rate	(21.0)%	(21.0)%
Effect of:		
Change in valuation allowance	36.9	186.1
Tax effects of foreign operations	2.5	2.0
Foreign operations permanent differences – foreign exchange gains and losses	1.1	9.5
Increase in unrecognized tax benefits (ASC 740)	0.7	(22.8)
State income tax net of federal benefit	0.2	1.9
Return to provision true up	0.3	(2.3)
Effect of Section 162 (m)	0.0	29.90
Change in rates	—	12.2

	2022	2021
Effect of stock-based compensation	(0.3)	(72.1)
Deemed interest	(1.9)	(1.4)
Foreign rate differential	(4.7)	(31.8)
Other	0.7	(2.8)
Effective tax rate	14.5%	87.4%

Despite access to overseas earnings and the resulting toll charge, we intend to indefinitely reinvest earnings and profits in our foreign subsidiaries on account of the foreign jurisdiction withholding taxes that we would have to incur on the actual remittances. Unremitted foreign earnings and profits amounted to approximately $50.9 million at December 31, 2022. If such foreign earnings and profits are repatriated in the future, or are no longer deemed to be indefinitely reinvested, we would have to accrue the applicable amount of foreign jurisdiction withholding taxes associated with such remittances.

We have a valuation allowance on all of our U.S. deferred tax assets on account of continuing losses incurred by our U.S. entity. In addition, we also have a valuation allowance on the deferred tax assets of our Canadian, German and the United Kingdom subsidiaries. Our Canadian subsidiaries also have research and development credits available to reduce taxable income in future years, which may be carried forward indefinitely. The potential benefits from these balances have not been recognized for financial statement purposes.

Tax Assessments

In September 2015, our Indian subsidiary was subject to an inquiry by the Service Tax Department in India regarding the classification of services provided by this subsidiary, asserting that the services provided by this subsidiary fall under the category of online information and database access or retrieval services (OID Services), and not under the category of business support services (BS Services) that are exempt from service tax as historically indicated in the subsidiary's service tax filings. We disagree with the Service Tax Department's position. In November 2019, the Commissioner of Central Tax, GST & Central Excise issued an order confirming the Service Tax Department's position. We are contesting this order in an appeal to the Customs, Excise and Service Tax Appellate Tribunal. In the event the Service Tax Department is ultimately successful in proving that the services fall under the category of OID Services, the revenues earned by our Indian subsidiary for the period July 2012 through November 2016 would be subject to a service tax of between 12.36% and 15%, and this subsidiary may also be liable for interest and penalties. The revenue of our Indian subsidiary during this period was approximately $57.0 million. In accordance with new rules promulgated by the Service Tax Department, as of December 1, 2016 service tax is no longer applicable to OID or BS Services. Based on our assessment in consultation with our tax counsel, we have not recorded any tax liability for this case.

In a separate action relating to service tax refunds, in October 2016, our Indian subsidiary received notices from the Indian Service Tax Department in India seeking to reverse service tax refunds of approximately $121,000 previously granted to our Indian subsidiary for three quarters in 2014, asserting that the services provided by this subsidiary fall under the category of OID Services and not BS Services. The appeal was determined in favor of the Service Tax Department. We disagree with the basis of this decision and is contesting it. We expect delays in our Indian subsidiary receiving further service tax refunds until this matter is adjudicated with finality, and currently have service tax credits of approximately $0.8 million recorded as a receivable. Based on our assessment in consultation with our tax counsel, we have not recorded any tax liability for this case.

Substantial recovery against us in the above referenced 2015 Service Tax Department case could have a material adverse impact on us, and unfavorable rulings or recoveries in other tax proceedings could have a material adverse impact on the consolidated operating results of the period (and subsequent periods) in which the rulings or recovery occurs.

Net Income (Loss)

We had a net loss of $12.0 million and $1.8 million during the years ended December 31, 2022 and 2021, respectively. The $10.2 million change was due to higher Direct operating costs and Selling and administrative expenses in all segments in the current fiscal year, offset in part by higher revenues in all segments, and a one-time gain on loan forgiveness amounting to $0.6 million recognized in 2021 for the DDS segment.

Net loss for the DDS segment was $0.7 million for the year ended December 31, 2022, compared to a net income of $5.0 million for the year ended December 31, 2021. The $5.8 million change was due to higher Direct operating costs and Selling and administrative expenses offset in part by higher revenues in the current fiscal year, and a one-time gain on loan forgiveness amounting to $0.6 million recognized in 2021.

Net loss for the Synodex segment was $2.6 million and $1.5 million for the years ended December 31, 2022 and 2021, respectively. The $1.1 million change was primarily due to higher Direct operating costs and Selling and administrative expenses, offset in part by higher revenues in the current fiscal year.

Net loss for the Agility segment was $8.7 million and $5.3 million for the years ended December 31, 2022 and 2021, respectively. The $3.4 million change was primarily due to higher Direct operating costs and Selling and administrative expenses, offset in part by higher revenues in the current fiscal year.

Adjusted EBITDA

Adjusted EBITDA for the year ended December 31, 2022 was a loss of $3.3 million compared to an income of $3.0 million for the year ended December 31, 2021. The $6.3 million change in Adjusted EBITDA was due to higher operating costs offset in part by higher revenues in all segments.

Adjusted EBITDA for the DDS segment was $4.1 million and $7.1 million for the years ended December 31, 2022 and 2021, respectively. The $3.0 million change in Adjusted EBITDA was due to higher operating costs offset in part by higher revenues in the current fiscal year.

Adjusted EBITDA for the Synodex segment was a loss of $1.7 million and $1.4 million for the years ended December 31, 2022 and 2021, respectively. The $0.3 million change in Adjusted EBITDA was due to higher operating costs offset in part by higher revenues in the current fiscal year.

Adjusted EBITDA for the Agility segment was a loss of $5.7 million and $2.7 million for the years ended December 31, 2022 and 2021, respectively. The $3.0 million change in Adjusted EBITDA was due to higher operating costs offset in part by higher revenues in the current fiscal year.

Adjusted EBITDA is a non-GAAP financial measure. For a reconciliation of Adjusted EBITDA to the most directly comparable GAAP measure, please see the description of "Non-GAAP Financial Measures — Adjusted EBITDA" above.

Liquidity and Capital Resources

Selected measures of liquidity and capital resources, expressed in thousands, are as follows:

	December 31,	
	2022	2021
Cash and cash equivalents	$9,792	$18,902
Short term investments – other	507	—
Working capital	2,869	12,658

On December 31, 2022, we had cash and cash equivalents of $9.8 million and short-term investments of $0.5 million, of which $3.6 million was held by our foreign subsidiaries, and $6.2 million was held in the United States. The short-term investments of $0.5 million were held in the United States. Despite the passage of the new tax law under which we may repatriate funds from overseas after paying the toll charge, it is our intent, as of December 31, 2022, to indefinitely reinvest the overseas funds in our foreign subsidiaries due to the withholding tax that we would have to incur on the actual remittances.

We have used, and plan to use, our cash and cash equivalents for (i) capital investments; (ii) the expansion of our other operations; (iii) technology innovation; (iv) product management and strategic marketing; (v) general corporate purposes, including working capital; and (vi) possible business acquisitions. As of December 31, 2022, we had working capital of approximately $2.9 million, as compared to working capital of approximately $12.7 million as of December 31, 2021. The decrease in working capital is due to cash used to finance capital expenditures, payment of long-term obligations and operating losses incurred in the current fiscal year.

Gain on PPP Loan Forgiveness

On May 4, 2020, we received loan proceeds of $579,700 under the Paycheck Protection Program ("PPP") which was established as part of the Coronavirus Aid, Relief and Economic Security Act of 2020, as amended. On May 21, 2021, the Company's loan forgiveness application was approved for 100% of the amount loaned to the Company by the Small Business Administration ("SBA").

Proceeds from stock option exercises for the year ended December 31, 2022 were $0.3 million.

We did not have any material commitments for capital expenditures as of December 31, 2022.

We believe that our existing cash and cash equivalents and cash flows from operations will provide sufficient sources of liquidity to satisfy our financial needs for at least 12 months from the date of issuance of these financial statements. However, as we have no bank facilities or lines of credit, reductions in our cash and cash equivalents from operating losses, capital expenditures, adverse legal decisions, acquisitions or otherwise could materially and adversely affect the Company.

Net Cash Provided by Operating Activities

Cash used in our operating activities for the year ended December 31, 2022 was $1.2 million and was the result of the net loss of $12.0 million, the effect of adjustments for non-cash items of $8.9 million and sources of working capital of $1.9 million. Adjustments for non-cash items primarily consisted of $3.9 million for depreciation and amortization, stock-based compensation of $3.3 million, pension cost of $0.9 million, provision for doubtful accounts of $0.5 million, deferred income tax of $0.2 million, loss on lease termination of $0.1 million and other non-cash items of $0.1 million. Working capital activities primarily consisted of sources from a $1.3 million decrease in accounts receivable, a $0.8 million decrease in other assets, a $0.3 million increase in accounts payable and accrued expenses and other and a $0.1 million increase in other working capital, offset in part by a $0.3 million decrease in accrued salaries, wages and related benefits, a $0.3 million increase in prepaid expenses and other current assets. Refer to the Consolidated Statements of Cash Flows for further details.

Cash provided by our operating activities for the year ended December 31, 2021 was $5.1 million and was the result of the net loss of $1.8 million, the effect of adjustments for non-cash items of $4.6 million and sources of working capital of $2.3 million. Adjustments for non-cash items primarily consisted of $2.9 million for depreciation and amortization, stock-based compensation of $1.8 million, pension cost of $0.5 million, offset in part by a gain on loan forgiveness of $0.6 million. Working capital activities primarily consisted of sources from a $4.4 million increase in accounts payable, accrued expenses and other, a $0.7 million increase in accrued salaries, wages and related benefits, a $0.5 million increase in prepaid expenses and other current assets and a $0.3 million increase in other assets, offset by a $1.9 million increase in accounts receivable and $1.7 million decrease in income and other taxes. Refer to the Consolidated Statements of Cash Flows for further details.

Our days' sales outstanding were 48 days and 56 days for the years ended December 31, 2022 and 2021, respectively. We calculate DSO by first dividing the total revenues for the period by average net accounts receivable, which is the average of net accounts receivable at the beginning of the period and net accounts receivable at the end of the period, to yield an amount we refer to as the "accounts receivable turnover". Then we divide the total number of days within the period reported by the accounts receivable turnover to yield DSO expressed in number of days.

Net Cash Used in Investing Activities

Cash used in our investing activities for the year ended December 31, 2022 was $7.0 million consisting of capital expenditures of $6.5 million and the purchase of short-term investments of $0.5 million. These capital expenditures were principally for the purchase of technology equipment including servers, network infrastructure and workstations, and expenditures for capitalized developed software. Capital expenditures for the year ended December 31, 2022 amounting to $6.5 million consisted of $2.0 million for the Agility segment, $3.1 million for the DDS segment and $1.4 million for the Synodex segment.

Cash used in our investing activities for the year ended December 31, 2021 was $4.4 million for capital expenditures. These capital expenditures were principally for the purchase of technology equipment including servers, network infrastructure and workstations, and expenditures for capitalized developed software. Capital expenditures for the year ended December 31, 2021 were $2.1 million for the Agility segment, $1.7 million for the DDS segment and $0.6 million for the Synodex segment.

For calendar year 2023, we anticipate that capital expenditures for ongoing technology, equipment, new platform development, and infrastructure upgrades will approximate to $6.0 million, a portion of which we may finance.

Net Cash Used in Financing Activities

Cash used in financing activities for the year ended December 31, 2022 was primarily for payments of long-term obligation of $0.6 million, reduced in part by proceeds from stock option exercises of $0.3 million.

Cash provided by financing activities for the year ended December 31, 2021 was proceeds from stock option exercises of $2.2 million. Cash paid for withholding taxes on net settlement exercises of stock options for the year ended December 31, 2021 was $0.8 million. Payments of long-term obligations were $0.7 million for the year ended December 31, 2021.

