

Fellow Stockholders,

Entering 2020, we had positioned Innodata as a high-value AI-based solutions provider serving larger markets than before and poised to deliver sustainable, improving financial performance. Although the COVID-19 health crisis has created significant market disruption, I still believe we can deliver meaningful progress along these lines in 2020. I'm going to share with you why I think that and how we're managing the Company to maintain our resiliency and safeguard the momentum we were achieving.

When we set out to position the Company around AI-based solutions three years ago, our initial aim was to develop world-class AI engineering capabilities and to use AI to improve our gross margins. Consequently, we hired a strong team of AI technologists, and the technology they developed, in combination with other initiatives, pushed our gross margins (excluding depreciation & amortization expense) from 31% in 2017 to 38% in 2019. We think of this our AI "Act I".

Our AI "Act II" needed to be about revenue growth, since even as our gross margins improved year-over-year, our revenues declined due to the secular headwinds faced by our publishing customers. We asked ourselves, "How can we use our cutting-edge AI capabilities to break into new larger, growing markets?"

To help figure that out, in early 2019, we augmented our executive team with a new chief product officer who helped define and develop solutions that utilized our core capabilities (i.e., human experts + advanced AI) to serve new markets (i.e., enterprises in financial services, media, healthcare and other sectors facing challenges using data for AI and digital transformation). We also formed a product engineering team that built additional platforms to round out our offerings, and a marketing team that launched a new website featuring our revamped product/services architecture and executed a series of targeted marketing campaigns.

The reward came as we watched our pipeline start to grow with new customers in new markets - banks, hedge funds, financial news providers, pharma companies, start-ups, media companies and others. They were looking to harness AI to lower costs, increase productivity and organize data in ways that could be used for better decision making and/or give them a competitive edge, but they had struggled to find solutions that we were equipped to offer. Our business was, we believed, positioned for solid, double-digit growth.

Confronted with the COVID-19 crisis, we defined our priorities to be (1) keeping our employees safe; (2) taking care of our valued customers; and (3) preserving, to the greatest extent possible, the business momentum we had coming into 2020.

Toward those ends, we triggered our business continuity plan (BCP) on March 11, successfully deploying 91% of our almost 4,000 employees to working from home with the proper technological tools and access. By doing so, we helped our employees stay safe and continued to support our customers without interruption. I want to take this opportunity to express my deep gratitude and appreciation for our operations teams who were behind our successful BCP

implementation. While we have always taken BCP planning and testing seriously, even the best laid plans are only as good as those who execute them. The work that our operations team did to implement these plans was, simply stated, extraordinary. We continue to receive kudos from many of our customers for the way we proactively and expertly activated our BCP. (As an aside, many of our customers are contributing to the COVID-19 fight in meaningful ways, and it is an honor that the work that we're doing is part of this).

We have retained all the key capabilities we will need to continue our new business momentum as the business environment normalizes. And even now, we are actively pursuing and signing new deals. With our strict cost controls, we expect to preserve our strong balance sheet. When we return to our robust growth trendline from the start of this year will depend on how quickly our customers adjust to these uncertain times. However, we remain cautiously optimistic near-term and very excited about the longer-term opportunities for the Company.

As you will see in our proxy statement, in order to best guide the Company's transformation into a market-leader in the fast-growing AI solutions market, we are making some changes to our Board of Directors. Effective as of our Annual Stockholders Meeting, we have reduced our board size and will bifurcate the roles of Chief Executive Officer and Chairman of the Board of Directors. I'm pleased that Nick Toor, an independent director and a significant stockholder, and someone I have known and respected for over a decade and now consider a partner in our effort, has agreed to take on the role of board chairman upon election at the Annual Stockholders Meeting.

We commit to do everything in our power to ensure that our stockholders, customers and employees realize the benefits of our efforts.

Sincerely,

face absholf

Jack S. Abuhoff Chairman, President & CEO April 16, 2020

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 <u>December 31, 2019</u>

□ 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

(State or other jurisdiction of incorporation or organization)

55 Challenger Road Ridgefield Park, New Jersey

(Address of principal executive offices)

(201) 371-8000

(Registrant's telephone number)

Securities registered under Section 12(b) of the Exchange Act: <u>Title of Each Class</u> Common Stock \$.01 par value Preferred Stock Purchase Right

<u>Name of Each Exchange on Which Registered</u> The Nasdaq Stock Market LLC The Nasdaq Stock Market LLC

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

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

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 \square No \blacksquare

None

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 \square No \square

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 $\mathbf{\nabla}$ No \Box

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 ☑

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. \Box

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

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 28, 2019) was \$22,277,574.

13-3475943

(I.R.S. Employer Identification No.)

07660 (Zip Code) The number of outstanding shares of the registrant's Common Stock, \$.01 par value, as of March 16, 2020 was 24,459,359.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's definitive proxy statement for the 2020 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, 2019

TABLE OF CONTENTS

Part I

		Page
Item 1.	Business	1
Item 1A.	Risk Factors	13
Item 1B.	Unresolved Staff Comments	25
Item 2.	Properties	25
Item 3.	Legal Proceedings	25
Item 4.	Mine Safety Disclosures	26

Part II

Item 5.	Market for Registrant's Common Equity, Related Stockholder Matters and Issuer	
	Purchases of Equity Securities	27
Item 6.	Selected Financial Data	28
Item 7.	Management's Discussion and Analysis of Financial Condition and Results of	
	Operations	28
Item 7A.	Quantitative and Qualitative Disclosures about Market Risk	38
Item 8.	Financial Statements and Supplementary Data	38
Item 9.	Changes in and Disagreements with Accountants on Accounting and Financial	
	Disclosure	38
Item 9A.	Controls and Procedures	
	Management's Annual Report on Internal Control over Financial Reporting	38
Item 9B.	Other Information	40
	Part III	
Item 10.	Directors, Executive Officers and Corporate Governance	41
Item 11.	Executive Compensation	41
Item 12.	Security Ownership of Certain Beneficial Owners and Management and Related	
	Stockholder Matters	41
Item 13.	Certain Relationships and Related Transactions, and Director Independence	41
Item 14.	Principal Accountant's Fees and Services	41
	Part IV	
Itom 15	Exhibits Einancial Statement Schedules	12

Item 15.	Exhibits, Financial Statement Schedules	42
Item 16.	Form 10-K Summary	42
Signatures		43

PART I

Disclosures in this Form 10-K contain certain forward-looking statements, including without limitation, statements concerning our operations, economic performance, and financial condition. These forward-looking statements are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Words such as "project," "head start," "believe," "expect," "can," "continue," "could," "intend," "may," "should," "will," "anticipate," "indicate," "point to," "forecast," "predict," "likely," "goals," "optimistic," "foster," "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, that contracts may be terminated by clients: projected or committed volumes of work may not materialize: the primarily atwill nature of contracts with our Digital Data Solutions clients and the ability of these clients to reduce, delay or cancel projects; the likelihood of continued development of the markets, particularly new and emerging markets, that our services support; continuing Digital Data Solutions segment revenue concentration in a limited number of clients; continuing Digital Data Solutions segment reliance on project-based work; 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; changes in our business or growth strategy; depressed market conditions; changes in external market factors; the ability and willingness of our clients and prospective clients to execute business plans which give rise to requirements for our services; changes in our business or growth strategy; the emergence of new or growing 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, client, 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. In light of these risks and uncertainties, there can be no assurance that the results referred to in forward-looking statements contained in this Form 10-K 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 global data engineering company. We solve complex data challenges that companies face when they build and maintain artificial intelligence (AI) systems and analytics platforms.

To deliver our services and solutions, we use a combination of human expertise and technology. Our 3,000+ employees span 10 countries and are experts in data pertaining to many professional fields. Our core technology harnesses machine learning and deep learning (branches of AI) to augment human expertise. Our hybrid approach of using AI in conjunction with human experts enables us to deliver superior data quality with even the most complex and sensitive data.

We also provide AI-augmented software-as-a-service (SaaS) platforms for customers who wish to perform their own data engineering tasks and for niche, industry-specific data-intensive use cases.

We developed our capabilities and honed our customer- and quality-centric culture progressively over the last 20 years providing data services for many of the world's most demanding information companies. Approximately three years ago, we formed Innodata Labs, a research and development center, that developed and applied machine learning and emerging AI to our large-scale, human-intensive data operations. Last year, we began packaging the capabilities that emerged from this effort in order to address the large and growing market of enterprises that seek data engineering services to harness data and AI to drive analytics and performance.

Market Opportunity

Companies across industry verticals are increasingly 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 and chatbots and contract review. These applications depend upon high-performing AI algorithms in areas such as speech recognition, image recognition, and text recognition. For AI-based algorithms to perform accurately, they need to be trained on large amounts of high-quality data.

The problem is that many projects fail, stall or perform inadequately because data sciences teams are unable to perform the complex and resource-intensive data preparation tasks necessary to properly train, tune, and operationalize AI models. Innodata seeks to become the world's leading data engineering company, helping data scientists with their most complex and mission-critical data preparation tasks.

Preparing high-quality data takes up 80% of the time for most AI and machine learning projects. Data preparation includes data annotation (which is estimated to take up 25% of the time) and data transformation (which includes data identification, aggregation, cleansing and augmentation and is estimated to take 55% of the time).¹ Moreover, many data sciences teams lack the technology and resources to perform data annotation and data transformation tasks. In a recent survey, 19% of companies responding stated that lack of data or data quality issues was a main bottleneck holding back further AI adoption.² An IBM senior vice president of cloud and cognitive software recently conceded that data-related challenges are a top reason IBM clients have halted or canceled AI projects.³

Increasingly, data sciences teams seek partners that can perform data preparation functions for them at large-scale and at high quality, while using automated tools to minimize cost. Moreover, as AI projects become more specialized and mission-critical, data preparation is becoming increasingly complex, requiring deep domain knowledge and an infrastructure in which data security is assured. We believe that Innodata is ideally situated to be such a partner.

The market for AI and machine learning-relevant data preparation solutions is estimated to grow from \$1.5 billion in 2019 to \$3.5 billion by the end of 2024.⁴

¹ Cognilytica Research, *Data Engineering, Preparation, and Labeling for AI in 2019* (January 31, 2019)

² O'Reilly Media Inc., AI Adoption in the Enterprise: How Companies Are Planning and Prioritizing AI Projects in Practice (2019)

³ Jared Council, *Data Challenges Are Halting AI Projects, IBM Executive Says*, Wall Street Journal, May 28, 2019, <u>https://www.wsj.com/articles/data-challenges-are-halting-ai-projects-ibm-executive-says-11559035800</u> (last visited March 16, 2020).

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 three 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 network, which, as a result, "learns" and becomes "smarter" over time, achieving progressively greater levels of automation while maintaining the highest levels of quality. (*See "Our Technology and Infrastructure", below.*)

Our 3,000+ 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 Domain Experts", 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 and are certified to the ISO 9001:2008 quality management system standards.

Our Domain Experts

We have over 3,000 employees with deep data domain expertise in various fields, including law, sciences, health, finance, and technology. Many of them hold advanced degrees. They process data in over 25 languages. Most work from our global operations centers in India, Israel, Sri Lanka and the Philippines. For annotating complex or sensitive data, our expert staff provides an attractive alternative to the crowdsourced labor pools utilized by many of our competitors typically for mundane tasks. They are especially well-suited for high-context data, such as legal contract classification, medical images, medical records, and scientific and legal literature.

Our Technology

Over the past three years, we have built a technology infrastructure that automates complex data annotation and data transformation tasks. Our technology infrastructure combines advanced dataflow, deep learning (a branch of AI), and purpose-built applications used by human experts, which we refer to as "workbenches". This infrastructure enables us to perform data annotation and data transformation at progressively higher levels of efficiency without compromising quality as it continuously learns from human experts.

Our dataflow technology enables us to configure workflows for specific data annotation and transformation requirements. This is where we oversee and manage our AI, setting and refining our accuracy thresholds and quality assurance parameters that route data for human expert review when required.

We have built and deployed our AI as a suite of domain-specific and task-specific microservices each of which performs a discrete data-related task automatically. The AI microservices have a range of capabilities for data annotation and data transformation including deep sequence labelling, categorization, segmentation and

sequence-to-sequence mapping. For each cognitive task an AI microservice performs, it provides a confidence score. A confidence score at or above an established accuracy threshold means no human expert review is required. A confidence score below an established accuracy threshold means human expert review is required.

When expert review is required, the dataflow automatically routes data to an appropriate human expert. Our human experts use workbenches that enable them to quickly and efficiently review the data and make judgements. The workbenches then retroactively feed back the expert-reviewed work into the deep neural network, enabling it to learn and become smarter. This feature is commonly known as "human-in-the-loop". It results in continuous, predictable improvement and progressively greater levels of automation.

Our Infrastructure

Our infrastructure supports a range of strategies to suit our clients' needs for data security, compliance, scalability and reliability. We host data and applications in our own data centers at our operations centers, in our clients' data centers, and on third-party cloud services that provide the benefit of "infinite scalability" of hardware resources. Our data operations are linked by multi-redundant data connections. Our Wide Area Network – along with our Local Area Networks, Storage Area Networks and data centers – is configured with industry standard redundancy, often with more than one backup to establish 24x7 availability. In 2019, our Wide Area Network had 99.96% uptime excluding scheduled maintenance. We encrypt all sensitive information, both at rest and in motion, to the Advanced Encryption Standard 256 or similar standard, and we employ a range of security features, including managed firewalls and intrusion services. (*See "Information Security", below.*)

Our Breath of Capabilities

We are able to address clients at their highest point of need. For example, we may provide data annotation for a data sciences team building an application to manage complex text documents. For another client with the same requirement but without a sophisticated data sciences team, we might provide our data transformation solution that extracts key data points from the contracts using our trained AI algorithms and outputs normalized digital data into its existing application via an API. For still another client that also lacks such an application, we would provide our data analytics platform.

In addition, we are able to provide a wide range of data transformation services to meet clients' requirements. For example, for clients needing to aggregate data from thousands of web pages prior to annotating the data, we deploy AI-enabled web extraction technology together with transformations that convert web pages and PDF documents into digital text.

Growth Strategy

Our strategy for growth is to become the world's leading data engineering company. Toward this end, in 2019 we re-designed our solutions and product portfolio in order to address the needs of enterprises across verticals for data annotation and data transformation. These solutions and products leverage the data services we have provided historically for large information companies and the significant investments we have made in AI technology over the past three years.

By expanding our product offerings in this way, we also aim to dramatically expand our addressable market, creating greater opportunities for the Company's growth. While our historical core market for providing data services to information companies is relatively small (estimated by us to be approximately \$250 million and to not show growth over the next several years), the market for AI and machine learning-relevant data preparation solutions is estimated to grow from \$1.5 billion in 2019 to \$3.5 billion by the end of 2024⁵, propelled

⁵ Cognilytica Research, *Data Engineering, Preparation, and Labeling for AI 2020* (January 31, 2020)

by overall enterprise AI spend that is projected to reach \$53.06 billion by 2026, registering a CAGR of 35.4% from 2019 to 2026.⁶

In addition to expanding our core addressable market, we intend to shift our revenue mix from "services" to "solutions" and "SaaS products". We differentiate "solutions" from "services" by the extent to which they are repeatable, address generalized requirements, and are technology-enabled. Solutions and SaaS products tend to result in revenue that produces relatively higher margins and is often recurring in nature.

