UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended April 30, 2022
OR

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

FOR THE TRANSITION PERIOD FROM TO

Commission File Number 001-38675

Elastic N.V.

(Exact name of registrant as specified in its Charter)

The Netherlands	**Not Applicable**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

800 West El Camino Real, Suite 350
Mountain View, California 94040
(Address of principal executive offices, including zip code)
Registrant's telephone number, including area code: (650) 458-2620

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

(Title of each class)	Trading Symbol(s)	(Name of each exchange on which registered)
Ordinary shares, Par Value €0.01 Per Share	ESTC	New York Stock Exchange

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

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

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

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

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

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒
The aggregate market value of the ordinary shares held by non-affiliates of the registrant, based on the closing price of the shares of ordinary shares on the New York Stock Exchange on October 31, 2021 (the last business day of the registrant's second fiscal quarter), was approximately $16.1 billion.

The number of registrant's ordinary shares outstanding as of June 16, 2022 was 94,857,635.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement relating to the registrant's 2022 annual general meeting of shareholders (the "2022 Proxy Statement") are incorporated by reference into Part III of this Annual Report on Form 10-K where indicated. The 2022 Proxy Statement will be filed with the U.S. Securities and Exchange Commission within 120 days after the end of the registrant's fiscal year ended April 30, 2022.

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General

Unless the context otherwise indicates, references in this report to the terms "Elastic", "the Company," "we," "our" and "us" refer to Elastic N.V. and its subsidiaries. All information presented herein is based on our fiscal calendar. Unless otherwise stated, references to particular years, quarters, months or periods refer to the Company's fiscal years ended April 30 and the associated quarters, months and periods of those fiscal years.

Trademarks

The Elastic design logo, "Elastic" and our other registered or common law trademarks, service marks or trade names appearing in this Annual Report on Form 10-K are the property of Elastic N.V. and its subsidiaries. Other trademarks and trade names referred to in this Annual Report on Form 10-K are the property of their respective owners. Solely for convenience, trademarks and trade names referred to in this Annual Report on Form 10-K may appear without the ® or ™ symbols.

Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), which statements involve substantial risk and uncertainties. Forward-looking statements generally relate to future events or our future financial or operating performance. In some cases, you can identify forward-looking statements because they contain words such as "may,", "might," "will," "should," "expects," "plans," "anticipates," "could," "intends," "target," "projects," "contemplates," "believes," "estimates," "predicts," "potential," or "continue" or the negative of these words or other similar terms or expressions that concern our expectations, strategy, plans, or intentions. Forward-looking statements contained in this Annual Report on Form 10-K include, but are not limited to, statements about:

- our future financial performance, including our expectations regarding our revenue, cost of revenue, gross profit or gross margin, operating expenses (which include changes in sales and marketing, research and development and general and administrative expenses), and our ability to achieve and maintain future profitability;
- our ability to continue to deliver and improve our offerings and successfully develop new offerings;
- customer acceptance and purchase of our existing offerings and new offerings, including the expansion and adoption of our cloud-based offerings;
- the impact of Russia's invasion of Ukraine on our business and on the businesses of our customers and partners, including their spending priorities;
- the impact of the 2019 coronavirus disease, including any current and future variants thereof ("COVID-19"), on our business, operations, hiring and financial results, and on the businesses of our customers and partners, including their spending priorities, the effect of governmental lockdowns, restrictions, new regulations and vaccine distribution and efficacy;
- the impact that increased adoption of consumption-based arrangements could have on our revenue or operating results;
- the impact of changes to our licensing of our products, specifically Elasticsearch and Kibana;
- our assessments of the strength of our solutions and products;
- our service performance and security, including the resources and costs required to prevent, detect and remediate potential security breaches or incidents, including by bad actors;
- our ability to maintain and expand our user and customer base;
- the market for our products continuing to develop;
- competition from other products and companies with more resources, recognition and presence in our industry;
- the impact of foreign currency exchange rate and interest rate fluctuations on our results;
- the pace of change and innovation in the markets in which we participate and the competitive nature of those markets;
- our business strategy and our plan to build our business;
- our ability to effectively manage our growth, including any changes to our pace of hiring;
- our international expansion strategy;
- our operating results and cash flows;

- our strategy of acquiring complementary businesses and our ability to successfully integrate acquired businesses and technologies;
- the impact of acquisitions on our future product offerings;
- our beliefs and objectives for future operations;
- our relationships with and reliance on third parties, including partners;
- our ability to protect our intellectual property rights;
- our ability to develop our brands;
- the impact of expensing stock options and other equity awards;
- the sufficiency of our capital resources;
- our ability to successfully defend litigation brought against us;
- our ability to successfully execute our go-to-market strategy, including the positioning of our solutions and products, and expand in our existing markets and into new markets;
- sufficiency of cash to meet cash needs for at least the next 12 months;
- our ability to comply with laws and regulations that currently apply or become applicable to our business both in the United States and internationally;
- our ability to attract and retain qualified employees and key personnel;
- our ability to onboard, provide training to and integrate new employees;
- the effect of the loss of key personnel;
- our expectations about the impact of natural disasters and public health epidemics and pandemics, on our business, results of operations and financial condition;
- expectations about seasonality;
- the future trading prices of our ordinary shares;
- inflation;
- our ability to service our debt obligations; and
- general market, political, geopolitical, economic and business conditions (including developments and volatility arising from the ongoing COVID-19 pandemic and the ongoing military conflict between Russia and Ukraine).

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this Annual Report on Form 10-K, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

You should not rely upon forward-looking statements as predictions of future events. We have based the forward-looking statements contained in this Annual Report on Form 10-K primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition, results of operations, and prospects. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties, and other factors described in the section titled "Risk Factors" in Part I, Item 1A and elsewhere in this Annual Report on Form 10-K. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this Annual Report on Form 10-K. Any additional or unforeseen effect from the ongoing COVID-19 pandemic may exacerbate these risks. We cannot assure you that the results, events, and circumstances reflected in the forward-looking statements will be achieved or occur, and actual results, events, or circumstances could differ materially from those described in the forward-looking statements.

The forward-looking statements made in this Annual Report on Form 10-K relate only to events as of the date on which such statements are made. We undertake no obligation to update any forward-looking statements after the date of this Annual Report on Form 10-K or to conform such statements to actual results or revised expectations, except as required by law. We may not actually achieve the plans, intentions, or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures, or investments we may make.

PART I

ITEM 1. BUSINESS.

Elastic is a data analytics company built on the power of search. Our platform, which is available as both a hosted, managed service across public clouds as well as self-managed software, allows our customers to almost instantly find insights from large amounts of data and take action. We offer three search-powered solutions – Enterprise Search, Observability, and Security – that are built into the platform. We help organizations, their employees, and their customers find what they need faster, while keeping mission-critical applications running smoothly, and protecting against cyber threats.

As digital transformation and cloud adoption drive mission critical business functions online and to the cloud, we believe that every company will need to build around a search-based data analytics platform, one which brings speed, scale, and relevance to the vast volumes of data being generated.

Our platform is built on the Elastic Stack, a powerful set of software products that ingest data from any source, in any format, and perform search, analysis, and visualization of that data. At the core of the Elastic Stack is Elasticsearch - a highly scalable document store and search engine, and the only data store for all of our solutions and use cases. Another key component of the Elastic Stack is Kibana, which delivers a single user interface across all of our solutions, with powerful drag-and-drop visual analytics, and centralized management of the platform. Our out-of-the-box solutions for fast time to value, paired with our developer-centric platform that is extensible and customizable, all built around a core data store and single user experience that we control, allow us to innovate fast and differentiate our offerings at every level.

We make our platform available as a hosted, managed service across major cloud providers (Amazon Web Services (“AWS”), Google Cloud Platform (“GCP”), and Microsoft Azure) in more than 50 public cloud regions globally. Customers can also deploy our platform across hybrid clouds, public or private clouds, and multi-cloud environments.

Our business model is based primarily on a combination of a paid Elastic-managed hosted service offering and paid and free proprietary self-managed software. Our paid offerings for our platform are sold via subscription through resource-based pricing, and all customers and users have access to all solutions. In Elastic Cloud, our family of cloud-based offerings under which we offer our software as a hosted, managed service, we offer various subscription tiers tied to different features. For users who download our software, we make some of the features of our software available for free, allowing us to engage with a broad community of developers and practitioners and introduce them to the value of the Elastic Stack. We believe in the importance of an open software development model, and we develop the majority of our software in public repositories as open code under a proprietary license. Unlike some companies, we do not build an enterprise version that is separate from our free distribution. We offer a single code base across both our self-managed software and Elastic-hosted services. All of these actions help us build a powerful commercial business model that we believe is optimized for product-led growth.

Our customers often significantly expand their usage of our products and services over time. Expansion includes increasing the number of developers and practitioners using our products, increasing the utilization of our products for a particular use case, and applying our products to new use cases. We focus some of our direct sales efforts on encouraging this type of expansion within our customer base, both within as well as across solutions. Because our business model provides access to all solutions with resource-based pricing, we make it easy for customers to expand across use cases.

Our business has experienced rapid growth around the world. As of April 30, 2022, we had over 18,600 customers compared to over 15,000 customers and over 11,300 customers as of April 30, 2021 and 2020, respectively. Our revenue was $862.4 million, $608.5 million, and $427.6 million for the years ended April 30, 2022, 2021 and 2020, respectively, representing year-over-year growth of 42% for each of the years ended April 30, 2022 and 2021. Subscriptions accounted for 93%, 93% and 92% of our total revenue for the years ended April 30, 2022, 2021 and 2020, respectively. Revenue from outside the United States accounted for 44%, 45% and 43% of our total revenue for the years ended April 30, 2022, 2021 and 2020, respectively.

For the years ended April 30, 2022, 2021 and 2020, we incurred net losses of $203.8 million, $129.4 million and $167.2 million, respectively. We expect we will continue to incur net losses for the foreseeable future. Our net cash provided by operating activities was $5.7 million and $22.5 million for the years ended April 30, 2022 and 2021, respectively, and cash used in operating activities for the year ended April 30, 2020 was $30.6 million.

Our Products

Our products enable our customers and users to instantly find relevant information and insights in large amounts of data across a broad range of business and consumer use cases.

We offer the Elastic Stack, a powerful set of software products that ingest and store data from any source, in any format, and perform search, analysis, and visualization, usually in milliseconds. The Elastic Stack can be used by developers to power a variety of use cases. We also offer software solutions built in the Elastic Stack that address a wide variety of use cases. The Elastic Stack and our solutions are designed to run in public or private clouds, in hybrid environments, or in multi-cloud environments.

The Elastic Stack

The Elastic Stack is primarily composed of the following products:

- **Elasticsearch.** Elasticsearch is the heart of the Elastic Stack. It is a distributed, real-time search and analytics engine and data store for all types of data including textual, numerical, geospatial, structured, and unstructured.
- **Kibana.** Kibana is the user interface for the Elastic Stack. It is the visualization layer for data stored in Elasticsearch. It is also the management and configuration interface for all parts of the Elastic Stack.

The Elastic Stack also supports data ingest with a number of supporting products:

- **Elastic Agent.** Elastic Agent is a single, unified way to add monitoring for logs, metrics, and other types of data to each host. Elastic Agent includes integrated host protection and central management.
- **Beats.** Beats is the family of lightweight, single-purpose data shippers for sending data from edge machines to Elasticsearch or Logstash.
- **Logstash.** Logstash is the dynamic data processing pipeline for ingesting data into Elasticsearch or other storage systems from a multitude of sources simultaneously.

Paid proprietary features in the Elastic Stack enable capabilities such as automating anomaly detection on time series data at scale through machine learning, facilitating compliance with data security and privacy regulations, supporting search across low cost cold and frozen data tiers, and allowing real-time notifications and alerts. The source code of features in the Elastic Stack is generally visible to the public in the form of “open code.”

Our Solutions

We have built a number of solutions into the Elastic Stack to make it easier for organizations to use our software for common use cases. Our solutions include:

- **Enterprise Search.** Our Enterprise Search solution provides powerful search for documents and results living in applications, websites, and workplaces. Key use cases for Enterprise Search include: search applications, a foundation for building search experiences to support websites and portals, e-commerce, mobile app search, and customer support; and workplace search, an out-of-the-box search solution for the workplace that seamlessly connects to the most widely used enterprise systems and tools.
- **Observability.** Our Observability solution enables unified analysis across the IT ecosystem of applications, networks, and infrastructure. Observability includes: Logs, to search and analyze petabytes of structured and unstructured logs; Metrics, to search and analyze numeric and time series data; application performance monitoring (“APM”), to deliver insight into application performance and health metrics and provide developers with confidence in their code; and Synthetic Monitoring, to proactively monitor the availability and functionality of user journeys.
- **Security.** Our Security solution provides unified protection to prevent, detect, and respond to threats. Security includes: SIEM, with integrations to network, host, user, and cloud data sources, as well as workflow and operations, shareable analytics, incident management, and investigations; Endpoint Security, for prevention, detection and response with a single, stack-integrated agent; Extended Detection and Response (“XDR”), providing protection across infrastructure from SIEM to Endpoint; and Cloud Security, providing cloud posture assessment and protecting cloud workloads with one integrated solution

Our Deployment Options

The Elastic Stack and our solutions can be deployed in public or private clouds, in hybrid environments, or in multi-cloud environments, to satisfy various user and customer needs. Elastic Cloud, our family of cloud-based offerings, is hosted on major public cloud providers. We also partner with other cloud providers who offer our software to users on their cloud platform as a hosted offering.

Users can also download and manage their own deployments of the Elastic Stack and our solutions. To help with more complex deployment scenarios, we offer paid proprietary products to deliver centralized provisioning, management, and monitoring across multiple deployments.

Strengths of Our Products

The strengths of our products include the following:

- **Speed.** The Elastic Stack can find matches for search criteria in milliseconds within even the largest structured and unstructured datasets. Its schema-less structure and inverted indices enable real-time search of high volumes of structured, unstructured, and time series data.
- **Scale.** The Elastic Stack is a distributed system and can scale massively. It has the ability to subdivide search indices into multiple pieces called shards, which enables data volume to be scaled horizontally and operations to be distributed across hundreds of systems or more. A developer running hundreds of nodes has the same user experience as a developer running a single node on a laptop.
- **Relevance.** Elasticsearch uses multiple analytical techniques to determine the similarity between stored data and queries, generating highly relevant results reflecting a deep understanding of text and context. Its sophisticated yet developer-friendly query language permits advanced search and analytics. Additionally, the speed of the Elastic Stack permits query iteration, further enhancing the relevance of search results.
- **Ease of Use.** The Elastic Stack is engineered to take a user from data to dashboard or inquiry to insight in minutes. It offers an easy getting started experience, featuring streamlined download and deployment, sensible defaults, a simple and intuitive query language that just works, and no need to define a schema up front. Administrative tasks such as securing the Elastic Stack are intuitive and integrated into the user experience, as are investigative tasks such as data visualization.
- **Flexibility.** The Elastic Stack is able to ingest, filter, store, search, and analyze data in any form, whether structured or unstructured. These capabilities enable the Elastic Stack to generate insights from a wide variety of data sources for a broad range of use cases. The flexibility of the Elastic Stack also enables users to begin using our products along with their existing systems, which lowers barriers to adoption.
- **Extensibility.** Developers can use the Elastic Stack as a foundation for addressing a wide variety of use cases. Our open approach to building the Elastic Stack empowers developers to innovate and utilize it to fit their specific needs. Additionally, our developer community actively engages with us to improve and expand the Elastic Stack.

Our Growth Strategies

We intend to pursue the following growth strategies:

- **Increase usage of Elastic Cloud.** We believe that Elastic Cloud represents a significant growth opportunity. We plan to expand Elastic Cloud geographically. We plan to continue to invest resources in increasing the adoption of Elastic Cloud.
- **Increase product adoption by improving ease of use and growing our user community.** With our engineering efforts focused on the user experience, we will continue to develop software that makes our products easier to use and adopt for both developers and non-developers. We will continue to engage with developers globally through a wide range of touch points such as community meetups, global community groups, hackathons, our global events, our user conferences, which we call ElasticON, and engagement on our website, user forums, and code repositories, to grow our user community.
- **Expand our customer base by acquiring new customers.** Through Elastic Cloud, we provide the fastest and easiest way to get started with a free trial. However, there is no free subscription tier in Elastic Cloud. Self-managed users can easily download our software directly from our website and access many features free of charge, which also facilitates adoption. Our sales and marketing team conducts campaigns to drive further awareness and adoption within the user community. As a result, many of our sales prospects are already familiar with our technology prior to entering into a commercial relationship with us. Additionally, we leverage our network of partners to drive awareness and expand our sales and marketing reach to target new customers. We will continue to engage our community and our partners to drive awareness and to invest in our sales and marketing team to grow our customer base.
- **Expand within our existing customer base through new use cases and larger deployments.** We often enter an organization through a single developer or a small team for an initial project or use case with an objective to quickly solve a technical challenge or business problem. Because of the rapid success with our products, knowledge of Elastic often spreads within an organization to new teams of developers, architects, IT operations personnel, security personnel, and senior executives. We will continue to invest in helping users and customers be

successful with our products, and we view initial success with our products as a path to drive expansion to new use cases and projects and larger deployments within organizations.

- **Extend our product leadership through continued investment in our technology.** We will continue to invest in our products and services to extend into new use cases, industries, geographies, and customers.
- **Expand our strategic and regional partnerships.** Our partners assist us in driving awareness of Elastic and our products, using the Elastic Stack to solve customer pain points, and extending our reach in geographic areas and verticals where we do not have a formal sales presence. We have a diverse range of partners and we will continue to pursue partnerships to further the development of the Elastic Stack and our customer reach.
- **Selectively pursue strategic acquisitions.** Since inception, we have selectively pursued strategic acquisitions to drive product and market expansion. The focus of our most recent acquisitions has been to enhance the technology underlying our Security and Observability offerings. We intend to continue to pursue acquisitions selectively.

Customers

Organizations of all sizes, across many industries, both private and public, purchase our products for a variety of use cases. As of April 30, 2022, we had over 18,600 customers compared to over 15,000 customers and over 11,300 customers as of April 30, 2021 and 2020, respectively. No customer represented more than 10% of our total revenue for the years ended April 30, 2022, 2021, and 2020.

Engineering

Our engineering organization focuses on enhancing existing products and developing new features that are easy to use and can be run in any environment including in public or private clouds, in hybrid environments, or in multi-cloud environments. With a distributed engineering team spanning over 30 countries, we are able to recruit, hire, and retain high-quality, experienced developers, tech leads, and product managers, and operate at a rapid pace to drive product releases, fix bugs, and create new product offerings.

Our software development process is based on iterative releases of the Elastic Stack. We are organized in small functional teams with a high degree of autonomy and accountability. Our distributed and highly modular team structure and well-defined software development processes also allow us to successfully incorporate technologies that we have acquired.

We intend to continue to invest in our research and development capabilities to extend our products. Research and development expense totaled $273.8 million and $199.2 million for the years ended April 30, 2022 and 2021, respectively. We plan to continue to devote significant resources to research and development.

Sales and Marketing

We make it easy for users to begin using our products in order to drive rapid adoption. Users can either sign up for a free trial on Elastic Cloud or download our software directly from our website without any sales interaction, and immediately begin using the full set of features. Users can also sign up for Elastic Cloud through public cloud marketplaces.

With our business model, where users can download and use many of our features for free, our sales prospects are often already familiar with or using our platform. We conduct low-touch campaigns to keep users and customers engaged once they have begun using Elastic Cloud or downloaded our software. This includes providing high-quality content, documentation, webinars, videos, and blogs through our website. We also drive high-touch engagement with qualified prospects and customers to drive further awareness, adoption, and expansion of our products with paid subscriptions. The majority of our new customers use Elastic Cloud. Many of these customers start with limited initial spending, but can significantly grow their spending.

Our sales teams are organized primarily by geography and secondarily by customer segments. We rely on inside sales development representatives to qualify leads based on their likelihood to make a purchase. We pursue sales opportunities both through a direct sales motion and assisted by partners, including through cloud marketplaces. Our relationships within customer organizations often extend beyond the initial users of the technology and include technology and business decision-makers at various levels. We also engage with our customers on an ongoing basis through a customer success team, to ensure customer satisfaction and expand their usage of our technology.

Partners

We maintain partner relationships that help us market and deliver our products to our customers and complement our community. Our partner relationships include the following:

- **Cloud providers.** We work with many of the major cloud providers to increase awareness of our products and make it easy to access our software. We partner with Amazon, Google, and Microsoft to offer Elastic Cloud on AWS, GCP, and Microsoft Azure, through direct purchase from us or their respective marketplaces. We also partner with other cloud providers to offer our free and paid proprietary features to users on their cloud platforms.
- **Systems integrators, channel partners, and referral partners.** We have a global network of systems integrators, channel partners, and referral partner relationships that help deliver our products to various business and government customers around the world.
- **OEM and MSP partners.** Our original equipment manufacturing ("OEM") and managed service provider ("MSP") partners embed an Elastic subscription into the products or services they offer to their customers. OEM or MSP partners are able to include Elastic's proprietary features in their product, receive ongoing support from Elastic for product development, and receive support for end customer issues related to Elastic.
- **Technology partners.** Our technology partners collaborate with Elastic to create a standardized solution for end users that includes technology from both Elastic and the partner. Technology partners represent a deeper collaboration than community contributions and are distinct from distribution-oriented relationships like OEMs and MSP partners.

Professional Services

We offer consulting and training as part of our offerings. To assist customers in accelerating their success with our software, our consulting team consists of engineers and architects who bring hands-on experience and deep technical knowledge to a project. Our training offerings enable our users to gain the necessary skills to develop, deploy, and manage our software.

Customer Support

We endeavor to make it easy for users to download, install, deploy and use the Elastic Stack and our solutions. To this end, our user community functions as a source of support and enables users to engage in self-help and collaboration.

However, in many situations, such as those involving complex enterprise IT environments, large deployments and novel use cases, our users require our support. Accordingly, we include support as part of the subscriptions we sell for our products. Our global support organization consists of highly technical support engineers who provide support experiences including troubleshooting, technical audits, cluster tuning, and upgrade assistance. Our support team is distributed across over 25 countries and provides coverage 24 hours per day, 365 days per year, across multiple languages.

We believe that software companies should not have incentives to build low quality software. In that connection, we do not sell support separately from our software subscriptions.

Our Technology

Our platform consists of the Elastic Stack, our solutions, and software that supports our various deployment alternatives. Because our solutions are built into the Elastic Stack, innovations and new capabilities in the Elastic Stack may benefit many of our solutions. Our customers can customize and extend our solutions to fit their needs by leveraging the power of the Elastic Stack and our developer capabilities.

Technology Features of the Elastic Stack

Elasticsearch is the heart of the Elastic Stack, where users store, search, and analyze data. Key features of Elasticsearch include the following:

- **Store any type of data.** Elasticsearch combines powerful parts of traditional search engines, such as an inverted index to power fast full text search and a column store for analytics, with native support for a wide range of data types, including text, dates, numbers, geospatial data, date/numeric ranges, and IP addresses. With sensible defaults, and no upfront schema definition necessary, Elasticsearch makes it easy to start simple and fine-tune as datasets grow.
- **Powerful query languages.** The Elasticsearch query domain specific language is a flexible, expressive search language that exposes a rich set of query capabilities across any kind of data. From simple Boolean operators to custom relevance functions, users can articulate exactly what they are looking for and bring their own definition of relevance. The query language also includes a composable aggregation framework that enables users to summarize, slice, and analyze structured or semi-structured datasets across multiple dimensions. Examples of

these capabilities include tracking the top ten users by spend, looking at data week over week, analyzing data across geographies, and drilling down into details with specific filters all with a single search.

- **Vector search.** Elastic natively supports vector search, which enables a wide range of advanced search use cases that improve relevance, including sophisticated search ranking, image search, question answering, and more. Vector search relies on a next generation of machine learning models that can represent many types of content as vectors, including text, images, events, and more. As data volumes and formats explode, this sophisticated approach to search and relevance is becoming important for use cases where delivering maximum relevance is critical.
- **Developer friendliness.** Elasticsearch has consistent, well-documented APIs that work the same way on one node during initial development as on a hundred nodes in production. Elasticsearch also ships with a number of language clients that provide a natural way to integrate with a variety of popular programming frameworks, reducing the learning curve, and leading to a shorter time to realizing value.
- **High speed.** Everything stored in Elasticsearch is indexed by default, such that users do not need to decide in advance what queries they will want to run. Our architecture optimizes throughput, time-to-data availability and query latency. Elasticsearch can easily index millions of events per second, and newly added data can be available for search nearly instantly.
- **High scale and availability.** Elasticsearch is designed to scale horizontally and be resilient to node or hardware failures. As nodes join a cluster, data is automatically re-balanced and queries and indexing are spread across the new nodes seamlessly. This makes it easy to add hardware to increase indexing throughput or improve query throughput. Elasticsearch also detects node failures and hardware or network issues and automatically protects user data by ejecting the failing or inaccessible nodes and creating new replicas of the data.
- **Machine learning and alerting.** Machine learning capabilities such as anomaly detection, forecasting, and categorization are tightly integrated with the Elastic Stack to automatically model the behavior of data, such as trends and periodicity, in real time in order to identify issues faster, streamline root cause analysis, and reduce false positives. Without these capabilities, it can be very difficult to identify issues such as infrastructure problems or intruders in real time across complex, high-volume, fast-moving datasets.
- **Security.** Security features give administrators the rights to grant specific levels of access to their various types of users, such as IT, operations, and application teams. Elasticsearch serves as the central authentication hub for the entire Elastic Stack. Security features include encrypted communications and encryption-at-rest; role-based access control; single sign-on and authentication; field-level, attribute-level, and document-level security; and audit logging.

Kibana is the user interface for the Elastic Stack. It allows users to manage the Elastic Stack and visualize data. Additionally, the interfaces for many of our solutions are built into Kibana. Key features of Kibana include the following:

- **Explore and visualize data stored in Elasticsearch.** Kibana provides interactive data views, visualizations, and dashboards powered by structured filtering and unstructured search to enable users to get to answers more quickly. A variety of data visualization types, such as simple line and bar charts, purpose-built geospatial and time series visualizations, tree diagrams, network diagrams, heatmaps, scatter plots, and histograms, support diverse user needs.
- **Incorporate advanced analytics and machine learning from Elasticsearch.** Kibana's query, filtering, and data summarization capabilities reflect Elasticsearch's powerful query domain specific language and aggregation framework while making it interactive.
- **Manage the Elastic Stack.** Kibana presents a broad user interface showing the health of Elastic Stack components and provides cluster alerts to notify administrators of problems. Its central management user interfaces (UIs) make it easier to operate the Elastic Stack at scale.
- **Home for Solutions.** Kibana is where our users and customers access the user interfaces for our Enterprise Search, Observability, and Security solutions. Kibana provides core services, like security, alerting, and data visualization components. This makes it easy for users to discover all of the capabilities our solutions provide, and enables solution users to benefit from the core capabilities of Kibana.
- **Application framework.** Kibana is designed to be extensible. Users interested in a highly specialized visualization type not distributed with Kibana by default can customize experiences through a Kibana plugin and make the plugin available to the community. Dozens of Kibana plugins have been shared by the community via Elastic documentation and code sharing platforms such as GitHub.

Elastic Agent, Beats, and Logstash are data ingestion tools that enable users to collect and enrich any kind of data from any source for storage in Elasticsearch. Beats and Logstash have an extensible modular architecture. Elastic Agent is a single, unified way to add monitoring for logs, metrics, and other types of data to each host, and also includes integrated host protection and central management. Beats are lightweight agents purpose-built for collecting data on devices, servers, and inside containers. Key features include the following:

- **Data shippers.** Elastic Agent introduces a new single agent architecture across hosts that simplifies management and deployment. Elastic Agent is based on the architecture of Beats, lightweight agents built for the purposes of efficient data collection at the edge for specific types of data, such as Filebeat for the collection of logging data, Metricbeat for the collection of system or service metric data, Auditbeat for the collection of security data, Packetbeat for the collection of network data, and Heartbeat for the collection of availability data. Dozens of community Beats enable the collection of data from specialized sources.
- **Extensibility and community Beats.** The Beats platform enables rapid creation of custom Beats that can be run on a variety of edge technologies for data collection. Over 90 Beats have been shared by the community via Elastic documentation and many more are available through code sharing platforms such as GitHub.
- **Host protection.** Specifically with Elastic Agent, we extend protection to hosts in addition to data transfer. Elastic Agent stops malware and ransomware and enables environment-wide visibility and advanced threat detection.

Logstash enables centralized collection and extract, transformation, and load capabilities. Key features of Logstash include the following:

- **Data transformation engine.** Logstash is a centralized data transformation engine that can receive and pull data from multiple sources, transform and filter that data, and send it to multiple outputs. Logstash has a powerful and flexible configuration language that allows users to create data stream acquisition and transformation logic without having to write code. This greatly extends and accelerates the ability to create data management pipelines to a wide variety of organizations and individuals.
- **Plugins.** Logstash collects data from a variety of sources, such as network devices, queues, endpoints, and public cloud services. Logstash enriches the data via lookups against local data sources, such as a geolocation database, and remote data sources, such as relational databases. Logstash can output events to Elasticsearch or downstream queues and other data stores. We develop and support more than 80 plugins for many common integrations.
- **Logstash extensibility and community plugins.** A vibrant community of users extends our reach through hundreds of community Logstash plugins that enable integration with a wide variety of data sources across many use cases.

Technology Features of Our Solutions

Our solutions are designed to minimize time-to-value and deployment costs of using the Elastic Stack for common use cases. The functionality of our solutions often includes specialized data collection, through standardized APIs or custom agents, and custom user interfaces for specific data analytics, visualizations, workflows, and actions.

Enterprise Search gives users the tools to bring search experiences to customers, partners and teams quickly and scale them seamlessly.

- **Search applications.** Customers can bring the focused power of Elasticsearch to their company website, ecommerce site, or applications with a refined set of APIs and intuitive dashboards. Elastic delivers seamless scalability, tunable relevance controls, thorough documentation, well-maintained clients, and robust analytics to build a leading search experience. Customers can build rich applications directly on top of Elasticsearch, or they can use our Application Search framework to rapidly build and customize search applications.
- **Workplace search.** Customers can deploy internal workplace search to bring modern search to collaborative decisions and experiences. Elastic seamlessly connects to some of the world’s most widely adopted productivity tools, customer relationship management platforms, cloud storage platforms, collaboration tools, operation management platforms, and content management systems. Custom sources provide an elegant set of APIs that lets customers and users ingest any type of content from even more sources while preserving access control information.

Observability combines analysis across the IT ecosystem of IT applications, networks, and infrastructure to deliver actionable insights into performance, availability, usability, adoption, and anomalous behavior.

- **Logs.** Logs indexes, searches, and analyzes structured and unstructured logs at large scale to monitor the health and performance of an organization's services, infrastructure, and applications. Users can analyze and visualize information extracted from logs to understand system behavior and trends to optimize performance and preemptively address potential issues. By querying logs in ad hoc ways, users can triage, troubleshoot, and resolve performance issues.
- **Metrics.** Metrics ingests, searches, visualizes, and analyzes numeric and time series data from IT systems, including applications, data stores, hosts, containers, cloud infrastructure, and more. Users can review performance and utilization trends to optimize and plan for future needs. Metrics helps users deliver on infrastructure service level objectives ("SLOs"), and resolve downtime or performance issues by understanding how the state of individual components fits into the bigger picture.
- **APM.** APM delivers insight into application performance at the code level. Developers can instrument apps and see the lifecycle of a transaction across services from front end to back end. This can give developers confidence in the code they ship, and can give operational teams visibility into code-level errors and performance bottlenecks to accelerate root cause analysis and resolution during an investigation.
- **Synthetic Monitoring.** Customers and users leverage Synthetic Monitoring to track and monitor the availability of the hosts, websites, services, and application endpoints that support business operations. Through proactive monitoring, customers can detect troublesome components before they are reported by end users.

Security delivers unified protection to prevent, detect, and respond to a variety of threats across the IT ecosystem.

- **SIEM.** Elastic SIEM automates threat detection and remediation, reducing mean time to detect ("MTTD") and mean time to respond ("MTTR"). With prebuilt Elastic Agent and Beats integrations, SIEM can ingest data from cloud, network, endpoints, applications, and other systems. With Elastic Common Schema ("ECS"), users can centrally analyze information like logs, flows, and contextual data from disparate data sources. SIEM provides an interactive workspace for security teams to detect and respond to threats. Teams can triage events and perform investigations, gathering evidence on an interactive timeline. SIEM also streamlines opening and updating cases, forwarding potential incidents to security operations workflows and IT ticketing systems.
- **Endpoint Security.** Endpoint Security combines prevention, detection, and response into a single, autonomous agent that can even run in isolated environments. It is designed for ease of use and for speed, and can help stop threats in early stages of an attack. Endpoint Security includes protection against ransomware, malware, phishing, exploits, fileless attacks, and more.
- **XDR.** XDR extends detection and response across the entire attack surface. When deployed together, SIEM and Endpoint Security provide a strong security posture with broad visibility on potential threats. XDR delivers a unified security stack, protecting across endpoints, cloud, and the broader environment, letting customers minimize vendor sprawl, harness actionable data, and provide defense in depth to minimize time to resolution.
- **Cloud Security.** Cloud Security protects cloud deployments with rich visibility into cloud posture paired with runtime protection for cloud workloads with prevention, detection, and response capabilities, all in one integrated solution.

Community

Our team extends beyond our employee base. It includes all the users who download our software. Our users interact with us on our website forums and on Twitter, GitHub, Stack Overflow, Quora, Facebook, Weibo, WeChat, and more.

In order to build products that best meet our users' needs, we focus on, and invest in, building a strong community. Each download of the Elastic Stack is a new opportunity to educate our next contributor, hear about a new use case, explore the need for a new feature, or meet a future member of the team. Community is core to our identity, binding our products closely together with our users. Community gives us an ability to get their candid feedback, creating a direct line of communication between our users and the builders of our products across all of our features—including both free and paid capabilities —enabling us to make our products simpler and better.

The Elastic community has a Code of Conduct. It covers the behaviors of the Elastic community in any forum, mailing list, wiki, website, code repository, IRC channel, private correspondence, or public meeting. It is designed to ensure that the Elastic community is a space where members and users can freely and openly communicate, collaborate, and contribute both ideas and code. It also covers our community ground rules: be considerate, be patient, be respectful, be nice, communicate effectively, and ask for help when unsure.

Competition

Our market is highly competitive, quickly evolving, fragmented, and subject to rapid changes in technology, shifting customer needs, and frequent introductions of new offerings. Our principal competitors include:

- For Enterprise Search: offerings such as Solr (open source offering) and Lucidworks Fusion, search tools including Google Programmable Search Engine, and workplace search tools including Coveo, and Endeca (owned by Oracle).
- For Observability: software vendors with specific observability solutions to analyze logging data, metrics, APM data, or infrastructure uptime, such as Splunk, New Relic, Dynatrace, AppDynamics (owned by Cisco Systems) and Datadog.
- For Security: security vendors such as Splunk, Azure Sentinel (by Microsoft), CrowdStrike, Carbon Black (owned by VMware), McAfee and Symantec (owned by Broadcom).
- Certain cloud hosting providers and managed service providers, including Amazon Web Services, that offer products based on a forked version of the Elastic Stack. These offerings are not supported by Elastic and come without any of Elastic's proprietary features, whether free or paid.

The principal competitive factors for companies in our industry are:

- product capabilities, including speed, scale, and relevance, with which to power search experiences;
- an extensible product "stack" that enables developers to build a wide variety of solutions;
- powerful and flexible technology that can manage a broad variety and large volume of data;
- ease of deployment and ease of use;
- ability to address a variety of evolving customer needs and use cases;
- strength and execution of sales and marketing strategies;
- flexible deployment model across public or private clouds, hybrid environments, or multi-cloud environments;
- productized solutions engineered to be rapidly adopted to address specific applications;
- mindshare with developers and IT and security executives;
- adoption of products by many types of users and decision makers (developers, architects, DevOps personnel, IT professionals, security analysts, and departmental and organizational leaders);
- enterprise-grade technology that is secure and reliable;
- size of customer base and level of user adoption;
- quality of training, consulting, and customer support;
- brand awareness and reputation; and
- low total cost of ownership.

We believe that we compare favorably on the basis of the factors listed above. However, many of our competitors have substantially greater financial, technical and other resources, greater brand recognition, larger sales forces and marketing budgets, broader distribution networks and presence, more established relationships with current or potential customers and partners, more diverse product and services offerings and larger and more mature intellectual property portfolios. They may be able to leverage these resources to gain business in a manner that discourages customers from purchasing our offerings. Furthermore, we expect that our industry will continue to attract new companies, including smaller emerging companies, which could introduce new offerings. We may also expand into new markets and encounter additional competitors in such markets. While our products and solutions have various competitors across different use cases, such as search applications and workplace search, logging, metrics, APM, business analytics and security analytics, we believe that few competitors currently have the capabilities to address our entire range of use cases. We believe our industry requires constant change and innovation, and we plan to continue to evolve search as a foundational technology to solve the problems of today and new emerging problems in the future.