Inflation, Seasonality and Prevailing Economic Conditions

Although most of our revenues are denominated in U.S. dollars, a significant portion of our revenues is denominated in Canadian dollars, Pound Sterling and Euros. In addition, a significant portion of our expenses, primarily labor expenses in the Philippines, India, Sri Lanka, Germany, Canada and Israel, are incurred in the local currencies of the countries in which we operate. For financial reporting purposes, we translate all non-U.S. denominated transactions into U.S. dollars in accordance with U.S. GAAP. Thus, we are exposed to the risk that fluctuations in the value of these currencies relative to the U.S. dollar could have a direct impact on our revenues and our results of operations.

The Philippines and India have at times experienced high rates of inflation as well as major fluctuations in the exchange rate between the Philippine peso and the U.S. dollar and the Indian rupee and the U.S. dollar. As of December 31, 2022, the aggregate notional amount of our hedges was $14.2 million consisting of approximately $7.1 million against the Indian rupee, and $7.1 million against the Philippine peso.

Fluctuations in exchange rates also affect the value of funds held by our foreign subsidiaries. We do not currently intend to hedge these assets.

Our most significant costs are the salaries and related benefits of our employees in Asia. We are exposed to high inflation in wage rates in the countries in which we operate. We generally perform work for our customers under project-specific contracts, requirements-based contracts or long-term contracts. We must adequately anticipate wage increases, particularly on our fixed-price contracts. There can be no assurance that we will be able to recover cost increases through increases in the prices that we charge for our services to our customers.

Our quarterly operating results are subject to certain fluctuations. We experience fluctuations in our revenue and earnings as we replace and begin new projects, which may have some normal start-up delays, or we may be unable to replace a project entirely. These and other factors may contribute to fluctuations in our operating results from quarter to quarter. In addition, as some of our Asian facilities are closed during holidays in the fourth quarter, we typically incur higher wages, due to overtime, that reduce our margins.

Our Synodex subsidiary experiences seasonal fluctuations in revenues. Typically, revenue is lowest in the third quarter of the calendar year and highest in the fourth quarter of the calendar year. The seasonality is directly linked to the number of life insurance applications received by the insurance companies.

Trends

We view new customer acquisition as an indicator of our business momentum, sales and marketing efficiency, and competitive market positioning. During the year ended December 31, 2022, we added an average of 126 new customers per year. This is an 35% increase over the 93 new customers we added on average per year in 2021 and a 102% increase over the 62 new customers we added on average per year in 2020.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

Not applicable to smaller reporting companies.

Item 8. Financial Statements and Supplementary Data.

See Financial Statement Index and Financial Statements commencing on page F-1, which are incorporated by reference herein.

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

We maintain disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (Exchange Act), that are designed to ensure that information required to be disclosed in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms, and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Under the supervision, and with the participation of our management, including our principal executive officer and our principal financial officer, we conducted an evaluation of the effectiveness of our disclosure controls and procedures, as defined under Exchange Act Rule 13a-15(e), as of December 31, 2022. Based on this evaluation, our principal executive officer and our principal financial officer concluded that, as of December 31, 2022, our disclosure controls and procedures were effective.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over our financial reporting. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with U.S. GAAP. Internal control over financial reporting includes maintaining records that in reasonable detail accurately and fairly reflect our transactions and disposition of assets; providing reasonable assurance that transactions are recorded as necessary for preparation of our financial statements; providing reasonable assurance that receipts and expenditures of company assets are made in accordance with management and director authorization; and providing reasonable assurance that unauthorized acquisition, use or disposition of company assets that could have a material effect on our financial statements would be prevented or detected on a timely basis. Because of its inherent limitations, internal control over financial reporting is not intended to provide absolute assurance that a misstatement of our financial statements would be prevented or detected.

Under the supervision and with the participation of the Company's Chief Executive Officer and Interim Chief Financial Officer, management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control — Integrated Framework (2013)* — issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this evaluation, management concluded that the Company's internal control over financial reporting was effective as of December 31, 2022.

This Annual Report on Form 10-K does not include an attestation report of our independent registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by our independent registered public accounting firm pursuant to rules of the Securities and Exchange Commission that permit us to provide only management's report in this Annual Report on Form 10-K.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting (as such term is defined in Rules 13a-15(f) or 15d-15(f) under the Exchange Act) during the three months ended December 31, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other information.

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information called for by Items 401, 405, if required, and 407(c)(3), (d)(4) and (d)(5) of Regulation S-K, including information about our directors and executive officers, is incorporated by reference from the Company's definitive proxy statement for the 2022 Annual Meeting of Stockholders to be filed pursuant to Regulation 14A under the Exchange Act no later than 120 days after the end of the Company's 2022 fiscal year.

The Company has a code of ethics that applies to all of its employees, officers, and directors, including its principal executive officer, principal financial officer, principal accounting officer and corporate controller. The text of the Company's code of ethics is posted on its website at www.innodata.com. The Company intends to disclose future amendments to, or waivers from, certain provisions of the code of ethics for executive officers and directors in accordance with applicable Nasdaq and SEC requirements.

Item 11. Executive Compensation.

The information called for by Item 11 is incorporated by reference from the Company's definitive proxy statement for the 2023 Annual Meeting of Stockholders to be filed pursuant to Regulation 14A under the Exchange Act no later than 120 days after the end of the Company's 2022 fiscal year.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this Item regarding the Company's equity compensation plans is set forth in Part II, Item 5 of this Annual Report on Form 10-K under the caption "Securities Authorized for Issuance Under Equity Compensation Plans" and is incorporated by reference herein. The information called for under Item 403 of Regulation S-K by Item 12 is incorporated by reference from the Company's definitive proxy statement for the 2023 Annual Meeting of Stockholders to be filed pursuant to Regulation 14A under the Exchange Act no later than 120 days after the end of the Company's 2022 fiscal year.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information called for by Item 13 is incorporated by reference from the Company's definitive proxy statement for the 2023 Annual Meeting of Stockholders to be filed pursuant to Regulation 14A under the Exchange Act no later than 120 days after the end of the Company's 2022 fiscal year.

Item 14. Principal Accountant's Fees and Services.

The information called for by Item 14 is incorporated by reference from the Company's definitive proxy statement for the 2023 Annual Meeting of Stockholders to be filed pursuant to Regulation 14A under the Exchange Act no later than 120 days after the end of the Company's 2022 fiscal year.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

(a)(1) Financial Statements. The following Report of Independent Registered Public Accounting firm,consolidated financial statements, and accompanying notes are included in Item 8. Index to Financial Statements:

Reports of Independent Registered Public Accounting Firms.
Consolidated Balance Sheets as of December 31, 2022 and 2021.
Consolidated Statements of Operations and Comprehensive Loss for the years ended December 31, 2022 and 2021.
Consolidated Statements of Stockholders' Equity for the years ended December 31, 2022 and 2021.
Consolidated Statements of Cash Flows for the years ended December 31, 2022 and 2021.

(a)(2) Exhibits — See Exhibit Index attached hereto, which is incorporated by reference herein.

Item 16. Form 10-K Summary.

None.

SIGNATURES

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

INNODATA INC.

By: /s/ Jack S. Abuhoff
Jack S. Abuhoff
Chief Executive Officer and President
February 23, 2023

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/ Jack S. Abuhoff Jack S. Abuhoff	Chief Executive Officer and President (Principal Executive Officer)	February 23, 2023
/s/ Marissa B. Espineli Marissa B. Espineli	Interim Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	February 23, 2023
/s/ Louise C. Forlenza Louise C. Forlenza	Director	February 23, 2023
/s/ Stewart R. Massey Stewart R. Massey	Director	February 23, 2023
/s/ Nauman (Nick) Toor Nauman (Nick) Toor	Director (Chairman)	February 23, 2023

INNODATA INC. AND SUBSIDIARIES

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

Shareholders and Board of Directors
Innodata Inc.
Ridgefield Park, New Jersey

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Innodata Inc. (the "Company") as of December 31, 2022 and 2021, the related consolidated statements of operation and comprehensive loss, stockholders' equity, and cash flows for each of the years then ended, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2022 and 2021, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's 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 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 separate opinions on the critical audit matter or on the accounts or disclosures to which it relates.

1. Measurement of the provision for income tax exposures

Description of Matter

The Company is subject to income taxes in multiple tax jurisdictions and during the ordinary course of business, there are many tax positions for which the ultimate tax determination is uncertain due to complexities of transfer pricing and changing tax laws, and is involved in various tax litigations with respective tax authorities. Uncertainties arise primarily from certain ongoing tax litigations and open tax years for its foreign subsidiaries. As described in Note 4 to the consolidated financial statements, at December 31, 2022, the Company has recorded unrecognized tax benefits of $1.7 million for uncertain tax positions.

We identified measurement of accruals for the aforementioned income tax exposures as a critical audit matter, as the amounts involved are material, and the determination of provision for taxes requires the Company to make judgments on tax issues and develop estimates regarding the Company's exposure to tax risks. Further, auditing management judgments on whether the tax positions are probable of being sustained in tax assessments involves a high degree of subjectivity.

How the matter was addressed in our audit:

The primary procedures we performed to address this critical audit matter included:

- Obtaining an understanding of management's process of estimating the provision for income taxes including assessment of uncertain tax positions and those related to interpretation of tax laws and its application in the estimation of tax liabilities including uncertain tax positions.
- Testing the completeness of ongoing tax litigation by obtaining direct confirmations from external tax consultants for select geographies. Also tested the arithmetical accuracy of various computation.
- Involving tax professionals with specialized skill and knowledge in domestic and international taxes, who assisted in:
    - inspecting the correspondences and assessment orders with applicable tax authorities
    - evaluating the Company's interpretation of tax laws, underlying facts and their potential impact on uncertain tax positions
    - evaluating the Company's assumptions and data used to determine the amount of tax benefit to recognize and tested the accuracy of the calculations.

/S/ BDO India LLP

We have served as the Company's auditor since 2020.

Mumbai, India
February 23, 2023

INNODATA INC. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS
DECEMBER 31, 2022 AND 2021
(in thousands, except share and per share data)

	2022	2021
ASSETS		
Current assets:		
Cash and cash equivalents	$ 9,792	$18,902
Short term investments – other	507	—
Accounts receivable, net of allowance for doubtful accounts of $1,210 and $730, respectively	9,528	11,379
Prepaid expenses and other current assets	3,858	3,681
Total current assets	23,685	33,962
Property and equipment, net	2,511	2,947
Right-of-use-asset, net	4,309	5,621
Other assets	1,498	2,247
Deferred income taxes, net	1,475	1,950
Intangibles, net	12,526	10,347
Goodwill	2,038	2,143
Total assets	$48,042	$59,217
LIABILITIES, NON-CONTROLLING INTERESTS AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 2,630	$ 1,823
Accrued expenses and other	7,250	7,564
Accrued salaries, wages and related benefits	6,136	6,391
Income and other taxes	3,230	3,213
Long-term obligations – current portion	877	1,279
Operating lease liability – current portion	693	1,034
Total current liabilities	20,816	21,304
Deferred income taxes, net	65	15
Long-term obligations, net of current portion	5,079	6,217
Operating lease liability, net of current portion	4,036	5,276
Total liabilities	29,996	32,812
Commitments and contingencies		
Non-controlling interests	(727)	(3,522)
STOCKHOLDERS' EQUITY:		
Serial preferred stock; 4,998,000 shares authorized, none outstanding	—	—
Common stock, $.01 par value; 75,000,000 shares authorized; 30,589,000 shares issued and 27,405,000 outstanding at December 31, 2022 and 30,347,000 shares issued and 27,163,000 outstanding at December 31, 2021	306	303
Additional paid-in capital	35,815	35,121
Retained earnings (deficit)	(8,775)	3,160
Accumulated other comprehensive loss	(2,108)	(2,192)
	25,238	36,392
Less: treasury stock, 3,184,000 shares at December 31, 2022 and 2021, at cost	(6,465)	(6,465)
Total stockholders' equity	18,773	29,927
Total liabilities, non-controlling interests and stockholders' equity	$48,042	$59,217

See notes to consolidated financial statements.