We believe that as we grow revenue, our business model will enable us to achieve operating income growth that is a multiple of revenue growth.

In order to execute our strategy, we have recruited senior product management and technology executives, expanded our direct sales team, refreshed our messaging and visual identity, and expanded our digital marketing and product engineering functions. In 2020, we also intend to drive additional operational savings wherever possible and to simplify our business by continuing to review our product portfolio and test purposefulness of individual assets against our mission and strategic objectives.

Products and Services

Our Solutions and Platforms

We provide a range of solutions and platforms for solving complex data challenges that companies face when they seek to obtain the benefits of AI systems and analytics platforms.

(i) Data Annotation

We help our clients train AI models by annotating data at scale and at industry-leading levels of quality such as 99.995% accuracy with an error rate that does not exceed 50 per million. The quality of training data is critical for ensuring that a client's AI models perform well. We annotate text, images, audio and video data for the most complex AI models, including computer vision, sentiment analysis, entity linking, text categorization, and syntactic parsing/tagging.

Our image and video annotation services and platforms may be used to annotate, or label, objects or people in images/video for facial recognition systems and automated object identification systems and in aerial/satellite imagery for autonomous driving/flying applications.

Our text annotation services and platforms may be used to convert raw text data into richly tagged, AI training data. We accommodate a wide range of input formats and taxonomies, and we perform a wide variety of complex tasks including entity annotation, relationship annotation, co-reference annotation, event annotation, multi-label annotation, and document labelling.

We provide image/video data annotation and text annotation as full solutions, in which we provide all required technology, infrastructure and expert resources. Beginning in early 2020, we will also provide image/video data annotation platforms and text annotation platforms for our clients to license for internal use.

We provide data annotation for a variety of complex requirements in healthcare, compliance, scientific, financial and legal markets.

⁶ Allied Market Research, Enterprise Artificial Intelligence (AI) Market Outlook-2026 (2020)

(ii) Data Transformation

We provide AI-based data transformation solutions for high-accuracy data identification, aggregation, cleansing, augmentation and extraction. Our solutions utilize highly-trained AI models and experts who custom-train the models for our clients' most complex and unique requirements.

Our data transformation platform enables data to be extracted from websites, as well as internal data stores; converted from disparate formats including PDF; enriched with the necessary semantics, metadata and linking; and classified in accordance with an ontology or knowledge graph.

Our data transformation solutions may be consumed via API, so that they can be utilized as infrastructure by clients with ongoing needs for such services. We also provide a platform for clients to license for performing analytics on extracted data points.

(iii) Data Curation

For clients that need to maintain mission-critical databases of structured data, or fuse separately-created databases into a single, unified, high-quality source of data that can be relied upon for a variety of corporate functions and products (often referred to as a "golden source" of data), we provide AI-based data curation solutions that include data collection across external and internal data sources, data hygiene, data consolidation, and data compliance.

(iv) Intelligent Automation

Enterprises are increasingly looking to re-invent business processes to take advantage of advancements in AI and machine learning, computing, and storage. Many seek easier ways these advanced capabilities can be trained, deployed, and leveraged. For clients with critical business processes that involve documents, images, text, emails and other unstructured data, we deploy a range of technologies, including AI and robotic process automation (RPA), to eliminate repetitive tasks, automate where possible, speed up operations, and shift internal talent to creative and analytical work.

We provide intelligent automation for an increasing diversity of complex functions. At present, these include IP rights management, contract management, client relationship management, regulatory change management, underwriting, and content operations management.

(v) Intelligent Data Platforms

We build and manage intelligent data platforms that address specific, niche market requirements with our data engineering technologies. We deploy these platforms as software-as-a-service (SaaS) and as managed data solutions. To date, we have built an intelligent data platform for medical records data transformation (which we brand as "Synodex") and for marketing communications/public relations workflow (which we brand as "Agility").

Our Synodex intelligent data platform transforms medical records into useable digital data organized in accordance with our proprietary data models or client data models. At the end of 2019, we had 20 clients 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.

Our Agility intelligent data platform provides marketing communications and public relations professionals with the ability to target and distribute content to journalists and social media influencers worldwide and to monitor and analyze global news channels (print, web, radio and TV) and social media channels.

Agility has recently been rated as superior to both of its largest competitors in the PR analytics marketplace in all of the separately rated categories (including "meets requirements", "ease of use", "ease of doing business with", "quality of support", "ease of administration", "ease of set-up" and "contact/campaign management") based on customer reviews.⁷

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

(vi) Other Services for Information Industry Clients

In addition, we provide a variety of services for clients in the information industry that relate to content operations and product development.

Our Customers

Our customers include leading businesses across multiple verticals including banking, insurance, financial services, technology, digital retailing and information/media.

Two customers each generated 10% or more of our total revenues in the 2019 and 2018 fiscal years. In 2019, revenues from these two customers were approximately \$8.9 million or 16% of total revenues, and approximately \$5.7 million or 10% of total revenues, respectively. No other client generated more than 10% of our total revenues in 2019. These two clients together generated approximately 26% and 30% of our total revenues in the fiscal years ended December 31, 2019 and 2018, respectively.

We have long-standing relationships with many of our clients, and we have provided services to the two clients referenced in the preceding paragraph for over ten years. Our track record of delivering high-quality services helps us to solidify client relationships. Many of our clients are recurring clients, meaning that they have continued to provide additional projects to us after our initial engagement with them.

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

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

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 clients. They facilitate interactions between client personnel and our service teams to define ways in which we can assist clients with their goals. For each prospective client engagement, we assemble a team of

⁷ G2 Crowd Inc. <u>https://www.g2.com/compare/agility-pr-solutions-vs-cision-communications-cloud;</u> <u>https://www.g2.com/compare/agility-pr-solutions-vs-meltwater</u>

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 client's goals and collaborate with the client 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, 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 clients to understand their needs, demonstrating our products, designing solutions, responding to requests for proposals, and managing account and client relationships and activities.

Personnel from our solutions analysis group, our client 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 clients and providing responses to these needs, including demonstrations, prototypes, pricing quotations and time estimates. In addition, account managers from our client service group support our direct sales effort by providing ongoing project-level support to our clients.

Competition

Major competitors for data engineering services across industry verticals include Amazon Sagemaker Ground Truth, Appen, CloudFactory, Deepen.ai, Lionbridge, Mighty AI, Scale AI, Talend, and Tamr, several of which are large firms with established client bases, as well as technology service providers such as Cognizant Technology Solutions, ExlService Holdings, Inc., Genpact Limited, Infosys, and Tata Consultancy Services. Companies that compete with us to provide production services in the information industry market include Apex CoVantage, Aptara, Cenveo, Macmillan India, SPI Technologies, JSI S.A.S. Groupe Jouve and Thomson Digital.

We compete in the data engineering market by offering high-quality services and competitive pricing that leverage our technical skills, IT infrastructure, offshore domain experts and economies of scale. Our competitive advantages are especially attractive to clients for undertakings that are complex, mission-critical, sizable in scope or scale, or that require high levels of information security.

Each of our Intelligent Data Platforms has its discrete set of competitors. Major competitors for our Synodex intelligent data platform are Risk Righter, EMSI, Parameds and a few BPO companies, several of which are large firms with established client bases. We also compete with in-house personnel at existing or prospective clients who may attempt to duplicate our services in-house or use alternative approaches to fulfill their needs.

Our Agility intelligent data platform competes with Meltwater, Cision, Kantar, Infomart and West Corporation, several of which are large firms with established client 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

Innodata depends, in part, upon its proprietary technologies and methodologies, including its AI-based data annotation and data transformations platforms, various applications of its platforms, its trained machine learning algorithms that support discrete data annotation and transformation tasks, its proprietary data models and other intellectual property rights. Innodata has a patent and several patent applications pending and believes that the duration of these patents is adequate relative to the expected lives of their applications. Innodata relies on a combination of trade secret, license, nondisclosure and other contractual agreements and copyright and trademark laws to protect its intellectual property rights. Existing trade secret and copyright laws afford Innodata only limited protection.

Innodata enters into confidentiality agreements with its employees, contractors and clients, and limits access to and distribution of Innodata's and Innodata's clients' proprietary information. Innodata cannot assure that these arrangements will be adequate to deter misappropriation of its proprietary information or that it will be able to detect unauthorized use and take appropriate steps to enforce its intellectual property rights.

Technology Systems

Our technology infrastructure supports complex data annotation and data transformation tasks by combining advanced dataflow, deep learning (a branch of AI), and expert workbenches. This infrastructure enables us to perform data annotation and data transformation at progressively improved levels of efficiency without compromising quality as it continuously learns from human experts.

Our dataflow technology enables us to configure workflows for specific data annotation and transformation requirements. This is where we oversee and manage AI, set our accuracy thresholds and quality assurance parameters that route data for human expert review when required.

We have built and deployed our AI as a suite of domain-specific and task-specific microservices each of which performs a discrete data-related task automatically. Our microservices are built on frameworks such as TensorFlow that layer algorithms to create artificial neural networks. Each AI microservice may be invoked by the dataflow via a RESTful API. The AI microservices have a range of capabilities for data annotation and data transformation including deep sequence labelling, categorization, segmentation and sequence-to-sequence mapping. Many complex data problems can be solved with a combination of these microservices. For each cognitive task an AI microservice performs, it provides a confidence score. A confidence score at or above an established accuracy threshold means no human expert review is required. A confidence score below an established accuracy threshold means human expert review is required.

When expert review is required, the dataflow automatically routes data to one of our human experts. Our human experts use workbenches that enable them to quickly and efficiently review the data and make judgements. The workbenches then retroactively feed back the expert-reviewed work into the deep neural network, enabling it to learn and become smarter. This feature is commonly known as "human-in-the-loop". It results in continuous, predictable improvement and progressively greater levels of automation.

To support our Agility intelligent automation platform, we have built a fully scalable, cloud-based infrastructure that powers a SaaS experience for global clients on a 24/7 basis. It includes (i) an AI/ML-powered big data 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 800 thousand 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.

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

Reliability and Availability

Our data storage and application hosting platform has been built utilizing an innovative enterprise infrastructure platform enabling robust performance scaling, strong security, high availability, and advanced business continuity. We support a range of strategies to suit our clients' needs for data security, compliance, scalability and reliability. We host data and applications in our own data centers at our production facilities, in our clients' data centers, and on third-party cloud services which provide the benefit of "infinite scalability" of hardware resources.

Information Security

Our operations centers in Asia are ISO 27001 certified. When we are processing sensitive information, we utilize U.S.-based, co-located data centers in combination with advanced data encryption (both at rest and in motion to the Advanced Encryption Standard 256 or similar standard) and desktop virtualization technologies, safeguarding against that data leaving secured environments in the U.S. We employ a range of security features including monitored firewalls and intrusion detection devices. We can deploy on-premises, as well, and utilize appropriately certified cloud resources. Our AI microservices can be consumed via API.

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 Data Protection Act 2018, the EU General Data Protection Regulation, and local laws regulating data privacy, as applicable. We are certified to the EU-U.S. Privacy Shield framework.

Research and Development

Our Innodata Labs develops AI-based technologies that we utilize in our operations and with our clients. 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.

Employees

As of December 31, 2019, we employed 134 persons in the United States, Canada and the United Kingdom, and 3,506 persons in ten global delivery centers in the Philippines, India, Sri Lanka, Canada, Germany, the United Kingdom and Israel, and 3,599 of our employees are full-time. Many of our employees hold advanced degrees in 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 have additional office locations in Ottawa, Canada, and London, the United Kingdom. We have eight operations centers in the Philippines, India, Sri Lanka, Germany, and Israel. We were founded in 1988.

Our website is <u>www.innodata.com</u>; 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 Securities and Exchange Commission (SEC). Our SEC reports can be obtained through the Investor Relations section of our website or from the Securities and Exchange Commission at <u>www.sec.gov</u>.

Item 1A. Risk Factors.

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.

We have historically relied on a very limited number of clients 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 clients.

We have historically relied on a very limited number of clients that have accounted for a significant portion of our revenues. Two clients in our DDS segment generated approximately 26% and 30% of our total revenues in the fiscal years ended December 31, 2019 and 2018, respectively. No other client accounted for 10% or more of total revenues during these periods. Further, in the years ended December 31, 2019 and 2018, revenues from non-U.S. clients accounted for 55% and 56%, respectively, of our revenues. We may lose any of these clients, or our other major clients, as a result of our failure to meet or satisfy our client's requirements, the completion or termination of a project or engagement, or the client's selection of another service provider.

In addition, the volume of work performed for our major clients 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 clients 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 clients are modified, our revenues and results of operations may be adversely affected. Our services are typically subject to client requirements, and in many cases are terminable upon 30 to 90 days' notice. The loss of these clients or a significant variation in the volume of work performed for these clients may have a material adverse effect upon our business, financial condition and results of operations.

We have no bank facilities or line of credit.

We believe that our existing cash and cash equivalents and internally generated funds 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.

Our common stock may become subject to delisting from The Nasdaq Stock Market (the "Nasdaq").

Our common stock is currently listed on the Nasdaq Global Market. Nasdaq may, under Nasdaq Listing Rule 5810, delist the Company's common stock if the closing bid price for its common stock is less than \$1.00 per share for 30 consecutive business days and the Company does not thereafter cure all listing deficiencies during Nasdaq-designated compliance periods. If we fail to meet the requirements for continued listing on the Nasdaq, our common stock could be delisted from trading, which would decrease the liquidity of our common stock and our ability to raise additional capital.

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 client 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.

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 risks where these projects could be terminated by our clients and we may not be able to replace these terminated projects with new recurring projects with similar profitability or clients 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 clients 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 clients 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 clients 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.

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. We cannot assure that we will successfully consummate any acquisitions or joint ventures, or profit by 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.

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

Several significant clients account for a large percentage of our accounts receivable. If any of these clients 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, 2019, 44% or \$4.3 million, of our accounts receivable was due from three clients. See "Management Discussion and Analysis – Liquidity and Capital Resources".

In addition, we evaluate the financial condition of our clients prior to extending credit to them. We maintain specific allowances against doubtful receivables. Actual losses on client 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 clients. Macroeconomic conditions could also result in financial difficulties, including limited access to the credit markets, insolvency or bankruptcy, for our clients, and, as a result, could cause clients 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 collect timely from our clients, 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 ranged from income of approximately \$0.5 million in the third quarter of 2018 to a loss of approximately \$0.7 million in the second quarter of 2019.

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 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.

The economic environment and 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 clients due to competition from other companies in our markets. Our ability to maintain or increase pricing is restricted as clients generally expect to receive volume discounts or special pricing incentives as we do more business with them; moreover, our large clients 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 work, 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 measured against the costs of providing the services. If we are not able to maintain pricing on our existing services 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 are affected by a number of factors, including competition, volume fluctuations, productivity of employees and processes, the value our client derives from our services and general economic and political conditions. Furthermore, we provide services 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 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.

If our clients 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 clients. Our business model also depends on relationships our account teams develop with our clients so that we can understand our clients' needs and deliver solutions and services that are tailored to those needs. If a client 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 client's dissatisfaction with our services could damage our ability to obtain additional work from that client. In particular, clients 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 client 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 clients.

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

As we obtain new opportunities and win new business, our clients may not generate the level of revenues that we initially anticipated at the time of signing a contract with them, or our clients may experience declining revenues with their existing products. This could be due to various reasons beyond our 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 could impact our margins and earnings.