Intellectual Property

We rely on a combination of patents, patent applications, registered and unregistered trademarks, copyrights, trade secrets, license agreements, confidentiality procedures, non-disclosure agreements with third parties, and other contractual measures to safeguard our core technology and other intellectual property assets. In addition, we maintain a policy requiring our employees, contractors, and consultants to enter into confidentiality and invention assignment agreements. As of April 30, 2022, we had a number of active patents, issued in both the United States and outside of the United States, with expirations ranging from 2031 to 2039. In addition, as of April 30, 2022, we had numerous U.S. and international trademark registrations.

The laws, procedures and restrictions on which we rely may provide only limited protection, and any of our intellectual property rights may be challenged, invalidated, circumvented, infringed or misappropriated. In addition, the laws of certain countries do not protect proprietary rights to the same extent as the laws of the United States or other jurisdictions, and we therefore may be unable to protect our proprietary technology in certain jurisdictions. For additional information, see the section titled "Risk Factors—Risks Related to the Business."

In addition, our technology incorporates software components licensed to the general public under open source software licenses such as the Apache Software License Version 2.0 ("Apache 2.0"). We obtain many components from software developed and released by contributors to independent open source components of our technology. Open source licenses grant licensees broad permissions to use, copy, modify and redistribute our platform. As a result, open source development and licensing practices can limit the value of our software copyright assets.

Human Capital Management

Our employees (whom we call "Elasticians") and our culture are vital to Elastic's long-term success. Our human capital management efforts are focused on:

- Attracting, engaging and retaining talent
- Maintaining our strong company culture
- Enhancing our diversity, equity and inclusion ("DEI")
- Continuing strong employee engagement
- Facilitating continuous employee learning and development
- Offering effective total rewards, including employee well-being

Our management regularly updates our board of directors and its committees on human capital trends and employee-focused activities and initiatives.

As of April 30, 2022, we had a total of 2,978 employees in over 40 countries globally. In addition, over 30% of our workforce encompasses women and non-binary employees. None of our employees are represented by a labor union. In certain countries in which we operate, such as France and Spain, we are subject to, and comply with, local labor law requirements which may automatically make our employees subject to industry-wide collective bargaining agreements. We have not experienced any work stoppages.

Our Culture

We describe our culture by the Elastic "source code," the things that make Elastic, Elastic. Our source code guides our culture, business, product development, people practices and brand. The guiding ideas are:

- **Home, Dinner.** There is no such thing as work-life balance. We are successful if we find balance in life. Elastic empowers its employees with the flexibility to do so. Be home for dinner, go for a run midday, care for a sick child, or visit a parent. Finding balance means being more innovative and efficient at work. Which makes for a better Elastic.
- **Space, Time.** It's easy to get stuck in a day-to-day work pattern. Allowing for the space and time to dream requires conscious effort. Embracing a high failure rate does, too. Fulfillment comes from doing the obvious and dreaming up the un-obvious. Both are foundations of Elastic.
- **IT, Depends.** It's pretty complicated to make some things simple, and even more complicated to make other things possible. We embrace and value the knowledge required to do both. When a question is asked, buckle up. Sh*t is about to get real. Your journey will likely start with "it depends."
- **Progress, SIMPLE Perfection.** Perfection is not a destination. Color inside the lines or color outside the lines. Just pick a color. It's as simple as 2048. An Elastic that moves is an Elastic that survives, thrives, and stands the test of time.
- **01.02, /FORMAT.** Our products are distributed by design, our company is distributed by intention. With many languages, perspectives, and cultures, it's easy to lose something in translation. Over email and chat, doubly so. Until

we get a perpetual empathy machine, don't assume malice. A distributed Elastic makes for a diverse Elastic, which makes for a better Elastic.

- **As YOU, Are.** We all come in different shapes with different interests and skills. We all have an accent. Celebrate it. Just come as you are. No need to invest neurons trying to fit an arbitrary mold. We'd rather you put them to work shaping Elastic.
- **HUMBLE, Ambitious.** Ambition drives us to challenge ourselves and the people around us to do better. It is not an excuse to be an *sshole. Be humble. Be ambitious. At Elastic, we are both.
- ***Speed*, SCALE, Relevance.** Elastic is a search company. We focus on value to users by producing fast results that operate at scale and are relevant. This is our DNA. We believe search is an experience. It is what defines us, binds us, and makes us unique.

Elastic was born a distributed company and continues to be distributed by design. We have designed our processes, systems, and teams so that employees can generally perform their jobs without needing to be physically present in the same room or even in the same time zone. Just as distributed systems are more resilient, we believe that being distributed helps build a strong company that can scale and adapt as new challenges arise. Having a distributed workforce gives us a global candidate pool, which gives us the opportunity to cast a wider recruiting net, a critical aspect of helping open our pipelines to a broader set of diverse talent.

Diversity, Equity and Inclusion

Our focus on DEI is critical to how we develop, strengthen and sustain a sense of belonging and inclusion among all Elasticians.

Balanced Teams. We strive to be an employer of choice for a diverse and inclusive workforce through our talent brand, talent attraction, development, and retention efforts. Our recruiting approach is underpinned by the desire to create balanced teams at Elastic, which includes considering broad aspects of diversity from race and gender mix as well as diversity of thought, experience and tenure when recruiting new team members. In fiscal year 2022, the created-by-women-for-women workplace review site, Fairygodboss, once again recognized Elastic as number one in the Best Technology Company for Women category, and as one of the best workplaces for women in two additional categories: Best Company for Women, and Best Company Where CEOs Support Gender Diversity.

Elastician Resource Groups. We strive to embed DEI deep within our culture through various initiatives, projects and programs, the centerpiece of which is the Elastician Resource Groups ("ERGs"), which are organizationally sponsored, self-organized, Elastician-run groups. Aligned to specific shared identities, interests, affinity or allyship, such as Latinx, parent(s), disability or accessibility, Black, LGBTQ+ and others; each group identifies goals and objectives with executive sponsorship to ensure that they provide tangible benefits and result in all Elasticians feeling a sense of belonging.

Fair Pay. We have fair and consistent compensation practices through our use of local third-party market data specific to each country, where available, so that we understand local compensation and cost of labor levels. We retain external experts to review our compensation outcomes on an ongoing basis to ensure they are bias-free and fairly reward employee performance and contributions. We take great pride in our focus on fair pay and the positive results we've established. Our external review continues to validate that we have gender-based pay parity between male and female Elasticians globally.

Code of Conduct. All of our employees must adhere to a Code of Business Conduct and Ethics (the "Code of Conduct") that sets standards for appropriate behavior and are required to complete annual training on the Code of Conduct and training to help prevent, identify and report any type of discrimination and harassment.

Employee Engagement

We are committed to ensuring that Elasticians have a voice in how we can collectively make Elastic a better place to work.

New Employee Onboarding. Our new employee onboarding experience is centered around attending "X-School", our extensive new-hire orientation program, which enables new Elasticians to meet and collaborate with other new Elasticians from around the globe and to learn about our products and solutions.

Engagement Surveys. We maintain a regular pulse on how our employees are feeling through two primary feedback mechanisms – an annual employee engagement survey and a mid-year pulse survey check-in. The results of these surveys are reviewed at the company, functional, team and manager level, with action plans put in place annually. Elasticians were highly engaged in providing feedback in fiscal years 2022 and 2021, with very high participation rates for the mid-year and annual surveys as well as high engagement scores across a spectrum of questions.

Learning and Development

Our Learning & Organizational Development team's mission to enable Elasticians to pursue their purpose, in work and life, makes for a better Elastic. To that end, we have a variety of ways in which we support the continuous learning and development of all Elasticians, including access to on-demand video based learning.

We also conduct specific programs to develop managers and leaders at Elastic, including our flagship leadership development program - *Leading Strategically,* an externally-led program focused on high-performing leaders who have the potential to have a significant strategic impact on the achievement of our long-term objectives.

Total Rewards

Compensation, Benefits and Well-being. We provide market competitive compensation which typically includes cash compensation as well as equity awards. Reflecting our interest in the whole person, we provide programs designed to enable Elasticians to meet their well-being goals, from starting a family to being at their physical and emotional best. These programs include market competitive medical and dental programs, in addition to focus on mental health and holistic well-being. We provide market competitive paid time off ("PTO") programs, including offering 16 weeks of paid leave to all new parents, life-planning benefits and other travel reimbursements for certain healthcare services. In addition, we also provide retirement and income protection plans, which include a 401k plan with a dollar-for-dollar match by Elastic up to 6% of eligible earnings up to a plan-limit maximum for U.S.-based Elasticians as well as similar competitive plans outside of the United States.

Flexible Work Environment. Since inception, we have provided most Elasticians with the ability to work from anywhere, as often as they would like. We also know that being face-to-face is important too, and we have physical offices around the world to provide a space for employees to work from if they wish.

Community Involvement. Through Elastic Cares, employees can support the charitable organizations that matter the most to them on a local and global level. Elastic Cares is a program consisting of donation matching, our nonprofit organization program which provides our technology for free to certain nonprofit organizations, and our volunteer time off ("VTO") initiative. Employees are encouraged to volunteer for these organizations throughout the year using our VTO program which provides our employees with 40 hours of volunteer time each year.

COVID-19 Response

During the COVID-19 pandemic, our primary focus was and continues to be on the safety and well-being of our employees and their families while also providing them with the flexibility and support needed for the frequently-changing COVID-19 landscape. Given the significant personal and professional impact of the COVID-19 pandemic, we provided reimbursements for home office equipment, pandemic-specific learning opportunities for our employees, and fun activities to help teams bond. To allow employees to deal with and alleviate the physical, mental, and emotional effects of the pandemic on themselves and loved ones, we continued offering digital mental health services, COVID leave and company-wide days off called "Shut It Down Days" twice per month. During fiscal 2022, we gradually reopened offices and invited our employees to return to work on a voluntary basis if they wished to do so, reduced travel restrictions, and opened up small in-person events, determined on a regional basis.

Government Regulations

Our worldwide business activities are subject to various laws, rules, and regulations of the United States as well as of foreign governments. Compliance with these laws, rules, and regulations has not had, and is not expected to have, a material effect upon our capital expenditures, results of operations, or competitive position. Nevertheless, compliance with existing or future governmental regulations, including, but not limited to, those pertaining to global trade, business acquisitions, consumer and data protection, and taxes, could have a material impact on our business. Refer to Item 1A, "Risk Factors" of this Annual Report on Form 10-K for a discussion of these potential impacts.

Corporate Information

We were incorporated in the Netherlands as a private company with limited liability (*besloten vennootschap met beperkte aansprakelijkheid*) on February 9, 2012 as SearchWorkings Global B.V. On June 19, 2012, we changed our name to elasticsearch global B.V., on December 11, 2013, we changed our name to Elasticsearch Global B.V., and on May 29, 2018, we changed our name to Elastic B.V. Immediately prior to the completion of our initial public offering ("IPO") on October 10, 2018, we converted into a public company with limited liability (*naamloze vennootschap*) under Dutch law and changed our name to Elastic N.V. Our principal executive offices are located at 800 West El Camino Real, Suite 350, Mountain View, California 94040, and our telephone number is (650) 458-2620. We are registered with the trade register of the Dutch Chamber of Commerce under number 54655870. Our registered office is at Keizersgracht 281, 1016 ED Amsterdam, the Netherlands.

Our ordinary shares are listed on the New York Stock Exchange (“NYSE”) under the symbol “ESTC”.

Our website address is www.elastic.co. Information contained on, or that can be accessed through, our website does not constitute part of this Annual Report on Form 10-K and inclusions of our website address in this Annual Report on Form 10-K are inactive textual references only.

We announce material information to the public about us, our products and services and other matters through a variety of means, including filings with the U.S. Securities and Exchange Commission (“SEC”), press releases, public conference calls, our website (www.elastic.co), the investor relations section of our website (https://ir.elastic.co), our blog (www.elastic.co/blog), and/or social media, including our Twitter account (https://twitter.com/elastic), Facebook page (www.facebook.com/elastic.co), and/or LinkedIn account (www.linkedin.com/company/elastic-co), in order to achieve broad, non-exclusionary distribution of information to the public. We encourage investors and others to review the information it makes public in these locations, as such information could be deemed to be material information. Please note that this list may be updated from time to time.

Available Information

Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to reports filed pursuant to Sections 13(a) and 15(d) of the Exchange Act are filed with the SEC. We are subject to the informational requirements of the Exchange Act and file or furnish reports, proxy statements and other information with the SEC. Such reports and other information filed by us with the SEC are available free of charge on our website at www.elastic.co/ir when such reports are available on the SEC’s website. The SEC maintains an internet site that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC at www.sec.gov.

ITEM 1A. RISK FACTORS

A description of the risks and uncertainties associated with our business, industry and ownership of our ordinary shares is set forth below. You should carefully consider the following risks, together with all of the other information in this Annual Report on Form 10-K, including our consolidated financial statements and the related notes thereto, before making a decision to invest in our ordinary shares. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, may also become important factors that affect us. If any of the following risks occur, our business, financial condition, operating results and prospects could be materially and adversely affected. In that event, the price of our ordinary shares could decline, and you could lose part or all of your investment. In addition, the impact of the COVID-19 pandemic and any worsening of the economic environment may exacerbate the risks described below, any of which could have a material impact on us and additional impacts that are currently not known to us may arise.

The following is a summary of the key risks and uncertainties associated with our business, industry, and ownership of our ordinary shares. The below summary does not contain all of the information that may be important to you, and you should read this summary together with the more detailed description of each risk factor contained in the subheadings below.

- If we do not appropriately manage future growth or are unable to improve our systems and processes, our business and results of operations will be adversely affected.
- We have a history of losses and may not be able to achieve profitability on a consistent basis or at all or positive cash flows on a consistent basis.
- Our ability to grow our business will significantly depend on the expansion and adoption of our Elastic Cloud offerings.
- Our future growth, business and results of operations will be harmed if we are not able to keep pace with technological and competitive developments, increase sales of our subscriptions to new and existing customers, renew existing customers’ subscriptions, increase adoption of our cloud-based offerings, respond effectively to evolving markets or offer high quality support services.
- Russia’s invasion of Ukraine and resulting international political crisis could have significant negative economic consequences on the businesses of our customers and partners and negatively impact their spending on our offerings.
- Any actual or perceived failure by us to comply with regulations or any other obligations relating to privacy, data protection or information security could adversely affect our business.
- Due to political uncertainty and military actions associated with Russia’s invasion of Ukraine, we and our third-party vendors and service providers are vulnerable to a heightened risk of cybersecurity attacks, phishing attacks, viruses, malware, ransomware, hacking or similar breaches from nation-state and affiliated actors.

- The ongoing COVID-19 pandemic could harm our business and results of operations.
- Our operating results may fluctuate from quarter to quarter.
- Our decision to no longer offer Elasticsearch and Kibana under an open source license may harm the adoption of Elasticsearch and Kibana.
- We could be negatively impacted if the Elastic License or the Server Side Public License under which some of our software is licensed is not enforceable.
- Because of the permissive rights accorded to third parties under our open source and source available licenses, there are limited technological barriers to entry into the markets in which we compete.
- We may not be able to effectively develop and expand our sales and marketing capabilities.
- Because we recognize the vast majority of the revenue from subscriptions, either based on actual consumption or monthly, over the term of the relevant subscription period, downturns or upturns in sales are not immediately reflected in full in our results of operations.
- We do not have an adequate history with a consumption-based arrangements for our Elastic Cloud offerings to accurately predict the long-term rate of customer adoption or renewal, or the impact it will have on our near-term or long-term revenue or operating results.
- A real or perceived defect, security vulnerability, error, or performance failure in our software could cause us to lose revenue, damage our reputation, and expose us to liability.
- Incorrect implementation or use of our software could negatively affect our business, operations, financial results, and growth prospects.
- Third parties may offer inadequate or defective implementations of software that we have previously made available under an open source license and our reputation could be harmed.
- Breaches of security measures or unauthorized access to, or other processing of, confidential information, including personal data, may result in our software being perceived as not secure, customers reducing or stopping usage of our products, and we may incur significant liabilities.
- Interruptions or performance problems, and our reliance on technologies from third parties may adversely affect our business operations and financial results.
- If our partners, including cloud providers, systems integrators, channel partners, referral partners, OEM and MSP partners, and technology partners, fail to perform or we are unable to maintain successful relationships with them, our ability to market, sell and distribute our solution will be more limited, and our results of operations could be harmed.
- Failure to protect our proprietary technology and intellectual property rights could substantially harm our business and results of operations.
- We could incur substantial costs as a result of any claim of infringement, misappropriation or violation of another party’s intellectual property rights, including as a result of the indemnity provisions in various agreements.
- Our use of third-party open source software within our products could negatively affect our ability to sell our products and subject us to possible litigation.
- One of our marketing strategies is to offer some of our product features for free and to provide free trials to some of our paid features, and we may not be able to realize the benefits of this strategy.
- Our international business exposes us to several risks, and if we are not successful in sustaining and expanding our international business, we may incur additional losses and our revenue growth could be harmed.
- A portion of our revenue is generated by sales to government entities, and this creates a number of challenges and risks.
- Our business is subject to a variety of government and industry regulations, as well as other obligations, including compliance with export control, trade sanctions, anti-bribery, anti-corruption, and anti-money laundering laws.
- The market price for our ordinary shares has been and is likely to continue to be volatile.
- The concentration of our share ownership with insiders will likely limit your ability to influence corporate matters.
- Dutch law and our articles of association include certain anti-takeover provisions, which may impact the value of our ordinary shares.

- Claims of U.S. civil liabilities may not be enforceable against us.
- We have a substantial amount of indebtedness and may not be able to generate sufficient cash to service all of our indebtedness.
- If industry or financial analysts do not publish research or reports about our business, or if they issue inaccurate or unfavorable research regarding our ordinary shares, our share price and trading volume could decline.
- We may fail to maintain an effective system of disclosure controls and internal control over financial reporting.

Risks Related to our Business and Industry

Our business and operations have experienced rapid growth, and if we do not appropriately manage future growth, if any, or are unable to improve our systems and processes, our business, financial condition, results of operations, and prospects will be adversely affected.

We have experienced rapid growth and increased demand for our offerings. Our employee headcount and number of customers have increased significantly. For example, our total number of customers has grown from over 2,800 as of April 30, 2017 to over 18,600 as of April 30, 2022. Further, while our employee headcount has grown as we have been implementing our growth plans, we may modify our pace of hiring to align with our growth plans. The growth and expansion of our business and offerings places a continuous and significant strain on our management, operational, and financial resources. In addition, as customers adopt our technology for an increasing number of use cases, we have had to support more complex commercial relationships. We may not be able to hire, train and retain enough qualified employees, and we may not be able to hire, train and onboard new employees fast or effectively enough, to maintain our growth plans. We must continue to improve and expand our information technology and financial infrastructure, our operating and administrative systems, our relationships with various partners and other third parties, and our ability to manage headcount and processes in an efficient manner to manage our growth to date and any future growth effectively.

We may not be able to sustain the diversity and pace of improvements to our offerings successfully or implement systems, processes, and controls in an efficient or timely manner or in a manner that does not negatively affect our results of operations. Our failure to improve our systems, processes, and controls, or their failure to operate in the intended manner, may result in our inability to manage the growth of our business and to forecast our revenue, expenses, and earnings accurately, or to prevent losses.

As we expand our business, we may find it difficult to maintain our corporate culture while managing our employee growth. Any failure to manage our anticipated growth and related organizational changes in a manner that preserves our culture could negatively impact future growth and achievement of our business objectives. Additionally, our productivity and the quality of our offerings may be adversely affected if we do not integrate and train our new employees quickly and effectively. Failure to manage any future growth effectively could result in increased costs, negatively affect our customers' satisfaction with our offerings, and harm our results of operations.

We have a history of losses and may not be able to achieve profitability on a consistent basis or at all, and may not be able to achieve positive cash flows on a consistent basis. As a result, our business, financial condition, and results of operations may suffer.

We have incurred losses in all years since our incorporation. We incurred a net loss of $203.8 million, $129.4 million, and $167.2 million for the years ended April 30, 2022, 2021, and 2020, respectively. As a result, we had an accumulated deficit of $817.2 million as of April 30, 2022. We anticipate that our operating expenses will increase substantially in the foreseeable future as we continue to enhance our offerings, broaden our customer base and pursue larger transactions, expand our sales and marketing activities, expand our operations, hire additional employees, and continue to develop our technology. These efforts may prove more expensive than we currently anticipate, and we may not succeed in increasing our revenue sufficiently, or at all, to offset these higher expenses. Revenue growth may slow or revenue may decline for a number of possible reasons, including slowing demand for our offerings, increasing competition, or economic downturns, including as a result of the COVID-19 pandemic. You should not consider our revenue growth in recent periods as indicative of our future performance. Any failure to increase our revenue or grow our business could prevent us from achieving profitability at all or on a consistent basis, which would cause our business, financial condition, and results of operations to suffer. Additionally, although we generated positive operating cash flow in fiscal 2022, any failure to grow our business could prevent us from achieving positive operating cash flow on a consistent basis, which would cause our business, financial condition, and results of operations to suffer.

Our ability to grow our business will significantly depend on the expansion and adoption of our Elastic Cloud offerings.

We believe our future success will significantly depend on the growth in the adoption of Elastic Cloud, our family of cloud-based offerings. We have and will continue to incur substantial costs to develop, sell and support our Elastic Cloud offerings. We have also entered into non-cancelable multi-year cloud hosting capacity commitments with certain third-party cloud providers, which require us to pay for such capacity irrespective of actual usage. We believe that we must offer a family of cloud-based products to address the market segment that prefers a cloud-based solution to a self-managed solution and that there will be increasing demand for cloud-based offerings of our products. For the years ended April 30, 2022, 2021 and 2020, Elastic Cloud contributed 35%, 27% and 22% of our total revenue, respectively. However, as the use of cloud-based computing solutions is rapidly evolving, it is difficult to predict the potential growth, if any, of general market adoption, customer adoption and retention rates of our cloud-based offerings. There could be decreased demand for our cloud-based offerings due to reasons within or outside of our control, including, among other things, lack of customer acceptance, technological challenges with bringing cloud offerings to market and maintaining those offerings, information security, data protection, or privacy concerns, our inability to properly manage and support our cloud-based offerings, competing technologies and products, weakening economic conditions, and decreases in corporate spending. If we are not able to develop, market or deliver cloud-based offerings that satisfy customer requirements technically or commercially, or if our investments in cloud-based offerings do not yield the expected return, or if we are unable to decrease the cost of providing our cloud-based offerings, our business, competitive position, financial condition and results of operations may be harmed.

We may not be able to compete successfully against current and future competitors.

The market for our products is highly competitive, quickly evolving, fragmented, and subject to rapid changes in technology, shifting customer needs, and frequent introductions of new offerings. We believe that our ability to compete depends upon many factors both within and beyond our control, including the following:

- product capabilities, including speed, scale, and relevance, with which to power search experiences;
- an extensible product “stack” that enables developers to build a wide variety of solutions;
- powerful and flexible technology that can manage a broad variety and large volume of data;
- ease of deployment and ease of use;
- ability to address a variety of evolving customer needs and use cases;
- strength and execution of sales and marketing strategies;
- flexible deployment model across public or private clouds, hybrid environments, or multi-cloud environments;
- productized solutions engineered to be rapidly adopted to address specific applications;
- mindshare with developers and IT and security executives;
- adoption of products by many types of users and decision makers (developers, architects, DevOps personnel, IT professionals, security analysts, and departmental and organizational leaders);
- enterprise-grade technology that is secure and reliable;
- size of customer base and level of user adoption;
- quality of training, consulting, and customer support;
- brand awareness and reputation; and
- low total cost of ownership.

We face competition from both established and emerging competitors. Our current primary competitors generally fall into the following categories:

- For Enterprise Search: offerings such as Solr (open source offering) and Lucidworks Fusion, search tools including Google Programmable Search Engine, and workplace search tools including Coveo, and Endeca (owned by Oracle).
- For Observability: software vendors with specific observability solutions to analyze logging data, metrics, APM data, or infrastructure uptime, such as Splunk, New Relic, Dynatrace, AppDynamics (owned by Cisco Systems) and Datadog.
- For Security: security vendors such as Splunk, Azure Sentinel (by Microsoft), CrowdStrike, Carbon Black (owned by VMware), McAfee and Symantec (owned by Broadcom).

- Certain cloud hosting providers and managed service providers, including Amazon Web Services, that offer products based on a forked version of the Elastic Stack. These offerings are not supported by Elastic and come without any of Elastic's proprietary features, whether free or paid.

Some of our current and potential competitors have longer operating histories, significantly greater financial, technical, marketing and other resources, stronger brand recognition, broader global distribution and presence, more established relationships with current or potential customers and partners, and larger customer bases than we do. These factors may allow our competitors to respond more quickly than we can to new or emerging technologies and changes in customer preferences. These competitors may engage in more extensive research and development efforts, undertake more far-reaching and successful sales and marketing campaigns, have more experienced sales professionals, execute more successfully on their go-to-market strategy and have greater access to more markets and decision makers, and adopt more aggressive pricing policies which may allow them to build larger customer bases than we have. New start-up companies that innovate and large competitors that are making significant investments in research and development may develop similar offerings that compete with our offerings or that achieve greater market acceptance than our offerings. This could attract customers away from our offerings and reduce our market share. If we are unable to anticipate or react to these competitive challenges, our competitive position would weaken, which would adversely affect our business and results of operations.

Our limited operating history makes it difficult to evaluate our current business and prospects and may increase the risks associated with your investment.

We were founded in 2012. Our limited operating history with the current scale of our business makes it difficult to evaluate our current business and our future prospects, including our ability to plan for and model future growth. We have encountered and will continue to encounter risks and difficulties frequently experienced by rapidly growing companies in constantly evolving industries, including the risks described in this Annual Report on Form 10-K. If we do not address these risks successfully, our business and results of operations will be adversely affected, and the market price of our ordinary shares could decline.

Further, we have limited historical financial data at the current scale of our business, and we operate in a rapidly evolving market. As such, any predictions about our future revenue and expenses may not be as accurate as they would be if we had a longer operating history or operated in a more predictable market.

If we are not able to keep pace with technological and competitive developments, our business will be harmed.

The market for search technologies, including enterprise search, observability and security, is subject to rapid technological change, evolving industry standards, and changing regulations, as well as changing customer needs, requirements and preferences. Our success depends upon our ability to enhance existing products, expand the use cases of our products, anticipate and respond to changing customer needs, requirements and preferences, and develop and introduce in a timely manner new offerings that keep pace with technological and competitive developments. We have in the past experienced delays in releasing new products, deployment options and product enhancements and may experience similar delays in the future. As a result, in the past, some of our customers deferred purchasing our products until the next upgrade was released. Future delays or problems in the installation or implementation of our new releases may cause customers to forgo purchases of our products and purchase those of our competitors instead.

Additionally, the success of new product introductions depends on a number of factors including, but not limited to, timely and successful product development, market acceptance, our ability to manage the risks associated with new product releases, the availability of software components for new products, the effective management of development and other spending in connection with anticipated demand for new products, the availability of newly developed products, and the risk that new products may have bugs, errors, or other defects or deficiencies in the early stages of introduction. We have in the past experienced bugs, errors, or other defects or deficiencies in new products and product updates and may have similar experiences in the future. Furthermore, our ability to increase the usage of our products depends, in part, on the development of new use cases for our products, which is typically driven by our developer community and may be outside of our control. We also have invested, and may continue to invest, in the acquisition of complementary businesses, technologies, services, products and other assets that expand the products that we can offer our customers. We may make these investments without being certain that they will result in products or enhancements that will be accepted by existing or prospective customers. Additionally, even if we are able to develop new products and product enhancements, we cannot ensure that they will achieve market acceptance. If we are unable to successfully enhance our existing products to meet evolving customer requirements, increase adoption and usage of our products, develop new products, or if our efforts to increase the usage of our products are more expensive than we expect, then our business, results of operations and financial condition would be adversely affected.

The markets for some of our products are evolving, and our future success depends on the growth and expansion of these markets and our ability to adapt and respond effectively to evolving markets.

The markets for certain of our products, such as our Enterprise Search, Observability and Security solutions, are evolving and our products are relatively new in these markets. Accordingly, it is difficult to predict continued customer adoption and renewals for these products, customers' demand for these products, the size, growth rate, expansion, and longevity of these markets, the entry of competitive products, or the success of existing competitive products. Our ability to penetrate these evolving markets depends on a number of factors, including the cost, performance, and perceived value associated with our products. If these markets do not continue to grow as expected, or if we are unable to anticipate or react to changes in these markets, our competitive position would weaken, which would adversely affect our business and results of operations.

In connection with the operation of our business, we collect, store, transfer and otherwise process certain personal data. As a result, our business is subject to a variety of government and industry regulations, as well as other obligations, related to privacy, data protection and information security. Any actual or perceived failure by us to comply with such regulations or any other obligations relating to privacy, data protection or information security could adversely affect our business.

In the operation of our business, we collect, store, transfer and otherwise process personal data. As a result, we are subject to a variety of federal, state, local and foreign laws and regulations governing privacy, data protection, information security and the collection, storage, transfer, use, retention, sharing, disclosure, protection and processing of personal data. Privacy, data protection and information security are significant issues in various jurisdictions where we offer our products. The regulatory frameworks for these issues worldwide are rapidly evolving and are likely to remain uncertain for the foreseeable future. Federal, state, or non-U.S. government bodies or agencies have in the past adopted, and may in the future adopt, new laws and regulations or may make amendments to existing laws and regulations affecting data protection, data privacy and/or information security and/or regulating the use of the Internet as a commercial medium. For example, California (California Consumer Privacy Act and the California Privacy Rights Act), Colorado (Colorado Privacy Act), Connecticut (An Act Concerning Personal Data Privacy and Online Monitoring), Utah (Utah Consumer Privacy Act) and Virginia (Virginia Consumer Data Protection Act) have enacted such legislation. Certain such legislation may include a private right of action for certain data breaches, may provide for penalties and other remedies, and may require us to incur substantial costs and expenses and liabilities in connection with our compliance. Other U.S. states and the U.S. federal government are considering or have enacted privacy legislation. Some of these laws and legislative proposals provide for penalties, private rights of action and other remedies, which may increase our costs of compliance and potential liability. Many obligations under these laws and legislative proposals remain uncertain, and we cannot fully predict their impact on our business. Further, industry organizations regularly adopt and advocate for new standards in these areas. If we fail to comply with any of these laws or standards, we may be subject to investigations, enforcement actions, civil litigation, fines and other penalties, all of which may generate negative publicity and have a negative impact on our business.

Additionally, in the United States, we may be subject to investigation and/or enforcement actions brought by federal agencies and state attorneys general and consumer protection agencies. We publicly post privacy statements and other documentation regarding our practices concerning the processing, use and disclosure of personal data, however, we may fail, or be alleged to have failed, to comply with such statements, and we could be subject to potential state and federal action if they are found to be unfair or misrepresentative of our actual practices.

Internationally, most jurisdictions in which we operate have established their own privacy, data protection and information security legal frameworks with which we or our customers must comply. Within the European Union, the General Data Protection Regulation ("GDPR") became fully effective on May 25, 2018, and applies to the processing (which includes the collection and use) of personal data. The GDPR imposes significant obligations and risk upon our business, including imposing limitations on our marketing efforts, and provides for substantial penalties to which we could be subject in the event of any non-compliance. Administrative fines under the GDPR can amount up to 20 million Euros or four percent of the group's annual global turnover, whichever is higher. Further, the United Kingdom has implemented legislation that substantially implements the GDPR in the United Kingdom, which legislation provides for penalties for violations of up to the greater of 17.5 million British pounds or four percent of the group's annual global turnover. Following the exit of the United Kingdom from the European Union, however, aspects of United Kingdom data protection law and the relationship of the United Kingdom and the European Union in the medium to longer term remain unclear, including with respect to how data transfers to and from the United Kingdom will be regulated. On June 28, 2021, the European Commission announced a decision of "adequacy" concluding that the United Kingdom ensures an equivalent level of data protection to the GDPR, which permits continued personal data flows from the European Economic Area ("EEA") to the United Kingdom. Some uncertainty remains, however, as this adequacy determination must be renewed after four years and may be modified or revoked in the interim.

Among other requirements, the GDPR regulates transfers of personal data to third countries that have not received "adequacy" status, including the United States. Some countries also are considering or have passed legislation requiring local storage and processing of data, or similar requirements, which could increase the cost and complexity of delivering our services.

The regulatory environment applicable to handling of EEA residents' personal data, and our actions taken in response, may cause us to assume additional liabilities or incur additional costs. We have undertaken certain efforts to conform transfers of personal data from the EEA, to the United States and other jurisdictions based on our understanding of current regulatory obligations and the guidance of data protection authorities, including using standard contractual clauses approved by the European Commission (the “SCCs”) and performing certain international transfer impact assessments, however, international data transfers may still be challenged in countries that have not received “adequacy” status from the European Commission. In the Schrems II decision issued by the Court of Justice of the European Union (“CJEU”) on July 16, 2020, the CJEU, among other things, imposed additional obligations on companies when relying on the SCCs. EEA regulators since have provided guidance regarding use of the SCCs, and on June 4, 2021, the European Commission issued new SCCs. On February 2, 2022, the United Kingdom’s Information Commissioner’s Office issued new standard contractual clauses to support personal data transfers out of the United Kingdom (“UK SCCs”), which went into effect on March 21, 2022. In light of these and other developments relating to cross-border data transfer, we may, in addition to other impacts, experience additional costs associated with increased compliance burdens and be required to engage in new contract negotiations with third parties that aid in processing personal data on our behalf or localize certain personal data. As a result of these developments, we and our customers may face regulators in the EEA, Switzerland, and the United Kingdom applying different standards to certain data transfers or requiring additional steps in connection with data transfers, and may be required to engage in new contract negotiations with third parties that aid in processing data on our behalf, and we may be required to implement additional contractual and technical safeguards for the lawful transfer of personal data. We may be unsuccessful in maintaining legitimate means for our transfer and receipt of personal data from the EEA, Switzerland and the United Kingdom and may experience hesitancy, reluctance, or refusal by customers to continue to use our products due to the potential risk exposure to such customers as a result of sentiment in the EEA, Switzerland and the United Kingdom regarding international data transfers and data protection obligations imposed on them. We may be unsuccessful in maintaining conforming means for transferring personal data from the EEA, Switzerland, and the United Kingdom, and our customers may face a risk of enforcement actions by European data protection authorities relating to such transfers. These and the other risks described above could result in harm to our business, operating results and financial condition.

In addition to government regulation, industry groups have established or may establish new and different self-regulatory standards that may legally or contractually apply to us or our customers. One example of such a self-regulatory standard is the Payment Card Industry Data Security Standard (“PCI DSS”), which relates to the processing of payment card information. Further, our customers increasingly expect us to comply with more stringent privacy, data protection and information security requirements than those imposed by laws, regulations or self-regulatory requirements, and we may be obligated contractually to comply with additional or different standards relating to our handling or protection of data on or by our offerings. Any failure to meet our customers’ requirements may adversely affect our revenues and prospects for growth.

We also expect that there will continue to be changes in interpretations of existing or new laws and regulations, proposed laws, and other obligations, which could impair our or our customers’ ability to process personal data, which could decrease demand for our offerings, impact our marketing efforts, increase our costs and impair our ability to maintain and grow our customer base and increase our revenue. Because the interpretation and application of many laws and regulations relating to privacy, data protection and information security, along with industry standards, are uncertain, it is possible that these laws and regulations may be interpreted and applied in manners that are, or are alleged to be, inconsistent with our data management practices or the features of our products, and we could face fines, lawsuits, regulatory investigations and other claims and penalties, and we could be required to fundamentally change our products or our business practices, any of which could have an adverse effect on our business. Data protection authorities in the European Union increasingly are focused on the use of online tracking tools and have issued or indicated that they plan to issue rulings which may impact our marketing practices. Any restrictions on using online analytics and tracking tools could lead to substantial costs, require significant changes to our policies and practices, limit the effectiveness of our marketing activities, divert the attention of our technology personnel, adversely affect our margins, and subject us to additional liabilities.

We have incurred substantial expense in complying with data protection legal frameworks and we may be required to make significant changes in our business operations, which may adversely affect our business. Because these new regimes lack a substantial enforcement history, we are unable to predict how emerging standards may be applied to us, and thus, a regulator may subject us to certain actions, fines or public censure. Any actual or perceived inability to adequately address or failure to comply with data protection requirements, even if unfounded, could result in additional cost and liability to us, damage our reputation, inhibit sales, and adversely affect our business.

The ongoing COVID-19 pandemic could harm our business and results of operations.