INNODATA INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
YEARS ENDED DECEMBER 31, 2022 AND 2021
(In thousands, except per share amounts)

	2022	2021
Revenues	$ 79,001	$69,755
Operating costs and expenses:		
Direct operating costs	51,533	43,494
Selling and administrative expenses	37,940	27,912
Interest expense (income), net	11	(108)
	89,484	71,298
Loss from operations	(10,483)	(1,543)
Gain on loan forgiveness	—	580
Loss before provision for income taxes	(10,483)	(963)
Provision for income taxes	1,522	842
Consolidated net loss	(12,005)	(1,805)
Loss attributable to non-controlling interests	(70)	(132)
Net Loss attributable to Innodata Inc. and Subsidiaries	$(11,935)	$ (1,673)
Loss per share attributable to Innodata Inc. and Subsidiaries:		
Basic and Diluted	$ (0.44)	$ (0.06)
Weighted average shares outstanding:		
Basic and Diluted	27,278	26,630
Comprehensive Loss:		
Consolidated net loss	$(12,005)	$ (1,805)
Pension liability adjustment, net of taxes	772	(414)
Foreign currency translation adjustment	(676)	(487)
Change in fair value of derivatives, net of taxes	(12)	(353)
Other comprehensive income (loss)	84	(1,254)
Total comprehensive loss	(11,921)	(3,059)
Comprehensive loss attributed to non-controlling interest	(70)	(132)
Comprehensive loss attributable to Innodata Inc. and Subsidiaries	$(11,851)	$ (2,927)

See notes to consolidated financial statements.

INNODATA INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
YEARS ENDED DECEMBER 31, 2022 AND 2021
(In thousands)

	Common Stock		Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Treasury Stock		Total
	Shares	Amount				Shares	Amount	
January 1, 2021	28,984	289	31,921	4,833	(938)	(3,184)	(6,465)	29,640
Net loss attributable to Innodata Inc. and Subsidiaries	—	—	—	(1,673)	—	—	—	(1,673)
Stock-based compensation	—	—	1,750	—	—	—	—	1,750
Stock option exercises	1,556	13	2,214	—	—	—	—	2,227
Shares withheld for exercise settlement and taxes	(193)	1	(764)	—	—	—	—	(763)
Pension liability adjustments, net of taxes	—	—	—	—	(414)	—	—	(414)
Foreign currency translation adjustment	—	—	—	—	(487)	—	—	(487)
Change in fair value of derivatives, net of taxes	—	—	—	—	(353)	—	—	(353)
December 31, 2021	30,347	303	35,121	3,160	(2,192)	(3,184)	(6,465)	29,927
Net loss attributable to Innodata Inc. and Subsidiaries	—	—	—	(11,935)	—	—	—	(11,935)
Stock-based compensation	—	—	3,283	—	—	—	—	3,283
Stock option exercises	249	3	329	—	—	—	—	332
Shares withheld for taxes on restricted shares vesting	(7)	—	(53)	—	—	—	—	(53)
Redemption of non-controlling interest	—	—	(2,865)	—	—	—	—	(2,865)
Pension liability adjustments, net of taxes	—	—	—	—	772	—	—	772
Foreign currency translation adjustment	—	—	—	—	(676)	—	—	(676)
Change in fair value of derivatives, net of taxes	—	—	—	—	(12)	—	—	(12)
December 31, 2022	30,589	$306	$35,815	$ (8,775)	$(2,108)	(3,184)	$(6,465)	$ 18,773

See notes to consolidated financial statements.

INNODATA INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31, 2022 AND 2021
(In thousands)

	2022	2021
Cash flows from operating activities:		
Consolidated net loss	(12,005)	(1,805)
Adjustments to reconcile consolidated net loss to net cash provided by operating activities:		
Depreciation and amortization	3,889	2,869
Gain on loan forgiveness	—	(580)
Stock-based compensation	3,283	1,750
Deferred income taxes	217	88
Provision for doubtful accounts	480	—
Pension cost	943	507
Loss on lease termination	125	—
Changes in operating assets and liabilities:		
Accounts receivable	1,303	(1,872)
Prepaid expenses and other current assets	(226)	487
Other assets	750	311
Accounts payable, accrued expenses and other	322	4,441
Accrued salaries, wages and related benefits	(310)	685
Income and other taxes	13	(1,730)
Net cash provided by (used in) operating activities	(1,216)	5,151
Cash flows from investing activities:		
Capital expenditures	(6,526)	(4,368)
Purchase of short term investments – others	(507)	—
Net cash used in investing activities	(7,033)	(4,368)
Cash flows from financing activities:		
Proceeds from exercise of stock options	332	2,227
Withholding taxes on net settlement of stock-based compensation	—	(763)
Payment of long-term obligations	(639)	(691)
Net cash provided by (used in) financing activities	(307)	773
Effect of exchange rate changes on cash and cash equivalents	(554)	(227)
Net increase (decrease) in cash and cash equivalents	(9,110)	1,329
Cash and cash equivalents, beginning of year	18,902	17,573
Cash and cash equivalents, end of year	9,792	18,902
Supplemental disclosures of cash flow information:		
Cash paid for income taxes	1,107	1,540
Cash paid for operating leases	1,838	1,789
Cash paid for interest	19	28

See notes to consolidated financial statements.

INNODATA INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Description of Business and Summary of Significant Accounting Estimates and Policies

Description of Business — Innodata Inc. (NASDAQ: INOD) (including its subsidiaries, the "Company", "Innodata", "we", "us" or "our") is a leading data engineering company. The Company's mission is to help the world's most prestigious companies deliver the promise of ethical, high-performing artificial intelligence ("AI"), which the Company believes will contribute to a safer and more prosperous world.

The Company was founded on a simple idea: engineer the highest quality data so organizations across broad industry segments could make smarter decisions. Today, the Company believes it is delivering the highest quality data for some of the world's most innovative technology companies to use to train the AI models of the future.

AI holds the promise that computers can perceive and understand the world, enabling products and services that would have been previously unimaginable and impossible with traditional coding. AI learns from data, and the highest-performing AI will have learned from the highest-quality data. The Company believes that it can contribute meaningfully by harnessing its capabilities, honed over 30 years, in collecting and annotating data at scale with consistency and high accuracy.

The Company is also helping companies deploy and integrate AI into their operations and products and providing innovative AI-enabled industry platforms, helping ensure that its customers' businesses are prepared for a world in which machines augment human activity in ways previously unimaginable.

The Company developed its capabilities and honed its approaches progressively over the last 30 years creating high-quality data for many of the world's most demanding information companies. Approximately seven years ago, the Company formed Innodata Labs, a research and development center, to research, develop and apply machine learning and emerging AI to its large-scale, human-intensive data operations. In 2019, the Company began packaging the capabilities that emerged from its R&D efforts in order to align with several fast-growing new markets and help companies use AI/ML to drive performance benefits and business insights.

The Company's historical core competency in high-quality data, combined with these R&D efforts in applied AI, created the foundation for the evolution of the Company's offerings, which include AI Data Preparation, AI Model Deployment and Integration, and AI-Enabled Industry Platforms.

AI Data Preparation

The Company collects or creates training data, annotates training data, and trains AI algorithms for social media companies, robotics companies, financial services companies, and many others, working with images, text, video and audio. The Company utilizes a variety of leading third-party image and video annotation tools. For text, the Company uses its proprietary data annotation platform that incorporates AI to reduce cost while improving consistency and quality of output. The Company's proprietary data annotation platform features auto-tagging capabilities that apply to both classical and generative AI tasks. The platform encapsulates many of the innovations the Company has conceived of in the course of its 30-year history of creating high-quality data.

In addition, because collecting real-world data is often impracticable (due to data privacy regulations or rarity of cohorts and outliers), the Company creates high-quality synthetic data that maintains all of the statistical properties of real-world data, using a combination of domain specialists and machine technologies that leverage large language models (LLMs).

AI Model Deployment and Integration

The Company helps businesses leverage the latest AI technologies to achieve their goals. The Company develops custom AI models (where it selects the appropriate algorithms, tunes hyperparameters, trains and validates the models, and updates the models as required). The Company also helps businesses fine-tune their own custom versions of the Company's proprietary models and third-party foundation models to address domain-specific and customer-specific use cases.

In addition to deploying and integrating AI models, the Company often provides a range of data engineering support services including data transformation, data curation, data hygiene, data consolidation, data extraction, data compliance, and master data management.

The Company's customers span a diverse range of industries and a wide range of AI use cases, benefiting from the short time-to-value and high economic returns of the Company's AI solutions and platforms.

AI-Enabled Industry Platforms

The Company's AI-enabled industry platforms address specific, niche market requirements the Company believes it can innovate with AI/ML technologies. The Company deploys these industry platforms as software-as-a-service (SaaS) and as managed services. These platforms benefit from the Company's technology infrastructure, its industry-specific knowledge, its strong customer relationships and experience merging technology with the business processes of its customers. To date, the Company has built an industry platform for medical records data extraction and transformation (which the Company brands as "Synodex®") and an industry platform for public relations (which the Company brands as "Agility PR Solutions"). The Company is in development with an additional AI-enabled industry platform to serve financial services institutions.

The Company's Synodex industry platform transforms medical records into useable digital data organized in accordance with its proprietary data models or customer data models.

The Company's Agility industry platform provides marketing communications and public relations professionals with the ability to target and distribute content to journalists and social media influencers world-wide and to monitor and analyze global news (print, web, radio and TV) and social media.

The Company's operations are presently classified and reported in three reporting segments: Digital Data Solutions (DDS), Synodex and Agility.

Critical Accounting Policies and Estimates

Principles of Consolidation — The consolidated financial statements include the accounts of Innodata Inc. and its wholly owned subsidiaries, and docGenix, a limited liability company that is majority-owned by the Company. The non-controlling interests in the docGenix limited liability company have call and put options that can be settled in cash or stock. Accordingly, this is presented in temporary equity in accordance with Financial Accounting Standards Board (FASB) non-controlling interest guidance. All intercompany transactions and balances have been eliminated in consolidation.

Use of Estimates — In preparing consolidated financial statements in conformity with U.S. GAAP, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities,the disclosure of contingent assets and liabilities as of the date of the consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. Management believes that the estimates used in the preparation of the consolidated financial statements are reasonable, and management has made assumptions about the possible effects of the novel coronavirus ("COVID-19") pandemic on critical and significant accounting estimates. Actual results could differ from those estimates. Significant estimates include those related to the allowance for doubtful accounts and billing adjustments, useful life of long-lived assets, useful life of intangible assets, impairment of goodwill and intangible assets, valuation of deferred tax assets, valuation of stock-based compensation, pension benefit plan assumptions, litigation accruals and estimated accruals for various tax exposures.

Revenue Recognition — The Company's revenue is recognized when services are rendered or goods are delivered to a customer, in an amount that reflects the consideration that the Company expects to receive in exchange for those services or goods as per the agreement with the customer. In cases where there are agreements with multiple performance obligations, the Company identifies each performance obligation and evaluates whether the performance obligations are distinct within the context of the agreement at the agreement's inception. Performance obligations that are not distinct at agreement inception are combined.

For agreements with distinct performance obligations, the Company allocates the transaction price to each distinct performance obligation proportionately based on the estimated standalone selling price for each performance obligation, if any, and then evaluates how the services are performed for the customer to determine the timing of revenue recognition.

For the Digital Data Solutions (DDS) segment, revenue is recognized primarily based on the quantity delivered or resources utilized in the period in which services are performed and performance conditions are satisfied as per the agreement. Revenue from agreements billed on a time-and-materials basis is recognized as services are performed. Revenue from fixed-fee agreements, which is not significant to overall revenues, is recognized based on the proportional performance method of accounting, as services are performed, or milestones are achieved.

For the Synodex segment, revenue is recognized primarily based on the quantity delivered in the period in which services are performed and performance conditions are satisfied as per the agreement. A portion of the Synodex segment revenue is derived from licensing the Company's functional software and providing access to the Company's hosted software platform. Revenue from such services is recognized monthly when all parties to the agreement have agreed to the agreement; each party's rights are identifiable; the payment terms are identifiable; the agreement has commercial substance; access to the service is provided to the end user; and collection is probable.

The Agility segment derives its revenue primarily from subscription arrangements and provision of enriched media analysis services. It also derives revenue as a reseller of corporate communication solutions. Revenue from subscriptions is recognized monthly when access to the service is provided to the end user; all parties to the agreement have agreed to the agreement; each party's rights are identifiable; the payment terms are identifiable; the agreement has commercial substance; and collection is probable. Revenue from enriched media analysis services is recognized when the services are performed, and performance conditions are satisfied. Revenue from the reseller agreements is recognized at the gross amount received for the goods in accordance with the Company functioning as a principal due to the Company meeting the following criteria: the Company acts as the primary obligor in the sales transaction; assumes the credit risk; sets the price; can select suppliers; and is involved in the execution of the services, including after sales service.