Our business will suffer if we fail to develop new services and enhance our existing services in order to keep pace with the rapidly evolving technological environment or to provide new service offerings, which may not succeed.

The information technology and consulting services industries are characterized by rapid technological change, evolving industry standards, changing client 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 develop solutions that keep pace with changes in the markets in which we provide services. We cannot guarantee that we will be successful in developing new services, addressing evolving technologies on a timely or cost-effective basis or, if these services 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 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 invest in developing and pursuing new service offerings from time to time. Our profitability could be reduced if these services do not yield the profit margins we expect, or if the new service offerings do not generate the planned revenues.

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 services 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.

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 clients and generate revenue. Any disruption in the provision of services from these data centers could result in loss of revenue, client dissatisfaction and loss of clients.

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 clients may discontinue their relationship with us, and it may be difficult to acquire new clients.

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 clients 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 compete in highly competitive markets.

The markets for our services 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. If we fail to be competitive with these companies in the future, we may lose market share, which could adversely affect our revenues and results of operations.

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 clients, who may attempt to duplicate our services using their own personnel. If we are not able to compete effectively, our revenues and results of operations 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, and our Agility business is headquartered in Ottawa, Canada and has an additional location in London, the United Kingdom. We have ten delivery centers in the Philippines, India, Sri Lanka, Canada, Germany, the United Kingdom and Israel. 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. In addition, various events outside of our control pose a threat to our intellectual property rights, as well as to our business. 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 client dissatisfaction and a reduction of our revenues.

We use a distributed global resource model. Our North American workforce provides services from our U.S. and Canada offices, as well as from client sites; and our other international workforce provides services from our ten offshore delivery centers in the Philippines, India, Sri Lanka, Germany, the United Kingdom and Israel. 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 clients' 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 client projects on time, or provide services to our clients. This, in turn, could lead to client dissatisfaction and an adverse effect on our business, results of operations and financial condition.

A material breach in security relating to our information systems could adversely affect us.

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.

Governmental and client focus on data security could increase our costs of operations. In addition, any incident in which we fail to protect our client's information against security breaches may result in

monetary damages against us, and termination of our engagement by our client, and may adversely impact our results of operations.

Certain laws and regulations regarding data privacy and security affecting our clients impose requirements regarding the privacy and security of information maintained by these clients, 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 client 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 client data, including sensitive 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 client agreements to use and disclose the confidential client information in a manner consistent with the privacy standards under regulations applicable to such client. 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 client 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 clients. Any incidents with respect to the handling of such information could subject us to litigation or indemnification claims with our clients and other parties. In addition, any breach or alleged breach of our confidentiality agreements with our clients may result in termination of their engagements, resulting in associated loss of revenue and increased costs.

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, Israel, the United Kingdom, Canada and Germany, while our headquarters are in the U.S., and our clients 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 regulation;
- 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.

Our international 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.

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 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. Although we selectively undertake hedging activities to mitigate certain of these risks, our hedging activities may not be effective and may result in losses. As of December 31, 2019, the aggregate notional amount of our hedges against the Indian rupee was approximately \$4.3 million and we had no hedges 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.

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 the Company assesses 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 the Company's 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 \$66.0 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 assessment of the Company's 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 \$160,000 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 \$1.0 million recorded as a receivable. Based on the assessment of the Company's 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 clients 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 increasing our net loss.

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.

In December 2017, the President signed the U.S. Tax Cuts and Jobs Act (2017 Tax Act), which includes a broad range of provisions, many of which significantly differ from those contained in previous U.S. tax law. One such provision relates to a one-time tax on the mandatory deemed repatriation of post-1986 untaxed foreign earnings and profits (E&P), referred to as the toll charge. 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 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.

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

The issue of outsourcing of services abroad by U.S. companies is a topic of political discussion in the U.S. Measures aimed at limiting or restricting outsourcing by U.S. companies are under discussion in Congress and in numerous state legislatures. While no substantive anti-outsourcing legislation has been introduced 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 clients 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 clients or work on projects at a client'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 international expansion strategy and 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.

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

The majority of our delivery centers are located in the Philippines, India, Sri Lanka and Israel. These countries and regions 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 the geographic areas in which we operate could affect our ability to provide services to our clients and adversely affect our results of operations. We are actively monitoring the recent outbreak of the novel coronavirus COVID-19 and its potential impact on our operations. While we do not expect that the virus will have a material adverse effect on our business or financial results at this time, we are unable to accurately predict the impact that the coronavirus will have due to various uncertainties, including the ultimate geographic spread of the virus, the severity of the disease, the duration of the outbreak, and actions that may be taken by governmental authorities.

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 clients 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 clients' 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 \$6.4 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 and solutions we provide to our clients, or if we contribute to our clients' internal control deficiencies.

Our clients 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 clients, especially when we process data or information belonging to them. Our ability to acquire new clients and retain existing clients 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 client's ability to comply with its own internal control requirements.

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 the Sarbanes-Oxley Act of 2002, other 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.

We had a material weakness in internal control over financial reporting as of December 31, 2019 and cannot assure you that additional material weaknesses will not be identified in the future.

Our efforts to comply with Section 404 of the Sarbanes-Oxley Act of 2002 and the related regulations regarding our required assessment of our internal control over financial reporting requires the commitment of significant financial and managerial resources. We regularly assess the adequacy of our internal control over financial reporting, remediate any control deficiencies that may be identified, and validate through testing that our controls are functioning as documented. We identified a material weakness in our internal control over financial reporting as of December 31, 2019 in accounting for foreign currency remeasurement and liabilities. We implemented further enhancements to our internal controls to prevent and detect such errors from occurring in the future. Our failure to successfully remediate a material weakness could result in adverse consequences to us, including, but not limited to, a loss of investor confidence in the reliability of our financial statements, which could cause the market price of our stock to decline.

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.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Our services are primarily performed from our Ridgefield, New Jersey headquarters and ten overseas delivery centers in the Philippines, India, Sri Lanka, Canada, Germany, the United Kingdom and Israel, all of which are leased. The square footage of all our leased properties totals approximately 318,000. Our leased properties in the Philippines, Sri Lanka, Germany and Israel are primarily used by our DDS segment; our leased property in India is primarily used by our DDS and Synodex segments; and our leased properties in Canada and the United Kingdom are 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.

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 approximately \$6.4 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 management currently believes 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.

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 19, 2020, there were 69 stockholders of record of the Company's Common Stock based on information provided by the Company's transfer agent. Virtually all of the Company's publicly held shares are held in "street name" and the Company believes the actual number of beneficial holders of its Common Stock to be 2,689. We did not have any sales of unregistered equity securities during the year ended December 31, 2019. 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, 2019:

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (a)	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights (b)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (c)
Equity compensation plans approved by security holders ⁽¹⁾	6,833,303	\$ 1.86	3,340,470
Equity compensation plans not approved by security holders	<u> </u>	<u> </u>	
Total	<u>6,833,303</u>	<u>\$ 1.86</u>	3,340,470

⁽¹⁾ 2013 Stock Plan, approved by the stockholders, see Note 9 to Consolidated Financial Statements, contained elsewhere herein.

Purchase of Equity Securities

In July 2019, our Board of Directors authorized the repurchase of up to \$2.0 million of its issued and outstanding common stock in open market or privately negotiated transactions. There is no expiration date associated with the program.

We purchased 1,468,945 shares of our common stock, for a total cost of approximately \$1,798,679, during the three months ended December 31, 2019, as shown in the table below:

Period	Total Number of Shares (or Units) Purchased	verage Price id per Share (or Unit)	Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs	(or 2 Dol Shar that Purc th I Av	mum Number Approximate lar Value) of res (or Units) t May Yet Be chased Under ne Plans or Programs vailable for tepurchase	
						2,000,000
October 1-31, 2019	390,625	\$ 1.28	390,625	\$	1,455,816	500,000
November 1-30, 2019	35,329	\$ 1.28	35,329	\$	1,410,424	45,392
December 1-31, 2019	1,042,991	\$ 1.20	1,042,991	\$	157,137	1,253,287
	1,468,945	\$ 1.22	1,468,945			

Item 6. Selected Financial Data.

Not applicable to smaller reporting companies.

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 included elsewhere in this report which are hereby incorporated by reference. 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 forward-looking statements. See "Forward-Looking Statements" included elsewhere in this report.

Correction of Errors

In the quarter ended December 31, 2019, we identified and corrected an error in our accounting for foreign currency remeasurement of refundable taxes in our Indian subsidiary under ASC 830 Foreign Currency Matters. We also identified and corrected an overstatement of two long-standing accruals that we deemed to be no longer necessary. Due to these errors, our direct operating costs were understated, our refundable tax was overstated, and our liabilities were overstated as of December 31, 2018. We assessed the materiality of these errors in accordance with Staff Accounting Bulletin No. 99, Materiality, and determined that the errors were immaterial to each of the previously reported periods. To correct this error, we have restated our Consolidated Balance Sheet as of December 31, 2018, and Consolidated Statement of Operations and Comprehensive Loss, Consolidated Statement of Stockholders' Equity and Consolidated Statement of Cash Flows for the year ended December 31, 2018. See Note 1 to Consolidated Financial Statements included in Item 8 of this Annual Report for further information, as well as reconciliations of the effects of the restatement on our financial statements for the period indicated.

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, 2019:

	(Dollars in millions)							
	Years Ended December 31,							
		2019	% of revenue	2018 Restated		% of revenue		
Revenues	\$	55.9	100.0 %	\$	57.4	100.0 %		
Direct operating costs		37.3	66.7 %		39.3	68.5 %		
Selling and administrative expenses		19.0	34.0 %		15.9	27.7 %		
Goodwill impairment		-	0.0 %		0.7	1.2 %		
Income (loss) from operations		(0.4)	(0.7) %		1.5	2.6 %		
Other expense		0.1			0.0			
Income (loss) before provision for income taxes		(0.5)			1.5			
Provision for income taxes		1.1			1.8			
Net loss		(1.6)			(0.3)			
Income (loss) attributable to non-controlling interest		-			-			
Net loss attributable to Innodata Inc. and Subsidiaries	\$	(1.6)		\$	(0.3)			

Adjusted EBITDA

In addition to measures of financial performance presented in our consolidated financial statements, we monitor "Adjusted EBITDA" to help us evaluate our ongoing operating performance including our ability to operate the business effectively.

We define Adjusted EBITDA as net income (loss) attributable to Innodata Inc. and its subsidiaries in accordance with U.S. GAAP before income taxes, depreciation and amortization of intangible assets, impairment charges, stock-based compensation, and loss attributable to non-controlling interests and interest income (expense).

We believe Adjusted EBITDA is useful to our management and investors in evaluating our operating performance and for operational decision-making purposes. In particular, Adjusted EBITDA facilitates period-to-period comparisons of our operating results on a consistent basis by excluding items that are not reflective of our core operations or are not within our control and helps us identify underlying trends in our business. In this regard, we believe it provides useful information about our operating results, enhances the overall understanding of our past performance and future prospects and allows for greater transparency with respect to key metrics used by the management in our operational decision-making. We also use this measure to establish operational goals for managing our business and evaluating our performance.

Adjusted EBITDA has limitations as an analytical tool and should not be considered in isolation or as a substitute for results reported under U.S. GAAP. Some of these limitations are:

- Adjusted EBITDA does not reflect tax provisions, and such provisions may reflect a reduction in cash available to us;
- Adjusted EBITDA excludes the potential dilutive impact of stock-based compensation expense related to our workforce;
- Adjusted EBITDA does not reflect interest income (expense) and net loss attributable to non-controlling interests, and these items may represent a reduction or increase in cash available to us;
- Although depreciation and amortization are non-cash charges, the assets being depreciated and amortized may have to be replaced in the future, and Adjusted EBITDA does not reflect cash capital expenditure requirements for such replacements or for new capital expenditure requirements; and
- Other companies, including companies in our own industry, may calculate Adjusted EBITDA differently from our calculation, limiting its usefulness as a comparative measure.

Adjusted EBITDA should be considered as a supplement to, and not as a substitute for or superior to, U.S. GAAP net income (loss).

The following tables reconcile net income (loss) to Adjusted EBITDA (loss) for the periods presented (in thousands):

	Years Ended December 31,					
	2019		2018 Restated			
Adjusted EBITDA:						
Net loss attributable to Innodata Inc. and Subsidiaries	\$	(1,602)	\$	(253)		
Depreciation and amortization		2,922		3,374		
Goodwill impairment		-		675		
Stock-based compensation		836		796		
Provision for income taxes		1,091		1,808		
Interest expense, net		51		33		
Non-controlling interests		(17)		7		
Adjusted EBITDA - Consolidated	\$	3,281	\$	6,440		

DDS Segment

	Years Ended December 31,					
	2019			2018 Restated		
Adjusted EBITDA:						
Net income (loss) attributable to DDS Segment	\$	(69)	\$	1,614		
Depreciation and amortization		1,332		1,832		
Goodwill impairment		-		675		
Stock-based compensation		767		750		
Provision for income taxes		1,135		1,791		
Interest expense, net		47		22		
Non-controlling interests		(7)		(15)		
Adjusted EBITDA - DDS Segment	\$	3,205	\$	6,669		

Synodex Segment

	Years Ended December 31,					
	2()19		2018 estated		
Adjusted EBITDA:						
Net income attributable to Synodex Segment	\$	51	\$	424		
Stock-based compensation		19		6		
Non-controlling interests		(10)		22		
Adjusted EBITDA - Synodex Segment	\$	60	\$	452		

Agility Segment

		2018 Restated		
Adjusted EBITDA:				
Net loss attributable to Agility Segment	\$	(1,584)	\$	(2,291)
Depreciation and amortization		1,590		1,542
Stock-based compensation		50		40
Provision for income taxes		(44)		17
Interest expense, net		4		11
Adjusted EBITDA (loss) - Agility Segment	\$	16	\$	(681)

Years Ended December 31,

Results of Operations

Year Ended December 31, 2019 Compared to the Year Ended December 31, 2018

Revenues

Total revenues were \$55.9 million for the year ended December 31, 2019, a 3% decrease from \$57.4 million for the year ended December 31, 2018.

Revenues from the DDS segment were \$41.3 million and \$43.5 million for the years ended December 31, 2019 and 2018, respectively, a decline of \$2.2 million or approximately 5%. The decline was due to lower revenue from the top two clients of DDS.

Revenues from the Synodex segment were \$3.9 million and \$4.1 million for the years ended December 31, 2019 and 2018, respectively, a decrease of \$0.2 million or approximately 5%. The decrease was primarily due to reduction in volume from two existing clients partially offset by an increase in volume from one existing client and volume from a new client.

Revenues from the Agility segment were \$10.7 million and \$9.8 million for the year ended December 31, 2019 and 2018, respectively, an increase of \$0.9 million or approximately 9%. The increase was attributable to higher revenues from subscriptions to our Agility media database.

Two clients in the DDS segment generated approximately 26% and 30% of the Company's total revenues in the fiscal years ended December 31, 2019 and 2018, respectively. No other client accounted for 10% or more

of total revenues during these periods. Further, in the years ended December 31, 2019 and 2018, revenues from non-U.S. clients accounted for 55% and 56% of the Company's revenues, respectively.

Direct Operating Costs

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

Direct operating costs were approximately \$37.3 million and \$39.3 million for the years ended December 31, 2019 and 2018, respectively, a decrease of \$2.0 million or approximately 5%.