The ongoing COVID-19 pandemic and efforts to control its spread have significantly curtailed the movement of people, goods and services worldwide, including in many of the regions in which we sell our products and services and conduct our business operations, negatively impacting worldwide economic activity. We have taken precautionary measures intended to help minimize the risk of the virus to our employees, our customers, and the communities in which we operate. The continued spread of the COVID-19 pandemic and the resurgence of infection rates in certain regions has caused us to continue to modify our business practices (including imposing restrictions on employee travel, adapting employee work locations, and holding events and trainings virtually), and we may take further actions as may be required by government authorities or that we determine are in the best interests of our employees, customers, and business partners. There is no certainty that such measures will be sufficient to mitigate the risks posed by the virus or otherwise be satisfactory to government authorities. The full extent to which COVID-19 and our precautionary measures may continue to impact our business will depend on future developments, which continue to be uncertain and cannot be predicted at this time, including but not limited to, the duration and geographic spread of the pandemic, its severity, the actions to contain the virus or treat its impact, future spikes of COVID-19 infections resulting in additional preventative measures to contain or mitigate the spread of the virus, the effectiveness, distribution and acceptance of COVID-19 vaccines, including the vaccines' efficacy against emerging and more transmissible COVID-19 variants or mutant strains, and how quickly and to what extent normal economic and operating conditions can resume. It has been and, until the COVID-19 pandemic is contained and global economic activity stabilizes, will continue to be more difficult for us to forecast our operating results. The magnitude and duration of the disruption and resulting decline in business activity remains uncertain and could negatively impact our sales and marketing efforts, our ability to enter into customer contracts in a timely manner, our international expansion efforts, our ability to deliver professional services, our ability to recruit employees across the organization which, in turn, could have longer term effects on our sales pipeline, or create operational or other challenges, any of which could harm our business.

We are moving toward normal operations on a market-by-market basis in accordance with local guidelines. Our approach may vary among geographies depending on local guidelines, and may change at any time, including in response to new or reimposed precautionary measures as the pandemic evolves. We may incorporate into our ongoing business operations certain business practice modifications implemented in response to the COVID-19 pandemic. These business modifications have and may continue to result in inefficiencies, delays and additional costs, including increased tax compliance obligations, that may adversely affect our business. In regions where we permit our employees to return to our offices and we resume in-person meetings and events, we may face additional challenges and incur additional costs, including those associated with workplace safety protocols, disparate regional safety guidelines and workplace or labor disputes or claims related to COVID-19, which could also negatively impact our business.

In addition, the COVID-19 pandemic has disrupted, and may continue to disrupt, the operations of our customers, vendors, channel partners and government entities for an indefinite period of time, including in specific regions of the world or sectors of the economy and as a result of travel restrictions and/or business shutdowns, all of which could negatively impact our business and results of operations, including cash flows. Further, the impact of the COVID-19 pandemic has varied significantly across different industries with certain industries experiencing increased demand for their products and services as the needs of the economy shift, while others have struggled to maintain demand for their products and services consistent with historical levels. Because we have a limited history in understanding these impacts, our ability to adapt our sales and marketing initiatives to such changes may be uncertain and our ability to forecast rates of customer retention and expansion may be negatively impacted. Meanwhile, a shift towards more consumption-based arrangements for our Elastic Cloud offerings, where the timing of revenue recognition is tied to our customers' actual usage of our products, may further exacerbate such uncertainty as well as the difficulty to forecast customer retention and expansion rates.

Even after the COVID-19 pandemic has subsided, we may continue to experience materially adverse impacts to our business as a result of its global economic impact, including any recession, economic downturn, or increased unemployment that has occurred or may occur in the future. There has been increased scrutiny of business (including technology) spending by our customers and prospective customers, particularly in industries most impacted by the COVID-19 pandemic, longer sales cycles, as well as reduced demand for our solutions, customers failing to pay us under the terms of our agreements, increased cyber threats, lower renewal rates by our customers and increased competition, all of which could result in a material adverse impact on our business operations and financial condition.

While we have developed and continue to develop plans intended to help mitigate the negative impacts of the pandemic on our business, these efforts may not be effective and a protracted economic downturn may limit the effectiveness of our mitigation efforts.

Our operating results are likely to fluctuate from quarter to quarter, and our financial results in any one quarter should not be relied upon as indicative of future performance.

Our results of operations, including our revenue, cost of revenue, gross margin, operating expenses, cash flow and deferred revenue, have fluctuated from quarter-to-quarter in the past and may continue to vary significantly in the future so that period-to-period comparisons of our results of operations may not be meaningful. These variations may be further impacted as more of our Elastic Cloud customers adopt consumption-based arrangements. Accordingly, our financial results in any one quarter should not be relied upon as indicative of future performance. Our quarterly financial results may fluctuate as a result of a variety of factors, many of which are outside of our control, may be difficult to predict, and may or may not fully reflect the underlying performance of our business. Factors that may cause fluctuations in our quarterly financial results include:

- our ability to attract new customers and retain existing customers;
- the loss of existing customers;
- customer renewal rates;
- our ability to successfully expand our business in the U.S. and internationally;
- our ability to foster an ecosystem of developers and users to expand the use cases of our products;
- our ability to gain new partners and retain existing partners;
- fluctuations in the growth rate of the overall market that our products address;
- fluctuations in the mix of our revenue, which may impact our gross margins and operating income;
- the amount and timing of operating expenses related to the maintenance and expansion of our business and operations, including investments in sales and marketing, research and development and general and administrative resources;
- network outages or performance degradation of Elastic Cloud;
- actual or perceived breaches of, or failures or incidents relating to, privacy, data protection or information security;
- additions or departures of key personnel;
- the impact of catastrophic events, man-made problems such as terrorism, natural disasters and public health epidemics and pandemics;
- general political, geopolitical, economic, industry and market conditions;
- the military conflict between Russia and Ukraine and the related impact on macroeconomic conditions;
- increases or decreases in the number of elements of our subscriptions or pricing changes upon any renewals of customer agreements;
- changes in our pricing policies or those of our competitors;
- the budgeting cycles and purchasing practices of customers;
- decisions by potential customers to purchase alternative solutions;
- decisions by potential customers to develop in-house solutions as alternatives to our products;
- insolvency or credit difficulties confronting our customers, which could adversely affect their ability to purchase or pay for our offerings;
- our ability to collect timely on invoices or receivables;
- delays in our ability to fulfill our customers' orders;
- the cost and potential outcomes of future litigation or other disputes;
- future accounting pronouncements or changes in our accounting policies;
- our overall effective tax rate, including impacts caused by any reorganization in our corporate tax structure and any new legislation or regulatory developments;
- fluctuations in stock-based compensation expense;
- fluctuations in foreign currency exchange rates;
- the impact of changing inflation and interest rates;

- the timing and success of new offerings introduced by us or our competitors or any other change in the competitive dynamics of our industry, including consolidation among competitors, customers or partners;
- the timing of expenses related to the development or acquisition of technologies or businesses and potential future charges for impairment of goodwill from acquired companies; and
- other risk factors described in this Annual Report on Form 10-K.

The impact of one or more of the foregoing or other factors may cause our operating results to vary significantly. For example, the full impact of the COVID-19 pandemic is unknown, and could result in material adverse changes in our results of operations for an unknown period of time as the virus and its related political, social and economic impacts spread. Such fluctuations could cause us to fail to meet the expectations of investors or securities analysts, which could cause the trading price of our ordinary shares to fall substantially, and we could face costly lawsuits, including securities class action suits, which could have an adverse effect on our business.

If we are unable to increase sales of our subscriptions to new customers, sell additional subscriptions to our existing customers, or expand the value of our existing customers' subscriptions, our future revenue and results of operations will be harmed.

We offer certain features of our products with no payment required. Customers purchase subscriptions in order to gain access to additional functionality and support. Our future success depends on our ability to sell our subscriptions to new customers, including to large enterprises, and to expand the deployment of our offerings with existing customers by selling paid subscriptions to our existing users and expanding the value and number of existing customers' subscriptions. Our ability to sell new subscriptions depends on a number of factors, including the prices of our offerings, the prices of products offered by our competitors, and the budgets of our customers. We also face difficulty in displacing the products of incumbent competitors. In addition, a significant aspect of our sales and marketing focus is to expand deployments within existing customers. The rate at which our existing customers purchase additional subscriptions and expand the value of existing subscriptions depends on a number of factors, including customers' level of satisfaction with our offerings, the nature and size of the deployments, the desire to address additional use cases, and the perceived need for additional features, as well as general economic conditions. If our existing customers do not purchase additional subscriptions or expand the value of their subscriptions, our Net Expansion Rate may decline. We rely in large part on our customers to identify new use cases for our products in order to expand such deployments and grow our business. If our customers do not recognize the potential of our offerings, our business would be materially and adversely affected. If our efforts to sell subscriptions to new customers and to expand deployments at existing customers are not successful, our total revenue and revenue growth rate may decline and our business will suffer.

If our existing customers do not renew their subscriptions, it could have an adverse effect on our business and results of operations.

We expect to derive a significant portion of our revenue from renewals of existing subscriptions. Our customers have no contractual obligation to renew their subscriptions after the completion of their subscription term. Our subscriptions for self-managed deployments typically range from one to three years, while many of our Elastic Cloud customers purchase subscriptions either on a month-to-month basis or on a committed contract of at least one year in duration.

Our customers' renewal rates may decline or fluctuate as a result of a number of factors, including their satisfaction with our products and our customer support, our products' ability to integrate with new and changing technologies, the frequency and severity of product outages, our product uptime or latency, and the pricing of our, or competing, products. If our customers renew their subscriptions, they may renew for shorter subscription terms or on other terms that are less economically beneficial to us. We may not accurately predict future renewal trends. If our existing customers do not renew their subscriptions, or renew on less favorable terms, our revenue may grow more slowly than expected or decline.

Our decision to no longer offer Elasticsearch and Kibana under an open source license may harm the adoption of Elasticsearch and Kibana.

In February 2021, with the release of version 7.11 of the Elastic Stack, we changed the source code of Elasticsearch and Kibana that had historically been licensed under Apache 2.0, to be dual licensed under Elastic License 2.0 and the Server Side Public License Version 1.0 ("SSPL"), at the user's election. Neither the Elastic License nor the SSPL has been approved by the Open Source Initiative or is included in the Free Software Foundation's list of free software licenses. Further, neither has been interpreted by any court. While the vast majority of downloads of Elasticsearch and Kibana from mid-2018 through early 2021 were licensed under the Elastic License, the removal of the Apache 2.0 alternative could negatively impact certain developers for whom the availability of an open source license was important. In addition, some developers and the companies for whom they work may be hesitant to download or upgrade to new versions of Elasticsearch or Kibana under the Elastic License or SSPL because of uncertainty around how these licenses may be interpreted and enforced. Other developers, including competitors of Elastic such as Amazon, have announced that they have “forked” Elasticsearch and Kibana. For example, Amazon has launched an open source project called OpenSearch based on a forked version of the Elastic Stack, which is licensed under Apache 2.0, and rebranded their existing Elasticsearch Service to OpenSearch Service. The combination of uncertainty around our dual license model and the potential competition from the forked versions of our software may negatively impact adoption of Elasticsearch and Kibana, which in turn could lead to reduced brand and product awareness, ultimately leading to a decline in paying customers, which could harm our ability to grow our business or achieve profitability.

We could be negatively impacted if the Elastic License or SSPL under which some of our software is licensed is not enforceable.

We make the source code of our products available under Apache 2.0, the Elastic License, or dual licensed under the Elastic License and SSPL, depending on the product and version. Apache 2.0 is a permissive open source license that allows licensees to freely copy, modify and distribute Apache 2.0-licensed software provided that they meet certain conditions. The Elastic License is our proprietary source available license. The Elastic License permits licensees to use, copy, modify and distribute the licensed software provided that they do not offer access to the software as a cloud service, interfere with the license key or remove proprietary notices. SSPL is a source available license that is based on the GNU Affero General Public License (“AGPL”) open source license and permits licensees to copy, modify and distribute SSPL-licensed software, but expressly requires licensees that offer the SSPL-licensed software as a third-party service to open source all of the software that they use to offer such service. We rely upon the enforceability of the restrictions set forth in the Elastic License and SSPL to protect our proprietary interests. It is possible that a court could hold that the Elastic License or SSPL are unenforceable. If a court held that the Elastic License or SSPL or certain aspects of these licenses are unenforceable, others may be able to use our software to compete with us in the marketplace in a manner not subject to the restrictions set forth in the Elastic License or SSPL.

Because of the permissive rights accorded to third parties under our open source and source available licenses, there are limited technological barriers to entry into the markets in which we compete and it may be relatively easy for competitors, some of whom may have greater resources than we have, to enter our markets and compete with us.

Anyone may obtain access to source code for the features of our software that we have licensed under open source or source available licenses. Depending on the product and version of the Elastic software, this source code is either available under Apache 2.0, SSPL, or the Elastic License. Each of these licenses allow anyone, subject to compliance with the conditions of the applicable license, to redistribute our software in modified or unmodified form and use it to compete in our markets. Such competition can develop without the degree of overhead and lead time required by traditional proprietary software companies, due to the rights granted to licensees of open source and source available software. It is possible for competitors to develop their own software, including software based on our products, potentially reducing the demand for our products and putting pricing pressure on our subscriptions. For example, Amazon offers some of the features that we had previously made available under an open source license as part of its Amazon Web Services offering. As such, Amazon competes with us for potential customers, and while Amazon cannot provide our proprietary software, Amazon’s offerings may reduce the demand for our offerings and the pricing of Amazon’s offerings may limit our ability to adjust the price of our products. We cannot guarantee that we will be able to compete successfully against current and future competitors or that competitive pressure or the availability of new software will not result in price reductions, reduced operating margins and loss of market share, any one of which could harm our business, financial condition, results of operations and cash flows.

If we do not effectively develop and expand our sales and marketing capabilities, including expanding and training and compensating our sales force, we may be unable to add new customers, increase sales to existing customers or expand the value of our existing customers’ subscriptions and our business will be adversely affected.

We dedicate significant resources to sales and marketing initiatives, which require us to invest significant financial and other resources, including in markets in which we have limited or no experience. Our business and results of operations will be harmed if our sales and marketing efforts do not generate significant revenue increases or increases that are smaller than anticipated.

We may not achieve revenue growth from expanding our sales force if we are unable to hire, train, and retain talented and effective sales personnel. We depend on our sales force to obtain new customers and to drive additional sales to existing customers. We believe that there is significant competition for sales personnel, including sales representatives, sales managers, and sales engineers, with the requisite skills and technical knowledge. Our ability to achieve significant revenue growth will depend, in large part, on our success in recruiting, training and retaining sufficient sales personnel to support our growth, and as we introduce new products, solutions and marketing strategies, we may need to re-train existing sales personnel. For example, we may need to provide additional training and development to our sales personnel in relation to selling consumption-based arrangements and expanding customer usage of our offerings over time. New hires also require significant training and may take significant time before they achieve full productivity. Our recent hires and planned hires may not become productive as quickly as we expect, and we may be unable to hire or retain sufficient numbers of qualified individuals in the markets where we do business or plan to do business. As we continue to grow rapidly, a large percentage of our sales force will have relatively little experience working with us, our subscriptions and our business model. Additionally, we may need to evolve our sales compensation plans to drive the growth of our Elastic Cloud offerings with consumption-based arrangements. Such changes might have adverse consequences if not designed effectively. If we are unable to hire and train sufficient numbers of effective sales personnel, our new and existing sales personnel are unable to achieve desired productivity levels in a reasonable period of time, our sales personnel are not successful in obtaining new customers or increasing sales to our existing customer base, or our sales and marketing programs, including our sales compensation plans, are not effective, our growth and results of operations could be negatively impacted and our business will be harmed.

Our ability to increase sales of our offerings is highly dependent on the quality of our customer support, and our failure to offer high quality support would have an adverse effect on our business, reputation and results of operations.

After our products are deployed within our customers' IT environments, our customers depend on our technical support services to resolve issues relating to our products. If we do not succeed in helping our customers quickly resolve post-deployment issues or provide effective ongoing support and education on our products, our ability to renew or sell additional subscriptions to existing customers or expand the value of existing customers' subscriptions would be adversely affected and our reputation with potential customers could be damaged. Many larger enterprise and government entity customers have more complex IT environments and require higher levels of support than smaller customers. If we fail to meet the requirements of these enterprise customers, it may be more difficult to grow sales with them.

Additionally, it can take several months to recruit, hire, and train qualified technical support employees. We may not be able to hire such resources fast enough to keep up with demand, particularly if the sales of our offerings exceed our internal forecasts. Due to the ongoing uncertainty related to the COVID-19 pandemic, there may also be more competition for qualified employees and delays in hiring, onboarding and training new employees. To the extent that we are unsuccessful in hiring, training, and retaining adequate support resources, our ability to provide adequate and timely support to our customers, and our customers' satisfaction with our offerings, will be adversely affected. Our failure to provide and maintain, or a market perception that we do not provide or maintain, high-quality support services would have an adverse effect on our business, financial condition, and results of operations.

We rely significantly on revenue from subscriptions and, because we recognize the vast majority of the revenue from subscriptions, either based on actual consumption or monthly, over the term of the relevant subscription period, downturns or upturns in sales are not immediately reflected in full in our results of operations.

Subscription revenue accounts for the substantial majority of our revenue, comprising 93%, 93% and 92% of total revenue for the years ended April 30, 2022, 2021 and 2020, respectively. We recognize the vast majority of our subscription revenue, either based on actual consumption or monthly, over the term of the relevant time period. As a result, much of the subscription revenue we report each fiscal quarter is the recognition of deferred revenue from subscription contracts entered into during previous fiscal quarters. Consequently, a decline in new or renewed subscriptions in any one fiscal quarter will not be fully or immediately reflected in revenue in that fiscal quarter and will negatively affect our revenue in future fiscal quarters. Accordingly, the effect of significant downturns in new or renewed sales of our subscriptions is not reflected in full in our results of operations until future periods.

We do not have an adequate history with our consumption-based arrangements for our Elastic Cloud offerings to accurately predict the long-term rate of customer adoption or renewal, or the impact it will have on our near-term or long-term revenue or operating results.

We expect that our consumption-based arrangements for our Elastic Cloud offerings will continue to increase, both in amount and as a percentage of our total revenue. Because we recognize revenue under a consumption-based arrangement based on actual customer consumption, we do not have the same visibility into the timing of revenue recognition as we do under subscription arrangements where revenue is recognized on a predetermined schedule over the subscription term. Additionally, customers may consume our products at a different pace than we expect. For these reasons, our revenue may be less predictable or more variable than our historical revenue, and our actual results may differ materially from our forecasts.

A real or perceived defect, security vulnerability, error, or performance failure in our software could cause us to lose revenue, damage our reputation, and expose us to liability.

Our products are inherently complex and, despite extensive testing and quality control, have in the past and may in the future contain defects or errors, especially when first introduced, or otherwise not perform as contemplated. These defects, security vulnerabilities, errors or performance failures could cause damage to our reputation, loss of customers or revenue, product returns, order cancellations, service terminations, or lack of market acceptance of our software. As the use of our products, including products that were recently acquired or developed, expands to more sensitive, secure, or mission critical uses by our customers, we may be subject to increased scrutiny, potential reputational risk, or potential liability should our software fail to perform as contemplated in such deployments. We have in the past and may in the future need to issue corrective releases of our software to fix these defects, errors or performance failures, which could require us to allocate significant research and development and customer support resources to address these problems.

Any limitation of liability provisions that may be contained in our customer and partner agreements may not be effective as a result of existing or future applicable law or unfavorable judicial decisions. The sale and support of our products entail the risk of liability claims, which could be substantial in light of the use of our products in enterprise-wide environments. In addition, our insurance against this liability may not be adequate to cover a potential claim.

Incorrect implementation or use of our software, or our customers' failure to update our software, could result in customer dissatisfaction and negatively affect our business, operations, financial results, and growth prospects.

Our products are often operated in large scale, complex IT environments. Our customers and some partners require training and experience in the proper use of and the benefits that can be derived from our products to maximize their potential. If our products are not implemented, configured, updated or used correctly or as intended, or in a timely manner, inadequate performance, errors, loss of data, corruptions and/or security vulnerabilities may result. For example, there have been and may in the future continue to be, reports of our customers not properly securing implementations of our products, which can result in unprotected data. Because our customers rely on our software to manage a wide range of operations, the incorrect implementation or use of our software, or our customers' failure to update our software or our failure to train customers on how to use our software productively, may result in customer dissatisfaction, negative publicity and may adversely affect our reputation and brand. Failure by us to effectively provide training and implementation services to our customers could result in lost opportunities for follow-on sales to these customers and decrease subscriptions by new customers, and adversely affect our business and growth prospects.

If third parties offer inadequate or defective implementations of software that we have previously made available under an open source license, our reputation could be harmed.

Certain cloud hosting providers and managed service providers, including Amazon Web Services, offer hosted products based on a forked version of the Elastic Stack. These offerings are not supported by us and come without any of our proprietary features. We do not control how these third parties may use or offer our open source technology. These third parties could inadequately or incorrectly implement our open source technology, or fail to update such technology in light of changing technological or security requirements, which could result in real or perceived defects, security vulnerabilities, errors, or performance failures with respect to their offerings. Users, customers, and potential customers could confuse these third-party products with our products, and attribute such defects, security vulnerabilities, errors, or performance failures to our products. Any damage to our reputation and brand from defective implementations of our open source software could result in lost sales and lack of market acceptance of our products and could adversely affect our business and growth prospects.

We rely on traditional web search engines to direct traffic to our website. If our website fails to rank prominently in unpaid search results, traffic to our website could decline and our business would be adversely affected.

Our success depends in part on our ability to attract users through unpaid Internet search results on traditional web search engines, such as Google. The number of users we attract to our website from search engines is due in large part to how and where our website ranks in unpaid search results. These rankings can be affected by a number of factors, many of which are not in our direct control, and they may change frequently. For example, a search engine may change its ranking algorithms, methodologies or design layouts. As a result, links to our website may not be prominent enough to drive traffic to our website, and we may not know how or otherwise be in a position to influence the results. Any reduction in the number of users directed to our website could reduce our revenue or require us to increase our customer acquisition expenditures.

If our security measures are breached, a security incident occurs, or unauthorized access to or other processing of confidential information, including personal data, otherwise occurs, our software may be perceived as not being secure, customers may reduce the use of or stop using our products, and we may incur significant liabilities.

Any security breach or incident, including those resulting from a cybersecurity attack, phishing attack, unauthorized access, unauthorized usage, virus, malware, ransomware, denial of service, credential stuffing attack, supply chain attack, hacking or similar breach involving our networks and systems, or those of third parties upon which we rely, could result in the loss of confidential information, including personal data, disruption to our operations, significant remediation costs, lost revenue, increased insurance premiums, damage to our reputation, litigation, regulatory investigations or other liabilities. These attacks may come from individual hackers, criminal groups, and state-sponsored organizations, and security breaches and incidents may arise from other sources, such as employee or contractor error or malfeasance. Cyber threats are constantly evolving and becoming increasingly sophisticated and complex, increasing the difficulty of detecting and successfully defending against them. As a provider of security solutions, we have been and may continue to be specifically targeted by bad actors for attacks intended to circumvent our security capabilities as an entry point into customers' endpoints, networks, or systems. Our industry is experiencing an increase in phishing attacks and unauthorized scans of systems searching for vulnerabilities or misconfigurations to exploit. If our security measures are breached or otherwise compromised as a result of third-party action, employee or contractor error, defect, vulnerability or bug in our products or products of third parties upon which we rely, malfeasance or otherwise, including any such breach or compromise resulting in someone obtaining unauthorized access to our confidential information, including personal data or the confidential information or personal data of our customers or others, or if any of these are perceived or reported to occur, we may suffer the loss, compromise, corruption, unavailability, or destruction of our or others' confidential information and personal data, we may face a loss in intellectual property protection, our reputation may be damaged, our business may suffer and we could be subject to claims, demands, regulatory investigations and other proceedings, indemnity obligations, and otherwise incur significant liability. Even the perception of inadequate security may damage our reputation and negatively impact our ability to win new customers and retain existing customers. Further, we could be required to expend significant capital and other resources to address any security incident or breach, and we may face difficulties or delays in identifying and responding to any security breach or incident.

In addition, many of our customers may use our software for processing their confidential information, including business strategies, financial and operational data, personal data and other related data. As a result, unauthorized access to or use of our software or this data could result in the loss, compromise, corruption or destruction of our customers' confidential information and lead to claims, demands, litigation, regulatory investigations, indemnity obligations, and other liabilities. It could also hinder our ability to obtain and maintain information security certifications that support customers' adoption of our products and our retention of those customers. We have implemented administrative, technical and physical measures designed to protect the integrity of our customers' data and prevent data loss, misappropriation and other security breaches and incidents and may incur significant costs in connection with the implementation of additional preventative measures in the future.

We engage third-party vendors and service providers to store and otherwise process some of our and our customers' data, including sensitive and personal data. There have been and may continue to be significant supply chain attacks generally, and our third-party vendors and service providers may be targeted or impacted by such attacks, and they face other risks of security breaches and incidents. Our third-party vendors and service providers have been subject to phishing attacks and other security incidents, and we cannot guarantee that our or our third-party vendors and service providers' systems and networks have not been breached or otherwise compromised or that they do not contain exploitable vulnerabilities, defects or bugs that could result in a breach of or disruption to our systems and networks or the systems and networks of third parties that support us and our services. For example, in December 2021, a vulnerability in a popular logging software, Log4j, was publicly announced. If left unpatched, the Log4j vulnerability could be exploited to allow unauthorized actors to execute code remotely on a system using Log4j. We have taken steps to ensure these vulnerabilities have been patched in our systems, but we cannot guarantee that all vulnerabilities have been patched in every system upon which we are dependent or that additional critical vulnerabilities of Log4j or other open-source software upon which we rely will not be discovered. Our ability to monitor our third-party vendors and service providers' data security is limited, and, in any event, third parties may be able to circumvent those security measures, resulting in the unauthorized access to, or misuse, disclosure, loss, destruction, or other unauthorized processing of our and our customers' data, including sensitive and personal data.

Techniques used to sabotage or obtain unauthorized access to systems or networks are constantly evolving and, in some instances, are not identified until launched against a target. We and our third-party vendors and service providers may be unable to anticipate these techniques, react in a timely manner, or implement adequate preventative measures. Security risks are also heightened during the ongoing COVID-19 pandemic as more individuals are working remotely and utilizing home networks for transmitting information, and reported ransomware incidents with significant operational impacts also appear to be escalating in frequency and degree. Also, due to political uncertainty and military actions associated with Russia's invasion of Ukraine, we and our third-party vendors and service providers are vulnerable to a heightened risk of cybersecurity attacks, phishing attacks, viruses, malware, ransomware, hacking or similar breaches from nation-state and affiliated actors, including attacks that could materially disrupt our systems and operations, supply chain, and ability to produce, sell and distribute our products and services as well as retaliatory cybersecurity attacks from Russian and Russian-affiliated actors against companies with a U.S. presence. We may be at heightened risk of such retaliatory attacks due to our decision to no longer sell our products to companies in Russia or Belarus until further notice and to support Ukraine by, among other things, providing free access to Elastic Cloud solutions, including our platinum security capabilities, for organizations in Ukraine. In addition, laws, regulations, government guidance, and industry standards and practices in the United States and elsewhere are rapidly evolving to combat these threats. We may face increased compliance burdens regarding such requirements with regulators and customers regarding our products and services and also incur additional costs for oversight and monitoring of our own supply chain. We and our customers may also experience increased costs associated with security measures and increased risk of suffering cyberattacks, including ransomware attacks. Should we or the third-party vendors and service providers upon which we rely experience such attacks, including from ransomware or other security breaches or incidents, our operations may also be hindered or interrupted due to system disruptions or otherwise, with foreseeable secondary contractual, regulatory, financial, and reputational harms that may arise from such an incident.

Further, we cannot assure that any limitations of liability provisions in our customer and user agreements, contracts with third-party vendors and service providers or other contracts would be enforceable or adequate or would otherwise protect us from any liabilities or damages with respect to any particular claim relating to a security breach or other security incident. We also cannot be sure that our existing insurance coverage will continue to be available on acceptable terms or will be available in sufficient amounts to cover claims related to a security incident or breach, or that the insurer will not deny coverage as to any future claim. The successful assertion of claims against us that exceed available insurance coverage, or the occurrence of changes in our insurance policies, including premium increases or the imposition of large deductible or co-insurance requirements, could have a material adverse effect on our business, including our financial condition, operating results, and reputation.

Interruptions or performance problems associated with our technology and infrastructure, and our reliance on technologies from third parties, may adversely affect our business operations and financial results.

We rely on third-party cloud platforms to host our cloud offerings. If we experience an interruption in service for any reason, our cloud offerings would similarly be interrupted. The COVID-19 pandemic could also disrupt the supply chain of hardware needed to maintain our third-party data center operations. An interruption in our services to our customers could cause our customers' internal and consumer-facing applications to not function properly, which could have a material adverse effect on our business, results of operations, customer relationships and reputation.

In addition, our website and internal technology infrastructure may experience performance issues due to a variety of factors, including infrastructure changes, human or software errors, website or third-party hosting disruptions, capacity constraints, technical failures, natural disasters or fraud or security attacks. Our use of third-party open source software may increase this risk. If our website is unavailable or our users are unable to download our products or order subscriptions or services within a reasonable amount of time or at all, our business could be harmed. We expect to continue to make significant investments to maintain and improve website performance and to enable rapid releases of new features and applications for our products. To the extent that we do not effectively upgrade our systems as needed and continually develop our technology to accommodate actual and anticipated changes in technology, our business and results of operations may be harmed.

We rely on third-party service providers for many aspects of our business, and any failure to maintain these relationships could harm our business.

Our success depends upon our relationships with third-party service providers, including providers of cloud hosting infrastructure, customer relationship management systems, financial reporting systems, human resource management systems, credit card processing platforms, marketing automation systems, and payroll processing systems, among others. If any of these third parties experience difficulty meeting our requirements or standards, become unavailable due to extended outages or interruptions, temporarily or permanently cease operations, face financial distress or other business disruptions such as a security incident, increase their fees, if our relationships with any of these providers deteriorate, or if any of the agreements we have entered into with such third parties are terminated or not renewed without adequate transition arrangements, we could suffer liabilities, penalties, fines, increased costs and delays in our ability to provide customers with our products and services, our ability to manage our finances could be interrupted, receipt of payments from customers may be delayed, our processes for managing sales of our offerings could be impaired, our ability to generate and manage sales leads could be weakened, or our business operations could be disrupted. Further, supply chain disruptions due to the Russian invasion of Ukraine and any impacts that may have on our third-party service providers may disrupt our business operations. Any of such disruptions may adversely impact our business and our financial condition, results of operations or cash flows could be adversely affected until we replace such providers or develop replacement technology or operations. In addition, if we are unsuccessful in identifying high-quality service providers, negotiating cost-effective relationships with them or effectively managing these relationships, it could adversely affect our business and financial results.

The length of our sales cycle can be unpredictable, particularly with respect to sales through our channel partners or sales to large customers, and our sales efforts may require considerable time and expense.

Our results of operations may fluctuate, in part, because of the length and variability of the sales cycle of our subscriptions and the difficulty in making short-term adjustments to our operating expenses. Our results of operations depend in part on sales to new customers, including large customers, and increasing sales to existing customers. The length of our sales cycle, from initial contact with our sales team to contractually committing to our subscriptions can vary substantially from customer to customer based on deal complexity as well as whether a sale is made directly by us or through a channel partner. Our sales cycle can extend to more than a year for some customers, and the length of sales cycles may be further impacted due to the COVID-19 pandemic. Some customers have been scrutinizing their spending more carefully given a challenging economic environment associated with the pandemic, and we generally expect this to continue. This might cause sales cycles to become longer or become more unpredictable. As we target more of our sales efforts at larger enterprise customers, we may face greater costs, longer sales cycles, greater competition and less predictability in completing some of our sales. A customer's decision to use our solutions may be an enterprise-wide decision, which may require greater levels of education regarding the use cases of our products or prolonged negotiations. In addition, larger customers may demand more configuration, integration services and features. It is difficult to predict exactly when, or even if, we will make a sale to a potential customer or if we can increase sales to our existing customers. As a result, large individual sales have, in some cases, occurred in quarters subsequent to those we anticipated, or have not occurred at all. The loss or delay of one or more large transactions in a quarter could affect our cash flows and results of operations for that quarter and for future quarters. Because a substantial proportion of our expenses are relatively fixed in the short term, our cash flows and results of operations will suffer if revenue falls below our expectations in a particular quarter, which could cause the price of our ordinary shares to decline.

We depend on our senior management and other key employees, and the loss of one or more of these employees or an inability to attract and retain highly skilled employees could harm our business.

Our future success depends, in part, on our ability to continue to attract and retain highly skilled personnel. The loss of the services of any of our key personnel, the inability to attract or retain qualified personnel, or delays in hiring required personnel, particularly in engineering and sales, may seriously harm our business, financial condition, and results of operations. Further, our ability to attract additional qualified personnel may be impacted by the economic uncertainty and insecurity caused by the COVID-19 pandemic. The loss of services of any of our key personnel also increases our dependency on other key personnel who remain with us. Although we have entered into employment offer letters with our key personnel, their employment is for no specific duration and constitutes at-will employment. We are also substantially dependent on the continued service of our existing engineering personnel because of the complexity of our products.

Our future performance also depends on the continued services and continuing contributions of our senior management, particularly our Chief Executive Officer, Ashutosh Kulkarni, and Chief Technology Officer, Shay Banon, to execute on our business plan and to identify and pursue new opportunities and product innovations. We do not maintain key person life insurance policies on any of our employees. The loss of services of senior management could significantly delay or prevent the achievement of our development and strategic objectives, which could adversely affect our business, financial condition, and results of operations. Any search for senior management in the future or any search to replace the loss of any senior management may be prolonged, and we may not be able to attract a qualified candidate or replacement, as applicable, in a timely manner or at all, particularly as potential candidates may be wary to transition during the unstable economic conditions caused by the COVID-19 pandemic and geopolitical events. Furthermore, the COVID-19 pandemic could make it more difficult to onboard, provide training to and integrate any senior management or key employees, which could adversely affect their productivity and our business. If we are unable to mitigate these or other similar risks as we experience management turnover, our business, results of operation and financial condition may be adversely affected.

In January 2022, Shay Banon transitioned from the role of Chief Executive Officer and Chairman of the Board to the role of Chief Technology Officer, Chetan Puttagunta, Lead Independent Director, was appointed Chairman of the Board, and Ashutosh Kulkarni transitioned from the role of Chief Product Officer to acting Chief Executive Officer. Mr. Kulkarni was also appointed to the Board by shareholders at an extraordinary general shareholder meeting on March 9, 2022, and this appointment confirmed his position as Chief Executive Officer. If we are not successful in managing the transition of our Chief Executive Officer, it could be viewed negatively by our customers, employees or investors and could have an adverse impact on our business.

Additionally, the industry in which we operate is generally characterized by significant competition for skilled personnel as well as high employee attrition. We may not be successful in attracting, integrating, or retaining qualified personnel to fulfill our current or future needs. We may need to invest significant amounts of cash and equity to attract and retain new employees, and we may never realize returns on these investments. Also, to the extent we hire personnel from competitors, we may be subject to allegations that they have been improperly solicited, that they have divulged proprietary or other confidential information, or that their former employers own their inventions or other work product.

If we are not able to maintain and enhance our brand, especially among developers, our ability to expand our customer base will be impaired and our business and operating results may be adversely affected.

We believe that developing and maintaining widespread awareness of our brand, especially with developers, is critical to achieving widespread acceptance of our software and attracting new users and customers. We also believe that the importance of brand recognition will increase as competition in our market increases. Successfully maintaining and enhancing our brand will depend largely on the effectiveness of our marketing efforts, our ability to maintain our customers' trust, our ability to continue to develop new functionality and use cases, and our ability to successfully differentiate our products and platform capability from competitive products. Brand promotion activities may not generate user or customer awareness or increase revenue, and even if they do, any increase in revenue may not offset the expenses we incur in building our brand. For instance, our continued focus and investment in ElasticON and similar investments in our brand, user engagement, and customer engagement may not generate the desired customer awareness or a sufficient financial return. If we fail to successfully promote and maintain our brand, we may fail to attract or retain users and customers necessary to realize a sufficient return on our brand-building efforts, or to achieve the widespread brand awareness that is critical for broad customer adoption of our products, which would adversely affect our business and results of operations.

Our corporate culture has contributed to our success, and if we cannot maintain this culture as we grow, we could lose the innovation, creativity and entrepreneurial spirit we have worked to foster, which could harm our business.

We believe that our culture has been and will continue to be a key contributor to our success. We expect to continue to hire as we expand. If we do not continue to maintain our corporate culture as we grow, we may be unable to foster the innovation, creativity, and entrepreneurial spirit we believe we need to support our growth. Moreover, many of our existing employees may be able to receive significant proceeds from sales of our ordinary shares in the public markets, which could lead to employee attrition and disparities of wealth among our employees that adversely affects relations among employees and our culture in general. Additional headcount growth may result in a change to our corporate culture, which could harm our business.