Revenue includes reimbursement of out-of-pocket expenses, with the corresponding out-of-pocket expenses included in direct operating costs.

Revenue associated with the services provided in one period and billed in a subsequent period is commonly referred to as unbilled revenues and is included under Accounts receivable.

The Company considers U.S. GAAP criteria for determining whether to report gross revenue as a principal versus net revenue as an agent. The Company evaluates whether it is in control of the services before the same are transferred to the customer to assess whether it is principal or agent in the arrangement.

Contract acquisition costs, which are included in prepaid expenses and other current assets, are amortized over the term of a subscription agreement or contract that normally has a duration of 12 months or less. The Company reviews these prepaid acquisition costs on a periodic basis to determine the need to adjust the carrying values for early-terminated contracts.

Foreign Currency Translation — The functional currency of the Company's subsidiaries in the Philippines, India, Sri Lanka, Israel, Hong Kong and Canada (other than the Agility subsidiary) is the U.S. dollar. Transactions denominated in Philippine pesos, Indian and Sri Lankan rupees, Israeli shekels, and Hong Kong and Canadian dollars are translated to U.S. dollars at rates which approximate those in effect on the transaction dates. Monetary assets and all liabilities denominated in foreign currencies on December 31, 2022 and December 31, 2021 are translated at the exchange rate in effect as of those dates. Non-monetary assets and stockholders' equity are translated at the appropriate historical rates. Included in direct operating costs were foreign exchange gains resulting from such translations of approximately $1.3 million and $0.5 million for the years ended December 31, 2022 and 2021, respectively.

The functional currency for the Company's subsidiaries in Germany, the United Kingdom and for the Company's Agility subsidiary in Canada are the Euro, the Pound Sterling and the Canadian dollar, respectively. The financial statements of these subsidiaries are prepared in these respective currencies. Financial information is translated from the applicable functional currency to the U.S. dollar (the reporting currency) for inclusion in the Company's consolidated financial statements. Income, expenses, and cash flows are translated at weighted-average exchange rates prevailing during the fiscal period, and assets and liabilities are translated at fiscal period-end exchange rates. Resulting translation adjustments are included as a component of accumulated other comprehensive loss in stockholders' equity. Foreign exchange transaction gains or losses are included in direct operating costs in the accompanying consolidated statements of operations and comprehensive loss.

Derivative Instruments — The Company accounts for derivative transactions in accordance with the FASB's Accounting Standards Codification ("ASC") Topic 825, "Financial Instruments". For derivative instruments that are designated and qualify as cash flow hedges, the entire change in fair value of the hedging instrument is recorded in Other comprehensive income (loss). When the amounts recorded in Other comprehensive income (loss) are reclassified to earnings, they are included as part of Direct operating costs. For derivative instruments that are not designated as hedges, any change in fair value is recorded directly in earnings as part of Direct operating costs. The total notional value of designated outstanding foreign currency forward contracts was $14.2 million and $19.7 million at December 31, 2022 and 2021, respectively.

Cash Equivalents — For financial statement purposes, the Company considers all highly-liquid instruments purchased with an original maturity of three months or less to be cash equivalents.

Short term Investments-other — For financial statement purposes, the Company considers investments made in time deposits and treasury bills having an original maturity of more than three months but less than one year under short term investments.

Property and Equipment — Property and equipment are stated at cost and are depreciated on the straight-line method over the estimated useful lives of the related assets, which is generally two to ten years. Leasehold improvements are amortized on a straight-line basis over the shorter of their estimated useful lives or the terms of the leases. Certain assets under capital leases are amortized over the lives of the respective leases or the estimated useful lives of the assets, whichever is shorter.

Capitalized Developed Software — The Company incurs development costs related to software it develops for its internal use. Qualifying costs incurred during the application development stage are capitalized. These costs primarily consist of internal labor and third-party development costs and are amortized using the straight-line method over the estimated useful life of the capitalized developed software, which generally ranges from three to ten years. All other research and maintenance costs are expensed as incurred. Capitalized developed software in progress as of December 31, 2022 and 2021 were $2.8 million and $0.6 million respectively. The cumulative completed capitalized developed software as of December 31, 2022 and 2021 was $11.3 million and $8.6 million respectively.

Long-lived Assets — Management assesses the recoverability of its long-lived assets, whenever events or changes in circumstances indicate that the carrying value may not be recoverable. The following factors, if present, may trigger an impairment review: (i) significant underperformance relative to expected historical or projected future operating results; (ii) significant negative industry or economic trends; (iii) significant decline in the Company's stock price for a sustained period; and (iv) a change in the Company's market capitalization relative to net book value. If the recoverability of these assets is unlikely because of the existence of one or more of the above-mentioned factors, an impairment analysis is performed, using undiscounted cash flow projections. Management makes assumptions regarding estimated future cash flows and other factors to determine the fair value of these respective assets. An impairment loss will be recognized only if the carrying value of a long-lived asset is not recoverable and exceeds its fair value and is measured as the amount by which the carrying amount of a long-lived asset exceeds its fair value.

Goodwill and Other Intangible Assets — The Company performs a valuation of assets acquired and liabilities assumed on each acquisition accounted for as a business combination and allocates the purchase price of each acquired business to its respective net tangible and intangible assets and liabilities. Acquired intangible assets principally consist of technology, customer relationships, backlog and trademarks, having useful lives which range from ten to twelve years. Liabilities related to intangibles principally consist of unfavorable vendor contracts. The Company determines the appropriate useful life by performing an analysis of expected cash flows based on projected financial information of the acquired businesses. Intangible assets are amortized over their estimated useful lives using the straight-line method, which approximates the pattern in which the majority of the economic benefits are expected to be consumed. Intangible assets are amortized into direct operating costs ratably over their expected related revenue streams over their useful lives.

Goodwill represents the excess of the cost of an acquired entity over the fair value of the acquired net assets. The Company does not amortize goodwill but evaluates it for impairment at the reporting unit level annually during the third quarter of each fiscal year (as of September 30 of that year) or when an event occurs, or circumstances change, that indicates the carrying value may not be recoverable.

The Company performed its annual goodwill assessment for the Agility segment as of September 30, 2022 and tested the intangible assets of the Agility and Synodex segments for impairment. The impairment test involves estimating the fair value based on a combination of income (estimates of future discounted cash flows) and the market approach (market multiples for similar companies) using unobservable inputs (Level 3). The Company concluded that there is no impairment of goodwill and intangible assets for the Agility and Synodex segments.

Income Taxes — Estimated deferred taxes are determined based on the difference between the financial statement and tax basis of assets and liabilities, using enacted tax rates, as well as any net operating loss or tax credit carryforwards expected to reduce taxes payable in future years. A valuation allowance is provided when it is more likely than not that all or some portion of the estimated deferred tax assets will not be realized. While the Company considers future taxable income in assessing the need for the valuation allowance, in the event that the Company anticipates that it will be able to realize the estimated deferred tax assets in the future in excess of its net recorded amount, an adjustment to the provision for deferred tax assets would increase income in the period such determination was made. Similarly, in the event that the Company anticipates that it will not be able to realize the estimated deferred tax assets in the future considering future taxable income, an adjustment to the provision for deferred tax assets would decrease income in the period such determination was made. Changes in the valuation allowance from period to period are included in the Company's tax provision in the period of change. The Company indefinitely reinvests the foreign earnings in its foreign subsidiaries. If such earnings are repatriated in the future, or are no longer deemed to be indefinitely reinvested, the Company would have to accrue as a liability the applicable amount of foreign jurisdiction withholding taxes associated with such remittances.

In assessing the realization of deferred tax assets, management considered whether it is more likely than not that all or some portion of the U.S. and Canadian deferred tax assets will not be realizable. As the expectation of future taxable income resulting from the Synodex and Agility segments cannot be predicted with certainty, the Company maintains a valuation allowance against all the United States, Canadian and European (principally Germany and the United Kingdom net deferred tax assets.

The Company accounts for income taxes regarding uncertain tax positions, and recognizes interest and penalties related to uncertain tax positions in income tax expense in the consolidated statements of operations and comprehensive loss.

Accounting for Leases — Accounting Standards for Codifications (ASC 842 "Accounting for Leases") requires lessees to recognize most leases on their balance sheets as liabilities, with corresponding "right-of-use" assets. The Company recognizes a right-of-use asset and corresponding lease liability for all its operating leases. See Note 7, Operating Leases.

The determination of whether an arrangement is, or contains, a lease is based on the substance of the arrangement at the inception date and requires an assessment of whether the fulfillment of the arrangement is dependent on the use of a specific asset or assets, or the arrangement conveys a right to use the asset. A reassessment is made after inception of the lease only if one of the following applies:

a. there is a change in contractual terms, other than a renewal or extension of the arrangement;

b. a renewal option is exercised, or extension granted, unless the term of the renewal or extension was initially included in the lease term;

c. there is a change in the determination of whether fulfillment is dependent on a specified asset; or

d. there is a substantial change to the asset.

Whenever a reassessment is made, lease accounting shall commence or cease from the date when the change in circumstances gave rise to the reassessment for scenarios (a), (c) or (d) and at the date of renewal or extension period for scenario (b).

Leases where the lessor retains substantially all the risks and rewards of ownership are classified as operating leases. As of December 31, 2022, all of the Company's leases are classified under operating leases. Operating lease payments are recognized as an operating expense on a straight-line basis over the lease term.

Accounting for Stock-Based Compensation — The Company measures and recognizes stock-based compensation expense for all share-based payment awards made to employees and directors based on the estimated fair value at the grant date. The stock-based compensation expense is recognized over the requisite service period. The fair value of stock option grants is determined using the Black-Scholes option-pricing model and the fair value of restricted stock units is determined using the Binomial option pricing model.

The stock-based compensation expense related to the Company's stock plans were allocated as follows (in thousands):

	Year Ended December 31,	
	2022	2021
Direct operating costs	$ 214	$ 178
Selling and administrative expenses	3,069	1,572
Total stock-based compensation	$3,283	$1,750

Fair Value of Financial Instruments — The carrying amounts of financial instruments approximated their fair value as of December 31, 2022 and 2021, because of the relative short maturity of these instruments. See Note 14, Derivatives.

Fair value measurements and disclosures define fair value as the price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date.

The accounting standard establishes a fair value hierarchy that prioritizes the inputs used to measure fair value into three levels. The three levels are defined as follows:

- *Level 1*: Unadjusted quoted price in active market for identical assets and liabilities.
- *Level 2:* Inputs other than those included in Level 1 that are observable for the asset or liability, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- *Level 3:* Unobservable inputs reflecting management's own assumptions about the inputs used in pricing the asset or liability.

The Company's forward contracts are at level 2 in the fair value hierarchy.

Accounts Receivable — The Company establishes credit terms for new customers based upon management's review of their credit information and project terms, and performs ongoing credit evaluations of its customers, adjusting credit terms when management believes appropriate based upon payment history and an assessment of the customer's current creditworthiness. The Company records an allowance for doubtful accounts for estimated losses resulting from the inability of its customers to make required payments. The Company determines its allowance by considering a number of factors, including the length of time trade accounts receivable are past due (accounts outstanding longer than the payment terms are considered past due), the Company's previous loss history, the customer's current ability to pay its obligation to the Company, and the condition of the general economy and the industry as a whole. This cannot guarantee that credit loss rates in the future will not be greater than those experienced in the past. In addition, there is credit exposure if the financial condition of one of the Company's major customers were to deteriorate. In the event that the financial condition of one of the Company's customers were to deteriorate resulting in an impairment of their ability to make payments, additional allowances may be necessary.

Concentration of Credit Risk — The Company maintains its cash with highly rated financial institutions, located in the United States and in foreign locations where the Company has its operations. At December 31, 2022, the Company had cash and cash equivalents of $9.8 million, of which $3.6 million was held by its foreign subsidiaries with local banks located mainly in Asia and $6.2 million was held in the United States. In addition, we held short term investments of $0.5 million in the United States. To the extent that such cash exceeds the maximum insurance levels, the Company is uninsured. The Company has not experienced any losses in such accounts.

Income (Loss) per Share — Income (loss) per share is computed using the weighted-average number of common shares outstanding during the year. Diluted income (loss) per share is computed by considering the impact of the potential issuance of common shares, using the treasury stock method, on the weighted average number of shares outstanding. For those securities that are not convertible into a class of common stock, the "two class" method of computing income (loss) per share is used.