Direct operating costs for the DDS segment were \$27.5 million and \$30.0 million for the years ended December 31, 2019 and 2018, respectively, a decrease of \$2.5 million or approximately 8%. The decrease was due to a reduction in direct operating costs of \$2.9 million as part of our continuing cost rationalization initiatives, offset in part by a one-time charge of \$0.4 million for an assessment of retroactive foreign social security contributions as a result of a decision by the Supreme Court of India that affects companies generally. The reduction of \$2.9 million in direct operating costs was primarily a result of lower compensation related costs of \$1.5 million, lower occupancy costs, travel, professional fees and others of \$0.7 million and foreign exchange loss and lower depreciation and amortization of \$0.7 million. Direct operating costs for the DDS segment as a percentage of DDS segment revenues were 67% and 69% for the years ended December 31, 2019 and 2018, respectively.

Direct operating costs for the Synodex segment were approximately \$3.2 million and \$3.0 million for the years ended December 31, 2019 and 2018, respectively, net of intersegment profit, an increase of \$0.2 million or 7%. The increase was due to the cost of hardware and software upgrades expensed during the year. Direct operating costs for the Synodex segment as a percentage of Synodex segment revenues were 82% and 73% for the years ended December 31, 2019 and 2018, respectively. The increase in direct operating costs as a percentage of revenues for the year ended December 31, 2019 was primarily due to lower revenue from two clients partially offset by an increase in volume from one existing client, volume from a new client and an increase in the cost of hardware and software upgrades expensed during the year.

Direct operating costs for the Agility segment were approximately \$6.6 million and \$6.3 million, net of intersegment profit, for the years ended December 31, 2019 and 2018, respectively. The \$0.3 million increase was primarily a result of expenditures in support of increased revenues. Direct operating costs for the Agility segment as a percentage of Agility segment revenues were 62% and 64% for the years ended December 31, 2019 and 2018, respectively.

Selling and Administrative Expenses

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

Selling and administrative expenses were \$19.1 million for the year ended December 31, 2019 compared to \$15.9 million for the year ended December 31, 2018, an increase of \$3.2 million or 20%. This increase was primarily a result of investments in strategic initiatives designed to expand our addressable market and compensation related expenses in the DDS segment. Selling and administrative expenses as a percentage of total revenues were 34% and 28% for the years ended December 31, 2019 and 2018, respectively.

Selling and administrative expenses for the DDS segment were \$12.7 million and \$9.4 million for the years ended December 31, 2019 and 2018, respectively, an increase of \$3.3 million or 35%. This increase is a result of investments in strategic initiatives designed to expand our addressable market. The savings realized from our cost rationalization initiatives were channeled into our strategic initiatives. The increase in selling and administrative expenses for the DDS segment were primarily due to higher compensation related costs of \$2.3 million, recruitment and professional fees of \$0.8 million, and other selling and marketing costs of \$0.2 million. As a percentage of DDS revenues, DDS selling and administrative expenses were 31% and 22% for each of the years ended December 31, 2019 and 2018, respectively. The increase in selling and administrative expenses as a percentage of revenues was due to lower revenues combined with increased selling and administrative expenses.

Selling and administrative expenses for the Synodex segment was \$0.7 million for the years ended December 31, 2019 and 2018, respectively. Selling and administrative expenses for the Synodex segment as a percentage of Synodex segment revenues were 18% and 17% for the years ended December 31, 2019 and 2018, respectively.

Selling and administrative expenses for the Agility segment were \$5.7 million and \$5.8 million for the years ended December 31, 2019 and 2018, respectively, a decrease of \$0.1 million or 2%. The decrease was primarily due to compensation related expenses. Selling and administrative expenses for the Agility segment as a percentage of Agility segment revenues were 53% and 59% for the years ended December 31, 2019 and 2018, respectively.

Goodwill Impairment

We performed our annual goodwill assessment for the Agility segment as of September 30, 2019. In performing the assessment, we adhered to the provisions of ASU 2017-04, by using a single step approach that determines the carrying value of goodwill and comparing it against the excess of the reporting unit's fair value. Based on our assessment, we reached the conclusion that there was no goodwill impairment because the fair value of the Agility segment's goodwill exceeded its carrying value. Therefore, there was no goodwill impairment recorded during the year ended December 31, 2019.

We performed an assessment as of June 30, 2018 and determined that the fair value of the Agility segment exceeded its carrying value, but the fair value of the DDS segment was below its carrying value. As a result, we recorded a full goodwill impairment of \$675,000 for the DDS segment reporting unit for the year ended December 31, 2018.

Taxes

We recorded a provision for income taxes of approximately \$1.1 million and \$1.8 million for the years ended December 31, 2019 and 2018, 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 on the U.S. and Canadian entities. See Notes to Consolidated Financial Statements, Footnote 3. "Taxes" for additional information.

The reconciliation of the U.S. statutory rate with the Company's effective tax rate for the years ended December 31, 2019 and 2018 are summarized in the table below:

	2019	2018 Restated
Federal income tax expense at statutory rate	(21.0) %	21.0 %
Effect of:		
Foreign operations permanent difference - foreign exchange gains and losses	(24.8)	27.8
Return to provision true-up	(5.2)	-
2017 Tax Act	-	(112.6)
Tax effects of foreign operations	120.8	58.8
Increase in unrecognized tax benefits (ASC 740)	109.7	22.2
Change in valuation allowance	23.9	68.3
Withholding tax	12.2	7.8
State income tax net of federal benefit	2.6	2.4
Foreign tax rate differential	1.6	25.6
Others	(13.2)	(5.5)
	206.6 %	115.8 %

4010

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 \$25.7 million at December 31, 2019. 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 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 vigorously 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 to pay interest and penalties. The revenue of our Indian subsidiary during this period was approximately \$66.0 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 counsel's assessment, 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 \$160,000 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 are contesting it vigorously. 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 \$1.0 million recorded as a receivable. Based on our counsel's assessment, we have not recorded any tax liability for this case.

Net Loss

We had a net loss of \$1.6 million during the year ended December 31, 2019, compared to a net loss of \$0.3 million during the year ended December 31, 2018. Net loss for the year ended December 31, 2019 included a one-time charge of \$400,000 for an assessment of retroactive foreign social security contributions as a result of a decision by the Supreme Court of India that affects companies generally.

The DDS segment was breakeven for the year ended December 31, 2019, compared to a net income of \$1.6 million for the year ended December 31, 2018, net of intersegment profits. The decrease in net income of \$1.6 million was attributable to lower revenues of \$2.2 million, higher operating expenses of \$0.8 million, a decrease in tax provisions of \$0.7 million, and a decrease in goodwill impairment of \$0.7 million.

Net income for the Synodex segment was breakeven for the year ended December 31, 2019, compared to net income of \$0.4 million for the year ended December 31, 2018, net of intersegment profits. The decrease was primarily due to revenue timing from one client partially offset by an increase in volume from one existing client, volume from a new client and an increase in the cost of hardware and software upgrades expensed during the year.

Net loss for the Agility segment was \$1.6 million for the year ended December 31, 2019, compared to a net loss of \$2.3 million for the year ended December 31, 2018. The \$0.7 million improvement was the result of higher revenues offset in part by increased expenditures to support revenue growth.

Adjusted EBITDA

Adjusted EBITDA for the year ended December 31, 2019 was \$3.3 million compared to an Adjusted EBITDA of \$6.4 million for the year ended December 31, 2018, a decrease of \$3.1 million.

Adjusted EBITDA for the DDS segment was \$3.2 million and \$6.7 million for the years ended December 31, 2019 and 2018, respectively, a decrease of \$3.5 million or approximately 52%. The decrease was primarily attributable to a higher net loss of \$1.6 million, a lower tax provision of \$0.7 million, lower depreciation and amortization of \$0.5 million and \$0.7 million of goodwill impairment for the year ended December 31, 2018.

Adjusted EBITDA for the Synodex segment was \$0.1 million and \$0.4 million for the years ended December 31, 2019 and 2018, respectively, a decrease of \$0.3 million. The decrease was primarily due to revenue timing from one client partially offset by an increase in volume from one existing client and volume from a new client and an increase in the cost of hardware and software upgrades expensed during the year.

Adjusted EBITDA in the Agility segment was breakeven for the year ended December 31, 2019 compared to an Adjusted EBITDA loss of \$0.7 million for the year ended December 31, 2018, an improvement of \$0.7 million. The improvement was due to higher revenues for the year ended December 31, 2019.

Liquidity and Capital Resources

	 December 31,				
	 2019	2018 Restated			
Cash and cash equivalents Working capital	\$ 10,874 8,789	\$	10,869 12,267		

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

At December 31, 2019, we had cash and cash equivalents of \$10.9 million, of which \$4.8 million was held by our foreign subsidiaries, and \$6.1 million was 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, 2019, to permanently reinvest the overseas funds in our foreign subsidiaries on account of 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) investments in the Agility segment; (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, 2019, we had working capital of approximately \$8.8 million, as compared to working capital of approximately \$12.3 million as of December 31, 2018.

We did not have any material commitments for capital expenditures as of December 31, 2019. During 2019, we re-purchased 1,503,095 shares of our common stock at a volume-weighted average price of \$1.23 per share, for a total cost of \$1.8 million.

We believe that our existing cash and cash equivalents and internally generated funds will provide sufficient sources of liquidity to satisfy our financial needs for the next 12 months from the date of issuance of these financial statements. However, 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 that could materially and adversely affect the Company.

Net Cash Provided by Operating Activities

Cash provided by our operating activities for the year ended December 31, 2019 was \$4.9 million and was the result of the net loss of \$1.6 million, the effect of adjustments for non-cash items of \$3.8 million and sources of working capital of \$2.7 million. Adjustments for non-cash items primarily consisted of \$2.9 million for depreciation and amortization, stock option expense of \$0.8 million and \$0.1 million for other non-cash items. Working capital activities primarily consisted of sources from a \$1.2 million decrease in our accounts receivable, a \$1.1 million decrease in prepaid and other current assets, and a \$0.9 million increase in income and other taxes which was offset in part by a use of \$0.5 million due to an increase in other working capital. The reduction in accounts receivable is a result of higher collections during the year ended December 31, 2019. Refer to the Consolidated Statements of Cash Flows for further details.

Cash provided by our operating activities for the year ended December 31, 2018 was \$3.6 million, resulting from a net loss of \$0.3 million and adjustments for non-cash items of \$5.5 million and uses of working capital of \$1.6 million. Adjustments for non-cash items primarily consisted of \$3.4 million for depreciation and amortization, stock option expense of \$0.8 million, goodwill impairment of \$0.7 million, pension cost of \$0.4 million and deferred tax provisions of \$0.2 million. Working capital activities primarily consisted of a use of cash of \$1.0 million due to a decrease in accrued salaries, wages and related benefits, \$0.8 million due to a decrease in

accounts payable and accrued expenses offset by a source of \$0.2 million due to an increase in other working capital accounts.

Our days' sales outstanding were 66 days at both December 31, 2019 and 2018. We calculate DSO by first dividing the total revenues for the period by average net accounts receivable, which is the sum 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 was \$1.8 million and \$2.0 million for the years ended December 31, 2019 and 2018, respectively. These capital expenditures were principally for the purchase of technology equipment including servers, network infrastructure and workstations, and expenditures for internally developed software. Capital expenditures of \$1.8 million consisted of \$0.2 million for the DDS segment and \$1.6 million for the Agility segment.

For the year 2020, we anticipate that capital expenditures for ongoing technology, equipment and infrastructure upgrades will approximate \$2.0 to \$2.3 million, a portion of which we may finance.

Net Cash Used in Financing Activities

Cash used in financing activities was \$1.8 million for the repurchase of 1,503,095 shares of our common stock at a volume-weighted average price of \$1.23 per share. The repurchases were made under the 2019 authorization approved by the Board of Directors. Payments of long-term obligations approximated \$1.0 million and \$2.0 million for 2019 and 2018, respectively.

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, is 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, 2019, the aggregate notional amount of our hedges against the Indian rupee was approximately \$4.3 million, and we had no hedges 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 clients 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 clients.

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.

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 (the "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, 2019. Based on this evaluation, our principal executive officer and our principal financial officer concluded that, as of December 31, 2019, our disclosure controls and procedures were not 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 Chief Financial Officer, management conducted an evaluation of the effectiveness of the Company's internal control over financial reporting as of December 31, 2019, based on the framework set forth in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on its evaluation under this framework, Management identified the following material weaknesses and concluded that the Company's internal control over financial reporting was not effective as of December 31, 2019:

1. Lack of review procedures related to changes in events concerning the designation of an asset from non-monetary to monetary, resulting in the improper remeasurement and classification of foreign currency affecting refundable income tax as defined in ASC 830, Foreign Currency Matters ("ASC 830").

2. Lack of timely action in reversing accruals when the underlying obligation is no longer a liability of the Company.

The Company determined that it did not maintain effective control to ensure that the preceding items were properly accounted for in accordance with U.S. GAAP, which constitutes a material weakness. A material weakness is a deficiency or a combination of deficiencies in internal control over financial reporting, such that there is reasonable possibility that a material misstatement of the Company's annual or interim financial information will not be prevented or detected on a timely basis.

As a result of the internal control deficiency, the Company's refundable taxes, accrued expenses and income and other taxes were overstated during each of the fiscal years 2008 to 2018. We have adjusted the comparative presentation of amounts reported in the consolidated financial statements as of January 1, 2018 and December 31, 2018 and for the year ended December 31, 2018 included in this Report as a correction of errors.

To address these deficiencies, we have since remediated our control procedures to reduce the likelihood of these errors recurring. We have implemented additional quarterly control procedures (i) to review any changes in events affecting the designation of assets and liabilities to ensure that such assets and liabilities are properly remeasured; and (ii) to review outstanding accruals to confirm that the underlying obligation of the accrual is still valid.

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

The Company made the changes to its internal control over financial reporting (as such term is defined in Rules 13a-15(f) or 15d-15(f) under the Exchange Act) referred to above during the last fiscal quarter to which this report relates to address the material weakness, which changes have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other information.

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 is incorporated by reference from the Company's definitive proxy statement for the 2020 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 2019 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, 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 2020 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 2019 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 2020 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 2019 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 2020 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 2019 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 2020 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 2019 fiscal year.

PART IV

Item 15. Exhibits, 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:

Report of Independent Registered Public Accounting Firm.
Consolidated Balance Sheets as of December 31, 2019 and 2018 (Restated).
Consolidated Statements of Operations and Comprehensive Loss for the years ended December 31, 2019 and 2018 (Restated).
Consolidated Statements of Stockholders' Equity for the years ended December 31, 2019 and 2018 (Restated).
Consolidated Statements of Cash Flows for the years ended December 31, 2019 and 2018 (Restated).

(a)(3) Exhibits – See Exhibit Index attached hereto, which is incorporated by reference herein.

Item 16. Form 10K 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 Abuhoff Jack Abuhoff Chairman of the Board, Chief Executive Officer and President March 16, 2020

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.