We rely on channel partners to execute a portion of our sales; if our channel partners fail to perform or we are unable to maintain successful relationships with our channel partners, our ability to market, sell and distribute our solution will be more limited, and our results of operations and reputation could be harmed.

A portion of our revenue is generated by sales through our channel partners, especially to U.S. federal government customers and in certain international markets, and these sales may grow and represent a larger portion of our revenues in the future. We provide certain of our channel partners with specific training and programs to assist them in selling our offerings, but there can be no assurance that these steps will be effective. In addition, our channel partners may be unsuccessful in marketing and selling our offerings, particularly in light of the effects of the COVID-19 pandemic. If we are unable to develop and maintain effective sales incentive programs for our channel partners, we may not be able to incentivize these partners to sell our offerings to customers.

Some of these partners may also market, sell, and support offerings that compete with ours, may devote more resources to the marketing, sales, and support of such competitive offerings, may have incentives to promote our competitors' offerings to the detriment of our own or may cease selling our offerings altogether. Our agreements with our channel partners typically have a duration of one to three years, and generally may be terminated for any reason by either party with advance notice prior to each renewal date. We may not be able to retain these channel partners or secure additional or replacement channel partners. The loss of one or more of our significant channel partners or a decline in the number or size of orders from any of them could harm our results of operations. In addition, many of our new channel partners require extensive training and may take several months or more to achieve productivity. Our channel partner sales structure could subject us to lawsuits, potential liability, misstatement of revenue, and reputational harm if, for example, any of our channel partners misrepresents the functionality of our offerings to customers or violates laws or our or their corporate policies, including our terms of business, which in turn could impact reported revenue, deferred revenue and remaining performance obligations. If our channel partners are unsuccessful in fulfilling the orders for our offerings, or if we are unable to enter into arrangements with and retain high quality channel partners, our ability to sell our offerings and results of operations could be harmed.

If we are unable to maintain successful relationships with our partners, our business operations, financial results and growth prospects could be adversely affected.

We maintain partnership relationships with a variety of partners, including cloud providers, systems integrators, channel partners, referral partners, OEM and MSP partners, and technology partners, to deliver offerings to our end customers and complement our broad community of users. In particular, we partner with various cloud providers to jointly market, sell and deliver our Elastic Cloud offerings, and in some instances this also involves technical integration with such cloud providers.

Our agreements with our partners are generally non-exclusive, meaning our partners may offer customers the offerings of several different companies, including offerings that compete with ours, or may themselves be or become competitors. If our partners do not effectively market and sell our offerings, choose to use greater efforts to market and sell their own offerings or those of our competitors, fail to provide adequate technical integration with their own offerings, fail to meet the needs of our customers, or fail to deliver professional services to our customers, our ability to grow our business and sell our offerings may be harmed. Our partners may cease marketing our offerings with limited or no notice and with little or no penalty. The loss of a substantial number of our partners, our possible inability to replace them, or the failure to recruit additional partners could harm our results of operations.

Our ability to achieve revenue growth in the future will depend in part on our success in maintaining successful relationships with our partners and in helping our partners enhance their ability to market and sell our subscriptions. If we are unable to maintain our relationships with these partners, our business, results of operations, financial condition or cash flows could be harmed.

The sales prices of our offerings may decrease, which may reduce our gross profits and adversely affect our financial results.

The sales prices for our offerings may decline or we may introduce new pricing models for a variety of reasons, including competitive pricing pressures, discounts, in anticipation of or in conjunction with the introduction of new offerings, or promotional programs.

Competition continues to increase in the market segments in which we operate, and we expect competition to further increase in the future, thereby leading to increased pricing pressures. Larger competitors with more diverse offerings may reduce the price of offerings that compete with ours or may bundle them with other offerings. Additionally, currency fluctuations in certain countries and regions, as well as the inflation and interest environment, may negatively impact actual prices that customers and channel partners are willing to pay in those countries and regions. Any decrease in the sales prices for our offerings, without a corresponding decrease in costs or increase in volume, would adversely impact our gross profit. Gross profit could also be adversely impacted by a shift in the mix of our subscriptions from self-managed to our cloud offering, for which we incur hosting costs, as well as any increase in our mix of professional services relative to subscriptions. We may not be able to maintain our prices and gross profits at levels that will allow us to achieve and maintain profitability.

We expect our revenue mix to vary over time, which could harm our gross margin and operating results.

We expect our revenue mix to vary over time due to a number of factors, and we expect that revenue from Elastic Cloud will continue to become a larger part of our revenue mix. Due to the differing revenue recognition policies applicable to our subscriptions and professional services, shifts in our business mix from quarter to quarter could produce substantial variation in revenue recognized. Our introduction of consumption-based arrangements for our Elastic Cloud offerings, where the revenue we recognize is tied to our customers' actual usage of our products, may further exacerbate the variation in our revenue. Further, our gross margins and operating results could be harmed by changes in revenue mix and costs, together with numerous other factors, including entry into new markets or growth in lower margin markets; entry into markets with different pricing and cost structures; pricing discounts; and increased price competition. Any one of these factors or the cumulative effects of certain of these factors may result in significant fluctuations in our gross margin and operating results. This variability and unpredictability could result in our failure to meet internal expectations or those of securities analysts or investors for a particular period. If we fail to meet or exceed such expectations for these or any other reasons, the market price of our ordinary shares could decline.

Failure to protect our proprietary technology and intellectual property rights could substantially harm our business and results of operations.

Our success depends to a significant degree on our ability to protect our proprietary technology, methodologies, know-how and brand. We rely on a combination of trademarks, copyrights, patents, contractual restrictions, and other intellectual property laws and confidentiality procedures to establish and protect our proprietary rights. However, the steps we take to protect our intellectual property rights may be inadequate. We will not be able to protect our intellectual property rights if we are unable to enforce our rights or if we do not detect unauthorized use of our intellectual property rights. The source code of the proprietary features for the Elastic Stack is publicly available, which may enable others to replicate our proprietary technology and compete more effectively. If we fail to protect our intellectual property rights adequately, our competitors may gain access to our proprietary technology and our business may be harmed. In addition, defending our intellectual property rights might entail significant expense. Any patents, trademarks, or other intellectual property rights that we have or may obtain may be challenged by others or invalidated through administrative process or litigation. There can be no assurance that any ongoing patent applications we may have will result in issued patents. Even if we continue to seek patent protection in the future, we may be unable to obtain further patent protection for our technology. In addition, any patents issued in the future may not provide us with competitive advantages, or may be successfully challenged by third parties. Furthermore, legal standards relating to the validity, enforceability, and scope of protection of intellectual property rights are uncertain. Despite our precautions, it may be possible for unauthorized third parties to copy our products and use information that we regard as proprietary to create offerings that compete with ours. Effective patent, trademark, copyright, and trade secret protection may not be available to us in every country in which our products are available. We may be unable to prevent third parties from acquiring domain names or trademarks that are similar to, infringe upon, or diminish the value of our trademarks and other proprietary rights. The laws of some countries may not be as protective of intellectual property rights as those in the United States, and mechanisms for enforcement of intellectual property rights may be inadequate. As we expand our international activities, our exposure to unauthorized copying and use of our products and proprietary information will likely increase. Accordingly, despite our efforts, we may be unable to prevent third parties from infringing upon or misappropriating our intellectual property.

We enter into confidentiality and invention assignment agreements with our employees and consultants and enter into confidentiality agreements with other parties. No assurance can be given that these agreements will be effective in controlling access to and distribution of our proprietary information. Further, these agreements may not prevent our competitors from independently developing technologies that are substantially equivalent or superior to our products.

In order to protect our intellectual property rights, we may be required to spend significant resources to monitor and protect our intellectual property rights. Litigation has in the past and may in the future be necessary to enforce our intellectual property rights and to protect our trade secrets. Litigation brought to protect and enforce our intellectual property rights could be costly, time-consuming, and distracting to management, and could result in the impairment or loss of portions of our intellectual property. Further, our efforts to enforce our intellectual property rights may be met with defenses, counterclaims, and countersuits attacking the validity and enforceability of our intellectual property rights. Our inability to protect our proprietary technology against unauthorized copying or use, as well as any costly litigation or diversion of our management's attention and resources, could delay further sales or the implementation of our products, impair the functionality of our products, delay introductions of new products, result in our substituting inferior or more costly technologies into our products, or injure our reputation.

We could incur substantial costs as a result of any claim of infringement, misappropriation or violation of another party's intellectual property rights.

In recent years, there has been significant litigation involving patents and other intellectual property rights in the software industry. Companies providing software are increasingly bringing and becoming subject to suits alleging infringement, misappropriation or violation of proprietary rights, particularly patent rights, and to the extent we gain greater market visibility, we face a higher risk of being the subject of intellectual property infringement, misappropriation or violation claims. We do not currently have a large patent portfolio, which could prevent us from deterring patent infringement claims through our own patent portfolio, and our competitors and others may now and in the future have significantly larger and more mature patent portfolios than we have. The risk of patent litigation has been amplified by the increase in the number of a type of patent holder, which we refer to as a non-practicing entity, whose sole or principal business is to assert such claims and against whom our own intellectual property portfolio may provide little deterrent value. We could incur substantial costs in prosecuting or defending any intellectual property litigation. If we sue to enforce our rights or are sued by a third party that claims that our products infringe, misappropriate or violate their rights, the litigation could be expensive and could divert our management resources.

Any intellectual property litigation to which we might become a party, or for which we are required to provide indemnification, may require us to do one or more of the following:

- cease selling or using products that incorporate the intellectual property rights that we allegedly infringe, misappropriate or violate;
- make substantial payments for legal fees, settlement payments or other costs or damages;
- obtain a license, which may not be available on reasonable terms or at all, to sell or use the relevant technology; or
- redesign the allegedly infringing products to avoid infringement, misappropriation or violation, which could be costly, time-consuming or impossible.

If we are required to make substantial payments or undertake any of the other actions noted above as a result of any intellectual property infringement, misappropriation or violation claims against us or any obligation to indemnify our customers for such claims, such payments or actions could harm our business.

Indemnity provisions in various agreements potentially expose us to substantial liability for intellectual property infringement, misappropriation, violation and other losses.

Our agreements with customers and other third parties may include indemnification provisions under which we agree to indemnify them for losses suffered or incurred as a result of claims of intellectual property infringement, misappropriation or violation, damages caused by us to property or persons, or other liabilities relating to or arising from our software, services or other contractual obligations. Large indemnity payments could harm our business, results of operations and financial condition. Although we normally contractually limit our liability with respect to such indemnity obligations, we may still incur substantial liability related to them. Any dispute with a customer with respect to such obligations could have adverse effects on our relationship with that customer and other existing customers and new customers and harm our business and results of operations.

Our use of third-party open source software within our products could negatively affect our ability to sell our products and subject us to possible litigation.

Our technologies incorporate open source software from other developers, and we expect to continue to incorporate such open source software in our products in the future. Few of the licenses applicable to open source software have been interpreted by courts, and there is a risk that these licenses could be construed in a manner that could impose unanticipated conditions or restrictions on our ability to commercialize our products. Moreover, we cannot assure that we have not incorporated third-party open source software in our software in a manner that is inconsistent with the terms of the applicable license or our current policies and procedures. If we fail to comply with these licenses, we may be subject to certain requirements, including requirements that we offer our solutions that incorporate the open source software for no cost, that we make available source code for modifications or derivative works we create based upon, incorporating or using the open source software and that we license such modifications or derivative works under the terms of applicable open source licenses. If an author or other third party that distributes such open source software were to allege that we had not complied with the conditions of one or more of these licenses, we could be required to incur significant legal expenses defending against such allegations and could be subject to significant damages, enjoined from the sale of our products that contained the open source software and required to comply with onerous conditions or restrictions on these products, which could disrupt the distribution and sale of these products. In addition, there have been claims challenging the ownership rights in open source software against companies that incorporate open source software into their products, and the licensors of such open source software provide no warranties or indemnities with respect to such claims. In any of these events, we and our customers could be required to seek licenses from third parties in order to continue offering our products, and to re-engineer our products or discontinue the sale of our products in the event re-engineering cannot be accomplished on a timely basis. We and our customers may also be subject to suits by parties claiming infringement, misappropriation or violation due to the reliance by our solutions on certain open source software, and such litigation could be costly for us to defend or subject us to an injunction. Some open source projects have known vulnerabilities and architectural instabilities and as provided on an “as-is” basis which, if not properly addressed, could negatively affect the performance of our product. Any of the foregoing could require us to devote additional research and development resources to re-engineer our solutions, could result in customer dissatisfaction, and may adversely affect our business, results of operations and financial condition.

One of our marketing strategies is to offer some of our product features for free and to provide free trials of some of our paid features, and we may not be able to realize the benefits of this strategy.

We are dependent upon lead generation strategies, including offering free use of some of our product features and free trials of some of our paid features. These strategies may not be successful in continuing to generate sufficient sales opportunities necessary to increase our revenue. Many users never convert from the free use model or from free trials to the paid versions of our products. To the extent that users do not become, or we are unable to successfully attract, paying customers, we will not realize the intended benefits of these marketing strategies and our ability to grow our revenue will be adversely affected.

Our international operations and expansion expose us to several risks.

As of April 30, 2022, we had customers located in over 125 countries, and our strategy is to continue to expand internationally. In addition, as a result of our strategy of leveraging a distributed workforce, as of April 30, 2022, we had employees located in over 40 countries. Our current international operations involve and future initiatives may involve a variety of risks, including:

- political and economic instability related to international disputes, such as the military conflict between Russia and Ukraine and the related impact on macroeconomic conditions as a result of such conflict, which may negatively impact our customers, partners, and vendors;
- unexpected changes in regulatory requirements, taxes, trade laws, tariffs, export quotas, custom duties or other trade restrictions;
- different labor regulations, especially in the European Union, where labor laws are generally more advantageous to employees as compared to the United States, including deemed hourly wage and overtime regulations in these locations;
- exposure to many stringent, particularly in the European Union, and potentially inconsistent laws and regulations relating to privacy, data protection and information security;
- changes in a specific country’s or region’s political or economic conditions;
- political, economic and trade uncertainties or instability related to the United Kingdom's withdrawal from the European Union (Brexit), including the effects of the Trade and Cooperation Agreement between the European Union,

the European Atomic Energy Community and the United Kingdom signed in December 2020, on the economies of, and the relationships between, the United Kingdom, European Union, United States and other countries;

- the evolving relations between the United States and China;
- changes in relations between the Netherlands and the United States;
- risks resulting from changes in currency exchange rates and rising inflation;
- risks resulting from the migration of invoicing from local billing entities to centralized regional billing entities;
- the impact of public health epidemics or pandemics on our employees, partners and customers;
- challenges inherent to efficiently managing an increased number of employees over large geographic distances, including the need to implement appropriate systems, policies, benefits and compliance programs;
- risks relating to enforcement of U.S. export control laws and regulations including the Export Administration Regulations, and trade and economic sanctions, including restrictions promulgated by OFAC, and other similar trade protection regulations and measures in the United States or in other jurisdictions;
- risks relating to our third-party vendors and service providers' storage and processing of some of our and our customers' data, including any supply chain cyber attacks;
- reduced ability to timely collect amounts owed to us by our customers in countries where our recourse may be more limited;
- limitations on our ability to reinvest earnings from operations derived from one country to fund the capital needs of our operations in other countries;
- limited or unfavorable intellectual property protection; and
- exposure to liabilities under anti-corruption and anti-money laundering laws, including the U.S. Foreign Corrupt Practices Act of 1977, as amended ("FCPA"), and similar applicable laws and regulations in other jurisdictions.

If we are unable to address these difficulties and challenges or other problems encountered in connection with our international operations and expansion, we might incur unanticipated liabilities or we might otherwise suffer harm to our business generally.

If we are not successful in sustaining and expanding our international business, we may incur additional losses and our revenue growth could be harmed.

Our future results depend, in part, on our ability to sustain and expand our penetration of the international markets in which we currently operate and to expand into additional international markets. We depend on direct sales and our channel partner relationships to sell our offerings in international markets. Our ability to expand internationally will depend upon our ability to deliver functionality and foreign language translations that reflect the needs of the international clients that we target. Our ability to expand internationally involves various risks, including the need to invest significant resources in such expansion, and the possibility that returns on such investments will not be achieved in the near future or at all in these less familiar competitive environments. We may also choose to conduct our international business through other partnerships. If we are unable to identify partners or negotiate favorable terms, our international growth may be limited. In addition, we have incurred and may continue to incur significant expenses in advance of generating material revenue as we attempt to establish our presence in particular international markets.

If we need to raise additional capital or generate the significant capital necessary to expand our operations and invest in new offerings, it could reduce our ability to compete and could harm our business.

We may need to raise additional funds in the future, and we may not be able to obtain additional debt or equity financing on favorable terms, if at all. If we raise additional equity financing, our shareholders may experience significant dilution of their ownership interests and the per share value of our ordinary shares could decline. Furthermore, if we engage in debt financing, the holders of debt would have priority over the holders of our ordinary shares, and we may be required to accept terms that restrict our ability to incur additional indebtedness. We may also be required to take other actions that would otherwise be in the interests of the debt holders and force us to maintain specified liquidity or other ratios, any of which could harm our business, results of operations, and financial condition. If we need additional capital and cannot raise it on acceptable terms, we may not be able to, among other things:

- develop or enhance our products;
- continue to expand our sales and marketing and research and development organizations;

- acquire complementary technologies, products or businesses;
- expand operations in the United States or internationally;
- hire, train, and retain employees; or
- respond to competitive pressures or unanticipated working capital requirements.

Our failure to have sufficient capital to do any of these things could harm our business, financial condition, and results of operations.

A portion of our revenue is generated by sales to government entities, and this creates a number of challenges and risks.

Sales to government entities are subject to a number of risks. Selling to government entities can be highly competitive, expensive, and time-consuming, often requiring significant upfront time and expense without any assurance that these efforts will generate a sale. Government certification and security requirements for products like ours may change, thereby restricting our ability to sell into the U.S. federal government sector, U.S. state government sector, or government sectors of countries other than the United States until we have obtained the revised certification or met the changed security requirements. If we are unable to timely meet such requirements, our ability to compete for and retain federal government contracts may be diminished, which could adversely affect our business, results of operations and financial condition.

Government entities may have statutory, contractual, or other legal rights to terminate contracts with us or our channel partners for convenience or due to a default, and any such termination may adversely affect our future results of operations. Government demand and payment for our offerings may be affected by public sector budgetary cycles and funding authorizations, with funding reductions or delays adversely affecting public sector demand for our offerings or exercise of options under multi-year contracts. Contracts with government agencies, including classified contracts, are subject to extensive, evolving and sometimes complex regulations, as well as audits and reviews of contractors' administrative processes and other contract related compliance obligations. Breaches of government contracts, failure to comply with applicable regulations or unfavorable findings from government audits or reviews could result in contract terminations, reputational harm or other adverse consequences, including but not limited to ineligibility to sell to government agencies in the future, the government refusing to continue buying our subscriptions, a reduction of revenue, or fines or civil or criminal liability, which could adversely affect our results of operations in a material way.

Unanticipated changes in effective tax rates or adverse outcomes resulting from examination of our income or other tax returns could expose us to greater than anticipated tax liabilities.

Our income tax obligations are based in part on our corporate structure and intercompany arrangements, including the manner in which we develop, value, and use our intellectual property and the valuations of our intercompany transactions. The tax laws applicable to our business, including the laws of the Netherlands, the United States and other jurisdictions, are subject to change and interpretation. These changes include the introduction of a global minimum tax at a rate of 15% under the Two-Pillar Solution to Address the Tax Challenges of the Digitalisation of the Economy, agreed upon by 137 jurisdictions under the Organisation for Economic Co-operation and Development (OECD)/G20 Inclusive Framework on Base Erosion and Profit Shifting (BEPS), which is expected to enter into force in 2023. In addition, on January 1, 2022, a provision of the Tax Cuts and Jobs Act of 2017 went into effect that eliminates the option to deduct domestic research and development costs in the year incurred and instead requires taxpayers to amortize such costs over five years. The provision is expected to decrease cash flows from operations and increase net deferred tax assets by a similar amount for our U.S. operations. Any new legislation or interpretations of existing legislation could impact our tax obligations in countries where we do business or cause us to change the way we operate our business and result in increased taxation of our international earnings.

The taxing authorities of the jurisdictions in which we operate may challenge our methodologies for valuing developed technology or intercompany arrangements, which could increase our worldwide effective tax rate and harm our financial position and results of operations. Tax authorities examine and may audit our income tax returns and other non-income tax returns, such as payroll, sales, value-added, net worth or franchise, property, goods and services, and excise taxes, in both the United States and foreign jurisdictions. It is possible that tax authorities may disagree with certain positions we have taken, and any adverse outcome of such a review or audit could have a negative effect on our financial position and results of operations. Further, the determination of our worldwide provision for or benefit from, as applicable, income taxes and other tax liabilities requires significant judgment by management, and there are transactions where the ultimate tax determination is uncertain. Although we believe that our estimates are reasonable, the ultimate tax outcome may differ from the amounts recorded in our consolidated financial statements and may materially affect our financial results in the period or periods for which such determination is made.

Our corporate structure and intercompany arrangements are subject to the tax laws of various jurisdictions, and we could be obligated to pay additional taxes, which would harm our results of operations.

Based on our current corporate structure, we may be subject to taxation in several jurisdictions around the world with increasingly complex tax laws, the application of which can be uncertain. The amount of taxes we pay in these jurisdictions could increase substantially as a result of changes in the applicable tax principles, including increased tax rates, new tax laws or revised interpretations of existing tax laws and precedents. In addition, the authorities in the jurisdictions in which we operate could review our tax returns or require us to file tax returns in jurisdictions in which we are not currently filing, and could impose additional tax, interest and penalties. These authorities could also claim that various withholding requirements apply to us or our subsidiaries, assert that benefits of tax treaties are not available to us or our subsidiaries, or challenge our methodologies for valuing developed technology or intercompany arrangements, including our transfer pricing. The relevant taxing authorities may determine that the manner in which we operate our business does not achieve the intended tax consequences. If such a disagreement was to occur, and our position was not sustained, we could be required to pay additional taxes, and interest and penalties. Additionally, both the COVID-19 pandemic and increased use of flexible work policies may increase the probability of payroll tax audits. Any increase in the amount of taxes we pay or that are imposed on us could increase our worldwide effective tax rate and harm our business and results of operations.

Our ability to use our net operating loss carryforwards to offset future taxable income may be subject to certain limitations.

As of April 30, 2022, we had net operating loss carryforwards (“NOLs”) for Dutch, United States (Federal and State, respectively) and United Kingdom income tax purposes of $758.4 million, $1,002.5 million, $651.8 million and $67.5 million, respectively, which may be utilized against future income taxes. Limitations imposed by the applicable jurisdictions on our ability to utilize NOLs could cause income taxes to be paid earlier than would be paid if such limitations were not in effect and could cause such NOLs to expire unused, in each case reducing or eliminating the benefit of such NOLs. Furthermore, we may not be able to generate sufficient taxable income to utilize our net operating loss carryforwards before they expire. If any of these events occur, we may not derive some or all of the expected benefits from our net operating loss carryforwards.

We are exposed to fluctuations in currency exchange rates, which could negatively affect our financial condition and results of operations.

A portion of our subscriptions are generated and operating expenses are incurred outside the United States and denominated in foreign currencies and are subject to fluctuations due to changes in foreign currency exchange rates, particularly against the Euro. In part as a result of the COVID-19 pandemic and Russia’s recent invasion of Ukraine, foreign currency exchange rates have been and could continue to be subject to increased volatility. The strengthening of the U.S. dollar increases the real cost of our offerings to our non-U.S. dollar customers, leading to delays in the purchase of our offerings and the lengthening of our sales cycle. If the strength of the U.S. dollar increases, this could adversely affect our financial condition and results of operations. In addition, increased international sales in the future, including through our channel partners, may result in greater foreign currency denominated sales, increasing our foreign currency risk. Moreover, operating expenses incurred outside the United States and denominated in foreign currencies are increasing and are subject to fluctuations due to changes in foreign currency exchange rates. If we are not able to successfully hedge against the risks associated with currency fluctuations, our financial condition and results of operations could be adversely affected. To date, we have not entered into any hedging transactions in an effort to reduce our exposure to foreign currency exchange risk. While we may decide to enter into hedging transactions in the future, the availability and effectiveness of these hedging transactions may be limited and we may not be able to successfully hedge our exposure, which could adversely affect our financial condition and results of operations.

Seasonality may cause fluctuations in our sales and results of operations.

Historically, we have experienced quarterly fluctuations and seasonality based on the timing of entering into agreements with new and existing customers and the mix between annual and monthly contracts entered in each reporting period. Trends in our business, financial condition, results of operations and cash flows are impacted by seasonality in our sales cycle which generally reflects a trend to greater sales in our second and fourth quarters and lower sales in our first and third quarters, though we believe this trend has been somewhat masked by our overall growth. We expect that this seasonality will continue to affect our results of operations in the future, and might become more pronounced as we continue to target larger enterprise customers.

Risks Related to Regulatory Matters

We are subject to governmental export and import controls and economic sanctions programs that could impair our ability to compete in international markets or subject us to liability if we violate these controls.

Our software and services, in some cases, are subject to U.S. export control laws and regulations including the Export Administration Regulations ("EAR"), and trade and economic sanctions maintained by the Office of Foreign Assets Control ("OFAC"). As such, an export license may be required to export or reexport our software and services to certain countries and end-users for certain end-uses. If we were to fail to comply with such U.S. export controls laws and regulations, U.S. economic sanctions, or other similar laws, we could be subject to both civil and criminal penalties, including substantial fines, possible incarceration for employees and managers for willful violations, and the possible loss of our export or import privileges. Obtaining the necessary export license for a particular sale or offering may not be possible and may be time-consuming and may result in the delay or loss of sales opportunities. Furthermore, U.S. export control laws and economic sanctions in many cases prohibit the export of software and services to certain U.S. embargoed or sanctioned countries, governments and persons, as well as for prohibited end-uses. For example, following Russia's invasion of Ukraine, the United States and other countries imposed economic sanctions and severe export control restrictions against Russia and Belarus, and the United States and other countries could impose wider sanctions and export restrictions and take other actions should the conflict continue or further escalate. Monitoring and ensuring compliance with these complex U.S. export control laws is particularly challenging because our offerings are widely distributed throughout the world, and information available on the users of these offerings is, in some cases, limited. In addition, because we incorporate encryption functionality into our products, we are also subject to certain provisions of these laws that apply to encryption items. Even though we take precautions to ensure that we and our partners comply with all relevant export control laws and regulations, any failure by us or our partners to comply with such laws and regulations could have negative consequences for us, including reputational harm, government investigations and penalties.

In addition, various countries regulate the export and import of certain encryption software and technology, including through import permit and license requirements, and have enacted laws that could limit our ability to distribute our products and services or could limit our end-customers' ability to implement our products in those countries. Specifically, export restrictions recently imposed on Russia and Belarus limit the export of encryption software and related source code and technology to these locations, which severely limited and could continue to limit our ability to provide our software and services to these countries. Changes in our products or changes in export and import regulations in such countries may create delays in the introduction of our products and services into international markets, prevent our end-customers with international operations from deploying our products globally or, in some cases, prevent or delay the export or import of our products and services to certain countries, governments or persons altogether. The following developments could result in decreased use of our products and services by, or in our decreased ability to export or sell our products to, existing or potential end-customers with international operations: any change in export or import laws or regulations, economic sanctions or related legislation; shift in the enforcement or scope of existing export, import or sanctions laws or regulations; or change in the countries, governments, persons, or technologies targeted by such export, import or sanctions laws or regulations. Any decreased use of our products or services or limitation on our ability to export to or sell our products or services in international markets could adversely affect our business, financial condition and operating results.

Failure to comply with anti-bribery, anti-corruption, and anti-money laundering laws could subject us to penalties and other adverse consequences.

We are subject to the FCPA, the U.K. Bribery Act and other anti-corruption, anti-bribery and anti-money laundering laws in various jurisdictions both domestic and abroad. We leverage channel partners to sell our offerings abroad and use other third parties, including recruiting firms, professional employer organizations, legal, accounting and other professional advisors, and local vendors to meet our needs associated with doing business abroad. We and these third parties may have direct or indirect interactions with officials and employees of government agencies, or state-owned or affiliated entities, and we may be held liable for the corrupt or other illegal activities of our channel partners and third-party representatives, as well as our employees, representatives, contractors, partners, and agents, even if we do not explicitly authorize such activities. While we have policies and procedures to address compliance with such laws, we cannot assure that the channel partners, third-party representatives, our employees, contractors or agents will not take actions in violation of our policies and applicable law, for which we may be ultimately held responsible. Any violation of the FCPA, U.K. Bribery Act or other applicable anti-bribery, anti-corruption laws, and anti-money laundering laws could result in whistleblower complaints, adverse media coverage, investigations, loss of export privileges, severe criminal or civil sanctions, or suspension or debarment from U.S. government contracts, all of which may have an adverse effect on our reputation, business, operating results and prospects.

Risks Related to Ownership of our Ordinary Shares

The market price for our ordinary shares has been and is likely to continue to be volatile or may decline regardless of our operating performance.

The stock markets, and securities of technology companies in particular, have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many technology companies. Stock prices of many technology companies have fluctuated in a manner unrelated or disproportionate to the operating performance of those companies. In particular, stock prices of companies with significant operating losses have recently declined significantly, and in many instances more significantly than companies with operating profits. The economic impact and uncertainty of the ongoing COVID-19 pandemic, as well as Russia's recent invasion of Ukraine, have exacerbated this volatility in both the overall stock markets and the market price of our ordinary shares. A significant decline in the price of our shares could have an adverse impact on investor confidence and employee retention. In the past, shareholders have instituted securities class action litigation following periods of market volatility. If we were to become involved in securities litigation, it could subject us to substantial costs, divert resources and the attention of management from our business and adversely affect our business. The market price of our ordinary shares may fluctuate significantly in response to numerous factors, many of which are beyond our control, including:

- actual or anticipated changes or fluctuations in our operating results;
- the financial projections we may provide to the public, any changes in these projections or our failure to meet these projections;
- announcements by us or our competitors of new offerings or new or terminated significant contracts, commercial relationships or capital commitments;
- industry or financial analyst or investor reaction to our press releases, other public announcements, and filings with the SEC;
- rumors and market speculation involving us or other companies in our industry;
- a gain or loss of investor confidence in the market for technology stocks or the stock market in general;
- future sales or expected future sales of our ordinary shares;
- investor perceptions of us, the benefits of our offerings and the industries in which we operate;
- price and volume fluctuations in the overall stock market from time to time;
- changes in operating performance and/or stock market valuations of other technology companies generally, or those in our industry in particular;
- failure of industry or financial analysts to maintain coverage of us, changes in financial estimates by any analysts who follow our company, or our failure to meet these estimates or the expectations of investors;
- actual or anticipated developments in our business or our competitors' businesses or the competitive landscape generally;
- litigation involving us, our industry or both, or investigations by regulators into our operations or those of our competitors;
- developments or disputes concerning our intellectual property rights or our solutions, or third-party proprietary rights;
- announced or completed acquisitions of businesses or technologies by us or our competitors;
- breaches of, or failures relating to, privacy, data protection or information security;
- new laws or regulations or new interpretations of existing laws or regulations applicable to our business;
- any major changes in our management or our board of directors, such as the transition of our former Chief Executive Officer, Shay Banon, to the role of Chief Technology Officer and the transition of our former Chief Product Officer, Ash Kulkarni, to the role of Chief Executive Officer;
- general economic conditions and slow or negative growth of our markets, including as a result of the COVID-19 pandemic, the ongoing military conflict between Russia and Ukraine, and the general inflation and interest rate environment; and
- other events or factors, including those resulting from war, incidents of terrorism or responses to these events.

We may fail to meet our publicly announced guidance or other expectations about our business and future operating results, which would cause our stock price to decline.

We have provided and may continue to provide guidance and other expectations in our quarterly and annual earnings conference calls, quarterly and annual earnings releases, or otherwise, regarding our future performance. Guidance, as well as other expectations, are forward-looking and represent our management's estimates as of the date of release and are based upon a number of assumptions and estimates that, while presented with numerical specificity, are inherently subject to significant business, economic and competitive uncertainties and contingencies on our business, many of which are beyond our control and are based upon specific assumptions with respect to future business decisions, some of which will change. One of those key assumptions relates to the impact of the ongoing COVID-19 pandemic and the associated economic uncertainty on our business, which is inherently difficult to predict. Furthermore, analysts and investors may develop and publish their own projections of our business, which may form a consensus about our future performance. Our actual business results may vary significantly from such guidance or other expectations or that consensus due to a number of factors, many of which are outside of our control, including due to the global economic uncertainty and financial market conditions caused by the ongoing COVID-19 pandemic, and which could adversely affect our business and future operating results. There are no comparable recent events that provide insights as to the probable effect of the ongoing COVID-19 pandemic, and, as a result, the ultimate impact of the COVID-19 outbreak is highly uncertain and subject to change. Furthermore, if we make downward revisions of our previously announced guidance or other expectations, if we withdraw our previously announced guidance or other expectations, or if our publicly announced guidance or other expectations of future operating results fail to meet expectations of securities analysts, investors or other interested parties, the price of our ordinary shares would decline. In light of the foregoing, investors are urged not to rely upon our guidance or other expectations in making an investment decision regarding our ordinary shares.

Any failure to successfully implement our operating strategy or the occurrence of any of the events or circumstances set forth in this "Risk Factors" section in this report could result in the actual operating results being different from our guidance or other expectations, and the differences may be adverse and material.

The concentration of our share ownership with insiders will likely limit your ability to influence corporate matters, including the ability to influence the outcome of director elections and other matters requiring shareholder approval.

Our executive officers and directors together beneficially own a significant amount of our outstanding ordinary shares. As a result, these shareholders, acting together, will have significant influence over matters that require approval by our shareholders, including matters such as adoption of the financial statements, declarations of dividends, the appointment and dismissal of directors, capital increases, amendment to our articles of association and approval of significant corporate transactions. Corporate action might be taken even if other shareholders oppose them. This concentration of ownership might also have the effect of delaying or preventing a change of control of us that other shareholders may view as beneficial.

The issuance of additional shares in connection with financings, acquisitions, investments, our share incentive plans or otherwise will dilute all other shareholders.

Our articles of association authorize us to issue up to 165 million ordinary shares and up to 165 million preference shares with such rights and preferences as included in our articles of association. On September 28, 2018, our extraordinary general meeting of shareholders (the "2018 Extraordinary Meeting") empowered our board of directors to issue ordinary shares and preference shares up to our authorized share capital for a period of five years from October 10, 2018. Subject to compliance with applicable rules and regulations, we may issue ordinary shares or securities convertible into ordinary shares from time to time in connection with a financing, acquisition, investment, our share incentive plans or otherwise. Any such issuance could result in substantial dilution to our existing shareholders unless pre-emptive rights exist and cause the market price of our ordinary shares to decline.

Certain holders of our ordinary shares may not be able to exercise pre-emptive rights and as a result may experience substantial dilution upon future issuances of ordinary shares.

Holders of our ordinary shares in principle have a pro rata pre-emptive right with respect to any issue of ordinary shares or the granting of rights to subscribe for ordinary shares, unless Dutch law or our articles of association state otherwise or unless explicitly provided otherwise in a resolution by our general meeting of shareholders (the "General Meeting"), or—if authorized by the annual General Meeting or an extraordinary General Meeting—by a resolution of our board of directors. Our 2018 Extraordinary Meeting has empowered our board of directors to limit or exclude pre-emptive rights on ordinary shares for a period of five years from October 10, 2018, which could cause existing shareholders to experience substantial dilution of their interest in us.

Pre-emptive rights do not exist with respect to the issue of preference shares and holders of preference shares, if any, have no pre-emptive right to acquire newly issued ordinary shares. Also, pre-emptive rights do not exist with respect to the issue of shares or grant of rights to subscribe for shares to employees of the Company or contributions in kind.

Sales of substantial amounts of our ordinary shares in the public markets, or the perception that they might occur, could reduce the price that our ordinary shares might otherwise attain.

Sales of a substantial number of shares of our ordinary shares in the public market, particularly sales by our directors, executive officers and significant shareholders, or the perception that these sales could occur, could adversely affect the market price of our ordinary shares and may make it more difficult for you to sell your ordinary shares at a time and price that you deem appropriate.

In addition, holders of an aggregate of 17,343,020 ordinary shares, based on shares outstanding as of April 30, 2022, are entitled to rights with respect to registration of these shares under the Securities Act pursuant to our amended and restated investors' rights agreement, dated July 19, 2016. If these holders of our ordinary shares, by exercising their registration rights, sell a large number of shares, they could adversely affect the market price for our ordinary shares. We have also filed registration statements on Form S-8 under the Securities Act registering all ordinary shares that we may issue under our equity compensation plans, which may in turn be sold and may adversely affect the market price for our ordinary shares.