Pension — The Company records annual pension costs based on calculations, which include various actuarial assumptions including discount rates, compensation increases and other assumptions involving demographic factors. The Company reviews its actuarial assumptions on an annual basis and makes modifications to the assumptions based on current rates and trends. The Company believes that the assumptions used in recording its pension obligations are reasonable based on its experience, market conditions and inputs from its actuaries.

Deferred Revenue — Deferred revenue represents payments received from customers in advance of providing services and amounts deferred if conditions for revenue recognition have not been met. Included in accrued expenses on the accompanying consolidated balance sheets is deferred revenue amounting to $4.4 million and $4.5 million as of December 31, 2022 and 2021, respectively. We expect to recognize substantially all of these performance obligations over the next 12 months.

Recent Accounting Pronouncements — In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Statements" ("ASU 2016-13"). ASU 2016-13 requires a financial asset (or a group of financial assets) measured at amortized cost basis to be presented at the net amount expected to be collected. The allowance for credit losses is a valuation amount that is deducted from the amortized cost basis of the financial asset(s) to present the net carrying value at the amount expected to be collected on the financial asset. In November 2018, the FASB issued ASU No. 2018-19, "Codification Improvements to Topic 326, Financial Instruments-Credit Losses," which clarifies ASC Topic 326, "Financial Instruments — Credit Losses" and corrects unintended application of the guidance, and in November 2019, the FASB issued ASU No. 2019-11, "Codification Improvements to Topic 326, Financial Instruments-Credit Losses," which clarifies or addresses specific issues about certain aspects of ASU 2016-13. In March 2020, the FASB issued ASU No. 2020-03, "Codification Improvements to Financial Instruments," which modifies the measurement of expected credit losses of certain financial instruments. ASU 2016-13 is effective for certain smaller reporting companies for financial statements issued for fiscal years beginning after December 15, 2022 and interim periods within those fiscal years, which will be fiscal 2023 for the Company if it continues to be classified as a smaller reporting company, with early adoption permitted. The Company does not expect that the adoption of the new guidance will have a material impact on the Company's consolidated financial statements.

2. Property and equipment

Property and equipment, which include amounts recorded under capital leases, are stated at cost less accumulated depreciation and amortization (in thousands), and consist of the following:

	December 31,	
	2022	2021
Equipment	$ 12,391	$ 12,834
Computer software	4,447	4,399
Furniture and equipment	1,163	1,397
Leasehold improvements	2,554	3,287
Total	20,555	21,917
Less: accumulated depreciation and amortization	(18,044)	(18,970)
	$ 2,511	$ 2,947

The estimated useful lives of the property and equipment range between two years and ten years. Depreciation and amortization expense of property and equipment were approximately $1.2 and $0.9 million for the years ended December 31, 2022 and 2021, respectively.

3. Goodwill and Intangible Assets

The changes in the carrying amount of goodwill for the year ended December 31, 2022 were as follows (in thousands):

Balance as of January 1, 2022	$2,143
Foreign currency translation adjustment	(105)
Balance as of December 31, 2022	$2,038

As of September 30, 2022, the Company performed its annual goodwill impairment analysis on one of its reporting units, the Agility segment. The Company also tested the intangible assets of the Agility and Synodex segments for impairment. The impairment test involves estimating the fair value based on a combination of income (estimates of future discounted cash flows) and the market approach (market multiples for similar companies) using unobservable inputs (Level 3). The income approach uses a discounted cash flow ("DCF") method that utilizes the present value of cash flows to estimate the segment's fair value. The future cash flows of the segment were projected based on the Company's estimates of future revenue, operating income, and other factors such as working capital and capital expenditures. As part of the DCF analysis, the Company projected revenue and operating profits and assumed long-term revenue growth rates in the terminal year. The market approach utilizes multiples of revenues and earnings before interest expense, taxes, depreciation, and amortization ("EBITDA") to estimate the segment's fair value. The market multiples used for the segment were based on a group of comparable companies' market multiples applied to the Company's revenue. The Company concluded that there is no impairment of goodwill or intangible assets for the Agility segment, and no impairment of intangible assets for the Synodex segments.

The fair value measurement of goodwill for the Agility segment was classified within Level 3 of the fair value hierarchy because the Company used the income approach, which utilizes significant inputs that are unobservable in the market and the market multiple approaches using comparable entities to further validate the carrying values. The Company believes it made reasonable estimates and assumptions to calculate the fair value of the reporting unit as of the impairment test measurement date. The carrying value of Goodwill was $2.0 and $2.1 million as of December 31, 2022, and 2021.

Information regarding the Company acquired intangible assets and capitalized developed software was as follows (in thousands):

	Company Acquired Intangible Assets					Capitalized Developed Software		
	Developed technology	Customer relationships	Trademarks and tradenames	Patents	Media Contact Database	Capitalized Developed Software	Capitalized Developed Software – in Progress	Total
Gross carrying amounts:								
Balance as of January 1, 2022	$3,169	$2,228	$880	$45	$3,648	$ 8,576	$ 635	$19,181
Additions	—	—	—	—	—	—	5,421	5,421
Transfers	—	—	—	—	—	3,269	(3,269)	—
Foreign currency translation adjustment	(171)	(132)	(28)	(2)	(156)	(536)	(6)	(1,031)
Balance as of December 31, 2022	$2,998	$2,096	$852	$43	$3,492	$11,309	$ 2,781	$23,571
Accumulated amortization:								
Balance as of January 1, 2022	$2,158	$1,377	$685	$34	$2,005	$ 2,575	$ —	$ 8,834
Amortization expense	310	183	55	4	353	1,823	—	2,728
Foreign currency translation adjustment	(128)	(90)	(20)	(3)	(88)	(188)	—	(517)
Balance as of December 31, 2022	$2,340	$1,470	$720	$35	$2,270	$ 4,210	$ —	$11,045
Net carrying values – December 31, 2022	$ 658	$ 626	$132	$ 8	$1,222	$ 7,099	$ 2,781	$12,526

	Company Acquired Intangible Assets					Capitalized Developed Software		
	Developed technology	Customer relationships	Trademarks and tradenames	Patents	Media Contact Database	Capitalized Developed Software	Capitalized Developed Software – in Progress	Total
Gross carrying amounts:								
Balance as of January 1, 2021	$3,175	$2,228	$882	$45	$3,670	$5,507	$ 1,360	$16,867
Additions	—	—	—	—	—	376	2,005	2,381
Transfers	—	—	—	—	—	2,752	(2,752)	—
Foreign currency translation adjustment	(6)	—	(2)	—	(22)	(59)	22	(67)
Balance as of December 31, 2021	$3,169	$2,228	$880	$45	$3,648	$8,576	$ 635	$19,181
Accumulated amortization:								
Balance as of January 1, 2021	$1,844	$1,192	$629	$29	$1,650	$1,492	$ —	$ 6,836
Amortization expense	315	187	56	5	354	1,089	—	2,006
Foreign currency translation adjustment	(1)	(2)	—	—	1	(6)	—	(8)
Balance as of December 31, 2021	$2,158	$1,377	$685	$34	$2,005	$2,575	$ —	$ 8,834
Net carrying amounts – December 31, 2021	$1,011	$ 851	$195	$11	$1,643	$6,001	$ 635	$10,347

Amortization expense relating to acquired intangible assets was approximately $0.9 million for each of the years ended December 31, 2022 and 2021.

Amortization expense relating to capitalized developed software was approximately $1.8 million and $1.1 million for the years ended December 31, 2022 and 2021, respectively.

Estimated annual amortization expense for intangible assets subsequent to December 31, 2022 is as follows (in thousands):

Year	Amortization
2023	$ 3,994
2024	3,555
2025	2,614
2026	825
2027	460
Thereafter	1,078
	$12,526

4. Income Taxes

The significant components of the provision for income taxes for the years ended December 31, 2022 and 2021 were as follows (in thousands):

	2022	2021
Current income tax expense (benefit):		
Foreign	$1,131	$728
Federal	144	5
State and local	30	21
	1,305	754
Deferred income tax expense (benefit):		
Foreign	207	126
Federal	10	(38)
State and local	—	—
	217	88
Provision for income taxes	$1,522	$842

The reconciliation of the U.S. statutory rate with the Company's effective tax rate for the years ended December 31, 2022 and 2021 is summarized as follows:

	2022	2021
Federal income tax expense (benefit) at statutory rate	(21.0)%	(21.0)%
Effect of:		
Change in valuation allowance	36.9	186.1
Tax effects of foreign operations	2.5	2.0
Foreign operations permanent differences – foreign exchange gains and losses	1.1	9.5
Increase in unrecognized tax benefits (ASC 740)	0.7	(22.8)
State income tax net of federal benefit	0.2	1.9
Return to provision true up	0.3	(2.3)
Effect of Section 162(m)	0.0	29.90
Change in rates	—	12.2
Effect of stock-based compensation	(0.3)	(72.1)
Deemed interest	(1.9)	(1.4)
Foreign rate differential	(4.7)	(31.8)
Other	0.7	(2.8)
Effective tax rate	14.5%	87.4%

Deferred tax assets and liabilities are classified as non-current. Significant components of the Company's deferred tax assets and liabilities as of December 31, 2022 and 2021 were as follows (in thousands):

	December 31, 2022	December 31, 2021
Deferred income tax assets:		
Allowances not currently deductible	$ 301	$ 183
Depreciation and amortization	9	308
Equity compensation not currently deductible	1,579	831
Net operating loss carryforwards	10,758	7,741
Expenses not deductible until paid	1,694	1,829
Other	142	153
Total gross deferred income tax assets before valuation allowance	14,483	11,045
Valuation allowance	(13,008)	(9,095)
Deferred income tax assets, net	1,475	1,950
Deferred income tax liabilities:		
Other	(65)	(15)
Total deferred income tax liabilities	(65)	(15)
Net deferred income tax assets	$ 1,410	$ 1,935
Net deferred income tax assets	$ 1,475	$ 1,950
Net deferred income tax liability	(65)	(15)
Net deferred income tax assets	$ 1,410	$ 1,935

In assessing the realization of deferred tax assets, management considers whether it is more likely than not that all or some portion of the deferred tax assets will not be realizable. The ultimate realization of the deferred tax assets is dependent upon the generation of future taxable income during the periods in which temporary differences are deductible and net operating losses are available. As of December 31, 2022, the Company continues to maintain a valuation allowance on all of the Company's United States, Canadian, German and United Kingdom subsidiaries' deferred tax assets.

The Company maintained a valuation allowance of approximately $13.0 million and $9.1 million as of December 31, 2022 and 2021, respectively. The valuation allowance relates to United States, and the Company's Canadian, German and the United Kingdom subsidiaries' deferred tax assets. The net change in the total valuation allowance was an increase of $3.9 million and $1.2 million for the years ended December 31, 2022 and December 31, 2021, respectively.

Despite the access to the overseas earnings and the resulting toll charge, the Company intends to indefinitely reinvest the foreign earnings in our foreign subsidiaries on account of the foreign jurisdiction withholding tax that the Company has to incur on the actual remittances. Unremitted earnings of foreign subsidiaries amounted to approximately $50.9 million at December 31, 2022. If such earnings are repatriated in the future, or are no longer deemed to be indefinitely reinvested, the Company would have to accrue the applicable amount of foreign jurisdiction withholding taxes associated with such remittances.

United States and foreign components of loss before provision for income taxes for each of the two years ended December 31, were as follows (in thousands):

	2022	2021
United States	$ (4,023)	$(261)
Foreign	(6,460)	(702)
Totals	$(10,483)	$(963)

At December 31, 2022, the Company had available U.S. federal net operating loss (NOL) carryforwards of approximately $20.5 million. These NOL carryforwards expire at various times through the year 2035. The potential benefits from these balances have not been recognized for financial statement purposes.

Under the CARES Act, the Internal Revenue Code was amended to allow for federal NOL carrybacks for five years to offset previous years' taxable income or for the NOL to be carried forward indefinitely to offset 80% of taxable income for tax years 2021 and thereafter. As of the date the financial statements were issued, the state NOL carryforwards, if not utilized, will expire beginning in 2031.