<u>Signature</u>	Title	Date
/s/ Jack S. Abuhoff Jack S. Abuhoff	_Chairman of the Board, Chief Executive Officer and President	March 16, 2020
/s/ Robert O'Connor Robert O'Connor	Chief Financial Officer, Principal Financial Officer and Principal Accounting Officer	March 16, 2020
/s/ David B. Atkinson David B. Atkinson	Director	March 16, 2020
/s/ Louise C. Forlenza Louise C. Forlenza	Director	March 16, 2020
/s/ Brian E. Kardon Brian E. Kardon	_ Director	March 16, 2020
/s/ Douglas J. Manoni Douglas J. Manoni	_ Director	March 16, 2020
/s/ Stewart R. Massey Stewart R. Massey	_ Director	March 16, 2020
/s/ Michael J. Opat Michael J. Opat	_ Director	March 16, 2020
/s/ Nauman (Nick) Toor Nauman (Nick) Toor	_Director	March 16, 2020

INNODATA INC. AND SUBSIDIARIES INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

	PAGE
Report of Independent Registered Public Accounting Firm	F-2
Consolidated Balance Sheets as of December 31, 2019 and 2018 (Restated)	F-3
Consolidated Statements of Operations and Comprehensive Loss for the years ended December 31, 2019 and 2018 (Restated)	F-4
Consolidated Statements of Stockholders' Equity for the years ended December 31, 2019 and 2018 (Restated)	F-5
Consolidated Statements of Cash Flows for the years ended December 31, 2019 and 2018 (Restated)	F-6
Notes to Consolidated Financial Statements	F-7

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders Innodata Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Innodata Inc. and Subsidiaries (the Company) as of December 31, 2019 and 2018, and the related consolidated statements of operations and comprehensive loss, stockholders' equity, and cash flows for 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 as of December 31, 2019 and 2018, and its results of 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.

Adoption of New Accounting Standard

As discussed in Note 6 to the consolidated financial statements, the Company adopted Accounting Standards Codification ASU 2016-02, beginning January 1, 2019 and applied the practical expedients consistently for all of its leases.

Restatement

As discussed in Note 1 to the consolidated financial statements, the Company restated the 2018 consolidated financial statements. The impact of errors relating to periods prior to the year ended December 31, 2018 are reflected as an adjustment in the consolidated financial statements as of January 1, 2018 and errors relating to 2018 are reflected as an adjustment in the consolidated financial statements as of December 31, 2018 and for the year ended December 31, 2018.

/s/ CohnReznick LLP Roseland, New Jersey March 16, 2020

We have served as the Company's auditor since 2008.

INNODATA INC. AND SUBSIDIARIES CONSOLIDATED BALANCE SHEETS DECEMBER 31, 2019 AND 2018 (Restated) (in thousands, except share and per share data)

		2019	2018 (Restated)		
ASSETS					
Current assets:	\$	10.974	¢	10.960	
Cash and cash equivalents Accounts receivable, net of allowance for doubtful accounts of \$750	Ф	10,874	\$	10,869	
and \$1,000, respectively		9,723		10,626	
Prepaid expenses and other current assets		3,418		4,667	
Total current assets		24,015		26,162	
Property and equipment, net		7,125		6,813	
Right-of-use-asset		7,005		-	
Other assets		2,110		2,436	
Deferred income taxes		1,906		1,204	
Intangibles, net		5,477		6,275	
Goodwill		2,108		2,050	
Total assets	\$	49,746	\$	44,940	
LIABILITIES AND STOCKHOLDERS' EQUITY					
Current liabilities:	\$	1 410	¢	1 021	
Accounts payable Accrued expenses	Ф	1,419 3,340	\$	1,834 2,803	
Accrued salaries, wages and related benefits		4,265		2,803 4,494	
Income and other taxes		4,183		3,235	
Long-term obligations - current portion		912		1,529	
Operating lease liability - current portion		1,107			
Total current liabilities		15,226		13,895	
Deferred income taxes		363		571	
Long-term obligations, net of current portion		4,534		4,062	
Operating lease liability, net of current portion		6,731		-	
Non-controlling interests		(3,417)		(3,400)	
Commitments and contingencies					
STOCKHOLDERS' EQUITY:					
Serial preferred stock; 4,998,000 shares authorized, none outstanding		-		-	
Common stock, \$.01 par value; 75,000,000 shares authorized;					
27,643,000 shares issued and 24,459,000 outstanding at December 31,		275		275	
2019; 27,558,000 shares issued and 25,877,000 outstanding at		215		215	
December 31, 2018		00.40.6			
Additional paid-in capital		28,426		27,579	
Retained earnings		4,993		6,595	
Accumulated other comprehensive loss	·	(920)		(15)	
Less: treasury stock, 3,184,000 shares at December 31, 2019 and		32,774		34,434	
1,681,000 shares at December 31, 2018, at cost		(6,465)		(4,622)	
Total stockholders' equity		26,309		29,812	
Total liabilities and stockholders' equity	\$	49,746	\$	44,940	
Total habilities and sweenbluers equity	Ψ	+ <i>J</i> , <i>I</i> +0	Ψ	, /- -	

INNODATA INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS YEARS ENDED DECEMBER 31, 2019 AND 2018 (Restated) (In thousands, except per share amounts)

	2019	2018 (Restated)
Revenues	\$ 55,858	\$ 57,418
Operating costs and expenses:		
Direct operating costs	37,325	39,302
Selling and administrative expenses	19,010	15,846
Goodwill impairment	-	675
Interest expense, net	51	33
	56,386	55,856
Income (loss) before provision for income taxes	(528)	1,562
Provision for income taxes	1,091	1,808
Consolidated net loss	(1,619)	(246)
Income (loss) attributable to non-controlling interests	(17)	7
Net loss attributable to Innodata Inc. and Subsidiaries	\$ (1,602)	\$ (253)
Loss per share attributable to Innodata Inc. and Subsidiaries:		
Basic and diluted	\$ (0.06)	\$ (0.01)
Weighted average shares outstanding:		
Basic and diluted	25,774	25,878
Comprehensive loss:		
Consolidated net loss	\$ (1,619)	\$ (246)
Pension liability adjustment, net of taxes	(1,504)	260
Change in fair value of derivatives, net of taxes	33	(342)
Foreign currency translation adjustment, net of taxes	566	(779)
Other comprehensive loss	(905)	(861)
Total comprehensive loss	(2,524)	(1,107)
Comprehensive income (loss) attributed to non-controlling interest	(17)	7
Comprehensive loss attributable to Innodata Inc. and Subsidiaries	\$ (2,507)	\$ (1,114)

INNODATA INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY YEARS ENDED DECEMBER 31, 2019 AND 2018 (Restated) (In thousands)

	Common Stock		Additional		Accumulated Other Comprehensive	Treasur	y Stock	
	Shares	Amount	Paid-in Capital	Retained Earnings	Loss	Shares	Amount	Total
January 1, 2018 as previously reported	27,558	\$ 275	\$ 27,275	\$ 7,345	\$ 846	1,681	\$ (4,622)	\$ 31,119
Restatement adjustments				(497)				(497)
January 1, 2018 as restated	27,558	275	27,275	6,848	846	1,681	(4,622)	30,622
Net loss as restated	-			(253)	-	-	-	(253)
Stock-based compensation	-		. 796	-	-	-	-	796
Acquisition of non-controlling interest	-		(492)	-	-	-	-	(492)
Pension liability adjustments, net of taxes	-			-	260	-	-	260
Foreign currency translation adjustment	-			-	(779)	-	-	(779)
Change in fair value of derivatives, net of taxes	-			-	(342)	-	-	(342)
December 31, 2018	27,558	275	27,579	6,595	(15)	1,681	(4,622)	29,812
Net loss	-			(1,602)	-	-	-	(1,602)
Purchase of treasury stock	-				-	1,503	(1,843)	(1,843)
Stock-based compensation	75		836	-	-	-	-	836
Exercise of stock options	10		. 11	-	-	-	-	11
Pension liability adjustments, net of taxes	-			-	(1,504)	-	-	(1,504)
Foreign currency translation adjustment	-			-	566	-	-	566
Change in fair value of derivatives, net of taxes	-			-	33	-	-	33
December 31, 2019	27,643	\$ 275	\$ 28,426	\$ 4,993	\$ (920)	3,184	\$ (6,465)	\$ 26,309

INNODATA INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF CASH FLOWS YEARS ENDED DECEMBER 31, 2019 AND 2018 (Restated) (In thousands)

(In thousands)				
	2019			2018 estated)
Cash flows from operating activities:				
Consolidated net loss	\$	(1,619)	\$	(246)
Adjustments to reconcile consolidated net loss to net cash				~ /
provided by operating activities:				
Depreciation and amortization		2,922		3,374
Goodwill impairment		-		675
Stock-based compensation		836		796
Deferred income taxes		(313)		175
Pension cost		335		440
Changes in operating assets and liabilities:				
Accounts receivable		1,216		(533)
Prepaid expenses and other current assets		1,056		(70)
Other assets		332		521
Accounts payable and accrued expenses		(589)		(779)
Accrued salaries, wages and related benefits		(249)		(1,020)
Income and other taxes		926		234
Net cash provided by operating activities		4,853		3,567
Cash flows from investing activities:				
Capital expenditures		(1,769)		(2,033)
Net cash used in investing activities		(1,769)		(2,033)
Cash flows from financing activities:				
Purchase of treasury stock		(1,843)		-
Payment of long-term obligations		(1,038)		(2,025)
Redemption of shares from non-controlling interest		-		(2)
Exercise of stock options		11		-
Net cash used in financing activities		(2,870)		(2,027)
Effect of exchange rate changes on cash and cash equivalents		(209)		(45)
Net increase (decrease) in cash and cash equivalents		5		(538)
Cash and cash equivalents, beginning of year		10,869		11,407
Cash and cash equivalents, end of year	\$	10,874	\$	10,869
Supplemental disclosures of cash flow information:				
Cash paid for income taxes	\$	962	\$	680
Cash paid for operating leases	\$	2,186	\$	2,568
Common stock issued	\$	11	\$	_,_ 00
Non cash redemption of non-controlling interest	\$		\$	(490)
Non eash reachiption of non-controlling interest	φ	-	ψ	(+70)

1. Description of Business and Summary of Significant Accounting Policies

Description of Business - Innodata Inc. (including its subsidiaries, the "Company", "Innodata", "we", "us" or "our") is a global data engineering company. The Company solves complex data challenges that companies face when they build and maintain artificial intelligence (AI) systems and analytics platforms.

To deliver the Company's services and solutions, the Company uses a combination of human expertise and technology. The Company's 3,000+ employees span 10 countries and are experts in data pertaining to many professional fields. The Company's core technology harnesses machine learning and deep learning (branches of AI) to augment human expertise. The Company's hybrid approach of using AI in conjunction with human experts enables the Company's to deliver superior data quality with even the most complex and sensitive data.

The Company also provides AI-augmented software-as-a-service (SaaS) platforms for customers who wish to perform their own data engineering tasks and for niche, industry-specific data-intensive use cases.

The Company provides a range of solutions and platforms for solving complex data challenges that companies face when they seek to obtain the benefits of AI systems and analytics platforms.

(i) Data Annotation

The Company helps its clients train AI models by annotating data at scale and at industry-leading levels of quality. The quality of training data is critical for ensuring that a client's AI models perform well. The Company annotates text, images, audio and video data for the most complex AI models, including computer vision, sentiment analysis, entity linking, text categorization, and syntactic parsing/tagging.

The Company's image and video annotation services and platforms may be used to annotate, or label, objects or people in images/video for facial recognition systems and automated object identification systems and in aerial/satellite imagery for autonomous driving/flying applications.

The Company's text annotation services and platforms may be used to convert raw text data into richly tagged, AI training data. The Company accommodates a wide range of input formats and taxonomies, and the Company performs a wide variety of complex tasks including entity annotation, relationship annotation, co-reference annotation, event annotation, multi-label annotation, and document labelling.

The Company provides image/video data annotation and text annotation as full solutions, in which the Company provides all required technology, infrastructure and expert resources. Beginning in early 2020, the Company will also provide image/video data annotation platforms and text annotation platforms for its clients to license for internal use.

The Company provides data annotation for a variety of complex requirements in healthcare, compliance, scientific, financial and legal markets.

(ii) Data Transformation

The Company provides AI-based data transformation solutions for high-accuracy data identification, aggregation, cleansing, augmentation and extraction. The Company's solutions utilize highly-trained AI models and experts who custom-train the models for the Company's clients' most complex and unique requirements.

The Company's data transformation platform enables data to be extracted from websites, as well as internal data stores; converted from disparate formats including PDF; enriched with the necessary semantics, metadata and linking; and classified in accordance with an ontology or knowledge graph.

The Company's data transformation solutions may be consumed via API, so that they can be utilized as infrastructure by clients with ongoing needs for such services. The Company also provides a platform for clients to license for performing analytics on extracted data points.

(iii) Data Curation

For clients that need to maintain mission-critical databases of structured data, or fuse separately-created databases into a single, unified, high-quality source of data that can be relied upon for a variety of corporate functions and products (often referred to as a "golden source" of data), the Company provides AI-based data curation solutions that include data collection across external and internal data sources, data hygiene, data consolidation, and data compliance.

(iv) Intelligent Automation

Enterprises are increasingly looking to re-invent business processes to take advantage of advancements in AI and machine learning, computing, and storage. Many seek easier ways these advanced capabilities can be trained, deployed, and leveraged. For clients with critical business processes that involve documents, images, text, emails and other unstructured data, The Company deploys a range of technologies, including AI and robotic process automation (RPA), to eliminate repetitive tasks, automate where possible, speed up operations, and shift internal talent to creative and analytical work.

The Company provides intelligent automation for an increasing diversity of complex functions. At present, these include IP rights management, contract management, client relationship management, regulatory change management, underwriting, and content operations management.

(v) Intelligent Data Platforms

The Company builds and manages intelligent data platforms that address specific, niche market requirements with the Company's data engineering technologies. The Company deploys these platforms as software-as-a-service (SaaS) and as managed data solutions. To date, the Company has built an intelligent data platform for medical records data transformation (which we brand as "Synodex") and for marketing communications/public relations workflow (which we brand as "Agility").

The Company's Synodex intelligent data platform transforms medical records into useable digital data organized in accordance with the Company's proprietary data models or client data models. At the end of 2019, the Company had 20 clients utilizing its 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.

The Company's Agility intelligent data 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 channels (print, web, radio and TV) and social media channels.

The Company also provides a variety of services for clients in the information industry that relate to content operations and product development.

Principles of Consolidation - The consolidated financial statements include the accounts of Innodata Inc. and its wholly owned subsidiaries, and the Synodex and docGenix limited liability companies that are majority-owned by the Company. The non-controlling interests in the Synodex and docGenix limited liability companies are accounted for in accordance with Financial Accounting Standards Board (FASB) non-controlling interest guidance. All significant intercompany transactions and balances have been eliminated in consolidation.

Use of Estimates - In preparing financial statements in conformity with U.S. GAAP, management is required to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and the related disclosure of contingent assets and liabilities reported in the financial statements and accompanying notes. Actual results could differ from those estimates and changes in the estimates are recorded when known. Significant estimates include those related to the allowances for doubtful accounts and billing adjustments, long-lived assets, intangible assets, goodwill, valuation of deferred tax assets, valuation of stock-based compensation, litigation accruals and estimated accruals for various tax exposures.

Revenue Recognition – Revenue is recognized when the Company satisfies its performance obligations under the contract, either implicit or explicit, by transferring the promised goods or rendering a service to its customer either when control of the promised product is transferred to a client or the service is rendered, in an amount that reflects the consideration that the Company expects to receive in exchange for those goods or services as per the agreement with the client. For 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. 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 goods are transferred to or services are performed for the client to determine the timing of revenue recognition. Performance obligations that are not distinct at agreement inception are combined.