Certain anti-takeover provisions in our articles of association and under Dutch law may prevent or could make an acquisition of our company more difficult, limit attempts by our shareholders to replace or remove members of our board of directors and may adversely affect the market price of our ordinary shares.

Our articles of association contain provisions that could delay or prevent a change in control of our company. These provisions could also make it difficult for shareholders to appoint directors that are not nominated by the current members of our board of directors or take other corporate actions, including effecting changes in our management. These provisions include:

- the staggered three-year terms of the members of our board of directors, as a result of which only approximately one-third of the members of our board of directors may be subject to election in any one year;
- a provision that the members of our board of directors may only be removed by a General Meeting by a two-thirds majority of votes cast representing at least 50% of our issued share capital if such removal is not proposed by our board of directors;
- a provision that the members of our board of directors may only be appointed upon binding nomination of the board of directors, which can only be overruled with a two-thirds majority of votes cast representing at least 50% of our issued share capital;
- the inclusion of a class of preference shares in our authorized share capital that may be issued by our board of directors, in such a manner as to dilute the interest of shareholders, including any potential acquirer or activist shareholder, in order to delay or discourage any potential unsolicited offer or shareholder activism;
- requirements that certain matters, including an amendment of our articles of association, may only be brought to our shareholders for a vote upon a proposal by our board of directors; and
- minimum shareholding thresholds, based on nominal value, for shareholders to call General Meetings of our shareholders or to add items to the agenda for those meetings.

We are subject to the Dutch Corporate Governance Code but do not comply with all the suggested governance provisions of the Dutch Corporate Governance Code. This may affect your rights as a shareholder.

As a Dutch company, we are subject to the Dutch Corporate Governance Code ("DCGC"). The DCGC contains both principles and suggested governance provisions for management boards, supervisory boards, shareholders and general meetings, financial reporting, auditors, disclosure, compliance and enforcement standards. The DCGC is based on a "comply or explain" principle. Accordingly, public companies are required to disclose in their annual reports, filed in the Netherlands, whether they comply with the suggested governance provisions of the DCGC. If they do not comply with those provisions (e.g., because of a conflicting requirement), the company is required to give the reasons for such noncompliance. The DCGC applies to all Dutch companies listed on a government-recognized stock exchange, whether in the Netherlands or elsewhere, including the NYSE. The principles and suggested governance provisions apply to our board of directors (in relation to role and composition, conflicts of interest and independency requirements, board committees and remuneration), shareholders and the General Meeting (for example, regarding anti-takeover protection and our obligations to provide information to our shareholders) and financial reporting (such as external auditor and internal audit requirements). We comply with all applicable provisions of the DCGC except where such provisions conflict with U.S. exchange listing requirements or with market practices in the United States or the Netherlands. This may affect your rights as a shareholder, and you may not have the same level of protection as a shareholder in a Dutch company that fully complies with the suggested governance provisions of the DCGC.

We do not intend to pay dividends in the foreseeable future. As a result, your ability to achieve a return on your investment will depend on appreciation in the price of our ordinary shares.

We have never declared or paid any cash dividends on our shares. We currently intend to retain all available funds and any future earnings for use in the operation of our business and do not anticipate paying any dividends on our ordinary shares in the foreseeable future. Were this position to change, payment of future dividends may be made only if our equity exceeds the amount of the paid-in and called-up part of the issued share capital, increased by the reserves required to be maintained by Dutch law or by our articles of association. Accordingly, investors must rely on sales of their ordinary shares after price appreciation, which may never occur, as the only way to realize any future gains on their investments.

Claims of U.S. civil liabilities may not be enforceable against us.

We are incorporated under the laws of the Netherlands and substantial portions of our assets are located outside of the United States. In addition, two members of our board of directors and certain experts named herein reside outside the United States. As a result, it may be difficult for investors to effect service of process within the United States upon us or such other persons residing outside the United States, or to enforce outside the United States judgments obtained against such persons in U.S. courts in any action, including actions predicated upon the civil liability provisions of the U.S. federal securities laws. In addition, it may be difficult for investors to enforce, in original actions brought in courts in jurisdictions located outside the United States, rights predicated upon the U.S. federal securities laws.

There is no treaty between the United States and the Netherlands for the mutual recognition and enforcement of judgments (other than arbitration awards) in civil and commercial matters. Therefore, a final judgment rendered by any federal or state court in the United States based on civil liability, whether or not predicated solely upon the U.S. federal securities laws, would not be enforceable in the Netherlands unless the underlying claim is re-litigated before a Dutch court of competent jurisdiction. In such proceedings, however, a Dutch court may be expected to recognize the binding effect of a judgment of a federal or state court in the United States without re-examination of the substantive matters adjudicated thereby, if (i) the jurisdiction of the U.S. federal or state court has been based on internationally accepted principles of private international law, (ii) that judgment resulted from legal proceedings compatible with Dutch notions of due process, (iii) that judgment does not contravene public policy of the Netherlands and (iv) that judgment is not incompatible with (x) an earlier judgment of a Dutch court between the same parties, or (y) an earlier judgment of a foreign court between the same parties in a dispute regarding the same subject and based on the same cause, if that earlier foreign judgment is recognizable in the Netherlands.

Based on the foregoing, there can be no assurance that U.S. investors will be able to enforce against us or members of our board of directors, officers or certain experts named herein, who are residents of the Netherlands or countries other than the United States, any judgments obtained in U.S. courts in civil and commercial matters, including judgments under the U.S. federal securities laws.

In addition, there can be no assurance that a Dutch court would impose civil liability on us, the members of our board of directors, our officers or certain experts named herein in an original action predicated solely upon the U.S. federal securities laws brought in a court of competent jurisdiction in the Netherlands against us or such members, officers or experts, respectively.

U.S. persons who hold our ordinary shares may suffer adverse tax consequences if we are characterized as a passive foreign investment company.

A non-U.S. corporation will generally be considered a passive foreign investment company (“PFIC”), for U.S. federal income tax purposes, in any taxable year if either (1) at least 75% of its gross income for such year is passive income or (2) at least 50% of the value of its assets (based on an average of the quarterly values of the assets during such year) is attributable to assets that produce or are held for the production of passive income (“the PFIC asset test”). For purposes of the PFIC asset test, the value of our assets will generally be determined by reference to our market capitalization. Based on our past and current projections of our income and assets, we do not expect to be a PFIC for the current taxable year or for the foreseeable future. Nevertheless, a separate factual determination as to whether we are or have become a PFIC must be made each year (after the close of such year). Since our projections may differ from our actual business results and our market capitalization and value of our assets may fluctuate, we cannot assure you that we will not be or become a PFIC in the current taxable year or any future taxable year. If we are a PFIC for any taxable year during which a U.S. person (as defined in Section 7701(a)(30) of the Internal Revenue Code of 1986, as amended) holds our ordinary shares, such U.S. person may be subject to adverse tax consequences. Each U.S. person who holds our ordinary shares is strongly urged to consult his, her or its tax advisor regarding the application of these rules and the availability of any potential elections.

If a U.S. person is treated as owning at least 10% of our ordinary shares, such U.S. person may be subject to adverse U.S. federal income tax consequences.

If a U.S. person is treated as owning (directly, indirectly, or constructively) at least 10% of the total combined voting power of our shares, or of the total value of our shares, such shareholder may be treated as a "United States shareholder" with respect to each "controlled foreign corporation" in our group (if any). Because our group includes one or more U.S. subsidiaries, certain of our non-U.S. subsidiaries could be treated as controlled foreign corporations (regardless of whether we are treated as a controlled foreign corporation). A United States shareholder of a controlled foreign corporation may be required to report annually and include in its U.S. taxable income its pro rata share of "Subpart F income," "global intangible low-taxed income," and investments in U.S. property by controlled foreign corporations, regardless of whether we make any distributions. An individual that is a United States shareholder with respect to a controlled foreign corporation generally would not be allowed certain tax deductions or foreign tax credits that would be allowed to a United States shareholder that is a U.S. corporation. We cannot provide any assurances that we will assist investors in determining whether we or any of our non-U.S. subsidiaries is treated as a controlled foreign corporation or whether any investor is treated as a United States shareholder with respect to any such controlled foreign corporation or furnish to any investor who may be a United States shareholder information that may be necessary to comply with the aforementioned reporting and tax paying obligations. Failure to comply with these reporting obligations may subject a shareholder who is a United States shareholder to significant monetary penalties and may prevent from starting the statute of limitations with respect to such shareholder's U.S. federal income tax return for the year for which reporting was due. A U.S. person should consult its advisors regarding the potential application of these rules to an investment in our ordinary shares.

We may not be able to make distributions or repurchase shares without subjecting our shareholders to Dutch withholding tax, and dividends distributed on our ordinary shares to certain related parties in low-tax jurisdictions might in the future become subject to an additional Dutch withholding tax.

We have not paid a dividend on our ordinary shares in the past and we do not intend to pay any dividends to holders of our ordinary shares in the foreseeable future. See "We do not intend to pay dividends in the foreseeable future. As a result, your ability to achieve a return on your investment will depend on appreciation in the price of our ordinary shares." However, if we ever do pay dividends or repurchase shares, then under current Dutch tax law, the dividend paid or repurchase price paid may be subject to Dutch dividend withholding tax at a rate of 15% under the Dutch Dividend Withholding Tax Act (*Wet op de dividendbelasting 1965*, "Regular Dividend Withholding Tax"), unless a domestic or treaty exemption applies.

The Dutch parliament has adopted a proposal of law pursuant to which an alternative withholding tax ("Alternative Withholding Tax") will be imposed on dividends paid to related entities in designated low-tax jurisdictions, effective January 1, 2024. An entity is considered related if (i) it has a "Qualifying Interest" in our company, (ii) our company has a "Qualifying Interest" in the entity holding the ordinary shares, or (iii) a third party has a "Qualifying Interest" in both our company and the entity holding the ordinary shares. The term "Qualifying Interest" means a direct or indirectly held interest either by an entity individually or jointly if an entity is part of a collaborating group (*samenwerkende groep*) that enables such entity or such collaborating group to exercise a definite influence over another entities' decisions, such as our company or an entity holding ordinary shares as the case may be, and allows it to determine the other entities' activities. The Alternative Withholding Tax will be imposed at the highest Dutch corporate income tax rate in effect at the time of the distribution (currently 25.8%). The Alternative Withholding Tax will be reduced, but not below zero, with any Regular Dividend Withholding Tax imposed on distributions. As such, based on currently applicable rates, the overall effective rate of withholding of Regular Dividend Withholding Tax and Alternative Withholding Tax will not exceed the highest corporate income tax rate in effect at the time of the distribution (currently 25.8%).

If we cease to be a Dutch tax resident for the purposes of a tax treaty concluded by the Netherlands and in certain other events, we could potentially be subject to a proposed Dutch dividend withholding tax in respect of a deemed distribution of our entire market value less paid-up capital.

Under a proposal of law currently pending before the Dutch parliament, the Emergency act conditional exit dividend withholding tax (Spoedwet conditionele eindafrekening dividendbelasting "DWT Exit Tax"), we will be deemed to have distributed an amount equal to our entire market capitalization less recognized paid-up capital immediately before the occurrence of certain events, including if we cease to be a Dutch tax resident for purposes of a tax treaty concluded by the Netherlands with another jurisdiction and become, for purposes of such tax treaty, exclusively a tax resident of that other jurisdiction which is a qualifying jurisdiction. A qualifying jurisdiction is a jurisdiction other than a member state of the EU/EEA which does not impose a withholding tax on distributions, or that does impose such tax but that grants a step-up for earnings attributable to the period prior to us becoming exclusively a resident in such jurisdiction. This deemed distribution will be subject to a 15% tax insofar it exceeds a franchise of EUR 50 million. The tax is payable by us as a withholding agent. A full exemption applies to entities and individuals who are resident in an EU/EEA member state or a state that has concluded a tax treaty with the Netherlands that contains a dividend article, provided we submit a declaration confirming the satisfaction of applicable conditions by qualifying shareholders within one month following the taxable event. We will be deemed to have withheld the tax on the deemed distribution and have a statutory right to recover this from our shareholders. Dutch resident shareholders qualifying for the exemption are entitled to a credit or refund, and non-Dutch resident shareholders qualifying for the exemption are entitled to a refund, subject to applicable statutory limitations, provided the tax has been actually recovered from them.

The DWT Exit Tax has been amended several times since the initial proposal of law and is under ongoing discussion. It is therefore not certain whether the DWT Exit Tax will be enacted and if so, in what form. If enacted in its present form, the DWT Exit Tax will have retroactive effect as from December 8, 2021.

Risks Related to our Outstanding Senior Notes

We have a substantial amount of indebtedness, which could adversely affect our financial condition.

We have a substantial amount of indebtedness and we may incur additional indebtedness in the future. As of April 30, 2022, we had $575.0 million aggregate principal amount of Senior Notes outstanding. Our indebtedness could have important consequences, including:

- limiting our ability to obtain additional financing to fund future working capital, capital expenditures, acquisitions or other general corporate requirements;
- requiring a portion of our cash flows to be dedicated to debt service payments instead of other purposes, thereby reducing the amount of cash flows available for working capital, capital expenditures, acquisitions and other general corporate purposes;
- increasing our vulnerability to adverse changes in general economic, industry and competitive conditions; and
- increasing our cost of borrowing.

In addition, the indenture that governs the Senior Notes contains restrictive covenants that limit our ability to engage in activities that may be in our long-term best interest. Our failure to comply with those covenants could result in an event of default which, if not cured or waived, could result in the acceleration of substantially all of our indebtedness.

We may not be able to generate sufficient cash to service all of our indebtedness and may be forced to take other actions to satisfy our obligations under our indebtedness, which may not be successful.

Our ability to make scheduled payments on or to refinance our debt obligations depends on our financial condition and results of operations, which in turn are subject to prevailing economic and competitive conditions and to certain financial, business and other factors beyond our control. We may not be able to maintain a level of cash flows from operating activities sufficient to permit us to pay the principal, premium, if any, and interest on our indebtedness, which could have a material adverse effect on our business, results of operations and financial condition.

If our cash flows and capital resources are insufficient to fund our debt service obligations, we could face substantial liquidity problems and may be forced to reduce or delay investments and capital expenditures, or to sell assets, seek additional capital or restructure or refinance our indebtedness. Our ability to restructure or refinance our debt will depend on, among other things, the condition of the capital markets and our financial condition at such time. Any refinancing of our debt could be at higher interest rates and may require us to comply with more onerous covenants, which could further restrict our business operations. The terms of existing or future debt instruments and the indenture that governs the Senior Notes may restrict us from adopting some of these alternatives. In addition, any failure to make payments of interest and principal on our outstanding indebtedness on a timely basis would likely result in a reduction of our credit rating, which could harm our ability to incur additional indebtedness. In the absence of such cash flows and resources, we could face substantial liquidity problems and might be required to dispose of material assets or operations to meet our debt service and other obligations. Any of these circumstances could have a material adverse effect on our business, results of operations and financial condition.

Further, any future credit facility or other debt instrument may contain provisions that will restrict our ability to dispose of assets and use the proceeds from any such disposition. We may not be able to consummate those dispositions or to obtain the proceeds that we could realize from them and these proceeds may not be adequate to meet any debt service obligations then due. These alternative measures may not be successful and may not permit us to meet our scheduled debt service obligations and any such failure to meet our scheduled debt service obligations could have a material adverse effect on our business, results of operations and financial condition.

The indenture that governs the Senior Notes contains, and any of our future debt instruments may contain, terms which restrict our current and future operations, particularly our ability to respond to changes or to take certain actions.

The indenture that governs the Senior Notes contains a number of restrictive covenants that impose significant operating and financial restrictions on us and may limit our ability to engage in acts that may be in our long-term best interest, including, among other things, restrictions on our ability to:

- create liens on certain assets to secure debt;
- grant a subsidiary guarantee of certain debt without also providing a guarantee of the Senior Notes; and
- consolidate or merge with or into, or sell or otherwise dispose of all or substantially all of our assets to, another person.

The covenants in the indenture that governs the Senior Notes are subject to important exceptions and qualifications described in such indenture.

As a result of these restrictions, we are limited as to how we conduct our business and we may be unable to raise additional debt or equity financing to compete effectively or to take advantage of new business opportunities. The terms of any future indebtedness we may incur could include more restrictive covenants and may require us to maintain specified financial ratios and satisfy other financial condition tests. We cannot assure that we will be able to maintain compliance with these covenants in the future and, if we fail to do so, that we will be able to obtain waivers from the relevant lenders and/or amend the covenants.

Our failure to comply with the restrictive covenants described above and/or the terms of any future indebtedness from time to time could result in an event of default, which, if not cured or waived, could result in our being required to repay these borrowings before their due date. If we are forced to refinance these borrowings on less favorable terms or cannot refinance these borrowings, our results of operations and financial condition could be adversely affected. As a result, our failure to comply with such restrictive covenants could have a material adverse effect on our business, results of operations and financial condition.

We may be required to repurchase some of the Senior Notes upon a change of control triggering event.

Holders of the Senior Notes can require us to repurchase the Senior Notes upon a change of control (as defined in the indenture governing the Senior Notes) at a repurchase price equal to 101% of the principal amount of the Senior Notes, plus accrued and unpaid interest to, but excluding, the applicable repurchase date. Our ability to repurchase the Senior Notes may be limited by law or the terms of other agreements relating to our indebtedness. In addition, we may not have sufficient funds to repurchase the Senior Notes or have the ability to arrange necessary financing on acceptable terms, if at all. A change of control may also constitute a default under, or result in the acceleration of the maturity of, our other then-existing indebtedness. Our failure to repurchase the Senior Notes would result in a default under the Senior Notes, which may result in the acceleration of the Senior Notes and other then-existing indebtedness. We may not have sufficient funds to make any payments triggered by such acceleration, which could result in foreclosure proceedings and our seeking protection under the U.S. bankruptcy code.

General Risk Factors

Unfavorable or uncertain conditions in our industry or the global economy or reductions in information technology spending, including as a result of inflation, the Russian invasion of Ukraine or COVID-19 pandemic, could limit our ability to grow our business and negatively affect our results of operations.

Our results of operations may vary based on the impact of changes in our industry or the global economy on us or our customers. Current or future economic uncertainties or downturns could adversely affect our business and results of operations. Negative conditions in the general economy both in the United States and abroad, including conditions resulting from changes in gross domestic product growth, financial and credit market fluctuations, international trade relations, changes in inflation and interest rates, energy costs, political instability or unrest and new developments resulting from recent elections and changes of administration, natural catastrophes, warfare, infectious diseases and terrorist attacks on the United States, Europe, the Asia Pacific region or elsewhere, could cause a decrease in business investments by our customers and potential customers, including spending on information technology, and negatively affect the growth of our business. For example, Russia's invasion of Ukraine and resulting international political crisis could have significant negative macroeconomic consequences, including on the businesses of our customers and partners and negatively impact their spending on our offerings.

In addition, the COVID-19 pandemic has curtailed business spending by our customers, resulted in business disruptions for us and/or our customers, restricted travel to customer sites and resulted in a quarantine of affected populations impacting our employees, partners and customers. Additionally, mitigation and containment measures adopted or reinstated by government authorities to contain the spread of COVID-19 in the U.S. and abroad may significantly impact business continuity for our partners and our customers, reduce our customers' business operations, delay their engagement with us (including due to travel restrictions and restrictions on in-person meetings) and could thereby adversely affect our business and financial results. Further, these measures by government authorities may continue to remain in place for a significant period of time or, even if lifted, could be reinstated at any time, and additional and/or extended measures could significantly impact the ability of our employees and customers and vendors to work productively.

To the extent our offerings are perceived by customers and potential customers as discretionary, our revenue may be disproportionately affected by delays or reductions in general information technology spending. Also, customers may choose to develop in-house software as an alternative to using our products. Moreover, competitors may respond to market conditions by lowering prices. We cannot predict the timing, strength or duration of any economic slowdown, instability or recovery, generally or within any particular industry. If the economic conditions of the general economy or markets in which we operate do not improve, or worsen from present levels, our business, results of operations and financial condition could be adversely affected.

We may acquire other businesses which could require significant management attention, disrupt our business, or dilute shareholder value. We may be unable to integrate acquired businesses and technologies, and acquisitions could adversely affect our results of operations.

As part of our business strategy, we may acquire or make investments in complementary companies, products, or technologies. We have in the past acquired, and expect in the future to acquire, businesses that we believe will complement or augment our existing business. The identification of suitable acquisition candidates is difficult, and we may not be able to complete such acquisitions on favorable terms, if at all. If we do complete future acquisitions, we may not ultimately strengthen our competitive position or achieve our goals and business strategy, we may be subject to claims or liabilities assumed from an acquired company, product, or technology, and any acquisitions we complete could be viewed negatively by our customers, investors, and securities analysts. In addition, if we are unsuccessful at integrating future acquisitions, or the technologies associated with such acquisitions, into our company, the revenue and results of operations of the combined company could be adversely affected. Any integration process may require significant time and resources, which may disrupt our ongoing business and divert management's attention, and we may not be able to manage the integration process successfully. We may not successfully evaluate or utilize acquired technology or personnel, realize anticipated synergies from acquisitions, or accurately forecast the financial impact of an acquisition transaction and integration of such acquisition, including accounting charges. We may have to pay cash, incur debt, or issue equity or equity-linked securities to pay for any future acquisitions, each of which could adversely affect our financial condition or the market price of our ordinary shares. The sale of equity or issuance of equity-linked debt to finance any future acquisitions could result in dilution to our shareholders. The incurrence of indebtedness would result in increased fixed obligations and could also include covenants or other restrictions that would impede our ability to manage our operations. Additionally, we may acquire development stage companies that are not yet profitable, and that require continued investment, which could adversely affect our results of operations and liquidity. The occurrence of any of these risks could harm our business, results of operations, and financial condition.

Catastrophic events, or man-made problems such as terrorism, may disrupt our business.

A significant natural disaster, such as an earthquake, fire, flood, or significant power outage could have an adverse impact on our business, results of operations, and financial condition. The impact of climate change may increase these risks due to changes in weather patterns, such as increases in storm intensity, sea-level rise, melting of permafrost and temperature extremes in areas where we or our suppliers and customers conduct business. We have a number of our employees and executive officers located in the San Francisco Bay Area, a region known for seismic activity and wildfires. In the event our or our partners' abilities are hindered by any of the events discussed above, sales could be delayed, resulting in missed financial targets for a particular quarter. In addition, acts of terrorism, acts of war, including Russia's invasion of Ukraine, other geo-political unrest or health issues, such as an outbreak of pandemic or epidemic diseases, such as the COVID-19 pandemic, or fear of such events, could cause disruptions in our business or the business of our partners, customers or the economy as a whole. Any disruption in the business of our partners or customers that affects sales in a given fiscal quarter could have a significant adverse impact on our quarterly results for that and future quarters. For example, the full extent to which the COVID-19 pandemic impacts our business, results of operations and financial condition will depend on future developments, which are highly uncertain and cannot be predicted. In addition, the COVID-19 pandemic has adversely affected the economies of many countries, resulting in economic downturns that could affect demand for our products and likely impact our operating results. All of the aforementioned risks may be further increased if our disaster recovery plans prove to be inadequate. See the risk factor entitled "The ongoing COVID-19 pandemic could harm our business and results of operations."

If our estimates or judgments relating to our critical accounting policies are based on assumptions that change or prove to be incorrect, our results of operations could fall below expectations of securities analysts and investors, resulting in a decline in the trading price of our ordinary shares.

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, as provided in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included in Part II, Item 7 of this Annual Report on Form 10-K, the results of which form the basis for making judgments about the carrying values of assets, liabilities, equity, revenue, and expenses that are not readily apparent from other sources. Our results of operations may be adversely affected if our assumptions change or if actual circumstances differ from those in our assumptions, which could cause our results of operations to fall below our publicly announced guidance or the expectations of securities analysts and investors, resulting in a decline in the market price of our ordinary shares. Significant assumptions and estimates used in preparing our consolidated financial statements include those related to revenue recognition and accounting of intangible assets.

If industry or financial analysts do not publish research or reports about our business, or if they issue inaccurate or unfavorable research regarding our ordinary shares, our share price and trading volume could decline, which could adversely affect our business.

The trading market for our ordinary shares is influenced by the research and reports that industry or financial analysts publish about us or our business. We do not control these analysts, or the content and opinions included in their reports. If any of the analysts who cover us issues an inaccurate or unfavorable opinion regarding our company, our stock price would likely decline. In addition, the stock prices of many companies in the technology industry have declined significantly after those companies have failed to meet, or significantly exceed, the financial guidance publicly announced by the companies or the expectations of analysts or public investors. If our financial results fail to meet, or significantly exceed, our announced guidance or the expectations of analysts or public investors, our stock price may decline. Further, analysts could downgrade our ordinary shares or publish unfavorable research about us. If one or more of the analysts who cover our company ceases to cover us, or fails to publish reports on us regularly, our visibility in the financial markets could decrease, which in turn could cause our stock price or trading volume to decline and could adversely affect our business.

The requirements of being a public company may strain our resources, divert management’s attention and affect our ability to attract and retain senior management and qualified board members.

As a public company, we are subject to the reporting and corporate governance requirements of the Exchange Act, the listing requirements of the NYSE and other applicable securities rules and regulations, including the Sarbanes-Oxley Act and the Dodd-Frank Wall Street Reform and Consumer Protection Act. Compliance with these rules and regulations has increased, and we expect will continue increasing our legal and financial compliance costs, make some activities more difficult, time-consuming or costly and increase demand on our systems and resources.

Among other things, the Exchange Act requires that we file annual, quarterly and current reports with respect to our business and results of operations, and the Sarbanes-Oxley Act requires that we maintain effective disclosure controls and procedures and internal control over financial reporting. In order to improve our disclosure controls and procedures and internal control over financial reporting to meet this standard, significant resources and management oversight is required. As a result, management’s attention may be diverted from other business concerns, which could harm our business, financial condition, results of operations and prospects. Although we have already hired additional personnel to help comply with these requirements, we may need to further expand our legal and finance departments in the future or hire outside consultants, which will increase our costs and expenses.

In addition, changing laws, regulations and standards relating to corporate governance and public disclosure, including those related to climate change and other environmental, social and governance related matters, are creating uncertainty for public companies, increasing legal and financial compliance costs and making some activities more time-consuming. These laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, 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 necessitated by ongoing revisions to disclosure and governance practices. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expense and a diversion of management’s time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to their application and practice, regulatory authorities may initiate legal proceedings against us and our business and prospects may be harmed. As a result of disclosure of information in the filings required of a public company and in this Annual Report on Form 10-K, our business and financial condition will become more visible, which may result in threatened or actual litigation, including by competitors and other third parties. If such claims are successful, our business, financial condition, results of operations and prospects could be materially harmed, and even if the claims do not result in litigation or are resolved in our favor, these claims, and the time and resources necessary to resolve them, could divert the resources of our management and materially harm our business, financial condition, results of operations and prospects. These factors could also make it more difficult for us to attract and retain qualified senior management or members of our board of directors, particularly to serve on our audit and compensation committees.

If we fail to maintain an effective system of disclosure controls and internal control over financial reporting, we may be unable to accurately report our financial results or prevent fraud, and investor confidence and the market price of our ordinary shares may decline, which could adversely affect our business.

As a public company in the United States, we are subject to the Sarbanes-Oxley Act, which requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. In order to maintain and improve the effectiveness of our disclosure controls and procedures and internal control over financial reporting, we have expended and anticipate that we will continue to expend significant resources, including accounting-related costs and significant management oversight. For example, since our IPO, we have hired additional accounting and financial staff with appropriate public company experience and technical accounting knowledge to assist in our compliance efforts. We have incurred and expect to continue to incur significant expenses and devote substantial management effort toward compliance with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act. To assist us in complying with these requirements we may need to hire more employees in the future, or engage outside consultants, which will increase our operating expenses.

Despite significant investment, our current controls and any new controls that we develop may become inadequate because of changes in conditions in our business. Further, weaknesses in our disclosure controls and internal control over financial reporting may be discovered in the future. Any failure to implement or maintain effective controls or any difficulties encountered in their implementation or improvement could harm our results of operations or cause us to fail to meet our reporting obligations and may result in a restatement of our financial statements for prior periods. Any failure to implement and maintain effective internal control over financial reporting could also adversely affect the results of periodic management evaluations and annual independent registered public accounting firm attestation reports regarding the effectiveness of our internal control over financial reporting that are required to be included in our periodic reports that we file with the SEC.

Ineffective disclosure controls and procedures and internal control over financial reporting could also cause investors to lose confidence in our reported financial and other information, subject us to sanctions or investigations by the NYSE, the SEC or other regulatory authorities, and would likely cause the trading price of our ordinary shares to decline, which could adversely affect our business.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

As a distributed company, we employ a distributed workforce with offices and employee hubs around the world. The largest of these hubs is located in Mountain View, California, where we lease approximately 40,000 square feet.

All offices are leased and we do not own any real property. We intend to procure additional space in the future as we continue to add employees and expand geographically. We believe that our current facilities are adequate to meet our current needs and that, as we grow, suitable additional space will be available to either expand existing hubs or open new hubs in new locations.

Item 3. Legal Proceedings.

The information called for by this Item is incorporated herein by reference to Part II, Item 8. “Financial Statements and Supplementary Data,” Note 8, “Commitments and Contingencies” included in this Annual Report on Form 10-K.

From time to time, we may be subject to legal proceedings and claims that arise in the ordinary course of business, including patent, commercial, product liability, employment, class action, whistleblower and other litigation and claims, as well as governmental and other regulatory investigations and proceedings. In addition, third parties may from time to time assert claims against us in the form of letters and other communications. We are not currently a party to any legal proceedings that, if determined adversely to us, would, in our opinion, have a material adverse effect on our business, results of operations, financial condition or cash flows. Future litigation may be necessary to defend ourselves, our partners and our customers by determining the scope, enforceability and validity of third-party proprietary rights, or to establish our proprietary rights. The results of any current or future litigation cannot be predicted with certainty, and regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

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.

Market Information for Ordinary Shares

Our ordinary shares began trading on the NYSE under the symbol "ESTC" on October 5, 2018. Prior to that date, there was no public trading market for our ordinary shares.

Holders of Record

As of June 16, 2022 there were 75 shareholders of record of our ordinary shares. Because many of our ordinary shares are held by brokers and other institutions on behalf of shareholders, we are unable to estimate the total number of shareholders represented by these record holders.

Dividend Policy

We have never declared or paid any dividends on our ordinary shares, and we do not anticipate declaring or paying dividends in the foreseeable future.

Recent Sales of Unregistered Securities

None.

Issuer Purchases of Equity Securities

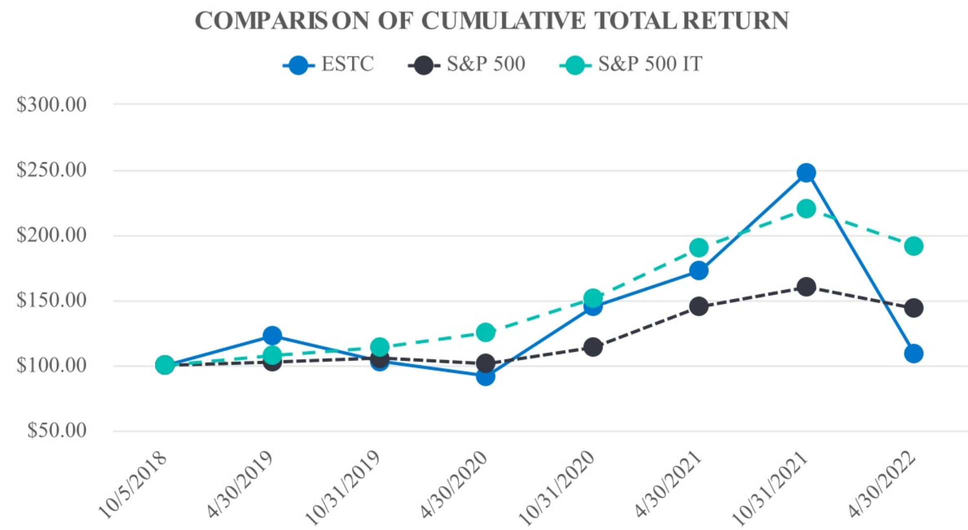
None.

Stock Performance Graph

This performance graph shall not be deemed "filed" with the SEC for purposes of Section 18 of the Exchange Act or incorporated by reference into any of our filings under the Securities Act.

The graph below compares the cumulative total shareholder return on our ordinary shares with the cumulative total return on the S&P 500 Index and the S&P 500 Information Technology Index. The graph assumes $100 was invested at the market close on October 5, 2018, which was our initial trading day, in our ordinary shares. Data for the S&P 500 Index and the S&P 500 Information Technology Index assume reinvestment of dividends. Our offering price of our ordinary shares in our IPO, which had a closing stock price of $70.00 on October 5, 2018, was $36.00 per share.

The comparisons in the graph below are based upon historical data and are not indicative of, nor intended to forecast, future performance of our ordinary shares.



This performance graph shall not be deemed “soliciting material” or to be “filed” with the SEC for purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities under that Section and shall not be deemed to be incorporated by reference into any filing of Elastic N.V. under the Securities Act or the Exchange Act.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

None.

Item 6. [Reserved]

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes included in Part II, Item 8 of this Annual Report on Form 10-K. As discussed in the section titled "Note Regarding Forward-Looking Statements," the following discussion and analysis contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those discussed below. Factors that could cause or contribute to such difference include, but are not limited to, those identified below and those discussed in the section titled "Risk Factors" included in Part I, Item 1A of this Annual Report on Form 10-K. Our fiscal year end is April 30.

This section of our Annual Report on Form 10-K discusses our financial condition and results of operations for the years ended April 30, 2022 and 2021 and year-to-year comparisons between the years ended April 30, 2022 and 2021. A discussion of our financial condition and results of operations for the year ended April 30, 2020 and year-to-year comparisons between years ended April 30, 2021 and 2020 that is not included in this Annual Report on Form 10-K can be found in Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" of our Annual Report on Form 10-K for the year ended April 30, 2021, filed with the SEC on June 25, 2021, and is incorporated by reference herein.

Overview

Elastic is a data analytics company built on the power of search. Our platform, which is available as both a hosted, managed service across public clouds as well as self-managed software, allows our customers to almost instantly find insights from large amounts of data and take action. We offer three search-powered solutions – Enterprise Search, Observability, and Security – that are built into the platform. We help organizations, their employees, and their customers find what they need faster, while keeping mission-critical applications running smoothly, and protecting against cyber threats.

Our platform is built on the Elastic Stack, a powerful set of software products that ingest data from any source, in any format, and perform search, analysis, and visualization of that data. At the core of the Elastic Stack is Elasticsearch - a highly scalable document store and search engine, and the only data store for all of our solutions and use cases. The Elastic Stack can be used by developers to power a variety of use cases. It is a distributed, real-time search and analytics engine and data store for all types of data including textual, numerical, geospatial, structured, and unstructured.

We make our platform available as a hosted, managed service. Customers can also deploy our platform across hybrid clouds, public or private clouds, and multi-cloud environments. As digital transformation and cloud adoption drive mission critical business functions online and to the cloud, we believe that every company will need to build around a search-based data analytics platform, one which brings speed, scale, and relevance to the vast volumes of data being generated. During the year ended April 30, 2022, we acquired 100% of the share capital of cmdWatch Security Inc. ("Cmd"), Build Security Ltd. ("build.security") and Optimyze.cloud Inc. ("Optimyze") for a combined total consideration of $135.0 million. With these acquisitions, we will be able to extend cloud security protections for our customers from endpoint to cloud workload and provide our customers with cloud security protections from build-time, to deployment-time, to runtime, and extend our Observability solution to enable "always on" continuous profiling for infrastructure, applications, and services.

Our business model is based primarily on a combination of a paid Elastic-managed hosted service offering and paid and free proprietary self-managed software. Our paid offerings for our platform are sold via subscription through resource-based pricing, and all customers and users have access to all solutions. In Elastic Cloud, our family of cloud-based offerings under which we offer our software as a hosted, managed service, we offer various subscription tiers tied to different features. For users who download our software, we make some of the features of our software available for free, allowing us to engage with a broad community of developers and practitioners and introduce them to the value of the Elastic Stack. We believe in the importance of an open software development model, and we develop the majority of our software in public repositories as open code under a proprietary license. Unlike some companies, we do not build an enterprise version that is separate from our free distribution. We offer a single code base across both our self-managed software and Elastic-hosted services. All of these actions help us build a powerful commercial business model that we believe is optimized for product-led growth.

We generate revenue primarily from sales of subscriptions to our platform. We offer various paid subscription tiers that provide different levels of rights to use proprietary features and access to support. We do not sell support separately. Our subscription agreements typically have terms of one to three years and we usually bill for them annually in advance. Elastic Cloud customers may also purchase subscriptions on a month-to-month basis without a commitment, with usage billed at the end of each month. Subscriptions accounted for 93%, 93% and 92% of total revenue for the years ended April 30, 2022, 2021, and 2020, respectively. We also generate revenue from consulting and training services.