On December 31, 2022, the Company's Canadian subsidiaries had available Canadian NOL carryforwards of approximately $28.3 million which will begin to expire in 2036. The potential benefits from these balances have not been recognized for financial statement purposes.

On December 31, 2022, the Company's German and the United Kingdom subsidiaries had available NOL carryforwards of approximately $2.2 million. The potential benefits from these balances have not been recognized for financial statement purposes.

The Company had unrecognized tax benefits of $1.7 million and $1.8 million as of December 31, 2022, and 2021, respectively. The decrease in unrecognized tax benefits resulted from the reversal of a prior year's accrual due to tax settlements. The Company expects that unrecognized tax benefits as of December 31, 2022 and December 31, 2021, if recognized, would have a material impact on the Company's effective tax rate.

The Company is subject to Federal income tax, as well as income tax in various states and foreign jurisdictions. The Company has open tax years for U.S. Federal and state taxes from 2017 through 2021. Various foreign subsidiaries have open tax years from 2004 through 2022, some of which are under audit by local tax authorities. The Company believes that its accruals for uncertain tax positions as of December 31, 2022 under ASC 740, Income Taxes are adequate to cover the Company's income tax exposures.

The following table represents a roll forward of the Company's unrecognized tax benefits and associated interest for the years ended (in thousands):

	Unrecognized Tax Benefits December 31,	
	2022	**2021**
Balance at January 1	$1,753	$ 3,231
Decrease for prior year tax positions	(290)	(1,713)
Increase for current year tax positions	311	156
Interest accrual	67	111
Foreign currency remeasurement	(161)	(32)
Balance at December 31	$1,680	$ 1,753

Tax Assessments

In September 2015, the Company's Indian subsidiary was subject to an inquiry by the Service Tax Department in India regarding the classification of services provided by this subsidiary, asserting that the services provided by this subsidiary fall under the category of online information and database access or retrieval services (OID Services), and not under the category of business support services (BS Services) that are exempt from service tax as historically indicated in the subsidiary's service tax filings. The Company disagrees with the Service Tax Department's position. In November 2019, the Commissioner of Central Tax, GST & Central Excise issued an order confirming the Service Tax Department's position. The Company is contesting this order in an appeal to the Customs, Excise and Service Tax Appellate Tribunal. In the event the Service Tax Department is ultimately successful in proving that the services fall under the category of OID Services, the revenues earned by the Company's Indian subsidiary for the period July 2012 through

November 2016 would be subject to a service tax of between 12.36% and 15%, and this subsidiary may also be liable for interest and penalties. The revenue of the Company's Indian subsidiary during this period was approximately $57.0 million. In accordance with new rules promulgated by the Service Tax Department, as of December 1, 2016 service tax is no longer applicable to OID or BS Services. Based on the Company's assessment in consultation with the Company's tax counsel, the Company has not recorded any tax liability for this case.

In a separate action relating to service tax refunds, in October 2016, the Company's Indian subsidiary received notices from the Indian Service Tax Department in India seeking to reverse service tax refunds of approximately $121,000 previously granted to the Company's Indian subsidiary for three quarters in 2014, asserting that the services provided by this subsidiary fall under the category of OID Services and not BS Services. The appeal was determined in favor of the Service Tax Department. The Company disagrees with the basis of this decision and is contesting it. The Company expects delays in its Indian subsidiary receiving further service tax refunds until this matter is adjudicated with finality, and currently has service tax credits of approximately $0.8 million recorded as a receivable. Based on the Company's assessment in consultation with the Company's tax counsel, the Company has not recorded any tax liability for this case.

Substantial recovery against the Company in the above referenced 2015 Service Tax Department case could have a material adverse impact on the Company, and unfavorable rulings or recoveries in other tax proceedings could have a material adverse impact on the consolidated operating results of the period (and subsequent periods) in which the rulings or recovery occurs.

5. Long-term obligations

Total long-term obligations as of December 31, 2022 and 2021 consisted of the following (in thousands):

	December 31,	
	2022	2021
Pension obligations – accrued pension liability	$5,906	$6,839
Settlement agreement	50	272
Microsoft licenses	—	385
	5,956	7,496
Less: Current portion of long-term obligations	877	1,279
Totals	$5,079	$6,217

6. Commitments and contingencies

Litigation — In 2008, a judgment was rendered in the Philippines against a Philippine subsidiary of the Company that is no longer active and purportedly also against Innodata Inc., in favor of certain former employees of the Philippine subsidiary. The potential payment amount aggregates to approximately $5.9 million, plus legal interest that accrued at 12% per annum from August 13, 2008 to June 30, 2013, and thereafter accrued and continues to accrue at 6% per annum. The potential payment amount as expressed in U.S. dollars varies with the Philippine peso to U.S. dollar exchange rate. In December 2017, a group of 97 of the former employees of the Philippine subsidiary indicated that they proposed to record the judgment as to themselves in New Jersey. In January 2018, in response to an action initiated by Innodata Inc., the United States District Court for the District of New Jersey ("USDC") entered a preliminary injunction that enjoins these former employees from pursuing or seeking recognition or enforcement of the judgment against Innodata Inc. in the U.S. during the pendency of the action and until further order of the USDC. In June 2018, the USDC entered a consent order administratively closing the action subject to return of the action to the active docket upon the written request of Innodata Inc. or the former employees, with the USDC retaining jurisdiction over the matter and the preliminary injunction remaining in full force and effect.

The Company is also subject to various other legal proceedings and claims that have arisen in the ordinary course of business.

While management currently believes that the ultimate outcome of these proceedings will not have a material adverse effect on the Company's consolidated financial position or overall trends in consolidated results of operations, litigation is subject to inherent uncertainties. Substantial recovery against the Company in the above-referenced Philippine action could have a material adverse impact on the Company, and unfavorable rulings or recoveries in the other proceedings could have a material adverse impact on the consolidated operating results in the period in which the ruling or recovery occurs. In addition, the Company's estimate of the potential impact on the Company's consolidated financial position or overall consolidated results of operations for the above referenced legal proceedings could change in the future.

The Company's legal accruals related to legal proceedings and claims are based on the Company's determination of whether or not a loss is probable. The Company reviews outstanding proceedings and claims with external counsel to assess probability and estimates of loss. The accruals are adjusted if necessary. While the Company intends to defend these matters vigorously, adverse outcomes that it estimates could reach approximately $450,000 in the aggregate beyond recorded amounts are reasonably possible. If circumstances change, the Company may be required to record adjustments that could be material to its reported consolidated financial condition and results of operations.

Foreign Currency — To the extent that the currencies of the Company's production facilities located in the Philippines, India, Sri Lanka and Israel fluctuate, the Company is subject to risks of changing costs of production after pricing is established for certain customer projects. In addition, the Company is exposed to the risk of foreign currency fluctuation on the non-U.S. dollar denominated revenues, and on the monetary assets and liabilities held by its foreign subsidiaries that are denominated in local currency.

Indemnifications — The Company is obligated under certain circumstances to indemnify directors, officers and certain employees against costs and liabilities incurred in actions or threatened actions brought against such individuals because such individuals acted in the capacity of director, officer or fiduciary of the Company. In addition, the Company has contracts with certain customers pursuant to which the Company has agreed to indemnify the customer for certain specified and limited claims. These indemnification obligations occur in the ordinary course of business and, in many cases, do not include a limit on potential maximum future payments. As of December 31, 2022, the Company has not recorded a liability for any obligations arising as a result of these indemnification obligations.

7. Operating Leases

The Company has various lease agreements for its offices and service delivery centers. The Company has determined that the risks and benefits related to the leased properties are retained by the lessors. Accordingly, these are accounted for as operating leases.

These lease agreements are for terms ranging from two to eleven years and, in most cases, provide for rental escalations ranging from 1.75% to 10%. Most of these agreements are renewable at the mutual consent of the parties to the contract.

The Company recognizes an operating lease liability and right-of-use asset in compliance with current lease accounting standard ASC 842. The amount of right-of use asset is equal to the present value of the remaining lease payments discounted using the incremental borrowing rate of each respective country. Modifications, if any are recalculated and corresponding adjustments are made to the carrying values of both the lease liability and right-of-use assets.

A right-of-use asset is measured as the amount of the lease liability adjusted for the amount of deferred straight-line rent, prepaid rent and lease incentive allowances previously recognized.

The table below summarizes the amounts recognized in the financial statements related to operating leases for the years presented (in thousands):

	Year Ended	
	December 31, 2022	December 31, 2021
Rent expense for long-term operating leases	$1,336	$1,560
Rent expense for short-term leases	502	229
Total rent expense	$1,838	$1,789

The following table presents the maturity profile of the Company's operating lease liabilities based on the contractual undiscounted payments with a reconciliation of these amounts to the remaining net present value of the operating lease liability reported in the consolidated balance sheet as of December 31, 2022 (in thousands):

Year	Amount
2023	$ 1,045
2024	855
2025	886
2026	921
2027	905
2028 and thereafter	1,553
Total lease payments	6,165
Less: Interest	(1,436)
Net present value of lease liabilities	$ 4,729
Current portion	$ 693
Long-term portion	4,036
Total	$ 4,729

The weighted average remaining lease terms and discount rates for all of our operating leases as of December 31, 2022 were as follows:

Weighted-average lease term remaining	52 months
Weighted-average discount rate	9.10%

8. Pension Benefits

U.S. Defined Contribution Pension Plan — The Company has a defined contribution plan qualified under Section 401(k) of the Internal Revenue Code, pursuant to which substantially all of its U.S. employees are eligible to participate after completing six months of service. Participants may elect to contribute a portion of their compensation to the plan. Under the plan, the Company has the discretion to match a portion of participants' contributions. For the years ended December 31, 2022 and 2021, the Company did not make any matching contributions.

Most of the non-U.S. subsidiaries provide for government-mandated defined pension benefits. For certain of these subsidiaries, vested eligible employees are provided a lump sum payment upon retiring from the Company at a defined age. The lump sum amount is based on the salary and tenure as of retirement date. Other non-U.S. subsidiaries provide for a lump sum payment to vested employees on retirement, death, incapacitation or termination of employment, based upon the salary and tenure as of the date employment ceases. The liability for such defined benefit obligations is determined and provided on the basis of actuarial valuations. As of December 31, 2022, these plans were unfunded. Pension expense for foreign subsidiaries totaled approximately $1.1 million and $0.9 million for the years ended December 31, 2022 and 2021, respectively.

The following tables set out the status of the non-U.S. pension benefits and the amounts recognized in the Company's consolidated financial statements and the components of pension costs as of and for each of the two years in the period ended December 31 (in thousands):

Benefit Obligations:

	2022	2021
Projected benefit obligation at beginning of the year	$6,839	$5,940
Service cost	592	572
Interest cost	352	247
Actuarial loss (gain)	(713)	559
Foreign currency exchange rates changes	(862)	(359)
Curtailment	(48)	—
Benefits paid	(254)	(120)
Projected benefit obligation at end of the year	$5,906	$6,839

The Company incurred an actuarial gain of $0.7 million for the year ended December 31, 2022, and an actuarial loss of $0.6 million for the year ended December 31, 2021. This was mainly due to changes in the discount rates used. Actuarial (gains) losses are recorded as part of other comprehensive income and is not reflected as part of net periodic pension cost.

Components of Net Periodic Pension Cost:

	2022	2021
Service cost	$ 592	$572
Interest cost	352	247
Curtailment	(16)	—
Actuarial loss recognized	210	47
Net periodic pension cost	$1,138	$866

The accumulated benefit obligation, which represents benefits earned to date, was approximately $3.2 and $3.7 million for each of the years ended December 31, 2022 and 2021.

Amounts recognized in the consolidated balance sheets for the years ended December 31, 2022 and 2021 consisted of the following (in thousands):

	2022	2021
Current accrued benefit cost	$ 828	$ 677
Non-current accrued benefit cost	5,078	6,162
Total amount recognized	$5,906	$6,839

Current accrued benefit cost for pension benefits was included in the current portion of long-term obligations in the consolidated balance sheets. Non-current accrued benefit cost for pension benefits was included in long-term obligations, net of current portion, in the consolidated balance sheets.