For the 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. Revenues for agreements billed on a time-and-materials basis are recognized as services are performed. Revenues under fixed-fee agreements, which are not significant to the overall revenues, are 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 Company's Synodex segment revenue is derived from licensing our functional software and providing access to our 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. Revenues from the reseller agreements are recognized at gross 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.

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

The Company considers U.S. GAAP criteria for determining whether to report revenue gross as a principal versus net as an agent. Factors considered include whether the Company is the primary obligor, has risks and rewards of ownership, and bears the risk that a client may not pay for the services performed. If there

are circumstances where the above criteria are not met and therefore, the Company is not the principal in providing services, amounts received from clients are presented net of payments in the consolidated statements of operations and comprehensive loss.

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

Foreign Currency Translation - The functional currency of our delivery centers located in the Philippines, India, Sri Lanka and Israel is the U.S. dollar. Transactions denominated in the Philippine pesos, Indian and Sri Lankan rupees and Israeli shekels are translated to U.S. dollars at rates which approximate those in effect on the transaction dates. Monetary assets and liabilities denominated in foreign currencies at December 31, 2019 and 2018 are translated at the exchange rate in effect as of those dates. Nonmonetary assets, liabilities, and stockholders' equity were translated at the appropriate historical rates. Included in direct operating costs were exchange losses resulting from such transactions of approximately \$158,000 and \$56,000 for the years ended December 31, 2019 and 2018, respectively.

The functional currency for the Company's subsidiaries in Germany, the United Kingdom and Canada are the Euro, the Pound Sterling and the Canadian dollar, respectively. The financial statements of these subsidiaries are reported 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 corrency translation adjustment was \$566,000 and (\$779,000) for the years ended December 31, 2019 and 2018, respectively.

Derivative Instruments - The Company has designated its derivatives (foreign currency forward contracts) as a cash flow hedge. Accordingly, the Company initially reports the effective portion of the derivative's gain or loss as a component of accumulated other comprehensive income or loss and subsequently reclassifies them to earnings when the hedge exposure affects earnings. The Company formally documents all relationships between hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking various hedging activities. The total notional value of outstanding foreign currency forward contracts at December 31, 2019 was \$4.3 million.

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

Property and Equipment - Property and equipment are stated at cost and are depreciated on the straightline method over the estimated useful lives of the related assets, which is generally two to five years. Leasehold improvements are amortized on a straight-line basis over the shorter of their estimated useful lives or the lives 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.

Long-lived Assets - Management assesses the recoverability of its long-lived assets, which consist primarily of fixed 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 abovementioned factors, an impairment analysis is performed, initially using a projected undiscounted cash flow method. 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, 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, client relationships, backlog and trademarks. 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. In 2018, the Company adopted Accounting Standard Update (ASU) No. 2017-04, "Intangibles - Goodwill and Other (Topic 350): Simplifying the Accounting for Goodwill Impairment". Under this guidance, the optional qualitative assessment, referred to as "Step 0", and the first step of the quantitative assessment ("Step 1") remained unchanged versus the prior guidance. However, the requirement to complete the second step ("Step 2"), which involved determining the implied fair value of goodwill and comparing it to the carrying value of that goodwill to measure the impairment loss, was eliminated. As a result, Step 1 is used to determine both the existence and amount of goodwill impairment. An impairment loss is recognized for the amount by which the reporting unit's carrying amount exceeds its fair value, not to exceed the carrying value of goodwill in that reporting unit.

The Company periodically analyzes whether any indicators of impairment have occurred. As part of these periodic analyses, we compare the Company's estimated fair value, as determined based on our stock price, to the Company's net book value. During 2018, due to a continuing decline in the Company's stock price and other indicators of impairment that arose during the second quarter of 2018, the Company deemed it appropriate to assess goodwill impairment as of June 30, 2018, rather than the historical testing date of September 30. Based on the Company's assessment, the Company concluded that the goodwill of the DDS segment, amounting to \$675,000, was fully impaired.

The Company performed its annual goodwill assessment for the Agility segment as of September 30, 2019. In performing the assessment, the Company adhered to the provisions of ASU 2017-04 by using a single step approach that determines the carrying value of goodwill and comparing it against the excess of the reporting unit's fair value. Based on the Company's assessment, the Company reached the conclusion that there was no goodwill impairment because the fair value of the Agility segment's goodwill exceeded its carrying value. Therefore, there was no goodwill impairment recorded during the year ended December 31, 2019.

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 U.S. and Canadian 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 - In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)," as modified (ASU 2016-02), which replaced existing leasing rules with a comprehensive lease measurement and recognition standard and expanded disclosure requirements. ASU 2016-02 requires lessees to recognize most leases on their balance sheets as liabilities, with corresponding "right-of-use" assets and is effective for annual reporting periods beginning after December 15, 2018, subject to early adoption. The Company adopted ASU 2016-02 effective January 1, 2019. Upon adoption, the Company recognized a right-of-use asset and corresponding lease liability. See Note 6, 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. All of the Company's leases are classified as 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 is determined using the Black-Scholes option-pricing model.

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

	Year Ended December 31,					
	2	019	2018			
Direct operating costs	\$	113	\$	264		
Selling and adminstrative expenses		723		532		
Total stock-based compensation	\$	836	\$	796		

Fair Value of Financial Instruments - The carrying amounts of financial instruments approximated their fair value as of December 31, 2019 and 2018, because of the relative short maturity of these instruments. See Note 14, Financial Instruments.

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.

Accounts Receivable - The Company establishes credit terms for new clients based upon management's review of their credit information and project terms, and performs ongoing credit evaluations of its clients, adjusting credit terms when management believes appropriate based upon payment history and an assessment of the client's current creditworthiness. The Company records an allowance for doubtful accounts for estimated losses resulting from the inability of its clients 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 client'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 clients were to deteriorate. In the event that the financial condition of one of the Company's clients were to deteriorate resulting in an impairment of their ability to make payments, additional allowances may be necessary. The allowance for doubtful accounts as of December 31, 2019 and 2018 was approximately \$0.8 million and \$1.0 million, respectively.

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, 2019, the Company had cash and cash equivalents of \$10.9 million, of which \$4.8 million was held by its foreign subsidiaries with local banks located mainly in Asia and \$6.1 million was held in the United States.

To the extent that such cash exceeds the maximum insurance levels, the Company would be 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 clients 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 \$1.1 million for each of the years ended December 31, 2019 and 2018.

Recent Accounting Pronouncements – In January 2016, the Financial Accounting Standards Board (FASB) issued ASU No. 2016-01, "Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities" (ASU 2016-01), which updates certain aspects of recognition, measurement, presentation and disclosure of financial instruments. The Company adopted this standard in the first quarter of 2019, and it did not have a material impact on the Company's consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-14, "Compensation-Retirement Benefits-Defined Benefit Plans-General: Disclosure Framework-Changes to the Disclosure Requirements for Defined Benefit Plans" (ASU 2018-14), that makes changes to the disclosure requirements for employers that sponsor defined benefit pension and/or other postretirement benefit plans. The guidance eliminates requirements for certain disclosures that are no longer considered cost beneficial and adds new disclosure requirements that the FASB considers pertinent. ASU 2018-14 is effective for fiscal years ending after December 15, 2020 for public entities; early adoption is permitted. The Company is currently evaluating the early adoption of ASU 2018-14 but does not expect it to have a material impact on the Company's consolidated financial statements.

Correction of Errors – During the quarter ended December 31, 2019, the Company determined that the refundable taxes recorded in one of its subsidiaries were not being properly revalued in accordance with ASC 830, "Foreign Currency Matters." Under ASC 830, entities whose functional currency is the U.S. dollar are required to use the remeasurement method and classify accounts into monetary and non-monetary items. Under this method only monetary accounts are subject to foreign currency remeasurement. Monetary accounts are those items whose amounts are fixed in terms of unit of currency by contract or otherwise. The refundable taxes in our foreign subsidiary should have been classified as monetary assets but were excluded from remeasurement. This exclusion resulted in the understatement of the foreign exchange gains and losses for the years 2008 through 2018. Additionally, the Company identified and corrected an error relating to an overstatement of two long-standing accruals that the Company deemed to no longer be necessary. The Company evaluated the materiality of these errors on both a quantitative and qualitative basis under the guidance of ASC 250, "Accounting Changes and Errors Corrections," and determined that it did not have a material impact on previously issued financial statements.

Although the errors were immaterial to prior periods, the 2018 financial statements are restated below in accordance with Staff Accounting Bulletin No. 108, "Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements", due to the significance of the out-ofperiod correction to the 2019 period. The impact of the errors for the improper remeasurement of the refundable taxes and the long-standing accruals relating to periods prior to the year ended December 31, 2019 are reflected as an adjustment to the 2018 direct operating costs in the Consolidated Statement of Operations and Comprehensive Loss while the remainder of the errors were adjusted in the 2018 beginning retained earnings. Quarterly periods not presented herein will be revised, as applicable, in future filings.

A reconciliation of the effects of the restatement to amounts in the previously reported consolidated financial statements for the year ended December 31, 2018 is as follows (in thousands):

	As of December 31, 2018					
	As previously reported		Adjustment	As l	Restated	
Consolidated Balance Sheet						
Prepaid expenses and other current assets ⁽¹⁾	\$	5,778	(1,111)	\$	4,667	
Total current assets		27,273	(1,111)		26,162	
Total assets		46,051	(1,111)		44,940	
Accrued expenses ⁽²⁾		2,903	(100)		2,803	
Income and other taxes ⁽³⁾		3,532	(297)		3,235	
Total current liabilities		14,292	(397)		13,895	
Non-controlling interests ⁽⁴⁾		(3,440)	40		(3,400)	
Retained earnings, December 31, 2018 ⁽⁵⁾		7,349	(754)		6,595	
Total stockholders' equity		30,566	(754)		29,812	
Total liabilities and stockholders' equity		46,051	(1,111)		44,940	

- ⁽¹⁾ This adjustment relates to cumulative foreign currency remeasurement for refundable taxes from years 2008 to 2018
- ⁽²⁾ This relates to the reversal of an expense accrual
- ⁽³⁾ This relates to the reversal of previously accrued withholding taxes in a foreign jurisdiction
- ⁽⁴⁾ This represents the corresponding share of the non-controlling interest in the reversal of the expense accrual
- ⁽⁵⁾ This represents the net impact of all adjustments made to correct errors reflected in 2018 balances

	 As of December 31, 2018						
	As previously reported		As	Restated			
Consolidated Statement of Stockholders' Equity							
Retained earnings, January 1, 2018	\$ 7,345	(497)	\$	6,848			
Retained earnings, December 31, 2018	7,349	(754)		6,595			
Total stockholders' equity	30,566	(754)		29,812			

	For the year ended December 31, 2018					
	1	previously eported	Adjustment	As	Restated	
Consolidated Statement of Operations and Comprehensive Loss						
Direct operating costs	\$	39,045	257	\$	39,302	
Income before provision for income taxes		1,819	(257)		1,562	
Net income (loss)		11	(257)		(246)	
Net income (loss) attributable to Innodata Inc. and Subsidiaries		4	(257)		(253)	
Total comprehensive loss		(850)	(257)		(1,107)	

	Fo	For the year ended December 31, 2018					
	1	reviously ported	Adjustment	As I	Restated		
Consolidated Statement of Cash Flows							
Net income (loss)	\$	11	(257)	\$	(246)		
Prepaid expenses and other current assets		(327)	(257)		(70)		

		As of l	December 31, 2		
	-	previously	Adjustment	As	Restated
Working capital	\$	12,981	(714)	\$	12,267

During the preparation of the 2018 consolidated financial statements, the Company identified a cumulative error in accounting for pension expense under ASC 715, resulting in an immaterial understatement of pension liabilities and overstatement of retained earnings. The cumulative error resulted from the cumulative effect of under-recorded pension expense from December 31, 2008 through December 31, 2013 with respect to the Company's DDS segment. The cumulative error resulted in an understatement of pension liabilities and an overstatement of retained earnings, each by an aggregate amount of \$269,000 and was included in the 2018 reported amounts.

2. Goodwill and Intangible Assets

The changes in the carrying amount of goodwill as of December 31, 2019 and 2018 were as follows (in thousands):

Balance as of January 1, 2018	\$ 2,832
Foreign currency translation adjustment	(107)
Goodwill impairment	 (675)
Balance as of December 31, 2018	2,050
Foreign currency translation adjustment	 58
Balance as of December 31, 2019	\$ 2,108

The Company recorded a full goodwill impairment of \$675,000 for its DDS segment in the year ended December 31, 2018.

The Company periodically analyzes whether any indicators of impairment have occurred. As part of these periodic analyses, the Company compares its estimated fair value, as determined based on its stock price, to its net book value. The continued decline in the Company's stock price was viewed by the Company as a triggering event under ASU 2017-04, "Intangibles - Goodwill and Other (Topic 350): Simplifying the Accounting for Goodwill Impairment" (ASU 2017-04), which required an assessment for possible goodwill impairment as of June 30, 2018. Under the provisions of ASU 2017-04, which the Company opted to early adopt, goodwill impairment is recognized based on Step 1 of the current guidance, which calculates the carrying value in excess of the reporting unit's fair value.

The Company performed this assessment as of June 30, 2018 and determined that the fair value of the Agility segment exceeded its carrying value, but the fair value of the DDS segment was below its carrying value. As a result, the Company recorded a full goodwill impairment of \$675,000 for the DDS segment reporting unit as of June 30, 2018.

The Company performed its annual goodwill assessment for the Agility segment as of September 30, 2019. In performing the assessment, the Company adhered to the provisions of ASU 2017-04 by using a single step approach that determines the carrying value of goodwill and comparing it against the excess of the reporting unit's fair value. Based on the Company's assessment, the Company reached the conclusion that there was no goodwill impairment because the fair value of the Agility segment's goodwill exceeded its carrying value. Therefore, there was no goodwill impairment recorded during the year ended December 31, 2019.

The fair value measurement of goodwill for all segments 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. 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 (in thousands):

December 31, 2019	Level 1	Level 2	Level 3
Assets Goodwill	\$ -	\$ -	\$ 2,108
December 31, 2018	Level 1	Level 2	Level 3
Assets Goodwill	\$ -	\$ -	\$ 2,050

Information regarding our acquisition-related intangible assets was as follows for the dates indicated (in thousands):

		veloped hnology		stomer ionships_	and	emarks trade mes	Pat	ents	C	Iedia ontact tabase	,	Total
Gross carrying amounts:												
Balance as of January 1, 2018	\$	3,204	\$	2,264	\$	884	\$	46	\$	3,647	\$	10,045
Foreign currency translation		(205)		(183)		(29)		(4)		(101)	-	(522)
Balance as of December 31, 2018		2,999		2,081		855		42		3,546		9,523
Foreign currency translation	_	109		96		16		1		60		282
Balance as of December 31, 2019	\$	3,108	\$	2,177	\$	871	\$	43	\$	3,606	\$	9,805
	De	veloped	Cu	stomer		emarks trade				Iedia ontact		
	tec	hnology	relat	ionships	na	mes	Pat	ents	Da	tabase		Total
Accumulated amortization:												
Balance as of January 1, 2018	\$	902	\$	645	\$	330	\$	15	\$	547	\$	2,439
Amortization expense		317		185		122		5		367		996
Foreign currency translation						(10)		(1)		(20)		(107)
Foreign currency translation		(82)		(64)		(12)		(1)		(28)		(187)
Balance as of December 31, 2018		(82)		(64) 766		440		(1) 19		886	•	3,248
						· /						
Balance as of December 31, 2018		1,137		766		440		19		886		3,248

Amortization expense relating to acquisition-related intangible assets was approximately \$1.0 million for both years ended December 31, 2019 and 2018.