We make it easy for users to begin using our products in order to drive rapid adoption. Users can either sign up for a free trial on Elastic Cloud or download our software directly from our website without any sales interaction, and immediately begin using the full set of features. Users can also sign up for Elastic Cloud through public cloud marketplaces. We conduct low-touch campaigns to keep users and customers engaged once they have begun using Elastic Cloud or downloaded our software. As of April 30, 2022, we had over 18,600 customers compared to over 15,000 customers and over 11,300 customers as of April 30, 2021 and 2020, respectively. The majority of our new customers use Elastic Cloud. We define a customer as an entity that generated revenue in the quarter ending on the measurement date from an annual or month-to-month subscription. Affiliated entities are typically counted as a single customer.

Many of these customers start with limited initial spending, but can significantly grow their spending. We drive high-touch engagement with qualified prospects and customers to drive further awareness, adoption, and expansion of our products with paid subscriptions. Expansion includes increasing the number of developers and practitioners using our products, increasing the utilization of our products for a particular use case, and applying our products to new use cases. The number of customers who represented greater than $100,000 in annual contract value ("ACV") was over 960, over 730, and over 610 as of April 30, 2022, 2021 and 2020, respectively. The ACV of a customer's commitments is calculated based on the terms of that customer's subscriptions, and represents the total committed annual subscription amount as of the measurement date. Month-to-month subscriptions are not included in the calculation of ACV.

Our sales teams are organized primarily by geography and secondarily by customer segments. They focus on both initial conversion of users into customers and additional sales to existing customers. In addition to our direct sales efforts, we also maintain partnerships to further extend our reach and awareness of our products around the world.

We have experienced significant growth, with revenue increasing to $862.4 million for the year ended April 30, 2022 from $608.5 million for the year ended April 30, 2021 and $427.6 million for the year ended April 30, 2020, representing year-over-year growth of 42% for each of the years ended April 30, 2022 and 2021. For the year ended April 30, 2022, revenue from outside the United States accounted for 44% of our total revenue. For our non-U.S. operations, the majority of our revenue and expenses are denominated in currencies such as the Euro and British pound. No customer represented more than 10% of our total revenue for the years ended April 30, 2022, 2021, and 2020. We have not been profitable to date. For the years ended April 30, 2022, 2021 and 2020, we incurred net losses of $203.8 million, $129.4 million and $167.2 million, respectively. Our net cash provided by operating activities was $5.7 million and $22.5 million for the years ended April 30, 2022 and 2021, respectively and cash used in operating activities for the year ended April 30, 2020 was $30.6 million. We have experienced losses in each year since our incorporation and as of April 30, 2022, had an accumulated deficit of $817.2 million. We expect we will continue to incur net losses for the foreseeable future. There can be no assurance as to when we may become profitable.

We continue to make substantial investments in developing the Elastic Stack and our solutions and expanding our global sales and marketing footprint. With a distributed team spanning over 40 countries, we are able to recruit, hire, and retain high-quality, experienced technical and sales personnel and operate at a rapid pace to drive product releases, fix bugs, and create and market new products. We had 2,978 employees as of April 30, 2022.

In July 2021, we issued $575.0 million aggregate principal amount of 4.125% Senior Notes due July 15, 2029 (the "Senior Notes") in a private placement. We intend to continue to use the net proceeds from the offering of the Senior Notes for general corporate purposes, which may include capital expenditures, investments and working capital. In addition, in the past we have considered, and may continue to consider, acquisitions and strategic transactions, and we may use the net proceeds of this offering for such purposes.

COVID-19

The ongoing COVID-19 pandemic continues to evolve and negatively impact worldwide economic activity. Efforts to control its spread have significantly curtailed the movement of people, goods and services worldwide, including in many of the regions in which we sell our products and services and conduct our business operations, negatively impacting worldwide economic activity. The impact of the COVID-19 pandemic has varied significantly across different industries with certain industries experiencing increased demand for their products and services, while others have struggled to maintain demand for their products and services consistent with historical levels. The ongoing impact of the COVID-19 pandemic on our operational and financial performance will depend on certain developments, including the duration and spread of the virus, success of preventative measures to contain or mitigate the spread of the virus and emerging variants, effectiveness, distribution and acceptance of COVID-19 vaccines, impact on our customers and our sales cycles, impact on our customer, employee or industry events, effect on our vendors, and the uneven impact of the COVID-19 pandemic on certain industries, all of which continue to remain uncertain and cannot be predicted.

Notwithstanding the potential and actual adverse impacts described above, as the pandemic has caused more of our customers to shift to a virtual workforce or accelerate their digital transformation efforts, we believe the value of our solutions has become even more evident. In addition, we have benefited from lower spending on travel by our employees due to COVID-19 travel restrictions and from holding events virtually, however we expect live events and travel costs to trend back higher in the near-term.

In response to the COVID-19 pandemic and in an effort to focus on maintaining business continuity and preparing for the future and long-term success of our business, we have taken precautionary measures intended to help minimize the risk of the virus to our employees, customers, and the communities in which we operate, including modifying our business practices, such as suspending employee travel, adapting employee work locations, and holding events and trainings virtually. Further, we also temporarily reduced the pace of investments in our business in response to the COVID-19 pandemic in the first quarter of fiscal 2021, but began to gradually increase our investments in our business in subsequent quarters. We intend to continue to make additional investments in the business in fiscal 2023. We continue to monitor the major impacts of the COVID-19 pandemic and make changes in our business as appropriate, in response to such impacts. See “Risk Factors” included in Part I, Item 1A of this Annual Report on Form 10-K for a discussion of additional risks.

Key Factors Affecting Our Performance

We believe that the growth and future success of our business depends on many factors, including those described below. While each of these factors presents significant opportunities for our business, they also pose important challenges that we must successfully address in order to sustain our growth and improve our results of operations.

Increasing adoption of Elastic Cloud. Elastic Cloud, our family of cloud-based offerings is an important growth opportunity for our business. Organizations are increasingly looking for hosted deployment alternatives with reduced administrative burdens. In some cases, users of our source available software that have been self-managing deployments of the Elastic Stack subsequently become paying subscribers of Elastic Cloud. For the years ended April 30, 2022, 2021 and 2020, Elastic Cloud contributed 35%, 27% and 22% of our total revenue, respectively. We believe that offering Elastic Cloud is important for achieving our long-term growth potential, and we expect Elastic Cloud’s contribution to our subscription revenue to increase over time. However, we expect that an increase in the relative contribution of Elastic Cloud to our business will have a modest adverse impact on our gross margin as a result of the associated third-party hosting costs.

Growing the Elastic community. Our strategy consists of providing access to source available software, on both a paid and free basis, and fostering a community of users and developers. Our strategy is designed to pursue what we believe to be significant untapped potential for the use of our technology. After developers begin to use our software and start to participate in our developer community, they become more likely to apply our technology to additional use cases and evangelize our technology within their organizations. This reduces the time required for our sales force to educate potential leads on our solutions. In order to capitalize on our opportunity, we intend to make further investments to keep the Elastic Stack accessible and well known to software developers around the world. We intend to continue to invest in our products and support and engage our user base and developer community through content, events, and conferences in the U.S. and internationally. Our results of operations may fluctuate as we make these investments.

Developing new features for the Elastic Stack. The Elastic Stack is applied to various use cases by customers, including through the solutions we offer. Our revenue is derived primarily from subscriptions of Enterprise Search, Observability and Security built into the Elastic Stack. We believe that releasing additional features of the Elastic Stack, including our solutions, drives usage of our products and ultimately drives our growth. To that end, we plan to continue to invest in building new features and solutions that expand the capabilities of the Elastic Stack. These investments may adversely affect our operating results prior to generating benefits, to the extent that they ultimately generate benefits at all.

Growing our customer base by converting users of our software to paid subscribers. Our financial performance depends on growing our paid customer base by converting free users of our software into paid subscribers. Our distribution model has resulted in rapid adoption by developers around the world. We have invested, and expect to continue to invest, heavily in sales and marketing efforts to convert additional free users to paid subscribers. Our investment in sales and marketing is significant given our large and diverse user base. The investments are likely to occur in advance of the anticipated benefits resulting from such investments, such that they may adversely affect our operating results in the near term.

Expanding within our current customer base. Our future growth and profitability depend on our ability to drive additional sales to existing customers. Customers often expand the use of our software within their organizations by increasing the number of developers using our products, increasing the utilization of our products for a particular use case, and expanding use of our products to additional use cases. We focus some of our direct sales efforts on encouraging these types of expansion within our customer base.

We believe that a useful indication of how our customer relationships have expanded over time is through our Net Expansion Rate, which is based upon trends in the rate at which customers increase their spend with us. To calculate an expansion rate as of the end of a given month, we start with the annualized spend from all such customers as of twelve months prior to that month end, or Prior Period Value. A customer’s annualized spend is measured as their ACV, or in the case of customers charged on usage-based arrangements, by annualizing the usage for that month. We then calculate the annualized spend from these same customers as of the given month end, or Current Period Value, which includes any growth in the value of their subscriptions or usage and is net of contraction or attrition over the prior twelve months. We then divide the Current

Period Value by the Prior Period Value to arrive at an expansion rate. The Net Expansion Rate at the end of any period is the weighted average of the expansion rates as of the end of each of the trailing twelve months. The Net Expansion Rate includes the dollar-weighted value of our subscriptions or usage that expand, renew, contract, or attrit. For instance, if each customer had a one-year subscription and renewed its subscription for the exact same amount, then the Net Expansion Rate would be 100%. Customers who reduced their annual subscription dollar value (contraction) or did not renew their annual subscription (attrition) would adversely affect the Net Expansion Rate. Our Net Expansion Rate was slightly below 130% for the year ended April 30, 2022.

As large organizations expand their use of the Elastic Stack across multiple use cases, projects, divisions and users, they often begin to require centralized provisioning, management and monitoring across multiple deployments. To satisfy these requirements, our Enterprise subscription tier provides access to key orchestration and deployment management capabilities. We will continue to focus some of our direct sales efforts on driving adoption of our paid offerings.

Components of Results of Operations

Revenue

Subscription. Our revenue is primarily generated through the sale of subscriptions to software, which is either self-managed by the user or hosted and managed by us in the cloud. Subscriptions provide the right to use paid proprietary software features and access to support for our paid and unpaid software.

A portion of the revenue from self-managed subscriptions is generally recognized up front at the point in time when the license is delivered. This revenue is presented as License – self-managed in our consolidated statements of operations. The remainder of revenue from self-managed subscriptions is recognized ratably over the subscription term. Revenue from subscriptions that require access to the cloud or that are hosted and managed by us is recognized ratably over the subscription term or on a usage basis for consumption-based arrangements; both are presented within Subscription – self-managed and SaaS in our consolidated statements of operations.

Professional services. Professional services is composed of consulting services as well as public and private training. Revenue for professional services is recognized as these services are delivered.

Cost of Revenue

Subscription. Cost of license – self-managed consists of amortization of certain intangible assets. Cost of subscription – self-managed and SaaS consists primarily of personnel and related costs for employees associated with supporting our subscription arrangements, certain third-party expenses, and amortization of certain intangible and other assets. Personnel and related costs, or personnel costs, comprise cash compensation, benefits and stock-based compensation to employees, costs of third-party contractors, and allocated overhead costs. Third-party expenses consist of cloud hosting costs and other expenses directly associated with our customer support. We expect our cost of subscription – self-managed and SaaS to increase in absolute dollars as our subscription revenue increases.

Professional services. Cost of professional services revenue consists primarily of personnel costs directly associated with delivery of training, implementation and other professional services, costs of third-party contractors, facility rental charges and allocated overhead costs. We expect our cost of professional services revenue to increase in absolute dollars as we invest in our business and as professional services revenue increases.

Gross profit and gross margin. Gross profit represents revenue less cost of revenue. Gross margin, or gross profit as a percentage of revenue, has been and will continue to be affected by a variety of factors, including the timing of our acquisition of new customers and our renewals with existing customers, the average sales price of our subscriptions and professional services, the amount of our revenue represented by hosted services, the mix of subscriptions sold, the mix of revenue between subscriptions and professional services, the mix of professional services between consulting and training, transaction volume growth and support case volume growth. We expect our gross margin to fluctuate over time depending on the factors described above. We expect our revenue from Elastic Cloud to continue to increase as a percentage of total revenue, which we expect will adversely impact our gross margin as a result of the associated hosting costs.

Operating Expenses

Research and development. Research and development expense mainly consists of personnel costs and allocated overhead costs for employees and contractors. We expect our research and development expense to increase in absolute dollars for the foreseeable future as we continue to develop new technology and invest further in our existing products.

Sales and marketing. Sales and marketing expense mainly consists of personnel costs, commissions, allocated overhead costs and costs related to marketing programs and user events. Marketing programs consist of advertising, events, brand-building and customer acquisition and retention activities. We expect our sales and marketing expense to increase in absolute dollars as we expand our salesforce and increase our investments in marketing resources. We capitalize sales commissions and associated payroll taxes paid to internal sales personnel that are related to the acquisition of customer contracts. Sales commissions costs are amortized over the expected benefit period.

General and administrative. General and administrative expense mainly consists of personnel costs for our management, finance, legal, human resources, and other administrative employees. Our general and administrative expense also includes professional fees, accounting fees, audit fees, tax services and legal fees, as well as insurance, allocated overhead costs, and other corporate expenses. We expect our general and administrative expense to increase in absolute dollars as we increase the size of our general and administrative functions to support the growth of our business.

Other Income (Expense), Net

Other income (expense), net primarily consists of interest expense, gains and losses from transactions denominated in a currency other than the functional currency, and interest income.

Provision for (Benefit from) Income Taxes

Provision for (benefit from) income taxes consists primarily of income taxes related to the Netherlands, U.S. federal, state and foreign jurisdictions in which we conduct business. Our effective tax rate is affected by recurring items, such as tax rates in jurisdictions outside the Netherlands and the relative amounts of income we earn in those jurisdictions, and non-deductible stock-based compensation.

Results of Operations

The following tables set forth our results of operations for the periods presented in dollars and as a percentage of our total revenue. The period to period comparison of results is not necessarily indicative of results for future periods.

	Year Ended April 30, 2022	2021	2020
	(in thousands)		
Revenue			
License - self-managed	$ 76,964	$ 67,994	$ 53,536
Subscription - self-managed and SaaS	721,806	499,345	338,634
Total subscription revenue	798,770	567,339	392,170
Professional services	63,604	41,150	35,450
Total revenue	862,374	608,489	427,620
Cost of revenue (1)(2)(3)			
Cost of license - self-managed	1,548	1,386	948
Cost of subscription - self-managed and SaaS	176,656	121,127	84,819
Total cost of revenue - subscription	178,204	122,513	85,767
Cost of professional services	53,990	38,541	36,923
Total cost of revenue	232,194	161,054	122,690
Gross profit	630,180	447,435	304,930
Operating expenses (1)(2)(3)(4)			
Research and development	273,761	199,203	165,370
Sales and marketing	406,658	273,877	219,040
General and administrative	123,441	103,833	91,625
Total operating expenses	803,860	576,913	476,035
Operating loss (1)(2)(3)(4)	(173,680)	(129,478)	(171,105)
Other income (expense), net			
Interest expense	(20,716)	(185)	—
Other income (expense), net	(3,393)	7,949	1,963
Loss before income taxes	(197,789)	(121,714)	(169,142)
Provision for (benefit from) income taxes	6,059	7,720	(1,968)
Net loss	$ (203,848)	$ (129,434)	$ (167,174)

(1) Includes stock-based compensation expense as follows:

	Year Ended April 30, 2022	2021	2020
	(in thousands)		
Cost of revenue			
Cost of subscription - self managed and SaaS	$ 8,368	$ 7,105	$ 4,147
Cost of professional services	6,463	4,824	2,980
Research and development	59,911	35,267	23,621
Sales and marketing	45,798	31,581	19,334
General and administrative	20,654	14,903	9,925
Total stock-based compensation expense	$ 141,194	$ 93,680	$ 60,007

(2) Includes employer payroll taxes on employee stock transactions as follows:

	Year Ended April 30,		
	2022	2021	2020
	(in thousands)		
Cost of Revenue			
Cost of subscription - self managed and SaaS	$ 681	$ 674	$ 349
Cost of professional services	712	661	178
Research and development	3,316	3,670	2,179
Sales and marketing	4,287	5,399	3,237
General and administrative	965	3,972	1,550
Total employer payroll tax on stock transactions	$ 9,961	$ 14,376	$ 7,493

(3) Includes amortization of acquired intangible assets as follows:

	Year Ended April 30,		
	2022	2021	2020
	(in thousands)		
Cost of Revenue			
Cost of license - self-managed	$ 1,548	$ 1,386	$ 948
Cost of subscription - self-managed and SaaS	8,955	7,051	5,820
Sales and marketing	5,280	5,730	3,300
Total amortization of acquired intangibles	$ 15,783	$ 14,167	$ 10,068

(4) Includes acquisition-related expenses as follows:

	Year Ended April 30,		
	2022	2021	2020
	(in thousands)		
Research and development	$ 6,104	$ —	$ 34
Sales and marketing	—	—	522
General and administrative	1,528	—	17,418
Total acquisition-related expenses	$ 7,632	$ —	$ 17,974

The following table sets forth selected consolidated statements of operations data for each of the periods indicated as a percentage of total revenue:

	Year Ended April 30,		
	2022	2021	2020
Revenue			
License - self-managed	9 %	11 %	13 %
Subscription - self-managed and SaaS	84 %	82 %	79 %
Total subscription revenue	93 %	93 %	92 %
Professional services	7 %	7 %	8 %
Total revenue	100 %	100 %	100 %
Cost of revenue (1)(2)(3)			
Cost of license - self-managed	0 %	0 %	0 %
Cost of subscription - self-managed and SaaS	21 %	20 %	20 %
Total cost of revenue - subscription	21 %	20 %	20 %
Cost of professional services	6 %	6 %	9 %
Total cost of revenue	27 %	26 %	29 %
Gross profit	73 %	74 %	71 %
Operating expenses (1)(2)(3)(4)			
Research and development	32 %	33 %	39 %
Sales and marketing	47 %	45 %	51 %
General and administrative	14 %	17 %	21 %
Total operating expenses	93 %	95 %	111 %
Operating loss (1)(2)(3)(4)	(20)%	(21)%	(40)%
Other income (expense), net			
Interest expense	(3)%	0 %	0 %
Other income (expense), net	0 %	1 %	0 %
Loss before income taxes	(23)%	(20)%	(40)%
Provision for (benefit from) income taxes	1 %	1 %	(1)%
Net loss	(24)%	(21)%	(39)%

(1) Includes stock-based compensation expense as follows:

	Year Ended April 30,		
	2022	2021	2020
		(in thousands)	
Cost of revenue			
Cost of subscription - self managed and SaaS	1 %	1 %	1 %
Cost of professional services	1 %	1 %	— %
Research and development	7 %	6 %	6 %
Sales and marketing	5 %	5 %	5 %
General and administrative	2 %	2 %	2 %
Total stock-based compensation expense	16 %	15 %	14 %

(2) Includes employer payroll taxes on employee stock transactions as follows:

	Year Ended April 30,		
	2022	2021	2020
	(in thousands)		
Cost of Revenue			
Cost of subscription - self managed and SaaS	— %	— %	— %
Cost of professional services	— %	— %	— %
Research and development	— %	— %	1 %
Sales and marketing	1 %	1 %	1 %
General and administrative	— %	1 %	— %
Total employer payroll tax on stock transactions	1 %	2 %	2 %

(3) Includes amortization of acquired intangible assets as follows:

	Year Ended April 30,		
	2022	2021	2020
	(in thousands)		
Cost of Revenue			
Cost of license - self-managed	— %	— %	— %
Cost of subscription - self-managed and SaaS	1 %	1 %	1 %
Sales and marketing	1 %	1 %	1 %
Total amortization of acquired intangibles	2 %	2 %	2 %

(4) Includes acquisition-related expenses as follows:

	Year Ended April 30,		
	2022	2021	2020
	(in thousands)		
Research and development	1 %	— %	— %
Sales and marketing	— %	— %	— %
General and administrative	— %	— %	4 %
Total acquisition-related expenses	1 %	— %	4 %

Comparison of Fiscal Years Ended April 30, 2022 and 2021

Revenue

	Year Ended April 30,		Change	
	2022	2021	$	%
	(in thousands)			
Revenue				
License - self-managed	$ 76,964	$ 67,994	$ 8,970	13 %
Subscription - self-managed and SaaS	721,806	499,345	222,461	45 %
Total subscription revenue	798,770	567,339	231,431	41 %
Professional services	63,604	41,150	22,454	55 %
Total revenue	$ 862,374	$ 608,489	$ 253,885	42 %

Total subscription revenue increased by $231.4 million, or 41%, for the year ended April 30, 2022 compared to the prior year. The increase in revenue was primarily caused by volume-driven increases from new business, as existing customers purchased additional subscriptions, and we grew our subscription customer base to over 18,600 customers for the year ended April 30, 2022 compared to over 15,000 customers in the prior year.

Professional services revenue increased by $22.5 million, or 55%, for the year ended April 30, 2022 compared to the prior year. The increase in professional services revenue was attributable to increased adoption of our professional services offerings.

Cost of Revenue and Gross Margin

	Year Ended April 30,		Change	
	2022	2021	$	%
		(in thousands)		
Cost of revenue				
Cost of license - self-managed	$ 1,548	$ 1,386	$ 162	12 %
Cost of subscription - self-managed and SaaS	176,656	121,127	55,529	46 %
Total cost of revenue - subscription	178,204	122,513	55,691	45 %
Cost of professional services	53,990	38,541	15,449	40 %
Total cost of revenue	$ 232,194	$ 161,054	$ 71,140	44 %
Gross profit	$ 630,180	$ 447,435	$ 182,745	41 %
Gross margin:				
License - self-managed	98 %	98 %		
Subscriptions - self-managed and SaaS	76 %	76 %		
Total subscription margin	78 %	78 %		
Professional services	15 %	6 %		
Total gross margin	73 %	74 %		

Total cost of subscription revenue increased by $55.7 million, or 45%, for the year ended April 30, 2022 compared to the prior year. This increase was primarily due to an increase of $42.1 million in cloud infrastructure costs and an increase of $6.8 million in personnel and related charges. In addition, third-party consulting and partner costs increased by $2.9 million and amortization of acquired intangible assets increased by $1.9 million. The increase in personnel and related costs includes an increase of $4.9 million in salaries and related taxes and an increase of $1.3 million in stock-based compensation expense. Total subscription margin remained flat at 78% for the year ended April 30, 2022 compared to the prior year.

Cost of professional services revenue increased by $15.4 million, or 40%, for the year ended April 30, 2022 compared to the prior year. This increase was primarily due to an increase of $7.6 million in personnel and related costs, including increases of $5.2 million in salaries and related taxes and $1.6 million in stock-based compensation driven by an increase in headcount in our professional services organization. In addition, subcontractor costs increased by $6.4 million and travel costs increased by $0.6 million.

Gross margin for professional services revenue was 15% for the year ended April 30, 2022 compared to 6% for the prior year. The increase in margin is primarily due to the increase in revenue, and a lower than proportionate increase in cost of professional services revenue. We continue to invest in headcount for our professional services organization that we believe will be needed as we continue to grow and expect travel related costs will increase in the future as COVID-19 risks and travel restrictions abate. Our gross margin for professional services may fluctuate, decline or be negative in the near-term as we seek to expand our professional services business.

Operating Expenses

Research and development

	Year Ended April 30,		Change	
	2022	2021	$	%
		(in thousands)		
Research and development	$ 273,761	$ 199,203	$ 74,558	37 %

Research and development expense increased by $74.6 million, or 37%, for the year ended April 30, 2022 compared to the prior year as we continued to invest in the development of new and existing offerings. Personnel and related costs increased by $64.9 million as a result of growth in headcount. In addition, cloud infrastructure costs related to our research and development activities increased by $3.1 million, consulting costs increased by $3.1 million, and travel costs increased by $2.6 million. The increase in personnel and related costs includes an increase of $29.7 million in salaries and related taxes, an increase of $24.6 million in stock-based compensation expense, an increase of $6.1 million in acquisition related compensation, and an increase of $2.8 million in employee benefits expense.

Sales and marketing

	Year Ended April 30,		Change	
	2022	2021	$	%
	(in thousands)			
Sales and marketing	$ 406,658	$ 273,877	$ 132,781	48 %

Sales and marketing expense increased by $132.8 million, or 48%, for the year ended April 30, 2022 compared to the prior year. This increase was primarily due to an increase of $110.2 million in personnel related costs and a $4.1 million increase in software and equipment charges due to growth in headcount. In addition, marketing expenses increased by $9.3 million and travel costs increased by $7.4 million. The increase in personnel and related costs includes an increase of $60.1 million in salaries and related taxes, an increase of $23.8 million in commission expense, an increase of $14.2 million in stock-based compensation expense and an increase of $7.4 million in employee benefits expense.

General and administrative

	Year Ended April 30,		Change	
	2022	2021	$	%
	(in thousands)			
General and administrative	$ 123,441	$ 103,833	$ 19,608	19 %

General and administrative expense increased by $19.6 million, or 19%, for the year ended April 30, 2022 compared to the prior year. This increase was primarily due to an increase of $10.3 million in personnel related costs and a $1.1 million increase in software and equipment charges due to headcount growth. In addition, legal and professional fees increased by $7.0 million, consulting expense increased by $1.2 million and travel costs increased by $1.1 million. These increases were partially offset by a $2.2 million decrease in bad debt expense related to expected credit losses on accounts receivable and write-off of uncollectible balances. The increase in personnel and related costs includes an increase of $5.8 million in stock-based compensation expense, an increase of $4.3 million in salaries and related taxes, an increase of $1.1 million in employee benefits expense which were partially offset by a decrease of $1.4 million in recruiting costs.

Other Income, Net

	Year Ended April 30,		Change	
	2022	2021	$	%
	(in thousands)			
Other income (expense), net	$ (24,109)	$ 7,764	$ (31,873)	(411)%

Other expense was $24.1 million for the year ended April 30, 2022 compared to other income of $7.8 million in the prior year. This was primarily due to a net increase in interest expense of $20.6 million related to the issuance of our Senior Notes during the current fiscal year. In addition, we recognized a foreign currency transaction loss of $3.6 million in the current fiscal year compared to a foreign currency transaction gain of $7.7 million in the prior year.

Provision for Income Taxes

	Year Ended April 30,		Change	
	2022	2021	$	%
	(in thousands)			
Provision for income taxes	$ 6,059	$ 7,720	$ (1,661)	(22)%

The provision for income taxes decreased $1.7 million, or 22%, for the year ended April 30, 2022 compared to the prior year. The decrease in tax expense is primarily due to a decrease in income taxes from foreign subsidiaries. The tax benefit for stock-based compensation was partially offset by a valuation allowance for deferred tax assets in the United States, the Netherlands, and the United Kingdom. Our effective tax rate was (3.1)% and (6.3)% of our net loss before taxes for the years ended April 30, 2022 and 2021, respectively.

Liquidity and Capital Resources

As of April 30, 2022, we had cash and cash equivalents and restricted cash of $860.9 million and $2.7 million, respectively, and working capital of $570.4 million. Our restricted cash consists primarily of cash deposits with financial institutions in support of letters of credit in favor of landlords for non-cancelable lease agreements.

We have generated significant operating losses from our operations as reflected in our accumulated deficit of $817.2 million as of April 30, 2022. We have historically incurred, and expect to continue to incur, operating losses and may generate negative cash flows from operations on an annual basis for the foreseeable future due to the investments we intend to make as described above, and as a result, we may require additional capital resources to execute on our strategic initiatives to grow our business.

We believe that our existing cash and cash equivalents will be sufficient to fund our operating and capital needs for at least the next 12 months, despite the uncertainty in the changing market and economic conditions related to COVID-19. Our assessment of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement and involves risks and uncertainties. Our actual results could vary as a result of, and our future capital requirements, both near-term and long-term, will depend on, many factors, including our growth rate, the timing and extent of spending to support our research and development efforts, the expansion of sales and marketing activities, the timing of new introductions of solutions or features, and the continuing market acceptance of our solutions and services. We may in the future enter into arrangements to acquire or invest in complementary businesses, services and technologies, including intellectual property rights. We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect. In July 2021, we issued long-term debt of $575.0 million, and we may be required to seek additional equity or debt financing. In the event that additional financing is required from outside sources, we may not be able to raise it on terms acceptable to us or at all. If we are unable to raise additional capital when desired, or if we cannot expand our operations or otherwise capitalize on our business opportunities because we lack sufficient capital, our business, operating results and financial condition would be adversely affected.

The following table summarizes our cash flows for the periods presented:

	Year Ended April 30,		
	2022	2021	2020
	(in thousands)		
Net cash provided by (used in) operating activities	$ 5,672	$ 22,545	$ (30,564)
Net cash used in investing activities	$ (127,271)	$ (1,518)	$ (29,187)
Net cash provided by financing activities	$ 602,127	$ 77,258	$ 58,539

Net Cash Provided By Operating Activities

Net cash provided by operating activities during the year ended April 30, 2022 was $5.7 million, which resulted from a net loss of $203.8 million adjusted for non-cash charges of $230.2 million and net cash outflow of $20.6 million from changes in operating assets and liabilities. Non-cash charges primarily consisted of $140.6 million for stock-based compensation expense, $60.7 million for amortization of deferred contract acquisition costs, $19.7 million of depreciation and intangible asset amortization expense, $8.6 million in non-cash operating lease costs, net foreign currency transaction loss of $2.0 million, amortization of debt issuance costs of $0.8 million, and $0.1 million of other expenses which were partially offset by an increase of $2.4 million in deferred tax assets. The net cash outflow from changes in operating assets and liabilities was the result of an increase of $62.2 million in accounts receivable due to higher billings and timing of collections from our customers, an increase in deferred contract acquisition costs of $96.8 million as our sales commissions increased due to increased business volume, a decrease of $8.9 million in operating lease liabilities, and an increase of $2.6 million in prepaid and other assets. These outflows were partially offset by an $83.8 million increase in deferred revenue due to higher billings and a net increase of $66.0 million in accounts payable, accrued expenses and accrued compensation and benefits due to growth in our business and higher headcount.

Net cash provided by operating activities during the year ended April 30, 2021 was $22.5 million, which resulted from a net loss of $129.4 million adjusted for non-cash charges of $150.2 million and net cash inflow of $1.8 million from changes in operating assets and liabilities. Non-cash charges primarily consisted of $93.7 million for stock-based compensation expense, $41.0 million for amortization of deferred contract acquisition costs, $17.2 million of depreciation and intangible asset amortization expense and $7.9 million in non-cash operating lease costs, which were partially offset by net foreign currency transaction gains of $9.5 million and $0.1 million of other non-cash transactions. The net cash inflow from changes in operating assets and liabilities was the result of a $115.9 million increase in deferred revenue due to higher billings and a net increase of $7.2 million in accounts payable, accrued expenses and accrued compensation and benefits due to growth in our business and higher headcount. These inflows were partially offset by an increase of $24.0 million in accounts receivable due to higher billings and timing of collections from our customers, an increase in deferred contract acquisition costs of $81.1 million as our sales commissions increased due to the addition of new customers and expansion of our existing customer subscriptions, an increase of $8.3 million in prepaid and other assets and a decrease of $7.9 million in operating lease liabilities.

Net Cash Used in Investing Activities

Net cash used in investing activities of $127.3 million during the year ended April 30, 2022 was primarily due to cash used in acquisitions of $119.9 million, capitalization of $4.9 million in internal-use software costs, and $2.5 million of capital expenditures during the period.

Net cash used in investing activities of $1.5 million during the year ended April 30, 2021 was primarily due to $3.9 million of capital expenditures and capitalization of $0.3 million in internal-use software costs during the period, partially offset by cash provided by other investing activities of $2.7 million.

Net Cash Provided by Financing Activities

Net cash provided by financing activities of $602.1 million during the year ended April 30, 2022 was due to the proceeds of $575.0 million from the issuance of our Senior Notes and $36.4 million of proceeds from stock option exercises, partially offset by $9.3 million payments of debt issuance costs.

Net cash provided by financing activities of $77.3 million during the year ended April 30, 2021 was due to proceeds from option exercises during the period.

Off Balance Sheet Arrangements

We did not have, during the periods presented, nor do we currently have any off balance sheet financing arrangements or any relationships with any unconsolidated entities or financial partnerships, including entities referred to as structured finance or special purpose entities, that were established for the purpose of facilitating off balance sheet arrangements or other contractually narrow or limited purposes.

Contractual Obligations and Commitments

Our principal commitments consist of our purchase obligations under non-cancellable agreements for cloud hosting, subscription software, and sales and marketing, future non-cancelable minimum rental payments under operating leases for our offices, and interest payments due on our Senior Notes. As of April 30, 2022, we had purchase commitments of $415.7 million related to cloud hosting services, future minimum lease payment commitments of $29.8 million, and purchase commitments of $36.2 million related to other contracts. See Note 8 “Commitments and contingencies” and Note 9 “Leases” of our accompanying Notes to Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K for additional discussion of our cloud hosting obligations and future non-cancelable minimum rental payments, respectively.

In July 2021, we issued $575.0 million aggregate principal amount of 4.125% Senior Notes due July 15, 2029 in a private placement. Interest on the Senior Notes is payable semi-annually in arrears on January 15 and July 15 of each year. See Note 7 “Senior Notes” of our accompanying Notes to Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K. Additionally, as of April 30, 2022, we had $2.5 million in letters of credit outstanding in favor of certain landlords for office space. These letters of credit renew annually and expire on various dates through 2023.

Our contractual commitment amounts are associated with agreements that are enforceable and legally binding and do not include obligations under contracts that we can cancel without a significant penalty. Purchase orders issued in the ordinary course of business are also excluded, as our purchase orders represent authorizations to purchase rather than binding agreements.

We have also excluded unrecognized tax benefits from the contractual obligations. A variety of factors could affect the timing of payments for the liabilities related to unrecognized tax benefits. Therefore, we cannot reasonably estimate the timing of such payments. We believe that these matters will likely not be resolved in the next 12 months and accordingly we have classified the estimated liability as non-current in the consolidated balance sheet. For further information see Note 13 “Income taxes” of our accompanying Notes to our Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K.

Critical Accounting Policies and Estimates

In preparing our consolidated financial statements in accordance with accounting principles generally accepted in the United States of America (“GAAP”), we are required to make estimates, assumptions and judgments that affect the amounts reported on our financial statements and the accompanying disclosures. Estimates and assumptions about future events and their effects cannot be determined with certainty and therefore require the exercise of judgment. We base our estimates, assumptions and judgments on historical experience and various other factors that we believe to be reasonable under the circumstances. These estimates may change in future periods and will be recognized in the consolidated financial statements as new events occur and additional information becomes known. Actual results could differ from those estimates and any such differences may be material to our financial statements. We believe that the critical accounting policies and estimates set forth below involve a higher degree of judgment and complexity in their application than our other significant accounting policies.

Accounting policies that have a significant impact on our results are described in Note 2 "Summary of Significant Accounting Policies" to our accompanying Notes to Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K. The accounting policies discussed in this section are those that we consider to involve a greater degree of judgment and complexity. Accordingly, these are the policies we believe are the most critical to aid in fully understanding and evaluating our consolidated financial condition and results of operations.

As the impact of the COVID-19 pandemic continues to evolve, estimates and assumptions about future events and their effects cannot be determined with certainty and therefore require increased judgment. These estimates and assumptions may change in future periods and will be recognized in the consolidated financial statements as new events occur and additional information becomes known. To the extent our actual results differ materially from those estimates and assumptions, our future financial statements could be affected.

Revenue Recognition

Our contracts with customers include varying terms and conditions, and identifying and evaluating the impact of these terms and conditions on revenue recognition requires significant judgment. We apply judgment in determining the customer's ability and intent to pay, which is based on a variety of factors, including the customer's historical payment experience or, in the case of a new customer, credit, reputation, and financial or other information pertaining to the customer. At contract inception we evaluate whether two or more contracts should be combined and accounted for as a single contract and whether the combined or single contract includes more than one performance obligation. We have concluded that our contracts with customers generally do not contain warranties that give rise to a separate performance obligation.

Our contracts often contain multiple performance obligations. For these contracts, we account for individual performance obligations separately if they are distinct. We apply significant judgment in identifying and accounting for each performance obligation, as a result of evaluating the terms and conditions in contracts. The transaction price is allocated to the separate performance obligations on a relative standalone selling price ("SSP") basis. We determine the SSP based on the prices at which we separately sell these products assuming the majority of these fall within a pricing range. In instances where SSP is not directly observable, such as when we do not sell the software license separately, we derive the SSP using information that may include market conditions and other observable and unobservable inputs which can require significant judgment. There is typically more than one SSP for individual products and services due to the stratification of those products and services by quantity, term of the subscription, sales channel and other circumstances. If one of the performance obligations is outside of the SSP range, we allocate the transaction price considering the midpoint of the SSP range. We also consider if there are any additional material rights inherent in a contract, and if so, we allocate a portion of the transaction price to such rights based on a relative SSP.