Actuarial assumptions for all non-U.S. plans are described below. The discount rates are used to measure the year end benefit obligations and the earnings effects for the subsequent year. The assumptions for each of the two years in the period ended December 31 were as follows:

	2022	2021
Discount rate	5.13% – 20%	2.1% – 12.03%
Rate of increase in compensation level	7.5% – 20%	7% – 10%

Estimated Future Benefit Payments:

As of December 31, 2022, the following benefit payments, which reflect expected future service, as appropriate, were expected to be paid (in thousands):

Year	Amount
2023	837
2024	114
2025	401
2026	239
2027	704
2028 to 2031	4,860
	$7,155

9. Capital Stock

Common Stock — The Company is authorized to issue 75,000,000 shares of common stock. Each share of common stock has one vote. Subject to preferences that may be applicable to any outstanding shares of preferred stock, the holders of common stock are entitled to receive ratably such dividends, if any, as may be declared by the Board of Directors. No common stock dividends have been declared to date.

Preferred Stock — The Company is authorized to issue 4,998,000 shares of preferred stock. The Board of Directors is authorized to fix the terms, rights, preferences and limitations of the preferred stock and to issue the preferred stock in series that differ as to their relative terms, rights, preferences and limitations.

Common Stock Reserved — As of December 31, 2022, the Company had available for future issuance 3,496,297 shares of common stock pursuant to the Company's stock option plans.

Treasury Stock — In July 2019, the Company's Board of Directors authorized the repurchase of up to $2.0 million of its common stock in open market or private transactions. There is no expiration date associated with the program. There were no share repurchases in the years ended December 31, 2022 and 2021. As of December 31, 2022, the Company repurchased $1.5 million shares of its common stock under the July 2019 authorization with a value of $1.8 million.

10. Stock Options

On June 7, 2016, stockholders of the Company approved amendments to the Innodata Inc. 2013 Stock Plan (as amended, the "2013 Plan"). The number of shares of common stock of Innodata Inc. that may be delivered, purchased or used for reference purposes (with respect to stock appreciation rights or stock units) for awards granted under the 2013 Plan after June 7, 2016 is 5,858,892 (the "Share Reserve"). Shares subject to an option or stock appreciation right granted under the 2013 Plan after June 7, 2016 count against the Share Reserve as one share for every share granted, and shares subject to any other type of award granted under the 2013 Plan after June 7, 2016 count against the Share Reserve as two shares for every share granted. Any award, or portion of an award, under the 2013 Plan or under the Company's 2009 Stock Plan (as amended and restated (the Prior Plan)) that expires or terminates unexercised, becomes unexercisable or is forfeited or otherwise terminated, surrendered or canceled as to any shares without delivery of shares or other consideration will be added back to the Share Reserve as one share for each such share that was subject to an option or stock appreciation right granted under the 2013 Plan or the Prior Plan, and two shares for each such share that was subject to an award other than an option or stock appreciation right granted under the 2013 Plan or the Prior Plan. If any shares are withheld, tendered or exchanged by a participant in the 2013 Plan as full or partial payment to Innodata of the exercise price under an option under the 2013 Plan or the Prior Plan or in satisfaction of a participant's tax withholding obligations with respect to any award under the 2013 Plan or the Prior Plan, there will be added back to the Share Reserve one share for each such share that was withheld, tendered or exchanged in respect of an option or stock appreciation right granted under the 2013 Plan or the Prior Plan, and two shares for each such share that was withheld, tendered or exchanged in respect of an award other than an option or stock appreciation right granted under the 2013 Plan or the Prior Plan.

On June 9, 2022, stockholders of the Company approved amendments to the Innodata Inc. 2021 Equity Compensation Plan (as amended, the "2021 Plan"). The number of shares of common stock of Innodata Inc. that may be delivered, purchased or used for reference purposes (with respect to stock appreciation rights or stock units) for awards granted under the 2021 Plan is 4,000,000 (the "Share Reserve"). Shares subject to an option or stock appreciation right granted under the 2021 Plan count against the Share Reserve as one share for every share granted, and shares subject to any other type of award granted under the 2021 Plan count against the Share Reserve as two shares for every share granted for awards granted prior to April 11, 2022, and one and a half shares for every share granted for awards granted on or after April 11, 2022. Any shares withheld, tendered or exchanged by a participant in the 2021 Plan as full or partial payment to Innodata of the exercise price under an option under the 2021 Plan or in satisfaction of a participant's tax withholding obligations with respect to any award under the 2021 Plan, will not be added back to the Share Reserve.

The fair value of stock options is estimated on the date of grant using the Black-Scholes option pricing model. The weighted-average fair value of the options granted, and weighted-average assumptions were as follows:

	For the Years Ended December 31,	
	2022	2021
Weighted average fair value of options granted	$2.67	$3.73
Risk-free interest rate	1.94% – 4.09%	0.22% – 0.82%
Expected life (years)	3 – 6.42	3 – 6
Expected volatility factor	62% – 79%	58% – 68%
Expected dividends	None	None

The Company estimates the risk-free interest rate using the U.S. Treasury yield curve for periods equal to the expected term of the options in effect at the time of grant. The expected term of options granted is based on a combination of vesting schedules, term of the options and historical experience. Expected volatility is based on historical volatility of the Company's common stock. The Company uses an expected dividend yield of zero since it has never declared or paid any dividends on its capital stock.

A summary of option activity under the Innodata Inc. 2013 Stock Plan, as amended and restated effective June 7, 2016 (the "2013 Plan") and changes during each of year ended December 31, 2022 and 2021 are presented below:

	Number of Options	Weighted -Average Exercise Price	Weighted-Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Outstanding at January 1, 2021	5,906,884	$1.61	6.86	89,405
Granted	1,226,300	6.84		
Exercised	(1,556,288)	2.01		
Forfeited/Expired	(40,000)	1.41		
Outstanding at December 31, 2021	5,536,896	$2.66	7.52	$19,154,463
Granted*	1,774,558	4.91		
Exercised	(248,763)	1.34		
Forfeited/Expired	(372,201)	6.55		
Outstanding at December 31, 2022	6,690,490	$3.09	7.19	$ 5,989,709
Exercisable at December 31, 2022	4,124,775	$1.96	6.10	$ 5,533,056
Vested and Expected to Vest at December 31, 2022	6,690,490	$3.09	7.19	$ 5,989,709

* Includes 110,000 stock options granted by the Company to a non-employee director of the Company during the year ended December 31, 2022. The stock option fully vests on January 1, 2025.

A summary of option activity under the Innodata Inc. 2021 Equity Compensation Plan, as amended and restated effective as of April 11, 2022 (the "2021 Plan") and changes during the year ended December 31, 2022 and 2021 are presented below:

	Number of Options	Weighted - Average Exercise Price	Weighted-Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Outstanding at January 1, 2021	—	$ —	—	—
Granted	—	—		
Exercised	—	—		
Forfeited/Expired	—	—		
Outstanding at December 31, 2021	—	$ —	—	—
Granted*	1,030,000	3.46		
Exercised	—	—		
Forfeited/Expired	(2,500)	3.41		
Outstanding at December 31, 2022	1,027,500	$3.46	9.75	$ —
Exercisable at December 31, 2022	18,750	$5.40	9.52	$ —
Vested and Expected to Vest at December 31, 2022	1,027,500	$3.46	9.75	$ —

* During the year ended December 31, 2022, the Company granted 132,000 stock options to non-employee directors of the Company which vest on the first anniversary of the date of grant. In addition, during the year ended December 31, 2022 the Company granted 50,000 stock options to non-employee members of the Company's advisory board in lieu of cash compensation. The stock options vest in 12 monthly installments from the date of grant.

A summary of restricted stock awards issued under the 2013 Plan and the 2021 Plan (collectively, the "Equity Plans") is presented below:

	Number of Restricted Stock Awards	Weighted-Average Grant Date Fair Value
Outstanding January 1, 2021	50,000	
Granted	—	
Vested	(25,000)	
Unvested at December 31, 2021	25,000	$1.38
Granted	—	
Vested	(25,000)	1.38
Forfeited/Expired	—	
Unvested at December 31, 2022	—	$ —

In March 2022, the Company granted restricted stock units ("RSU") to key executives pursuant to the Equity Plans. Each RSU has vesting conditions based on both the achievement of performance-based metrics and the continuation of employment over a defined period. The level of performance determines the number of RSUs that performance-vest, and performance vested RSUs must also time-vest in order to be fully vested. Each fully vested RSU represents the right to receive one share of the Company's common stock or the fair market value of one share of common stock, at the Company's discretion, and is classified as an equity award. Each RSU vests pursuant to the vesting schedule found in the respective RSU agreement. RSUs are generally subject to graduated vesting schedules and stock-based compensation expense is computed by tranche and recognized on a straight-line basis over the tranches' applicable vesting period based on the expected achievement level. The fair value of restricted stock units is estimated on the date of grant using the Binomial option pricing model.

Restricted stock unit activity during the year ended December 31, 2022 was as follows:

	Number of Restricted Stock Units	Weighted-Average Grant Date Fair Value
Outstanding January 1, 2021	—	
Granted	—	
Vested	—	
Unvested at December 31, 2021	—	
Granted*	700,000	$5.59
Vested	—	
Forfeited/Expired	—	
Unvested at December 31, 2022	700,000	$5.59

* 200,000 RSUs were issued under the 2013 Plan and 500,000 RSUs were issued under the 2021 Plan.

The compensation cost related to non-vested stock options not yet recognized as of December 31, 2022 totaled approximately $7.4 million. The weighted-average period over which these costs will be recognized is 25 months.

During the fiscal year ended December 31, 2022, 700,000 performance-based restricted stock units were granted and remain non-vested at December 31, 2022. Vesting of the performance-based restricted stock units is contingent on the achievement of certain financial performance goals and service vesting conditions. There were no restricted stock units granted during the year ended December 31, 2021.

The compensation cost related to non-vested restricted stock units not yet recognized as of December 31, 2022 totaled approximately $2.9 million. The weighted-average period over which these costs will be recognized is 19 months.

11. Comprehensive loss

Accumulated other comprehensive loss, as reflected in the consolidated balance sheets, consists of pension liability adjustments, net of taxes, foreign currency translation adjustment and changes in fair value of derivatives, net of taxes. The components of accumulated other comprehensive loss as of December 31, 2022 and 2021, and reclassifications out of accumulated other comprehensive loss for the years then ended, are presented below (in thousands):

	Pension Liability Adjustment	Fair Value of Derivatives	Foreign Currency Translation Adjustment	Accumulated Other Comprehensive Loss
Balance at January 1, 2022	$(858)	$ (353)	$ (981)	$(2,192)
Other comprehensive income (loss) before reclassifications, net of taxes	561	(1,118)	(676)	(1,233)
Total other comprehensive loss before reclassifications, net of taxes	(297)	(1,471)	(1,657)	(3,425)
Net amount reclassified to earnings	211	1,106	—	1,317
Balance at December 31, 2022	$ (86)	$ (365)	$(1,657)	$(2,108)

	Pension Liability Adjustment	Fair Value of Derivatives	Foreign Currency Translation Adjustment	Accumulated Other Comprehensive Loss
Balance at January 1, 2021	$(444)	$ —	$(494)	$ (938)
Other comprehensive income (loss) before reclassifications, net of taxes	(457)	(458)	(487)	(1,402)
Total other comprehensive loss before reclassifications, net of taxes	(901)	(458)	(981)	(2,340)
Net amount reclassified to earnings	43	105	—	148
Balance at December 31, 2021	$(858)	$(353)	$(981)	$(2,192)

Taxes related to each component of other comprehensive loss were not material for the fiscal years presented and therefore not disclosed separately.

All reclassifications out of accumulated other comprehensive loss had an impact on direct operating costs in the consolidated statements of operations and comprehensive loss.

12. Segment reporting and concentrations

The Company's operations are classified in three reporting segments: Digital Data Solutions (DDS), Synodex and Agility.

The DDS segment provides AI data preparation services, collecting or creating training data, annotating training data, and training AI algorithms for its customers, and AI model deployment and integration. The DDS segment also provides a range of data engineering support services including data transformation, data curation, data hygiene, data consolidation, data extraction, data compliance, and master data management.

The Synodex segment provides an industry platform that transforms medical records into useable digital data organized in accordance with its proprietary data models or customer data models.

The Agility segment provides an industry platform that provides marketing communications and public relations professionals with the ability to target and distribute content to journalists and social media influencers world-wide and to monitor and analyze global news channels (print, web, radio and TV) and social media channels.