Estimated annual amortization expense for intangible assets subsequent to December 31, 2019 is as follows (in thousands):

<u>Year</u>	Amo	<u>Amortization</u>			
2020	\$	913			
2021		913			
2022		913			
2023		913			
2024		812			
Thereafter		1,013			
	\$	5,477			

3. Taxes

In December 2017, the President signed the U.S. Tax Cuts and Jobs Act (2017 Tax Act), which includes a broad range of provisions, many of which significantly differ from those contained in previous U.S. tax law. Changes in tax law are accounted for in the period of enactment. As such, the 2017 consolidated financial statements reflect the immediate tax effect of the 2017 Tax Act, which was enacted on December 22, 2017 (Enactment Date). The 2017 Tax Act contains several key provisions including, among other things:

- A one-time tax on the mandatory deemed repatriation of post-1986 untaxed foreign earnings and profits (E&P), referred to as the toll charge;
- A reduction in the maximum corporate tax rate from 35% to 21% for tax years beginning after December

31, 2017;

- The introduction of a new U.S. tax on certain off-shore earnings referred to as Global Intangible Low-Taxed Income (GILTI) at an effective tax rate of 10.5% for tax years beginning after December 31, 2017 (increasing to 13.125% for tax years beginning after December 31, 2025) with a partial offset by applicable foreign tax credits; and
- The introduction of a quasi-territorial tax system for tax years beginning after December 31, 2017 by providing a dividend received deduction under the participation exemption system.

Pursuant to the 2017 Tax Act, we recorded the following adjustments to income tax expense during the fourth quarter of 2017:

- A one-time deemed repatriation of E&P on the Company's post-1986 untaxed foreign E&P amounting to \$25.8 million. No toll tax charge was recorded due to the available net operating loss carryforwards; and
- A reduction of deferred tax assets and a corresponding reduction of the valuation allowance of \$2.3 million, primarily for the remeasurement of our deferred tax assets at the enacted tax rate of 21%.

Beginning January 1, 2018, the Company performed a calculation of the GILTI and concluded that it has no impact on account of the net losses of the Company's foreign subsidiaries.

The significant components of the provision for income taxes for the years ended December 31, 2019 and 2018 were as follows (in thousands):

	2019		2018	
Current income tax expense:	 			
Foreign	\$ 1,333	\$	1,467	
Federal	71		121	
State and local	 -		45	
	 1,404		1,633	
Deferred income tax expense (benefit):				
Foreign	(323)		312	
Federal	10		(139)	
State and local	-		2	
	 (313)		175	
Provision for income taxes	\$ 1,091	\$	1,808	

The reconciliation of the U.S. statutory rate with the Company's effective tax rate for the years ended December 31, 2019 and 2018 is summarized as follows (in thousands, except percentage information):

	2019	2018 Restated
Federal income tax expense at statutory rate	(21.0) %	21.0 %
Effect of:		
Foreign operations permanent difference - foreign exchange gains and losses	(24.8)	27.8
Return to provision true-up	(5.2)	-
2017 Tax Act	-	(112.6)
Tax effects of foreign operations	120.8	58.8
Increase in unrecognized tax benefits (ASC 740)	109.7	22.2
Change in valuation allowance	23.9	68.3
Withholding tax	12.2	7.8
State income tax net of federal benefit	2.6	2.4
Foreign tax rate differential	1.6	25.6
Others	(13.2)	(5.5)
	206.6 %	115.8 %

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, 2019 and 2018 were as follows (in thousands):

		Decem	ber 3	oer 31,	
		2019		2018	
Deferred income tax assets:					
Allowances not currently deductible	\$	223	\$	232	
Depreciation and amortization		297		338	
Equity compensation not currently deductible		966		775	
Net operating loss carryforwards		5,317		5,089	
Expenses not deductible until paid		1,245		769	
Other		379		99	
Total gross deferred income tax assets before valuation allowance		8,427		7,302	
Valuation allowance	_	(6,521)		(6,098)	
Deferred income tax assets, net		1,906		1,204	
Deferred income tax liabilities:					
Intangibles from acquisition of MediaMiser		(316)		(356)	
Other		(47)		(215)	
Total deferred income tax liabilities		(363)		(571)	
Net deferred income tax assets	\$	1,543	\$	633	
Net deferred income tax asset Net deferred income tax liability	\$	1,906 (363)	\$	1,204 (571)	
Net deferred income tax assets	\$	1,543	\$	633	

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, 2019, the Company continues to maintain a valuation allowance on all U.S. and Canadian deferred tax assets.

The Company maintained a valuation allowance of approximately \$6.5 million and \$6.1 million as of December 31, 2019 and 2018, respectively. The valuation allowance relates to U.S. and the Company's Canadian subsidiaries deferred tax assets. The net change in the total valuation allowance was an increase of \$0.4 million for the year ended December 31, 2019 compared to an increase of \$0.7 million for the year ended December 31, 2018.

Despite the 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 \$25.7 million at December 31, 2019. 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.

The 2017 Tax Act imposes a mandatory transition tax on accumulated foreign earnings and eliminates U.S. taxes on foreign subsidiary distribution. Due to the one-time transition tax on the deemed repatriation of post-1986 undistributed foreign subsidiary earnings and profits, all previously unremitted earnings for which no U.S. deferred tax liability had been accrued have now been subjected to U.S. federal income tax. As a result, earnings in foreign jurisdictions are available for distribution to the U.S. without incremental U.S. taxes. To the extent the Company repatriates these earnings to the United States, it estimates that it will not incur significant additional taxes related to such amounts, however, the estimates are provisional and subject to further analysis.

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

	2019	2018 Restated		
United States Foreign	\$ (161) (367)	\$ 3,107 (1,545)		
Totals	\$ (528)	\$ 1,562		

At December 31, 2019, the Company had available U.S. federal net operating loss carryforwards of approximately \$15.3 million. These net operating loss carryforwards expire at various times through the year 2035.

At December 31, 2019, the Company's Canadian subsidiaries had available net operating loss carryforwards of approximately \$13.4 million in Canada which begin to expire in 2028. In addition, these subsidiaries also have research and development credits of approximately \$1.5 million 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.

The Company had unrecognized tax benefits of \$3.0 million and \$2.4 million as of December 31, 2019 and 2018, respectively. The portion of unrecognized tax benefits relating to interest and penalties was \$0.2 million and \$0.1 million for the years ended December 31, 2019 and 2018, respectively. The unrecognized tax benefits as

of December 31, 2019 and 2018, if recognized, would have an 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 2015 through 2019. Various foreign subsidiaries have open tax years from 2003 through 2019, some of which are under audit by local tax authorities. The Company believes that its ASC 740 accruals as of December 31, 2019 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 (amounts in thousands):

	December 31,			
		2019		2018
Balance at January 1	\$	2,424	\$	2,177
Increase for tax position		355		285
Interest accrual		234		63
Foreign currency revaluation		(56)		(101)
Balance at December 31	\$	2,957	\$	2,424

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 our Indian subsidiary during this period was approximately \$66.0 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 assessment of the Company's 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 \$160,000 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. 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 \$1.0 million recorded as a receivable. Based on the assessment of the Company's 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 in which the rulings or recovery occurs.

4. Long-term obligations

Total long-term obligations as of December 31, 2019 and 2018 consisted of the following (in thousands):

	December 31,					
	2019		2018			
Pension obligations - accrued pension liability	\$	4,611	\$	2,591		
Settlement agreement ⁽¹⁾		708		1,010		
Capital lease obligations		127		574		
Deferred lease payments		-		489		
Microsoft licenses ⁽²⁾		-		355		
Lease incentive liability		-		572		
		5,446		5,591		
Less: Current portion of long-term obligations		912		1,529		
Totals	\$	4,534	\$	4,062		

⁽¹⁾ Represents payment to be made pursuant to a settlement agreement entered into in December 2018 between a subsidiary of the Company and 19 former employees of such subsidiary. The balance is payable in monthly installments through March 2023.

⁽²⁾ In March 2017, the Company renewed a vendor agreement to acquire certain additional software licenses and to receive support and subsequent software upgrades on these and other currently owned software licenses through February 2020. Pursuant to this agreement, the Company was obligated to pay approximately \$0.4 million annually over the term of the agreement.

5. 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 \$6.4 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 United States 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 of 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 reserves 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 reserves are adjusted if necessary. While the Company intends to defend these matters vigorously, adverse outcomes that it estimates could reach approximately \$300,000 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 client 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, certain officers and 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 clients pursuant to which the Company has agreed to indemnify the client 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, 2019, the Company has not recorded a liability for any obligations arising as a result of these indemnification obligations.

6. **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 adopted ASU 2016-02, beginning January 1, 2019 and applied the practical expedients consistently for all of its leases. Accordingly, the Company:

- 1. Did not reassess whether any expired or existing contracts are or contain leases.
- 2. Did not reassess the lease classification for any expired or existing leases.
- 3. Did not reassess initial direct costs for any existing leases.

In addition, the Company elected to retrospectively determine the lease term and assess impairment of the right-of-use asset.

At the date of transition, the Company recognized an operating lease liability and right-of-use asset. The amount of lease liability is equal to the present value of the remaining lease payments as of January 1, 2019, discounted using the incremental borrowing rate of each respective country.

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, 2019		Deceember 31, 2018	
Rent expense for long-term operating leases	\$	1,813	\$	2,246
Rent expense for short-term leases		297		322
Total rent expense	\$	2,110	\$	2,568

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, 2019 (in thousands):

Year	<u>Amount</u>	
2020	\$	1,742
2021		1,338
2022		1,255
2023		1,050
2024		1,067
2025 and thereafter		4,628
Total lease payments		11,080
Less: Interest		(3,242)
Net present value of lease liabilities	\$	7,838
Current portion	\$	1,107
Long-term portion		6,731
Total	\$	7,838

The weighted average remaining lease terms and discount rates for all of our operating leases as of December 31, 2019 were as follows:

Weighted-average lease term remaining Weighted-average discount rate 68 months 8.98%

7. 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, 2019 and 2018, the Company did not make any matching contributions.

Non-U.S. Pension Benefits - The accounting standard for pensions requires an employer to recognize a net liability or asset and an offsetting adjustment to accumulated other comprehensive loss to report the funded status of defined benefit pension and other post-retirement benefit plans.

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, 2019, these plans were unfunded. Pension expense for foreign subsidiaries totaled approximately \$0.3 million and \$0.7 million for the years ended December 31, 2019 and 2018, respectively. Included in the \$0.7 million pension expense for the year ended 2018 is \$269,000 representing the correction of an understatement of pension liabilities from prior years.

The following table summarizes the amounts recognized in accumulated other comprehensive loss, net of taxes (in thousands):

		Years Ended December 31,				
			2019	2018		
Amortization of transition obligation		\$	41	\$	41	
Actuarial gain (loss)			(1,910)		416	
	Totals	\$	(1,869)	\$	457	
Amounts in accumulated other comprehensive reflected in net periodic pension cost, net of tax	•					
Actuarial gain (loss)		\$	(163)	\$	1,747	
Transition obligation			(50)		(91)	
-	Totals	\$	(213)	\$	1,656	
Amounts in accumulated other comprehensive loss expected to be amortized in 2020 net periodic pension cost, net of taxes:						

Actuarial gain		\$ 1
Transition obligation		38
	Total	\$ 39

The following table sets out the status of the non-U.S. pension benefits and the amounts (in thousands) recognized in the Company's consolidated financial statements as of and for each of the two years in the period ended December 31, 2019:

Benefit Obligations:

	 2019	2018		
Projected benefit obligation at beginning of the year	\$ 2,591	\$	3,121	
Service cost	289		344	
Interest cost	194		198	
Actuarial loss (gain)	1,720		(622)	
Foreign currency exchange rates changes	52		(237)	
Benefits paid	 (235)		(213)	
Projected benefit obligation at end of the year	\$ 4,611	\$	2,591	

Components of Net Periodic Pension Cost:

	2019			2018		
Service cost	\$	289	\$	344		
Interest cost		194		198		
Past service cost		-		34		
Actuarial gain recognized		(148)		133		
Net periodic pension cost	\$	335	\$	709		

The accumulated benefit obligation, which represents benefits earned to date, was approximately \$2.9 million and \$1.7 million as of December 31, 2019 and 2018, respectively.

Amounts recognized in the consolidated balance sheets for the years ended December 31, 2019 and 2018 consisted of the following (in thousands):

	2019			2018		
Current accrued benefit cost	\$	570	\$	320		
Non-current accrued benefit cost		4,041		2,271		
Net amount recognized	\$	4,611	\$	2,591		

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, 2019 were as follows:

	2019	2018
Discount rate	4.85%-10.42%	7.25%-12.17%
Rate of increase in compensation level	5%-7%	5%-7%

Estimated Future Benefit Payments:

As of December 31, 2019, the following benefit payments, which reflect expected future service, as appropriate, were expected to be paid (in thousands):

Years Ending December 31, Amoun		
2020	\$	578
2021		329
2022		159
2023		156
2024		217
2025 to 2029		2,665
	\$	4,104

8. 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.

Stockholders Rights Agreement - On February 1, 2019, the Board of Directors declared a dividend of one preferred share purchase right (each, a "Right," and collectively, the "Rights") for each outstanding share of the Company's common stock on February 15, 2019. The description and terms of the Rights are set forth in a Rights Agreement between the Company and American Stock Transfer & Trust Co., as rights agent, dated as of February 1, 2019 (the "Rights Agreement"). Each Right entitles its holder to purchase, under certain conditions, one one-thousandth of a share of Series C Participating Preferred Stock ("Preferred Stock"). Each one one-thousandth of a share of Preferred Stock has substantially the same rights as one share of the Company's common stock. Subject to the terms and conditions of the Rights Agreement, Rights become exercisable ten days after the public announcement that a "Person" has become an "Acquiring Person" (as each such term is defined in the Rights Agreement) by obtaining beneficial ownership of 20% or more of the Company's outstanding common stock, or, if earlier, ten business days (or a later date determined by the Board of Directors before any Person becomes an Acquiring Person) after a Person begins a tender or exchange offer which, if completed, would result in that Person becoming an Acquiring Person. Any Rights held by an Acquiring Person are void and may not be exercised.

If a Person becomes an Acquiring Person, all holders of Rights, except the Acquiring Person, may purchase at the Right's then-current exercise price, the Company's common stock having a market value equal to twice the exercise price. Moreover, at any time after a Person becomes an Acquiring Person (unless such Person acquires 50 percent or more of the common stock of the Company then outstanding, as more fully described in the Rights Agreement), the Board of Directors may exchange one share of the Company's common stock for each outstanding Right (other than rights owned by such Person, which would have become void). In addition, if the Company is acquired in a merger or other business combination transaction after a Person becomes an Acquiring Person, all holders of Rights, except the Acquiring Person, may purchase at the Right's then-current exercise price, a number of the acquiring company's common stock having a market value of twice the exercise price. If the Company receives a "qualifying offer" (which includes certain all-cash fully financed tender offers or exchange offers for all of the Company's outstanding common stock), under certain circumstances, holders of 10 percent of the Company's outstanding common stock (excluding stock held by the offeror and its affiliates and associates) may direct the Board of Directors to call a special meeting of stockholders to consider a resolution exempting such "qualifying offer" from the Rights Agreement. The Rights themselves have no voting power. The Board of Directors may redeem the Rights at an initial redemption price of \$0.001 per Right under certain circumstances set forth in the Rights Agreement.