Deferred Contract Acquisition Costs

Deferred contract acquisition costs represent costs that are incremental to the acquisition of customer contracts, which consist mainly of sales commissions and associated payroll taxes. We determine whether costs should be deferred based on sales compensation plans if the commissions are in fact incremental and would not have occurred absent the customer contract.

Our sales commissions plan incorporates different commission rates for contracts with new customers and incremental sales to existing customers, and for subsequent subscription renewals. Sales commissions for renewal of a subscription contract are not considered commensurate with the commissions paid for contracts with new customers and incremental sales to existing customers given the substantive difference in commission rates in proportion to their respective contract values. Commissions paid for contracts with new customers and incremental sales to existing customers are amortized over an estimated period of benefit of five years while commissions paid for renewal contracts are amortized based on the pattern of the associated revenue recognition over the related contractual renewal period for the pool of renewal contracts. We determine the period of benefit for commissions paid for contracts with new customers and incremental sales to existing customers by taking into consideration its initial estimated customer life and the technological life of its software and related significant features. Commissions paid on professional services are typically amortized in accordance with the associated revenue as the commissions paid on new and renewal professional services are commensurate with each other. Amortization of deferred contract acquisition costs is recognized in sales and marketing expense in the consolidated statement of operations.

Acquired Intangible Assets

We apply significant judgment in determining the fair value of the intangible assets acquired, which involves the use of significant estimates and assumptions. These estimates can include, but are not limited to, future expected cash flows from acquired customers and acquired technology from a market participant perspective, costs to rebuild developed technology, useful lives and discount rates. While we use our best estimates and judgments, our estimates are inherently uncertain.

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

We have operations both within the United States and internationally, and we are exposed to market risk in the ordinary course of our business.

Interest Rate Risk

We had cash, cash equivalents, and restricted cash of $863.6 million as of April 30, 2022. Our cash, cash equivalents, and restricted cash are held in cash deposits and money market funds. The primary objectives of our investment activities are the preservation of capital, the fulfillment of liquidity needs and the fiduciary control of cash and investments. We do not enter into investments for trading or speculative purposes. Due to the short-term nature of these instruments, we do not believe that an immediate 10% increase or decrease in interest rates would have a material effect on the fair value of our investment portfolio. Declines in interest rates, however, would reduce our future interest income.

In July 2021, we issued $575.0 million aggregate principal amount of 4.125% Senior Notes due 2029 in a private placement. The fair value of the Senior Notes is subject to market risk. In addition, the fair market value of the Senior Notes is exposed to interest rate risk. Generally, the fair market value of our fixed interest rate Senior Notes will increase as interest rates fall and decrease as interest rates rise. The interest rate and market value changes affect the fair value of the Senior Notes, but do not impact our financial position, cash flows or results of operations due to the fixed nature of the debt obligation. Additionally, we carry the Senior Notes at face value less unamortized debt issuance cost on our balance sheet, and we present the fair value for required disclosure purposes only.

Foreign Currency Risk

Our revenue and expenses are primarily denominated in U.S. dollars. To date, we have not had a formal hedging program with respect to foreign currency, but we may do so in the future if our exposure to foreign currency should become more significant. For business conducted outside of the United States, we may have both revenue and costs incurred in the local currency of the subsidiary, creating a partial natural hedge. Changes to exchange rates therefore have not had a material impact on our operating results to date; however, we will continue to reassess our foreign exchange exposure as we continue to grow our business globally.

We have experienced and will continue to experience fluctuations in net loss as a result of transaction gains or losses related to remeasurement of certain asset and liability balances that are denominated in currencies other than the functional currency of the entities in which they are recorded. An immediate 10% increase or decrease in the relative value of the U.S. dollar to other currencies could have a material effect on our revenue, operating expenses, and net loss. As a component of other income, net, we recognized a foreign currency transaction loss of $3.6 million and a foreign currency transaction gain of $7.7 million for the years ended April 30, 2022 and April 30, 2021, respectively.

As of April 30, 2022, our cash, cash equivalents, and restricted cash were primarily denominated in U.S. dollars, Euros, and British pounds. A 10% increase or decrease in current exchange rates would have an impact of approximately $20.2 million on our cash, cash equivalents, and restricted cash balances.

Item 8. Financial Statements and Supplementary Data.

The supplementary financial information required by this Item 8, is included in Part II, Item 7, *Management's Discussion and Analysis of Financial Condition and Results of Operations*, under the caption "Quarterly Results of Operations Data," which is incorporated herein by reference.

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

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Elastic N.V.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Elastic N.V. and its subsidiaries (the “Company”) as of April 30, 2022 and 2021, and the related consolidated statements of operations, of comprehensive loss, of shareholders' equity and of cash flows for each of the three years in the period ended April 30, 2022, including the related notes (collectively referred to as the “consolidated financial statements”). We also have audited the Company's internal control over financial reporting as of April 30, 2022, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of April 30, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended April 30, 2022 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of April 30, 2022, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management’s Report on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company’s consolidated financial statements and on the Company's internal control over financial reporting 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 audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements 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. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

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

Revenue Recognition – Identification and Evaluation of Terms and Conditions in Contracts

As described in Note 2 to the consolidated financial statements, management applies the following steps in their determination of revenue to be recognized: (i) identification of the contract with a customer; (ii) identification of the performance obligations in the contract; (iii) determination of the transaction price; (iv) allocation of the transaction price to the performance obligations; and (v) recognition of revenue when the Company satisfies each performance obligation. The Company’s contracts include varying terms and conditions, and identifying and evaluating the impact of these terms and conditions on revenue recognition requires significant judgment. For the fiscal year ended April 30, 2022, the Company’s revenue was $862.4 million.

The principal considerations for our determination that performing procedures relating to revenue recognition, specifically the identification and evaluation of terms and conditions in contracts, is a critical audit matter are the significant judgment by management in identifying and evaluating terms and conditions in contracts that impact revenue recognition. This in turn led to a high degree of auditor judgment, subjectivity and effort in performing procedures and in evaluating the audit evidence to determine whether terms and conditions in contracts were appropriately identified and evaluated by management.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the revenue recognition process, including controls related to the identification and evaluation of terms and conditions in contracts that impact revenue recognition. These procedures also included (i) testing the completeness and accuracy of management’s identification and evaluation of the specific terms with customers by examining revenue contracts on a sample basis and (ii) assessing the terms and conditions of the contract including their impact on revenue recognition.

/s/ PricewaterhouseCoopers LLP

San Jose, California
June 21, 2022

We have served as the Company’s auditor since 2018.

Elastic N.V.
Consolidated Balance Sheets
(*in thousands, except share and per share data*)

	As of April 30,	
	2022	**2021**
Assets		
Current assets:		
Cash and cash equivalents	$ 860,949	$ 400,814
Restricted cash	2,688	2,894
Accounts receivable, net of allowance for credit losses of $2,700 and $2,344 as of April 30, 2022 and April 30, 2021, respectively	215,228	160,415
Deferred contract acquisition costs	43,628	36,089
Prepaid expenses and other current assets	41,215	37,002
Total current assets	1,163,708	637,214
Property and equipment, net	7,207	8,881
Goodwill	303,906	198,851
Operating lease right-of-use assets	25,437	25,464
Intangible assets, net	45,800	36,286
Deferred contract acquisition costs, non-current	74,419	50,263
Deferred tax assets	5,811	3,697
Other assets	16,643	12,516
Total assets	$ 1,642,931	$ 973,172
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	$ 28,403	$ 7,248
Accrued expenses and other liabilities	53,930	28,909
Accrued compensation and benefits	68,002	52,525
Operating lease liabilities	11,219	8,528
Deferred revenue	431,776	352,805
Total current liabilities	593,330	450,015
Deferred revenue, non-current	33,518	44,895
Long-term debt, net	566,520	—
Operating lease liabilities, non-current	16,482	19,649
Other liabilities, non-current	17,648	7,782
Total liabilities	1,227,498	522,341
Commitments and contingencies (Note 8 and 9)		
Shareholders' equity:		
Convertible preference shares, €0.01 par value; 165,000,000 shares authorized, 0 shares issued and outstanding as of April 30, 2022 and April 30, 2021	—	—
Ordinary shares, par value €0.01 per share: 165,000,000 shares authorized; 94,174,914 shares issued and outstanding as of April 30, 2022 and 90,533,985 shares issued and outstanding as of April 30, 2021	990	948
Treasury stock	(369)	(369)
Additional paid-in capital	1,250,108	1,071,675
Accumulated other comprehensive loss	(18,130)	(8,105)
Accumulated deficit	(817,166)	(613,318)
Total shareholders' equity	415,433	450,831
Total liabilities and shareholders' equity	$ 1,642,931	$ 973,172

The accompanying notes are an integral part of these consolidated financial statements.

Elastic N.V.
Consolidated Statements of Operations
(*in thousands, except share and per share data*)

	Year Ended April 30,		
	2022	2021	2020
Revenue			
License - self-managed	$ 76,964	$ 67,994	$ 53,536
Subscription - self-managed and SaaS	721,806	499,345	338,634
Total subscription revenue	798,770	567,339	392,170
Professional services	63,604	41,150	35,450
Total revenue	862,374	608,489	427,620
Cost of revenue			
Cost of license - self-managed	1,548	1,386	948
Cost of subscription - self-managed and SaaS	176,656	121,127	84,819
Total cost of revenue - subscription	178,204	122,513	85,767
Cost of professional services	53,990	38,541	36,923
Total cost of revenue	232,194	161,054	122,690
Gross profit	630,180	447,435	304,930
Operating expenses			
Research and development	273,761	199,203	165,370
Sales and marketing	406,658	273,877	219,040
General and administrative	123,441	103,833	91,625
Total operating expenses	803,860	576,913	476,035
Operating loss	(173,680)	(129,478)	(171,105)
Other income (expense), net			
Interest expense	(20,716)	(185)	—
Other income (expense), net	(3,393)	7,949	1,963
Loss before income taxes	(197,789)	(121,714)	(169,142)
Provision for (benefit from) income taxes	6,059	7,720	(1,968)
Net loss	$ (203,848)	$ (129,434)	$ (167,174)
Net loss per share attributable to ordinary shareholders, basic and diluted	$ (2.20)	$ (1.48)	$ (2.12)
Weighted-average shares used to compute net loss per share attributable to ordinary shareholders, basic and diluted	92,547,145	87,207,094	78,799,732

The accompanying notes are an integral part of these consolidated financial statements.

Elastic N.V.
Consolidated Statements of Comprehensive Loss
(*in thousands*)

	Year Ended April 30,		
	2022	2021	2020
Net loss	$ (203,848)	$ (129,434)	$ (167,174)
Other comprehensive income (loss):			
Foreign currency translation adjustments	(10,025)	(6,728)	54
Other comprehensive income (loss)	(10,025)	(6,728)	54
Total comprehensive loss	$ (213,873)	$ (136,162)	$ (167,120)

The accompanying notes are an integral part of these consolidated financial statements.

Elastic N.V.
Consolidated Statements of Shareholders' Equity
(*in thousands, except share data*)

	Ordinary Shares		Treasury Shares	Additional Paid-in	Accumulated Other Comprehensive	Accumulated	Total Stockholders'
	Shares	Amount	Amount	Capital	Loss	Deficit	Equity
Balances as of April 30, 2019	73,675,083	$ 754	$ (369)	$ 581,135	$ (1,431)	$ (317,077)	$ 263,012
Issuance of ordinary shares upon exercise of stock options	6,815,098	77	—	61,386	—	—	61,463
Issuance of ordinary shares upon release of restricted stock units	152,688	2	—	—	—	—	2
Ordinary shares issued in connection with the acquisition of Endgame	1,983,663	21	—	167,316	—	—	167,337
Ordinary shares issued in connection with the acquisition of Endgame held in escrow	235,031	2	—	19,824	—	—	19,826
Assumption of stock option plan as consideration for acquisition of Endgame	—	—	—	9,309	—	—	9,309
Repurchase of unvested RSAs	(4,585)	—	—	—	—	—	—
Vesting of ordinary shares subject to repurchase	—	—	—	2,730	—	—	2,730
Stock-based compensation	—	—	—	57,088	—	—	57,088
Net loss	—	—	—	—	—	(167,174)	(167,174)
Foreign currency translation	—	—	—	—	54	—	54
Balances as of April 30, 2020	82,856,978	856	(369)	898,788	(1,377)	(484,251)	413,647
Cumulative-effect adjustment from adoption of ASU 2016-13	—	—	—	—	—	367	367
Issuance of ordinary shares upon exercise of stock options	6,989,222	83	—	77,175	—	—	77,258
Issuance of ordinary shares upon release of restricted stock units	687,785	9	—	(9)	—	—	—
Stock-based compensation	—	—	—	93,018	—	—	93,018
Reclassification of liability-classified awards	—	—	—	2,703	—	—	2,703
Net loss	—	—	—	—	—	(129,434)	(129,434)
Foreign currency translation	—	—	—	—	(6,728)	—	(6,728)
Balances as of April 30, 2021	90,533,985	948	(369)	1,071,675	(8,105)	(613,318)	450,831
Fair value of replacement equity awards attributable to pre-acquisition service	—	—	—	1,266	—	—	1,266
Issuance of ordinary shares upon exercise of stock options	2,563,287	29	—	36,381	—	—	36,410
Issuance of ordinary shares upon release of restricted stock units	1,077,642	13	—	(13)	—	—	—
Stock-based compensation	—	—	—	140,799	—	—	140,799
Net loss	—	—	—	—	—	(203,848)	(203,848)
Foreign currency translation	—	—	—	—	(10,025)	—	(10,025)
Balances as of April 30, 2022	94,174,914	$ 990	$ (369)	$ 1,250,108	$ (18,130)	$ (817,166)	$ 415,433

The accompanying notes are an integral part of these consolidated financial statements.

Elastic N.V.
Consolidated Statements of Cash Flows
(*in thousands*)

	Year Ended April 30,		
	2022	2021	2020
Cash flows from operating activities			
Net loss	$ (203,848)	$ (129,434)	$ (167,174)
Adjustments to reconcile net loss to cash used in operating activities:			
Depreciation and amortization	19,728	17,237	12,859
Amortization of deferred contract acquisition costs	60,738	40,991	28,314
Amortization of debt issuance costs	803	—	—
Non-cash operating lease cost	8,636	7,927	7,422
Stock-based compensation expense, net of amounts capitalized	140,612	93,680	60,007
Non-cash acquisition expense settled with shares	—	—	8,834
Deferred income taxes	(2,430)	33	(1,539)
Foreign currency transaction (gain) loss	1,984	(9,507)	—
Other	98	(142)	1,123
Changes in operating assets and liabilities, net of impact of business acquisitions:			
Accounts receivable, net	(62,187)	(24,037)	(46,753)
Deferred contract acquisition costs	(96,755)	(81,137)	(46,217)
Prepaid expenses and other current assets	(3,427)	(4,192)	(2,950)
Other assets	825	(4,107)	5,603
Accounts payable	21,036	(4,775)	5,968
Accrued expenses and other liabilities	27,192	8,118	5,220
Accrued compensation and benefits	17,775	3,867	19,710
Operating lease liabilities	(8,888)	(7,914)	(6,661)
Deferred revenue	83,780	115,937	85,670
Net cash provided by (used in) operating activities	5,672	22,545	(30,564)
Cash flows from investing activities			
Purchases of property and equipment	(2,485)	(3,912)	(5,063)
Business acquisitions, net of cash acquired	(119,854)	—	(24,373)
Capitalization of internal-use software	(4,932)	(317)	—
Other	—	2,711	249
Net cash used in investing activities	(127,271)	(1,518)	(29,187)
Cash flows from financing activities			
Proceeds from the issuance of debt	575,000	—	—
Proceeds from issuance of ordinary shares upon exercise of stock options	36,410	77,258	61,463
Payments of debt issuance costs	(9,283)	—	—
Repayment of notes payable	—	—	(90)
Payment of withholding taxes related to acquisition expense settled in shares	—	—	(2,834)
Net cash provided by financing activities	602,127	77,258	58,539
Effect of exchange rate changes on cash, cash equivalents, and restricted cash	(20,599)	6,034	321
Net increase (decrease) in cash, cash equivalents, and restricted cash	459,929	104,319	(891)
Cash, cash equivalents, and restricted cash, beginning of period	403,708	299,389	300,280
Cash, cash equivalents, and restricted cash, end of period	$ 863,637	$ 403,708	$ 299,389
Supplemental disclosures of cash flow information			
Cash paid for interest	$ 12,995	$ —	$ —
Cash paid (refunds) for income taxes, net	$ 3,979	$ (423)	$ 3,497
Cash paid for operating lease liabilities	$ 10,101	$ 8,957	$ 7,371
Supplemental disclosures of non-cash investing and financing information			
Purchases of property and equipment included in accounts payable	$ 150	$ 10	$ 101
Operating lease right-of-use assets for new lease obligations	$ 8,992	$ 1,120	$ 12,332
Acquisition-related indemnity holdback	$ 6,000	$ —	$ —
Vesting of shares subject to repurchase	$ —	$ —	$ 2,730
Issuance of ordinary shares for business acquisition	$ —	$ —	$ 178,329
Assumption of stock option plan as consideration for business combination	$ —	$ —	$ 9,309

The accompanying notes are an integral part of these consolidated financial statements.

Elastic N.V.

Notes to Consolidated Financial Statements

1. Organization and Description of Business

Elastic N.V. (“Elastic” or the “Company”) was incorporated under the laws of the Netherlands in 2012. It created the Elastic Stack, a powerful set of software products that ingest and store data from any source and in any format, and perform search, analysis, and visualization on that data. Developers build on top of the Elastic Stack to apply the power of search to their data and solve business problems. The Company offers three software solutions built into the Elastic Stack: Enterprise Search, Observability, and Security. The Elastic Stack and the Company’s solutions are designed to run in public or private clouds, in hybrid environments, or in multi-cloud environments.

2. Summary of Significant Accounting Policies

Basis of Presentation

The consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”) and include the financial statements of the Company and its wholly owned subsidiaries. All intercompany transactions and accounts have been eliminated in consolidation.

Fiscal Year

The Company’s fiscal year ends on April 30. References to fiscal 2022, for example, refer to the fiscal year ending April 30, 2022.

Use of Estimates and Judgments

The preparation of the consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expenses during the reporting period. Such estimates include, but are not limited to, allocation of revenue between recognized and deferred amounts, deferred contract acquisition costs, allowance for credit losses, valuation of stock-based compensation, fair value of ordinary shares in periods prior to the Company’s initial public offering, fair value of acquired intangible assets and goodwill, useful lives of acquired intangible assets and property and equipment, whether an arrangement is or contains a lease, the discount rate used for operating leases and valuation allowance for deferred income taxes. The Company bases these estimates on historical and anticipated results, trends and various other assumptions that it believes are reasonable under the circumstances, including assumptions as to future events.

In March 2020, the World Health Organization declared the 2019 novel Coronavirus Disease (“COVID-19”) a pandemic. The continuing COVID-19 pandemic has resulted in a global slowdown of economic activity and its impact has varied significantly across different industries with certain industries experiencing increased demand for their products and services, while others have struggled to maintain demand for their products and services consistent with historical levels. The full extent to which COVID-19 may impact the Company’s financial condition or results of operations is uncertain.

Estimates and assumptions about future events and their effects cannot be determined with certainty and therefore require the exercise of judgment. As of the date of issuance of these financial statements, the Company is not aware of any specific event or circumstance that would require the Company to update its estimates, judgments or revise the carrying value of the Company’s assets or liabilities. These estimates may change, as new events occur and additional information is obtained, and are recognized in the consolidated financial statements as soon as they become known. Actual results could differ from those estimates and any such differences may be material to the Company’s financial statements.

Foreign Currency

The reporting currency of the Company is the U.S. dollar. The Company determines the functional currency of each subsidiary in accordance with ASC 830, Foreign Currency Matters, based on the currency of the primary economic environment in which each subsidiary operates. Items included in the financial statements of such subsidiaries are measured using that functional currency. The Company periodically re-assesses its operations to determine if previous conclusions are still valid. Changes in functional currencies are applied prospectively if the operations encounter a significant and permanent change.

For the subsidiaries where the U.S. dollar is the functional currency, foreign currency denominated monetary assets and liabilities are re-measured into U.S. dollars at current exchange rates and foreign currency denominated nonmonetary assets and liabilities are re-measured into U.S. dollars at historical exchange rates. Gains or losses from foreign currency re-measurement and settlements are included in other income (expense), net in the consolidated statement of operations. For the years ended April 30, 2022, 2021 and 2020, the Company recognized a re-measurement loss of \$3.6 million, a gain of \$7.7 million, and a loss of \$2.2 million, respectively.

For subsidiaries where the functional currency is other than the U.S. dollar, the Company uses the period-end exchange rates to translate assets and liabilities, the average monthly exchange rates to translate revenue and expenses, and historical exchange rates to translate shareholders' equity, into U.S. dollars. The Company records translation gains and losses in accumulated other comprehensive loss as a component of shareholders' equity in the consolidated balance sheet.

Comprehensive Loss

The Company's comprehensive loss includes net loss and unrealized gains and losses on foreign currency translation adjustments.

Cash, Cash Equivalents and Restricted Cash

The Company considers all highly liquid investments, including money market funds with an original maturity of three months or less at the date of purchase, to be cash equivalents. The carrying amount of the Company's cash equivalents approximates fair value, due to the short maturities of these instruments. Our restricted cash consists primarily of cash deposits with financial institutions in support of letters of credit in favor of landlords for non-cancelable lease agreements.

Cash, cash equivalents, and restricted cash as reported in the Company's consolidated statements of cash flows includes the aggregate amounts of cash and cash equivalents and the restricted cash as shown on the consolidated balance sheet. Cash, cash equivalents, and restricted cash as reported in the Company's consolidated statements of cash flows consists of the following (in thousands):

	As of April 30,	
	2022	2021
Cash and cash equivalents	$ 860,949	$ 400,814
Restricted cash	2,688	2,894
Cash, cash equivalents and restricted cash	$ 863,637	$ 403,708

Short-Term Investments

Investments with an original maturity of three months or less at the date of purchase are considered cash equivalents, while all other investments are classified as short-term or long-term based on the nature of the investments, their maturities, and their availability for use in current operations. The Company determines the appropriate classification of its investments at the time of purchase and reevaluates such designation at each balance sheet date. Bank deposits with original maturities greater than three months but less than twelve months and are classified as short-term investments within current assets in the consolidated balance sheet. The Company had no short-term investments as of April 30, 2022 and April 30, 2021.

Fair Value of Financial Instruments

The Company's financial instruments consist of cash equivalents, accounts receivable, accounts payable, and accrued liabilities. Cash equivalents are stated at amortized cost, which approximates fair value at the balance sheet dates, due to the short period of time to maturity. Accounts receivable, accounts payable and accrued liabilities are stated at their carrying value, which approximates fair value due to the short time to the expected receipt or payment date.

Assets and liabilities recorded at fair value on a recurring basis in the consolidated balance sheet consisting primarily of cash equivalents are categorized based upon the level of judgment associated with the inputs used to measure their fair values. Fair value is defined as the exchange 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. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The Company measures its financial assets and liabilities at fair value at each reporting period using a fair value hierarchy which requires the Company to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value:

- Level 1: Observable inputs, such as unadjusted quoted prices in active markets for identical assets or liabilities at the measurement date.
- Level 2: Observable inputs, other than Level 1 prices, such as quoted prices in active markets for similar assets and 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 that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The carrying values of the Company’s financial instruments, including cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities approximate their respective fair values due to the short period of time to maturity, receipt or payment.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk are primarily cash, cash equivalents, restricted cash, short-term investments, and accounts receivable. The primary focus of the Company’s investment strategy is to preserve capital and meet liquidity requirements. The Company maintains its cash accounts with financial institutions where, at times, deposits exceed federal insurance limits. The Company invests its excess cash in highly-rated money market funds and in short-term investments. The Company extends credit to customers in the normal course of business. The Company performs credit analyses and monitors the financial health of its customers to reduce credit risk. Trade accounts receivable are recorded at the invoiced amount and do not bear interest. Management performs ongoing credit evaluations of customers and maintains allowances for potential credit losses on customers’ accounts when deemed necessary.

No customer represented 10% or more of net accounts receivable as of April 30, 2022 and 2021. No customer accounted for more than 10% of the Company’s total revenue for the years ended April 30, 2022, 2021 and 2020.

Accounts Receivable, Unbilled Accounts Receivable and Allowance for Credit Losses

Accounts receivable primarily consists of amounts billed currently due from customers. The Company’s accounts receivable are subject to collection risk. Gross accounts receivable are reduced for this risk by an allowance for credit losses. This allowance is for estimated losses resulting from the inability of the Company’s customers to make required payments. The Company determines the need for an allowance for credit losses based upon various factors, including past collection experience, credit quality of the customer, age of the receivable balance, and current economic conditions, as well as specific circumstances arising with individual customers. Accounts receivables are written off against the allowance when management determines a balance is uncollectible and the Company no longer actively pursues collection of the receivable.

The Company does not typically offer right of refund in its contracts. The allowance for credit losses reflects the Company’s best estimate of probable losses inherent in the Company’s receivables portfolio. As of April 30, 2022 and 2021, the allowance for credit losses was $2.7 million and $2.3 million, respectively. Activity related to the Company’s allowance for credit losses was as follows (in thousands):

	Year Ended April 30,		
	2022	2021	2020
Beginning balance	$ 2,344	$ 1,247	$ 1,411
Cumulative-effect adjustment from adoption of ASU 2016-13	—	(367)	—
Bad debt expense	2,980	5,095	193
Accounts written off	(2,624)	(3,631)	(357)
Ending balance	$ 2,700	$ 2,344	$ 1,247

Unbilled accounts receivable represents amounts for which the Company has recognized revenue, pursuant to the Company’s revenue recognition policy, for fulfilled obligations, but not yet billed. The unbilled accounts receivable balance was $9.2 million and $5.2 million as of April 30, 2022 and 2021, respectively.

Capitalized Software Development and Implementation Costs

Software development costs for software to be sold, leased, or otherwise marketed are expensed as incurred until the establishment of technological feasibility, at which time those costs are capitalized until the product is available for general release to customers and amortized over the estimated life of the product. Technological feasibility is established upon the completion of a working prototype that has been certified as having no critical bugs and is a release candidate. To date, costs to develop software that is marketed externally have not been capitalized as the current software development process is essentially completed concurrently with the establishment of technological feasibility. As such, all related software development costs are expensed as incurred and included in research and development expense in the consolidated statement of operations.

Costs related to software acquired, developed, or modified solely to meet the Company’s internal requirements, with no substantive plans to market such software at the time of development and costs related to the development of web-based product are capitalized during the application development stage. Costs incurred during the preliminary planning and evaluation stage of the project and during the post implementation operational stage are expensed as incurred. Costs incurred during the application development stage of the project are capitalized.

The Company also capitalizes qualifying implementation costs incurred in a hosting arrangement that is a service contract. These costs are amortized on a straight-line basis over the expected life of the service contract, including consideration of the reasonably certain renewal periods, and are presented in the same income statement line items as the service for the related hosting arrangement. The Company capitalized $5.1 million and $0.3 million of such costs in the years ended April 30, 2022 and 2021, respectively, and these costs are recorded in the other assets, non-current on the consolidated balance sheets. Amortization expense for the fiscal year ended April 30, 2022 was $0.2 million. No amortization expense related to capitalized implementation costs was recorded during the fiscal years ended April 30, 2021 and 2020 as the underlying implementation activities were not complete.

Property and Equipment

Property and equipment are recorded at cost and depreciated over their estimated useful lives using the straight-line method. Upon retirement or sale, the cost of assets disposed of and the related accumulated depreciation are removed from the financial statements and any resulting gain or loss is reflected within the consolidated statement of operations. There was no material gain or loss incurred as a result of retirement or sale in the periods presented. Repair and maintenance costs are expensed as incurred.

Leases

Leases arise from contractual obligations that convey the right to control the use of identified property, plant or equipment for a period of time in exchange for consideration. The Company determines whether an arrangement is or contains a lease at inception, based on whether there is an identified asset and whether the Company controls the use of the identified asset throughout the period of use. At the lease commencement date, the Company determines the lease classification between finance and operating and recognizes a right-of-use asset and corresponding lease liability for each lease component. A right-of-use asset represents the Company's right to use an underlying asset and a lease liability represents the Company's obligation to make payments during the lease term. The operating lease right-of-use asset also includes any lease payments made and excludes lease incentives. Lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Lease expense for minimum lease payments is recognized on a straight-line basis over the lease term. The Company accounts for lease components and non-lease components as a single lease component.

The lease liability is initially measured as the present value of the remaining lease payments over the lease term. The discount rate used to determine the present value is the Company's incremental borrowing rate unless the interest rate implicit in the lease is readily determinable. The Company estimates its incremental borrowing rate based on the information available at lease commencement date for borrowings with a similar term. The right-of-use asset is initially measured as the present value of the lease payments, adjusted for initial direct costs, prepaid lease payments to lessors and lease incentives.

Acquisitions

When the Company acquires a business, the Company allocates the purchase price, which is the sum of the consideration provided and may consist of cash, equity or a combination of the two, in a business combination to the identifiable assets and liabilities of the acquired business at their estimated respective fair values. The excess of the purchase price over the amount allocated to the identifiable assets and liabilities, if any, is recorded as goodwill. Determining the fair value of assets acquired and liabilities assumed requires management to use significant judgment and estimates, including, but not limited to, the selection of valuation methodologies, estimates of future revenue and cash flows, costs to rebuild developed technology, discount rates and selection of comparable companies. The Company's estimates of fair value are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable and, as a result, actual results may differ from estimates. During the measurement period, the Company may record adjustments to the assets acquired and liabilities assumed, with the corresponding offset to goodwill. Upon the conclusion of the measurement period, any subsequent adjustments are recorded to other income, net in the consolidated statement of operations.

When the Company issues stock-based or cash awards to an acquired company's shareholders, the Company evaluates whether the awards are consideration or compensation for post-acquisition services. The evaluation includes, among other things, whether the vesting of the awards is contingent on the continued employment of the acquired company's shareholders beyond the acquisition date. If continued employment is required for vesting, the awards are treated as compensation for post-acquisition services and recognized as expense over the requisite service period.

Acquisition-related transaction costs incurred by the Company are not included as a component of consideration transferred, but are accounted for as an operating expense in the period in which the costs are incurred.

The results of businesses acquired in a business combination are included in the Company's consolidated financial statements from the date of acquisition.

Goodwill

Goodwill represents the excess of the purchase price over the fair value of net assets acquired in business combinations accounted for using the acquisition method for accounting and is not amortized. The Company tests goodwill for impairment at least annually, in the fourth quarter of each year, or more frequently if events or changes in circumstances indicate that this asset may be impaired. For the purposes of impairment testing, the Company has determined that it has one operating segment and one reporting unit. The Company’s test of goodwill impairment starts with a qualitative assessment to determine whether it is necessary to perform a quantitative goodwill impairment test. If qualitative factors indicate that the fair value of the reporting unit is more likely than not less than its carrying amount, then a quantitative goodwill impairment test is performed. For the quantitative analysis, the Company compares the fair value of its reporting unit to its carrying value. If the estimated fair value exceeds book value, goodwill is considered not to be impaired and no additional steps are necessary. However, if the fair value of the reporting unit is less than book value, then goodwill will be impaired by the amount that the carrying amount exceeds the implied fair value. There was no impairment of goodwill recorded for the years ended April 30, 2022, 2021 and 2020.

Acquired Intangible Assets

Acquired amortizable intangible assets are amortized on a straight-line basis over the estimated useful lives of the assets.

	Useful life (in years)
Developed technology	4-5
Customer relationships	4
Trade names	4

Impairment of Long-Lived Assets

The Company evaluates the recoverability of long-lived assets, including property and equipment and amortizable acquired intangible assets for possible impairment whenever events or circumstances indicate that the carrying amount of such assets may not be fully recoverable. Such events and changes may include: significant changes in performance relative to expected operating results, significant changes in asset use, significant negative industry or economic trends, and changes in the Company’s business strategy. Recoverability of these assets is measured by a comparison of the carrying amounts to the future undiscounted cash flows the assets are expected to generate. If such review indicates that the carrying amount of long-lived assets is not recoverable, the carrying amount of such assets is reduced to fair value. The Company determined that there were no events or changes in circumstances that indicated that its long-lived assets were impaired during the years ended April 30, 2022, 2021 and 2020.

In addition to the recoverability assessment, the Company periodically reviews the remaining estimated useful lives of property and equipment and amortizable intangible assets. If the estimated useful life assumption for any asset is changed, the remaining unamortized balance would be depreciated or amortized over the revised estimated useful life, on a prospective basis.

Revenue Recognition

The Company generates revenue primarily from the sale of self-managed subscriptions (which include licenses for proprietary features, support, and maintenance) and from the sale of SaaS subscriptions. The Company also generates revenue from professional services, which consist of consulting and training.

Under ASC Topic 606, Revenue from Contracts with Customers, the Company recognizes revenue when its customer obtains control of promised goods or services in an amount that reflects the consideration that the Company expects to receive in exchange for those goods or services. The Company’s contracts include varying terms and conditions, and identifying and evaluating the impact of these terms and conditions on revenue recognition requires significant judgment. In determining the appropriate amount of revenue to be recognized as it fulfills its obligations under each of its agreements, the Company performs the following steps:

(i) identification of the contract with a customer;

The Company contracts with its customers through order forms, which in some cases are governed by master sales agreements. The Company determines that it has a contract with a customer when the order form has been approved, each party’s rights regarding the products or services to be transferred can be identified, the payment terms for the services can be identified, the Company has determined the customer has the ability and intent to pay and the contract has commercial substance. The Company applies judgment in determining the customer’s ability and intent to pay, which is based on a variety of factors, including the customer’s historical payment experience or, in the case of a new customer, credit, reputation and financial or other information pertaining to the customer. At contract inception the Company evaluates whether two or more contracts should be combined and accounted for as a single contract and whether the combined or single contract includes more than one performance obligation. The Company has concluded that its contracts with customers generally do not contain warranties that give rise to a separate performance obligation.

(ii) identification of the performance obligations in the contract;

Performance obligations promised in a contract are identified based on the products and services that will be transferred to the customer that are both capable of being distinct, whereby the customer can benefit from the products or services either on their own or together with other resources that are readily available from third parties or from the Company, and are distinct in the context of the contract, whereby the transfer of the products and services is separately identifiable from other promises in the contract.

The Company's self-managed subscriptions include both license providing the right to use proprietary features in its software, as well as an obligation to provide support (on both open source and proprietary features) and maintenance. The Company's SaaS products provide access to hosted software as well as support, which the Company considers to be a single performance obligation.

Services-related performance obligations relate to the provision of consulting and training services. These services are distinct from subscriptions and do not result in significant customization of the software.

(iii) determination of the transaction price;

The transaction price is the total amount of consideration we expect to be entitled to in exchange for the subscriptions and services in a contract. Variable consideration is included in the transaction price if, in the Company's judgment, it is probable that a significant future reversal of cumulative revenue under the contract will not occur. None of the Company's contracts contain a significant financing component.

(iv) allocation of the transaction price to the performance obligations; and

If the contract contains a single performance obligation, the entire transaction price is allocated to the single performance obligation. For contracts that contain multiple performance obligations, the Company allocates the transaction price to each performance obligation based on a relative standalone selling price ('SSP"). The SSP is determined based on the prices at which the Company separately sells these products assuming the majority of these fall within a pricing range. In instances where SSP is not directly observable, such as when we do not sell the software license separately, we derive the SSP using information that may include market conditions and other observable and unobservable inputs which can require significant judgment. There is typically more than one SSP for individual products and services due to the stratification of those products and services by quantity, term of the subscription, sales channel and other circumstances. If one of the performance obligations is outside of the SSP range, the Company allocates the transaction price considering the midpoint of the SSP range. The Company also considers if there are any additional material rights inherent in a contract, and if so, the Company allocates a portion of the transaction price to such rights based on a relative SSP.

(v) recognition of revenue when the Company satisfies each performance obligation;

Revenue is recognized at the time the related performance obligation is satisfied by transferring the promised product or service to the customer. Revenue for SaaS offerings that relate to a specified amount of services is recognized on a consumption basis as the customers utilize the services. Revenue from SaaS offerings that are stand-ready arrangements is recognized ratably over the contract period as we satisfy the performance obligation. The Company's self-managed subscriptions include both upfront revenue recognition when the license is delivered as well as revenue recognized ratably over the contract period for support and maintenance based on the stand-ready nature of these subscription elements.

Professional services comprise consulting services as well as public and private training. Revenue from professional services is recognized as these services are delivered.