A significant portion of the Company's revenues is generated from its locations in the Philippines, India, Sri Lanka, Canada, Germany, the United Kingdom and Israel.

Revenues from external customers, segment operating profit (loss), and other reportable segment information are as follows (in thousands):

	For The Years Ended December 31, 2022	For The Years Ended December 31, 2021
Revenues:		
DDS	$ 56,523	$52,569
Synodex	7,105	4,163
Agility	15,373	13,023
Total Consolidated	$ 79,001	$69,755
Income (loss) before provision for income taxes[1]:		
DDS	$ 1,393	$ 6,311
Synodex	(3,213)	(1,797)
Agility	(8,663)	(5,477)
Total Consolidated	$(10,483)	$ (963)
Income (loss) before provision for income taxes[2]:		
DDS	$ 716	$ 5,947
Synodex	(2,599)	(1,526)
Agility	(8,600)	(5,384)
Total Consolidated	$(10,483)	$ (963)

	December 31, 2022	December 31, 2021
Total assets:		
DDS	$25,758	$38,180
Synodex	3,270	1,753
Agility	19,014	19,284
Total Consolidated	$48,042	$59,217

(1) Before elimination of any inter-segment profits

(2) After elimination of any inter-segment profits

	December 31, 2022	December 31, 2021
Goodwill:		
Agility	$2,038	$2,143
Total	$2,038	$2,143

The table below shows intersegment revenues which are eliminated in consolidation (in thousands).

	For The Years Ended December 31, 2022	For The Years Ended December 31, 2021
Revenues of DDS Segment from:		
Synodex	2,001	668
Agility	144	138
Totals	2,145	806

Long-lived assets as of December 31, 2022 and 2021 by geographic region were comprised of (in thousands):

	2022	2021
United States	$ 7,205	$ 4,578
Foreign countries:		
Canada	7,675	9,280
United Kingdom	1,198	1,538
Philippines	3,682	4,027
India	1,195	1,481
Sri Lanka	426	154
Israel	3	—
Total foreign	14,179	16,480
Totals	$21,384	$21,058

Long-lived assets include the unamortized balance of right-of-use assets amounting to $4.3 million and $5.6 million as of December 31, 2022 and December 31, 2021, respectively.

One customer in the DDS segment generated approximately 11% of the Company's total revenues in the fiscal year ended December 31, 2022. Another customer in the DDS segment generated approximately 11% of the Company's total revenues in the fiscal year ended December 31, 2021. No other customer accounted for 10% or more of total revenues during these periods. Further, in the years ended December 31, 2022 and 2021, revenues from non-U.S. customers accounted for 38% and 45%, respectively, of the Company's revenues.

Revenues for each of the two years in the period ended December 31, 2022 and 2021 by geographic region (determined based upon customer domicile), were as follows (in thousands):

	2022	2021
United States	$48,724	$38,164
United Kingdom	10,901	11,588
The Netherlands	6,829	6,547
Canada	5,508	6,190
Others – principally Europe	7,039	7,266
Totals	$79,001	$69,755

As of December 31, 2022, approximately 44% of the Company's accounts receivable was due from foreign (principally European) customers and 45% of accounts receivable was due from four customers. As of December 31, 2021, approximately 37% of the Company's accounts receivable was due from foreign (principally European) customers and 19% of accounts receivable was due from one customer. No other customer accounted for 10% or more of the accounts receivable as of December 31, 2022 and 2021.

13. Loss per Share

	For the Years Ended December 31,	
	2022	2021
Net loss attributable to Innodata Inc. and Subsidiaries	$(11,935)	$ (1,673)
Weighted average common shares outstanding	27,278	26,630
Dilutive effect of outstanding options	—	—
Adjusted for dilutive computation	27,278	26,630

Basic loss per share is computed using the weighted-average number of common shares outstanding during the year. Diluted income per share is computed by considering the impact of the potential issuance of common shares, using the treasury stock method, on the weighted average number of shares outstanding. For those securities that are not convertible into a class of common stock, the two-class method of computing loss per share is used.

Options to purchase 5.3 million shares of common stock for the year ended December 31, 2022 were outstanding but not included in the computation of diluted loss per share because the exercise price of the options were greater than the average market price of the common shares and therefore have not been considered as potential equity shares.

Options to purchase 5.5 million shares of common stock for the year ended December 31, 2021, were outstanding but not included in the computation of diluted income per share because the exercise price of the options were greater than the average market price of the common shares and therefore have not been considered as potential equity shares.

14. Derivatives

The Company conducts a large portion of its operations in international markets which subject it to foreign currency fluctuations. The most significant foreign currency exposures occur when revenue and associated accounts receivable are collected in one currency and expenses to generate that revenue are incurred in another currency. The Company is also subject to wage inflation and other government mandated increases and operating expenses in Asian countries where the Company has the majority of its operations. The Company's primary inflation and exchange rate exposure relates to payroll, other payroll costs and operating expenses in the Philippines, India, Sri Lanka and Israel.

In addition, although most of the Company's revenue is denominated in U.S. dollars, a significant portion of total revenues is denominated in Canadian dollars, Pound Sterling and Euros.

The Company's policy is to enter derivative instrument contracts with terms that coincide with the underlying exposure being hedged for a period up to 12 months. As such, the Company's derivative instruments are expected to be highly effective. For derivative instruments that are designated and qualify as cash flow hedges, the entire change in fair value of the hedging instrument is recorded to Other comprehensive income (loss). Upon settlement of these contracts, the change in the fair value recorded in Other comprehensive income (loss) are reclassified to earnings and included as part of Direct operating costs. For derivative instruments that are not designated as hedges, any change in fair value is recorded directly in earnings as part of Direct operating costs.

The Company formally documents all relationships between hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking hedge transactions. The Company does not hold or issue derivatives for trading purposes. All derivatives are recognized at their fair value and classified based on the instrument's maturity date. The total notional amount for outstanding derivatives designated as hedges was $14.2 million as of December 31, 2022.

The following table presents the fair value of derivative instruments included within the consolidated balance sheets as of December 31, 2022 and 2021 (in thousands):

	Balance Sheet Location	Fair Value 2022	Fair Value 2021
Derivatives designated as hedging instruments:			
Foreign currency forward contracts	Accrued expenses	$365	$353

The effect of foreign currency forward contracts designated as cash flow hedges on the consolidated statements of operations for the years ended December 31, 2022 and 2021 were as follows (in thousands):

	2022	2021
Loss recognized in OCI(1)	$(1,118)	$(458)
Loss reclassified from accumulated OCI into income(2)	$(1,106)	$(105)
Gain recognized in income(3)	$ —	$ —

(1) Net change in fair value of the effective portion classified into other comprehensive income ("OCI").

(2) Effective portion classified within direct operating costs.

(3) There were no ineffective portions for the period presented.

15. Redemption of non-controlling interest

The Consolidated Balance Sheets for the year ended December 31, 2022 includes a $2.9 million charge against additional paid-in-capital representing the carrying value of the non-controlling interest in Innodata Synodex, LLC which was redeemed by the Company on March 31, 2022. The Company accounted for the transaction in accordance with ASC Topic 810, "Consolidation," which discusses the proper accounting treatment of the carrying value for the non-controlling interest. Under the standard, any change in ownership that does not result in a loss of control must be accounted for as an equity transaction.

16. Short Term Investments — other

The Short-term investments includes investment made by the Company in treasury bills and certificate of deposits which are considered as highly liquid investments.

	For The Years Ended December 31, 2022	2021
Treasury bills	$494	$ —
Certificate of deposits	13	—
Total Consolidated	$507	$ —

Exhibit Index

Exhibits which are indicated as being included in previous filings are incorporated herein by reference.

Exhibit	Description	Filed as Exhibit
3.1(a)	Restated Certificate of Incorporation dated April 27, 1993	Filed as Exhibit 3.1(a) to our Form 10-K for the year ended December 31, 2003
3.1(b)	Certificate of Amendment of Certificate of Incorporation of Innodata Corporation dated February 28, 2001	Filed as Exhibit 3.1(b) to our Form 10-K for the year ended December 31, 2003
3.1(c)	Certificate of Amendment of Certificate of Incorporation of Innodata Corporation dated November 14, 2003	Filed as Exhibit 3.1(c) to our Form 10-K for the year ended December 31, 2003
3.1(d)	Certificate of Amendment of Certificate of Incorporation of Innodata Isogen, Inc. dated June 5, 2012	Filed as Exhibit 3.1 to our Form 10-Q for the quarter ended June 30, 2012
3.2	Form of Amended and Restated By-Laws	Filed as Exhibit 3.1 to Form 8-K dated December 16, 2002
4.1	Specimen of Common Stock certificate	Filed as Exhibit 4.1 to Form 10-Q dated August 7, 2015
4.2	Description of the Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934	Filed as Exhibit 4.2 to our Form 10-K for the year ended December 31, 2021
10.1	Form of Indemnification Agreement between us and our Directors and one of our Officers	Filed as Exhibit 10.3 to Form 10-K for the year ended December 31, 2002
10.2	Employment Agreement dated as of January 1, 2007 with Ashok Mishra*	Filed as Exhibit 10.1 to Form 10-Q for the quarter ended June 30, 2007
10.3	Employment Agreement dated as of March 25, 2009 with Jack S. Abuhoff*	Filed as Exhibit 10.1 to Form 8-K dated March 25, 2009
10.4	Amendment to Employment Agreement with Jack S. Abuhoff dated as of July 11, 2011*	Filed as Exhibit 10.1 to Form 8-K dated July 12, 2011
10.5	Form of Stock Option Grant Letter for December 31, 2015 Grant, for Messrs. Abuhoff, Mishra and Nalavadi*	Filed as Exhibit 10.53 to Form 10-K dated March 14, 2016
10.6	Innodata Inc. 2013 Stock Plan (as Amended and Restated effective June 7, 2016)	Filed as Annex B to Definitive Proxy dated April 18, 2016
10.7	Form of Stock Option Grant Letter for December 31, 2016 Grant, for Directors*	Filed as Exhibit 10.56 to Form 10-K dated March 15, 2017
10.8	Form of Stock Option Grant Letter For December 31, 2016 Grant, for Messrs. Abuhoff, Mishra and Nalavadi*	Filed as Exhibit 10.57 to Form 10-K dated March 15, 2017
10.9	Amendment Number 1 dated August 24, 2018 to Agreement dated January 1, 2007 between the Company and Mr. Mishra*	Filed as Exhibit 10.1 to Form 8-K dated August 28, 2018
10.10	Form of Stock Option Grant Letter for July 13, 2018 Grant, for Directors*	Filed as Exhibit 10.59 to Form 10-K dated March 26, 2019
10.11	Form of Stock Option Grant Letter for July 13, 2018 Grant, for Messrs. Abuhoff and Mishra*	Filed as Exhibit 10.60 to Form 10-K dated March 26, 2019

Exhibit	Description	Filed as Exhibit
10.12	Innodata Inc. 2021 Equity Compensation Plan, amended and restated effective as of April 11, 2022	Filed as Appendix A to Definitive Proxy Statement dated April 26, 2022
10.13	Form of Innodata Inc. 2021 Equity Compensation Plan Nonqualified Stock Option Award Agreement for Employees*	Filed as Exhibit 10.1 to S-8 Registration Statement dated June 16, 2021
10.14	Form of Innodata Inc. 2021 Equity Compensation Plan Nonqualified Stock Option Award Agreement for Directors*	Filed as Exhibit 10.2 to S-8 Registration Statement dated June 16, 2021
10.15	Form of Indemnification Agreement between Innodata Inc. and each of its Named Executive Officers and Directors*	Filed as Exhibit 10.1 to Form 8-K dated February 23, 2022
21	Significant subsidiaries of the registrant	Filed herewith
23	Consent of BDO India LLP	Filed herewith
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	Filed herewith
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith
32.1	Certification Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	Furnished herewith
32.2	Certification Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	Furnished herewith
101	Interactive data files pursuant to Rule 405 of Regulation S-T: (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Operations and Comprehensive Loss, (iii) the Consolidated Statements of Stockholders' Equity, (iv) the Consolidated Statements of Cash Flows and (v) the Notes to the Consolidated Financial Statements	Filed herewith
104	Cover Page Interactive Data File	Included in Exhibit 101.

* Exhibit represents a management contract or compensatory plan, contract or arrangement required to be filed as Exhibits to this Annual Report on Form 10-K.