The Rights Agreement was approved by the Company's stockholders at the 2019 annual meeting. The Rights will expire on January 31, 2022 unless earlier redeemed or exchanged.

Common Stock Reserved - As of December 31, 2019, the Company had available for future issuance approximately 3,340,470 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. As of December 31, 2019, the Company repurchased 1,503,095 shares of its common stock under the July 2019 authorization.

9. Stock Options

On June 7, 2016, stockholders of the Company approved amendments to the Innodata Inc. 2013 Stock Plan. The Innodata Inc. 2013 Stock Plan, as amended and restated effective June 7, 2016, is referred to herein as the "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 Plan after June 7, 2016 is 5,858,892 (the Share Reserve). Shares subject to an option or stock appreciation right granted under the 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 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 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 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 Plan or the Prior Plan. If any shares are withheld, tendered or exchanged by a participant in the Plan as full or partial payment to Innodata of the exercise price under an option under the Plan or the Prior Plan or in satisfaction of a participant's tax withholding obligations with respect to any award under the 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 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 Plan or the Prior Plan.

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,						
		2019	2018				
Weighted average fair value of options granted	\$	0.56	\$	0.54			
Risk-free interest rate	1.6	58% - 2.55%		2.73%			
Expected life (years)		5-6		5-6			
Expected volatility factor	45.0)3%-46.38%	44.	16%-48.82%			
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 Plans as of December 31, 2019, and changes during the year then ended, are presented below:

_	Number of Options	Weighted - Average Exercise Price		U		ggregate nsic Value
Outstanding at January 1, 2019	4,982,040	\$	2.14			
Granted	2,112,500		1.25			
Exercised	(10,000)		1.11			
Forfeited/Expired	(251,237)		2.42			
Outstanding at December 31, 2019	6,833,303	\$	1.86	6.86	\$	89,405
Exercisable at December 31, 2019	4,365,333	\$	2.24	5.55	\$	50,743
Vested and Expected to Vest at						
December 31, 2019	6,833,303	\$	1.86	6.86	\$	89,405

The total compensation cost related to non-vested stock options not yet recognized as of December 31, 2019 totaled approximately \$1.3 million. The weighted-average period over which these costs will be recognized is 26 months. There were no option exercises during the year ended December 31, 2018.

A summary of restricted shares under the Company's Plan as of December 31, 2019 are presented below:

	Number of Shares	Weighted-Average Grant Date Fair Value		
Granted	75,000	\$	1.38	
Vested	-		-	
Forfeited/Expired			-	
Unvested at December 31, 2019	75,000	\$	1.38	

10. 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, 2019 and 2018, 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, 2019 Other comprehensive income before	\$	1,451	\$	-	\$	(1,466)	\$	(15)
reclassifications, net of taxes Total other comprehensive income (loss)				46		566		612
before reclassifications, net of taxes Net amount reclassified to earnings		1,451 (1,504)		46 (13)		(900)		597 (1,517)
Balance at December 31, 2019	\$	(53)	\$	33	\$	(900)	\$	(920)

	Pension Liability Adjustment		Fair Value of Derivatives		Foreign Currency Translation Adjustment		Accumulated Other Comprehensive Loss	
Balance at January 1, 2018 Other comprehensive loss before	\$	1,191	\$	342	\$	(687)	\$	846
reclassifications, net of taxes		-		(695)		(779)		(1,474)
Total other comprehensive income (loss) before reclassifications, net of taxes		1,191 260		(353) 353		(1,466)		(628)
Net amount reclassified to earnings Balance at December 31, 2018	\$	1,451	\$	-	\$	(1,466)	\$	613 (15)

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

11. 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 a range of solutions and platforms for solving complex data challenges that companies face when they seek to obtain the benefits of AI systems and analytics platforms. These include

data annotation, data transformation, data curation and intelligent automation. The DDS segment also provides a variety of services for clients in the information industry that relate to content operations and product development.

The Synodex segment provides an intelligent data platform that transforms medical records into useable digital data organized in accordance with our proprietary data models or client data models.

The Agility segment provides an intelligent data 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 facilities in the Philippines, India, Sri Lanka, Canada, Germany, the United Kingdom and Israel.

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

	 2019	F	2018 Restated
Revenues:			
DDS	\$ 41,172	\$	43,546
Synodex	3,942		4,063
Agility	 10,744		9,809
Total Consolidated	\$ 55,858	\$	57,418
Income (loss) before provision for income taxes ⁽¹⁾ :			
DDS	\$ 1,320	\$	3,625
Synodex	(129)		284
Agility	(1,719)		(2,347)
Total Consolidated	\$ (528)	\$	1,562
Income (loss) before provision for income taxes ⁽²⁾ :			
DDS	\$ 1,059	\$	3,391
Synodex	40		446
Agility	(1,627)		(2,275)
Total Consolidated	\$ (528)	\$	1,562

	Decemb	per 31, 2019		ber 31, 2018 estated
Total assets:				
DDS	\$	23,196	\$	21,223
Synodex		675		787
Agility		25,875		22,930
Total Consolidated	\$	49,746	\$	44,940
	Decemb	oer 31, 2019	Decem	ber 31, 2018
Goodwill:				
Agility	\$	2,108	\$	2,050
Total	\$	2,108	\$	2,050

⁽¹⁾ Before elimination of any inter-segment profits

⁽²⁾ After elimination of any inter-segment profits

Long-lived assets as of December 31, 2019 and 2018 by geographic region were comprised of (in thousands):

	2019	2018
United States	\$ 4,591	\$ 4,383
Foreign countries:		
Canada	8,876	7,023
United Kingdom	1,907	2,045
Philippines	5,135	900
India	508	475
Sri Lanka	678	280
Israel	19	30
Germany	1	2
Total foreign	17,124	10,755
Totals	\$ 21,715	\$ 15,138

Two clients in the DDS segment generated approximately 26% and 30% of the Company's total revenues in the fiscal years ended December 31, 2019 and 2018, respectively. No other client accounted for 10% or more of total revenues during these periods. Further, in the years ended December 31, 2019 and 2018, revenues from non-US clients accounted for 55% and 56%, respectively, of the Company's revenues.

Revenues for each of the two years in the period ended December 31, 2019 by geographic region (determined based upon client's domicile), were as follows (in thousands):

	2019	2018
United States	\$ 25,357	\$ 25,403
United Kingdom	9,577	10,874
The Netherlands	6,982	7,488
Canada	6,192	5,985
Others - principally Europe	7,750	7,668
Totals	\$ 55,858	\$ 57,418

As of December 31, 2019, approximately 60% of the Company's accounts receivable was due from foreign (principally European) clients and 44% of accounts receivable was due from three clients. As of December 31, 2018, approximately 57% of the Company's accounts receivable was due from foreign (principally European) clients and 48% of accounts receivable was due from three clients. No other client accounted for 10% or more of the accounts receivable as of December 31, 2019.

12. Loss per Share

	For the Years Ended December 31,		
	2019 20 (Rest		
Net loss attributable to Innodata Inc. and Subsidiaries	\$ (1,602)	\$ (253)	
Weighted average common shares outstanding Dilutive effect of outstanding options	25,774	25,878	
Adjusted for dilutive computation	25,774	25,878	

Basic loss per share is computed using the weighted-average number of common shares outstanding during the year. Diluted 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 loss per share is used.

Options to purchase 6.8 million and 5.0 million shares of common stock for the years ended December 31, 2019 and 2018, respectively, were outstanding but not included in the computation of diluted loss per share because the effect would have been anti-dilutive.

13. Derivatives

The Company conducts a large portion of its operations in international markets that 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's primary 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 revenues are denominated in U.S. dollars, a significant portion of the total revenues is denominated in Canadian dollars, Pound Sterling and Euros.

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. As of December 31, 2018, we had no outstanding forward contracts. The total notional amount for outstanding derivatives as of December 31, 2019 was \$4.3 million.

The following table presents the fair value of derivative instruments included within the consolidated balance sheets as of December 31, 2019 and 2018 (in thousands):

	Balance Sheet Location	Fair Value		9	
		20)19		2018
Derivatives designated as hedging instruments:					
	Prepaid expenses and other				
Foreign currency forward contracts	current assets	\$	33	\$	_

The effect of foreign currency forward contracts designated as cash flow hedges on the consolidated statements of operations for the years ended December 31, 2019 and 2018 were as follows (in thousands):

	2019		2018	
Net gain (loss) recognized in OCI ⁽¹⁾	\$	46	\$	(695)
Net gain (loss) reclassified from accumulated OCI into income ⁽²⁾	\$	13	\$	(353)
Net 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.

14. Financial Instruments

The carrying amounts of financial instruments, including cash and cash equivalents, accounts receivable and accounts payable approximated their fair value as of December 31, 2019 and 2018, because of the relative short maturity of these instruments.

"Fair Value Measurements and Disclosures" defines 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.

 \Box 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.

December 31, 2019	Leve	11	Level	2	Lev	el 3
Assets Derivatives	\$	-	\$	33	\$	-

Exhibit Index

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

<u>Exhibit</u>	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	Exhibit 3.1 to Form 8-K dated December 16, 2002
3.3	Form of Certificate of Designation of Series C Participating Preferred Stock	Filed as Exhibit A to Exhibit 4.1 to Form 8-K dated December 16, 2002
4.1	Specimen of Common Stock certificate	Exhibit 4.1 to Form 10-Q dated August 7, 2015
4.2	Form of Rights Agreement, as of February 1, 2019 between Innodata Inc. and American Stock Transfer and Trust Co., as Rights Agent	Exhibit 4.1 to Form 8-K dated February 4, 2019
4.3	Description of the Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934	Filed herewith
10.1	Form of Indemnification Agreement between us and our directors and one of our Officers	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*	Exhibit 10.1 to Form 10-Q for the quarter ended June 30, 2007
10.3	Amended and Restated Employment Agreement dated as of December 24, 2008 with Jack S. Abuhoff*	Exhibit 10.1 to Form 8-K dated December 30, 2008
10.4	Amended and Restated 2009 Stock Plan	Annex A to Definitive Proxy dated April 22, 2011
10.5	Amendment to Employment Agreement with Jack S. Abuhoff dated as of July 11, 2011*	Exhibit 10.1 to Form 8-K dated July 12, 2011
10.6	Form of Director Stock Option Grant Letter dated March 8, 2013*	Exhibit 10.42 to Form 10-K dated March 15, 2013
10.7	Form of Stock Option Grant Letter dated March 8, 2013 for Messrs. Abuhoff, Mishra and Nalavadi*	Exhibit 10.43 to Form 10-K dated March 15, 2013
10.8	Form of Stock Option Grant Letter dated March 8, 2013 for Jack Abuhoff*	Exhibit 10.44 to Form 10-K dated March 15, 2013

10.9	Form of Stock Option Grant Letter for December 31, 2015 Grant, for Directors*	Exhibit 10.53 to Form 10-K dated March 14, 2016
10.10	Form of Stock Option Grant Letter for December 31, 2015 Grant, for Messrs. Abuhoff Mishra and Nalavadi*	Exhibit 10.53 to Form 10-K dated March 14, 2016
10.11	Innodata Inc. 2013 Stock Plan (as Amended and Restated effective June 7, 2016)	Annex B to Definitive Proxy dated April 18, 2016
10.12	Form of Stock Option Grant Letter for December 31, 2016 Grant, for Directors*	Exhibit 10.56 to Form 10-K dated March 15, 2017
10.13	Form of Stock Option Grant Letter For December 31, 2016 Grant, for Messrs. Abuhoff, Mishra and Nalavadi*	Exhibit 10.57 to Form 10-K dated March 15, 2017
10.14	Amendment Number 1 dated August 24, 2018 to Agreement dated January 1, 2007 between the Company and Mr. Mishra*	Exhibit 10.1 to Form 8-K dated August 28, 2018
10.15	Form of Stock Option Grant Letter for July 13, 2018 Grant, for Directors*	Exhibit 10.59 to Form 10-K dated March 26, 2019
10.16	Form of Stock Option Grant Letter for July 13, 2018 Grant, for Messrs. Abuhoff and Mishra*	Exhibit 10.60 to Form 10-K dated March 26, 2019
10.17	Offer of Employment effective April 17, 2019 between the Company and Mr. O' Connor*	Exhibit 10.1 to form 8-K dated April 18, 2019
21	Significant subsidiaries of the registrant	Filed herewith
23	Consent of CohnReznick 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	Filed herewith

^{*} 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.

Exhibit 21

Significant Subsidiaries

		Name under
	State or other	which subsidiary
	jurisdiction of	conducts
Name of Subsidiary	incorporation	business
Innodata India Private Limited	India	Same
Innodata Knowledge Services, Inc.	Philippines	Same
ESS Manufacturing Company, Inc.	Philippines	Same
EBAR Abstracting Company, Inc.	Philippines	Same
Innodata Book Distribution Services Ltd.	Hong Kong	Same
Agility PR Solutions Canada Ltd.	Canada	Same

Exhibit 23

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the registration statements on Form S-8 (File Nos. 33-85530, 333-63085, 333-82185, 333-118506, 333-172831, 333-176402, 333-193051, 333-201659, and 333-215130) and the registration statements on Form S-3 (File Nos. 333-91649 and 333-51400) of our report, which includes explanatory paragraphs relating to a restatement of the 2018 consolidated financial statements and the 2019 adoption of ASC Topic 842, Leases, dated March 16, 2020, relating to our audits of the consolidated financial statements of Innodata Inc. and Subsidiaries as of December 31, 2019 and 2018, and for the years then ended, included in this Annual Report on Form 10-K of Innodata Inc. for the year ended December 31, 2019.

/s/ CohnReznick LLP

Roseland, New Jersey March 16, 2020

CERTIFICATIONS

I, Jack Abuhoff, certify that:

- 1. I have reviewed this annual report on Form 10-K of Innodata Inc.;
- 2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and we have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's fourth fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.
- 5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal controls over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: March 16, 2020

/s/ Jack Abuhoff

Jack Abuhoff Chairman of the Board, Chief Executive Officer and President I, Robert O'Connor, certify that:

- 1. I have reviewed this annual report on Form 10-K of Innodata Inc.;
- 2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and we have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's fourth fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.
- 5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal controls over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: March 16, 2020

/s/ Robert O'Connor

Robert O'Connor Chief Financial Officer and Principal Accounting Officer

Exhibit 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Innodata Inc. (the "Company") on Form 10-K for the year ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Jack Abuhoff, Chairman of the Board, Chief Executive Officer and President of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

- 1. the Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- 2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Jack Abuhoff

Jack Abuhoff Chairman of the Board, Chief Executive Officer and President

March 16, 2020

Exhibit 32.2

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Innodata Inc. (the "Company") on Form 10-K for the year ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Robert O'Connor, Chief Financial Officer and Principal Accounting Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

- 1. the Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- 2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Robert O'Connor

Robert O'Connor Chief Financial Officer and Principal Accounting Officer

March 16, 2020