The Company generates sales directly through its sales team and through its channel partners. Sales to channel partners are made at a discount and revenues are recorded at this discounted price once all the revenue recognition criteria above are met. To the extent that the Company offers rebates, incentives or joint marketing funds to such channel partners, recorded revenues are reduced by this amount. Channel partners generally receive an order from an end-customer prior to placing an order with the Company. Payment from channel partners is not contingent on the partner's collection from end-customers.

Contract Balances

The timing of revenue recognition may differ from the timing of invoicing to customers. For annual contracts, the Company typically invoices customers at the time of entering into the contract. For multi-year agreements, the Company generally invoices customers on an annual basis prior to each anniversary of the contract start date. The Company records unbilled accounts receivable related to revenue recognized in excess of amounts invoiced as the Company has an unconditional right to invoice and receive payment in the future related to those fulfilled obligations. Contract liabilities consist of deferred revenue which is recognized over the contractual period.

Deferred Contract Acquisition Costs

Deferred contract acquisition costs represent costs that are incremental to the acquisition of customer contracts, which consist mainly of sales commissions and associated payroll taxes. The Company determines whether costs should be deferred based on sales compensation plans, if the commissions are in fact incremental and would not have occurred absent the customer contract.

Sales commissions for renewal of a subscription contract are not considered commensurate with the commissions paid for contracts with new customers and incremental sales to existing customers given the substantive difference in commission rates in proportion to their respective contract values. Commissions paid for contracts with new customers and incremental sales to existing customers are amortized over an estimated period of benefit of five years while commissions paid for renewal contracts are amortized based on the pattern of the associated revenue recognition over the related contractual renewal period for the pool of renewal contracts. The Company determines the period of benefit for commissions paid for contracts with new customers and incremental sales to existing customers by taking into consideration its initial estimated customer life and the technological life of its software and related significant features. Commissions paid on professional services are typically amortized in accordance with the associated revenue as the commissions paid on new and renewal professional services are commensurate with each other. Amortization of deferred contract acquisition costs is recognized in sales and marketing expense in the consolidated statement of operations.

The Company periodically reviews the carrying amount of deferred contract acquisition costs to determine whether events or changes in circumstances have occurred that could impact the period of benefit of these deferred costs.

Further disclosures with respect to the Company's deferred contract acquisition costs are also included in Note 6, *Balance Sheet Components*.

Cost of Revenue

Cost of revenue consists primarily of costs related to providing subscription and professional services to the Company's customers, including personnel costs (salaries, bonuses and benefits, and stock-based compensation) and related expenses for customer support and services personnel, as well as cloud infrastructure costs, third-party expenses, depreciation of fixed assets, amortization associated with acquired intangible assets, and allocated overhead.

Research and Development

Research and development costs are expensed as incurred and consist primarily of personnel costs, including salaries, bonuses and benefits, and stock-based compensation. Research and development costs also include depreciation and allocated overhead.

Advertising

Advertising costs are charged to operations as incurred and recorded in sales and marketing expense in the consolidated statement of operations. Advertising costs were $19.7 million, $16.7 million and $7.7 million for the years ended April 30, 2022, 2021 and 2020 respectively.

Stock-Based Compensation

Compensation expense related to stock awards issued to employees, including stock options and restricted stock units ("RSUs") is measured at the fair value on the date of the grant and recognized over the requisite service period. The fair value of stock options is estimated on the date of the grant using the Black-Scholes option-pricing model. The fair value of RSUs is estimated on the date of the grant based on the fair value of the Company's underlying ordinary shares. Compensation expense for stock options and RSUs is recognized on a straight-line basis over the requisite service period. The Company recognizes forfeitures as they occur.

Debt Issuance Costs

Costs incurred in connection with the issuance of debt are deferred and amortized as interest expense over the term of the related debt using the effective interest method. To the extent that the debt is outstanding, these amounts are reflected in the consolidated balance sheets as direct deductions from the carrying amount of the outstanding borrowings.

Net Loss per Share Attributable to Ordinary Shareholders

The Company calculates basic net loss per share by dividing the net loss by the weighted-average number of ordinary shares outstanding during the period, less shares subject to repurchase. Diluted net loss per share is computed by giving effect to all potentially dilutive ordinary share equivalents outstanding for the period, including stock options and restricted stock units.

Treasury Shares

Ordinary shares of the Company that are repurchased are recorded as treasury shares at cost and are included as a component of shareholders’ equity. As of April 30, 2022 and 2021, the Company had 35,937 treasury shares that were repurchased at an average price of $10.30 per share.

Segments

Operating segments are defined as components of an entity for which separate financial information is available and that is regularly reviewed by the Chief Operating Decision Maker (“CODM”). The Company’s Chief Executive Officer is its CODM. The Company’s CODM reviews financial information presented on a consolidated basis for the purposes of making operating decisions, allocating resources and evaluating financial performance. As such, the Company has determined that it operates in one operating and one reportable segment. The Company presents financial information about its operating segment and geographical areas in Note 15 to the consolidated financial statements.

Income Taxes

The Company is subject to income taxes in the Netherlands and numerous foreign jurisdictions. These foreign jurisdictions may have different statutory rates than the Netherlands. The Company records a provision for (benefit from) income taxes for the anticipated tax consequences of the reported results of operations using the asset and liability method. Under this method, the Company recognizes deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the financial reporting and the tax basis of assets and liabilities, as well as for operating losses and tax credit carryforwards. Deferred tax assets and liabilities are measured using the tax rates that are expected to apply to taxable income for the years in which those tax assets and liabilities are expected to be realized or settled. The Company records a valuation allowance to reduce its deferred tax assets to the net amount that it believes is more likely than not to be realized.

The calculation of the Company’s tax obligations involves dealing with uncertainties in the application of complex tax laws and regulations. ASC 740, Income Taxes, provides that a tax benefit from an uncertain tax position may be recognized when it is more likely than not that the position will be sustained upon examination, including resolutions of any related appeals or litigation processes, on the basis of the technical merits. The Company has assessed its income tax positions and recorded tax benefits for all years subject to examination, based upon the Company’s evaluation of the facts, circumstances and information available at each period end. For those tax positions where the Company has determined there is a greater than fifty percent likelihood that a tax benefit will be sustained, the Company has recorded the largest amount of tax benefit that may potentially be realized upon ultimate settlement with a taxing authority that has full knowledge of all relevant information. For those income tax positions where it is determined there is less than fifty percent likelihood that a tax benefit will be sustained, no tax benefit has been recognized.

Although the Company believes that it has adequately reserved for its uncertain tax positions, the Company can provide no assurance that the final tax outcome of these matters will not be materially different. As the Company expands internationally, it will face increased complexity, and the Company’s unrecognized tax benefits may increase in the future. The Company makes adjustments to its reserves when facts and circumstances change, such as the closing of a tax audit or the refinement of an estimate. To the extent that the final tax outcome of these matters is different than the amounts recorded, such differences will affect the provision for (benefit from) income taxes in the period in which such determination is made.

Customer Deposits

Certain of the Company’s contracts allow for termination at the customer’s convenience, or the Company may receive prepayments on master sales agreements. In these cases, the Company does not consider a contract to exist past the term in which enforceable rights and obligations exist. Amounts received related to these agreements are classified outside of deferred revenue in the consolidated balance sheet, and these amounts do not represent contract balances. The Company had $3.9 million and $3.2 million of customer deposits included in accrued expenses and other liabilities as of April 30, 2022 and 2021, respectively.

Recently Adopted Accounting Pronouncements

Income Taxes: In December 2019, the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*, eliminating certain exceptions to the general principles in ASC 740 related to intra-period tax allocation, deferred tax liability and general methodology for calculating income taxes. Additionally, the ASU makes other changes for matters such as franchise taxes that are partially based on income, transactions with a government that result in a step up in the tax basis of goodwill, separate financial statements of legal entities that are not subject to tax, and enacted changes in tax laws in interim periods. The Company adopted ASU No.2019-12 on May 1, 2021. The Company's adoption of this ASU did not have a material impact on its consolidated financial statements.

New Accounting Pronouncements Not Yet Adopted

Equity Awards: In May 2021, the FASB issued ASU No. 2021-4, *Earnings Per Share (Topic 260), Debt—Modifications and Extinguishments (Subtopic 470-50), Compensation—Stock Compensation (Topic 718), and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40): Issuer's Accounting for Certain Modifications or Exchanges of Freestanding Equity-Classified Written Call Options*, which clarifies the accounting for modifications or exchanges of a freestanding equity-classified written call option that is not within the scope of another Topic. It addresses how an entity should treat, measure the effect of, and recognize the effect of a modification of the terms or conditions or an exchange of a freestanding equity-classified written call option that remains equity classified after modification or exchange. The new guidance becomes effective for the Company for the fiscal year ending April 30, 2023. Early adoption is permitted, including in interim periods. The Company does not expect the adoption of the new accounting standard to have a material impact on its consolidated financial statements.

Acquisitions: In October 2021, the FASB issued ASU No. 2021-08, *Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers*, improving consistency in accounting for acquired revenue contracts with customers in a business combination by requiring that acquirers apply ASC Topic 606 to recognize contract assets and contract liabilities as if it had originated the contracts. If the acquiree prepared its financial statements in accordance with GAAP, the resulting acquired contract assets and liabilities should generally be consistent with acquiree's financial statements. The new guidance becomes effective for the Company for the fiscal year ending April 30, 2024. Early adoption is permitted. The Company does not expect the adoption of the new accounting standard to have a material impact on its consolidated financial statements.

3. Revenue and Remaining Performance Obligations

Disaggregation of Revenue

The following table presents revenue by category (in thousands):

	Year Ended April 30,					
	2022		2021		2020	
	Amount	% of Total Revenue	Amount	% of Total Revenue	Amount	% of Total Revenue
Elastic Cloud	$ 298,615	35 %	$ 166,319	27 %	$ 92,290	22 %
Other subscription	500,155	58 %	401,020	66 %	299,880	70 %
Total subscription revenue	798,770	93 %	567,339	93 %	392,170	92 %
Professional services	63,604	7 %	41,150	7 %	35,450	8 %
Total revenue	$ 862,374	100 %	$ 608,489	100 %	$ 427,620	100 %

During fiscal 2022, the Company updated its disaggregation of revenue breakdown to present revenue by product category. The prior period presentation for the years ended April 30, 2021 and 2020, has been updated to conform to the current year presentation.

Remaining Performance Obligations

As of April 30, 2022, the Company had $932.3 million of remaining performance obligations. As of April 30, 2022, the Company expects to recognize approximately 87% of its remaining performance obligations as revenue over the next 24 months and the remainder thereafter.

4. Fair Value Measurements

Financial Assets

The Company measures financial assets and liabilities that are measured at fair value on a recurring basis at each reporting period using a fair value hierarchy that prioritizes the use of observable inputs and minimizes the use of unobservable inputs when measuring fair value. A financial instrument's classification within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

The following table summarizes assets that are measured at fair value on a recurring basis as of April 30, 2022 (in thousands):

	Level 1	Level 2	Level 3	Total
Financial Assets:				
Cash and cash equivalents:				
Money market funds	$ 559,462	$ —	$ —	$ 559,462

The following table summarizes assets that are measured at fair value on a recurring basis as of April 30, 2021 (in thousands):

	Level 1	Level 2	Level 3	Total
Financial Assets:				
Cash and cash equivalents:				
Money market funds	$ 175,007	$ —	$ —	$ 175,007

The Company considers all highly liquid investments, including money market funds with an original maturity of three months or less at the date of purchase, to be cash equivalents. The Company uses quoted prices in active markets for identical assets to determine the fair value of its Level 1 investments in money market funds.

Financial Liabilities

In July 2021, the Company issued $575.0 million aggregate principal amount of 4.125% Senior Notes due July 15, 2029 (the "Senior Notes") in a private placement. Based on the trading prices of the Senior Notes, the fair value of the Senior Notes as of April 30, 2022 was approximately $502.2 million. While the Senior Notes are recorded at cost, the fair value of the Senior Notes was determined based on quoted prices in markets that are not active; accordingly, the Senior Notes are categorized as Level 2 for purposes of the fair value measurement hierarchy.

5. Acquisitions

Fiscal 2022 Acquisitions

cmdWatch Security Inc.

On September 17, 2021, the Company acquired 100% of the share capital of cmdWatch Security Inc. ("Cmd") for a total purchase consideration of $77.8 million. The purchase consideration includes an amount of $13.4 million which is being held in an indemnity escrow fund for 18 months after the acquisition close date. Pursuant to the merger agreement, Cmd's vested stock options were paid in cash and unvested stock options held by Cmd employees were assumed by the Company. The fair value of the replacement equity awards associated with pre-acquisition service period of $4.3 million, consisting of $3.0 million paid in cash to vested option holders and $1.3 million of non-cash consideration, was included in the total purchase consideration. Approximately $6.6 million of the fair value of replacement equity awards was allocated to post-acquisition services that will be recognized as stock-based compensation expense over the remaining service period and was excluded from the total purchase consideration. Additionally, an amount of $6.5 million for post-combination services, which is payable at future dates upon completion of the underlying required service period, has been excluded from the purchase consideration. This amount will be recorded as a post-combination expense over the requisite service period.

The acquisition was accounted for as a business combination in accordance with ASC 805, Business Combinations, and accordingly, the total purchase consideration was allocated to the tangible and intangible assets acquired and liabilities assumed based on their estimated fair values on the acquisition date. The total preliminary purchase price allocated to developed technology and goodwill was $15.5 million and $58.7 million, respectively. The fair value assigned to developed technology was determined using the cost to recreate approach. The developed technology asset is being amortized on a straight-line basis over the useful life of 5 years, which approximates the pattern in which the developed technology is utilized.

Goodwill resulted primarily from the expectation of enhancing the Company's current security solutions and is not deductible for income tax purposes.

Cmd has been included in the Company’s consolidated results of operations since the acquisition date. Pro forma and historical results of operations for this acquisition have not been presented because they were not material to the consolidated results of operations.

Other Acquisitions

On September 2, 2021 and November 1, 2021, the Company acquired 100% of the share capital of Build Security Ltd. (“build.security”) and Optimyze.cloud Inc. (“Optimyze”), respectively, for a combined total purchase consideration of $57.2 million. The purchase consideration includes an amount of $5.4 million held in Indemnity escrow and $6.0 million held back by the Company for indemnity and will be released upon the 18-month anniversary of the respective acquisitions. These acquisitions were accounted for as business combinations. The total preliminary purchase price allocated to developed technology and goodwill was $9.8 million and $46.7 million, respectively. The developed technology intangible assets from these acquisitions are being amortized on a straight-line basis over a useful life of 5 years which approximates the pattern in which the respective developed technologies are utilized. Goodwill resulted primarily from the expectation of enhancing the Company's current security solutions and the value of the acquired workforce. This goodwill is not deductible for income tax purposes. Build.security and Optimyze have been included in the Company’s consolidated results of operations since their respective acquisition dates. Pro forma and historical results of operations for these acquisitions have not been presented because they were not material to the consolidated results of operations.

Excluded from the combined purchase consideration from these two acquisitions is an amount of $6.3 million, payable in equal installments at the first and the second anniversary of each of the acquisitions, to certain employees of build.security and Optimyze. These amounts are for post-combination services and will be recorded as a post-combination expense over the requisite service periods.

The purchase price allocation for the acquisitions is preliminary and is based on the best estimates of management. The Company continues to collect information with regard to its estimates and assumptions, primarily related to intangible assets and certain tax-related, contingent liability and working capital items. The Company will record adjustments to the fair value of the assets acquired, liabilities assumed and goodwill within the 12 month measurement period, if necessary.

Fiscal 2020 Acquisition

Endgame, Inc.

On October 8, 2019, the Company acquired all outstanding shares of Endgame, a security company offering endpoint protection technology, for a total acquisition price of $234.0 million. Elastic paid the purchase price through (i) the issuance of 2,218,694 ordinary shares in respect of Endgame’s outstanding capital stock, warrants, convertible notes, and certain retention awards, (ii) the cash repayment of Endgame’s outstanding indebtedness of $20.4 million, (iii) the assumption of Endgame’s outstanding stock options, (iv) a $0.4 million cash deposit to an expense fund for the fees and expenses of the representative and agent of Endgame securityholders, (v) the cash payment of Endgame’s transaction expenses of $5.9 million, and (vi) the cash payment of withholding taxes related to acquisition expense settled in shares of $2.8 million. Approximately 11% of the ordinary shares issued, or 235,031 shares, were being held in an indemnity escrow fund for 18 months after the acquisition close date and were released in April 2021. For purposes of determining the total acquisition price of $234.0 million, the Company used the ordinary share price of $89.3836 which was determined on the basis of the volume weighted average price per share rounded to four decimal places for the twenty (20) consecutive trading days ending with the complete trading day ending five (5) trading days prior to the date upon which the acquisition was consummated.

The fair value of the shares transferred as consideration was $84.12 per share and was determined on the basis of the closing stock price of the Company’s ordinary shares on the date of acquisition. The fair value of the assumed stock options was determined by using a Black-Scholes option pricing model with the applicable assumptions as of the acquisition date.

The stock options assumed on the acquisition date will continue to vest as the Endgame employees provide services in the post-acquisition period. The fair value of these awards will be recorded as share-based compensation expense over the respective vesting period of each stock option.

The acquisition was accounted for as a business combination and the total purchase price was allocated to the net tangible and intangible assets and liabilities based on their respective fair values on the acquisition date and the excess was recorded as goodwill.

The following table summarizes the components of the U.S. GAAP purchase price and the allocation of the purchase price at fair value (in thousands):

Cash paid	$	26,633
Ordinary shares		178,331
Assumption of stock option plan		9,309
Total consideration	$	214,273

The above U.S. GAAP purchase price consideration does not include ordinary shares of Elastic issued as part of acceleration of equity awards and participation in the retention bonus pool.

The following table summarizes the fair values of assets acquired and liabilities assumed (in thousands):

Cash and cash equivalents	$	2,220
Restricted cash		40
Accounts receivable		2,661
Prepaid and other current assets		549
Operating lease right-of-use assets		4,363
Property and equipment		503
Intangible assets		53,800
Other assets		58
Goodwill		178,764
Accounts payable		(1,112)
Accrued expenses and other current liabilities		(3,035)
Accrued compensation and benefits		(5,042)
Operating lease liabilities, current		(981)
Deferred revenue, current		(3,532)
Deferred revenue, non-current		(2,661)
Operating lease liabilities, non-current		(3,551)
Other liabilities, non-current		(8,771)
Total purchase consideration	$	214,273

Identifiable intangible assets include (in thousands):

		Total	Useful life (in years)
Developed technology	$	32,700	5
Customer relationships		19,200	4
Trade name		1,900	4
Intangible assets	$	53,800	

Developed technology consists of software products and security platform developed by Endgame. Customer relationships consists of contracts with platform users that purchase Endgame's products and services that carry distinct value. Trade names represent the Company's right to the Endgame trade names and associated design, as it exists as of the acquisition date.

The fair value assigned to developed technology was determined primarily using the multi-period excess earnings model, which estimates the revenue and cash flows derived from the asset and then deducts portions of the cash flow that can be attributed to supporting assets otherwise recognized. Management applied significant judgment in estimating the fair value of the developed technology intangible asset, which involved the use of significant estimates related to the revenue growth rate assumption for both existing and any future product offerings. The fair value of the Company's customer relationships was determined using the income approach, which discounts expected future cash flows to present value using estimates and assumptions related to revenue and customer growth rate as determined by management. The fair value assigned to trade name was determined using the relief from royalty method, where the owner of the asset realizes a benefit from owning the intangible asset rather than paying a rental or royalty rate for use of the asset. The acquired intangible assets are being amortized on a straight-line basis over their respective useful lives, which approximates the pattern in which these assets are utilized.

Recognized goodwill of $178.8 million is not deductible for tax purposes and is primarily attributed to planned growth in new markets, synergies arising from the acquisition and the value of the acquired workforce.

Net tangible assets and liabilities assumed were valued at their respective carrying amounts as of the acquisition date, as the Company believes that these amounts approximate their current fair values.

Endgame was included in the Company's consolidated results of operations since the acquisition date. Endgame's results were immaterial to the Company's consolidated results for the year ended April 30, 2020.

6. Balance Sheet Components

Property and Equipment, Net

The cost and accumulated depreciation of property and equipment were as follows (in thousands):

	Useful Life (in years)	As of April 30, 2022	As of April 30, 2021
Leasehold improvements	Lesser of estimated useful life or remaining lease term	$ 10,863	$ 10,342
Computer hardware and software	3	1,473	2,319
Furniture and fixtures	3-5	5,753	5,971
Assets under construction		1,119	707
Total property and equipment		19,208	19,339
Less: accumulated depreciation		(12,001)	(10,458)
Property and equipment, net		$ 7,207	$ 8,881

Depreciation expense related to property and equipment was $3.9 million, $3.1 million and $2.8 million for the years ended April 30, 2022, 2021 and 2020, respectively.

Intangible Assets, Net

Intangible assets consisted of the following as of April 30, 2022 (in thousands):

	Gross Fair Value	Accumulated Amortization	Net Book Value	Weighted Average Remaining Useful Life (in years)
Developed technology	$ 70,130	$ 31,355	$ 38,775	3.9
Customer relationships	19,598	13,177	6,421	3.3
Trade names	2,872	2,263	609	3.3
Total	$ 92,600	$ 46,795	$ 45,805	3.8
Foreign currency translation adjustment			(5)	
Total			$ 45,800	

Intangible assets consisted of the following as of April 30, 2021 (in thousands):

	Gross Fair Value	Accumulated Amortization	Net Book Value	Weighted Average Remaining Useful Life (in years)
Developed technology	$ 44,830	$ 20,850	$ 23,980	3.3
Customer relationships	19,598	8,382	11,216	2.4
Trade names	2,872	1,780	1,092	2.4
Total	$ 67,300	$ 31,012	$ 36,288	3.0
Foreign currency translation adjustment			(2)	
Total			$ 36,286	

Amortization expense for the intangible assets for the years ended April 30, 2022, 2021 and 2020 was as follows (in thousands):

	Year Ended April 30,		
	2022	2021	2020
Cost of revenue—cost of license—self-managed	$ 1,548	$ 1,386	$ 948
Cost of revenue—cost of subscription—self-managed and SaaS	8,955	7,051	5,820
Sales and marketing	5,280	5,730	3,300
Total amortization of acquired intangible assets	$ 15,783	$ 14,167	$ 10,068

The expected future amortization expense related to the intangible assets as of April 30, 2022 was as follows (in thousands, by fiscal year):

2023	$ 16,696
2024	13,985
2025	8,018
2026	5,057
2027	2,044
Thereafter	—
Total	$ 45,800

Goodwill

The following table represents the changes to goodwill (in thousands):

	Carrying Amount
Balance as of April 30, 2020	$ 197,877
Foreign currency translation adjustment	974
Balance as of April 30, 2021	198,851
Addition from acquisitions	105,428
Foreign currency translation adjustment	(373)
Balance as of April 30, 2022	$ 303,906

There was no impairment of goodwill during the years ended April 30, 2022, 2021 and 2020.

Accrued Expenses and Other Liabilities

Accrued expenses and other liabilities consisted of the following (in thousands):

	As of April 30,	
	2022	2021
Accrued expenses	$ 24,066	$ 12,772
Value added taxes payable	8,926	8,493
Accrued interest	6,918	—
Income taxes payable	4,286	1,596
Other	9,734	6,048
Total accrued expenses and other liabilities	$ 53,930	$ 28,909

Accrued Compensation and Benefits

Accrued compensation and benefits consisted of the following (in thousands):

	As of April 30,	
	2022	2021
Accrued vacation	$ 27,280	$ 24,078
Accrued commissions	23,806	17,581
Accrued payroll and withholding taxes	9,030	5,522
Other	7,886	5,344
Total accrued compensation and benefits	$ 68,002	$ 52,525

Contract Balances

The following table provides information about unbilled accounts receivable, deferred contract acquisition costs, and deferred revenue from contracts with customers (in thousands):

	As of April 30,	
	2022	2021
Unbilled accounts receivable, included in accounts receivable, net	$ 9,244	$ 5,204
Deferred contract acquisition costs	$ 118,047	$ 86,352
Deferred revenue	$ 465,294	$ 397,700

Significant changes in the unbilled accounts receivable and the deferred revenue balances were as follows (in thousands):

Unbilled Accounts Receivable

	Year Ended April 30,		
	2022	2021	2020
Beginning balance	$ 5,204	$ 2,622	$ 1,710
Amounts transferred to accounts receivable from unbilled accounts receivable presented at the beginning of the period	(5,204)	(2,622)	(1,710)
Revenue recognized during the period in excess of invoices issued	9,244	5,204	2,622
Ending balance	$ 9,244	$ 5,204	$ 2,622

Deferred Revenue

	Year Ended April 30,		
	2022	2021	2020
Beginning balance	$ 397,700	$ 259,702	$ 170,666
Increases due to invoices issued, excluding amounts recognized as revenue during the period	421,552	364,093	242,136
Amounts transferred to deferred revenue from accrued expenses and other liabilities upon entering into contracts with customers, net of revenue recognized during the period	—	5,424	—
Increase from acquisitions, net of revenue recognized	439	—	6,192
Revenue recognized that was included in deferred revenue balance at beginning of period	(354,397)	(231,519)	(159,292)
Ending balance	$ 465,294	$ 397,700	$ 259,702

Deferred Contract Acquisition Costs

The following table summarizes the activity of the deferred contract acquisition costs (in thousands):

	Year Ended April 30,		
	2022	2021	2020
Beginning balance	$ 86,352	$ 43,549	$ 26,150
Capitalization of contract acquisition costs	92,433	83,794	45,713
Amortization of deferred contract acquisition costs	(60,738)	(40,991)	(28,314)
Ending balance	$ 118,047	$ 86,352	$ 43,549
Deferred contract acquisition costs, current	43,628	36,089	19,537
Deferred contract acquisition costs, non- current	74,419	50,263	24,012
Total deferred contract acquisition costs	$ 118,047	$ 86,352	$ 43,549

The Company did not recognize any impairment of deferred contract acquisition costs during the years ended April 30, 2022, 2021 and 2020.

7. Senior Notes

In July 2021, the Company issued $575.0 million aggregate principal amount of 4.125% Senior Notes due July 15, 2029 in a private placement.

Interest on the Senior Notes is payable semi-annually in arrears on January 15 and July 15 of each year, commencing on January 15, 2022. The Company received net proceeds from the offering of the Senior Notes of $565.7 million after deducting underwriting commissions of $7.2 million and incurred additional issuance costs of $2.1 million. Total debt issuance costs of $9.3 million are being amortized to interest expense using the effective interest method over the term of the Senior Notes. The Company may redeem the Senior Notes, in whole or in part, at any time prior to July 15, 2024 at a price equal to 100% of the principal amount thereof plus a "make-whole" premium and accrued and unpaid interest, if any. The Company may at its election redeem all or a part of the Senior Notes on or after July 15, 2024, on any one or more occasions, at the redemption prices set forth in the indenture governing the Senior Notes (the "Indenture"), plus, in each case, accrued and unpaid interest thereon, if any, to, but excluding, the applicable redemption date. In addition, at any time prior to July 15, 2024, the Company may on any one or more occasions redeem up to 40% of the aggregate principal amount of the Senior Notes outstanding under the Indenture with the net cash proceeds of one or more equity offerings at a redemption price equal to 104.125% of the principal amount of the Senior Notes then outstanding, plus accrued and unpaid interest thereon, if any, to, but excluding, the applicable redemption date. The Company may also at its election redeem the Senior Notes in whole, but not in part, at a price equal to 100% of the principal amount thereof plus accrued and unpaid interest, if any, if certain changes in tax law occur as set forth in the Indenture.

If the Company experiences a change of control triggering event (as defined in the Indenture), the Company must offer to repurchase the Senior Notes at a repurchase price equal to 101% of the principal amount of the Senior Notes to be repurchased, plus accrued and unpaid interest, if any, to the repurchase date.

The indenture governing the Senior Notes contain covenants limiting the Company's ability and the ability of certain subsidiaries to create liens on certain assets to secure debt; grant a subsidiary guarantee of certain debt without also providing a guarantee of the Senior Notes; and consolidate or merge with or into, or sell or otherwise dispose of all or substantially all of its assets to, another person. These covenants are subject to a number of limitations and exceptions. Certain of these covenants will not apply during any period in which the notes are rated investment grade by Moody's Investors Service, Inc. and Standard & Poor's Ratings Services. As of April 30, 2022, the Company was in compliance with all of its financial covenants under the Indenture associated with the Senior Notes.

The net carrying amount of the Senior Notes was as follows:

	As of April 30, 2022
Principal	$ 575,000
Unamortized debt issuance costs	(8,480)
Net carrying amount	$ 566,520

The following table sets forth the interest expense recognized related to the Senior Notes:

	Year Ended April 30, 2022
Contractual interest expense	$ 19,370
Amortization of debt issuance costs	803
Total interest expense related to the Senior Notes	$ 20,173

8. Commitments and Contingencies

Cloud Hosting Commitments

The table below reflects the Company's future minimum purchase obligations relating to non-cancellable agreements for cloud hosting as of April 30, 2022 (in thousands):

Years Ending April 30,	Purchase Obligations
2023	$ 97,390
2024	106,736
2025	92,587
2026	87,000
2027	32,000
Total	$ 415,713

Actual timing may vary depending on services used and total payments under these capacity commitments may be higher than the total minimum depending on services used.

Other Purchase Commitments

The Company has future purchase obligations related to subscription software and sales and marketing contracts. As of April 30, 2022, the Company had purchase commitments of $36.2 million related to these contracts, primarily due within the next twelve months.

Letters of Credit

The Company had a total of $2.5 million in letters of credit outstanding in favor of certain landlords for office space as of April 30, 2022.

Legal Matters

From time to time, the Company has become involved in claims and other legal matters arising in the ordinary course of business. The Company investigates these claims as they arise. Although claims are inherently unpredictable, the Company is currently not aware of any matters that, if determined adversely to the Company, would individually or taken together have a material adverse effect on its business, results of operations, financial position or cash flows.

The Company accrues estimates for resolution of legal and other contingencies when losses are probable and reasonably estimable.

Although the results of litigation and claims are inherently unpredictable, the Company does not believe that there were any matters under litigation or claims with a reasonable possibility of the Company incurring a material loss as of April 30, 2022.

Indemnification

The Company enters into indemnification provisions under its agreements with other companies in the ordinary course of business, including business partners, landlords, contractors and parties performing its research and development. Pursuant to these arrangements, the Company agrees to indemnify, hold harmless, and reimburse the indemnified party for certain losses suffered or incurred by the indemnified party as a result of the Company's activities. The maximum potential amount of future payments the Company could be required to make under these agreements is not determinable. The Company has never incurred costs to defend lawsuits or settle claims related to these indemnification agreements. As a result, the Company believes the fair value of these agreements is not material. The Company maintains commercial general liability insurance and product liability insurance to offset certain of the Company's potential liabilities under these indemnification provisions.

In addition, the Company indemnifies its officers, directors and certain key employees against certain liabilities that may arise as a result of their affiliation with the Company. To date, there have been no claims under any indemnification provisions.

9. Leases

The Company's leases are composed of corporate office spaces under non-cancelable operating lease agreements that expire at various dates through 2025. The Company does not have any finance leases.

Lease Costs

Components of lease costs included in the consolidated statement of operations were as follows (in thousands):

	Year Ended April 30,	
	2022	2021
Operating lease cost	$ 9,894	$ 8,825
Short-term lease cost	2,448	2,319
Variable lease cost	857	527
Total lease cost	$ 13,199	$ 11,671

Lease term and discount rate information are summarized as follows:

	As of April 30, 2022
Weighted average remaining lease term (years)	2.95
Weighted average discount rate	5.00 %

Future minimum lease payments under non-cancelable operating leases on an undiscounted cash flow basis as of April 30, 2022 were as follows (in thousands):

Years Ending April 30,	
2023	$ 11,595
2024	8,788
2025	5,924
2026	3,523
2027	—
Thereafter	—
Total minimum lease payments	29,830
Less imputed interest	(2,129)
Present value of future minimum lease payments	27,701
Less current lease liabilities	(11,219)
Operating lease liabilities, non-current	$ 16,482

10. Ordinary Shares

The Company's articles of association designated and authorized the Company to issue 165 million ordinary shares at a par value per ordinary share of €0.01 per share.

Each holder of ordinary shares has the right to one vote per ordinary share. The holders of ordinary shares are also entitled to receive dividends whenever funds are legally available and when declared by the board of directors, subject to the prior rights of holders of all classes of shares outstanding having priority rights to dividends. No dividends have been declared by the Company's board of directors from inception through the year ended April 30, 2022.

Ordinary Shares Reserved for Issuance

The Company had reserved ordinary shares for issuance as follows:

	As of April 30,	
	2022	2021
Stock options issued and outstanding	5,219,124	7,611,016
RSUs issued and outstanding	4,717,548	3,301,283
Remaining shares available for future issuance under the 2012 Plan	17,647,684	15,737,819
Total ordinary shares reserved	27,584,356	26,650,118

Convertible Preference Shares

The Company's board of directors has the authority, for a period of five years from October 10, 2018, without further action by the Company's shareholders, to issue up to 165 million shares of undesignated convertible preference shares with rights and preferences, including voting rights, designated from time to time by the board of directors. As of April 30, 2022, there were no convertible preference shares issued or outstanding.

11. Equity Incentive Plans

In September 2012, the Company's board of directors adopted and the Company's shareholders approved the 2012 Stock Option Plan, which was amended and restated in September 2018 and further amended in December 2021 (as amended and restated, the "2012 Plan"). Under the 2012 Plan, the board of directors, the compensation committee, as administrator of the 2012 Plan, and a duly authorized committee may grant stock options and other equity-based awards, such as Restricted Stock Awards ("RSAs") or Restricted Stock Units ("RSUs"), to eligible employees, directors, and consultants to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentive to employees, directors and consultants, and to promote the success of the Company's business. The Company's board of directors, compensation committee or a duly authorized committee determines the vesting schedule for all equity-based awards. Stock options granted to new employees under the 2012 Plan generally vest over four years with 25% of the option shares vesting one year from the vesting commencement date and then ratably over the following 36 months subject to the employees' continued service to the Company. Refresh grants of stock options to existing employees generally vest monthly over four years subject to the employees' continued service to the Company. RSUs granted prior to December 8, 2021 to new employees generally vest over a period of four years with 25% vesting on the one-year anniversary of the vesting start date and the remainder vesting semi-annually over the next 36 months, subject to the employee's continued service to the Company. RSUs granted prior to December 8, 2021 to existing employees generally vest semi-annually over a period of four years, subject to the employee's continued service to the Company. RSUs granted to both new and existing employees on and after December 8, 2021 generally vest quarterly over a period of four years, subject to the grantee's continued service to the Company. The Company's compensation committee may explicitly deviate from the general vesting schedules in its approval of an equity-based award, as it may deem appropriate. Stock options expire ten years after the date of grant. Stock options, RSAs and RSUs that are canceled under certain conditions become available for future grant or sale under the 2012 Plan unless the 2012 Plan is terminated.

The equity awards available for grant were as follows:

	Year Ended April 30,	
	2022	2021
Available at beginning of fiscal year	15,737,819	12,461,850
Awards authorized	4,526,699	4,142,849
Options granted	(495,460)	(232,075)
Options cancelled	386,656	890,561
RSUs granted	(3,224,256)	(1,965,644)
RSUs cancelled	715,870	440,278
Shares withheld for taxes	356	—
Available at end of period	17,647,684	15,737,819

Stock Incentive Plans Assumed in Acquisitions

In connection with its acquisition of Endgame, the Company assumed all in-the-money stock options issued under Endgame's Amended and Restated 2010 Stock Incentive Plan that were outstanding on the date of acquisition. In connection with its acquisitions of Cmd and build.security, the Company assumed certain unvested stock options issued under the Cmd Stock Option Plan and Build 2020 Share Incentive Plan that were outstanding on the date of the respective acquisition.

The assumed stock options will continue to be outstanding and will be governed by the provisions of their respective plan and are included in the stock option activity table below.

Stock Options

The following table summarizes stock option activity (in thousands, except share and per share data):

	Stock Options Outstanding			
	Number of Stock Options Outstanding	Weighted-Average Exercise Price	Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Balance as of April 30, 2020	15,260,506	$ 14.17	7.27	$ 767,795
Stock options granted	232,075	$ 139.68		
Stock options exercised	(6,989,222)	$ 11.08		
Stock options cancelled	(890,561)	$ 18.15		
Stock options assumed in acquisition cancelled	(1,782)	$ 72.75		
Balance as of April 30, 2021	7,611,016	$ 20.34	6.66	$ 768,517
Stock options granted	495,460	$ 94.46		
Stock options assumed in acquisitions	63,846	$ 10.20		
Stock options exercised	(2,563,287)	$ 14.18		
Stock options cancelled	(386,656)	$ 32.04		
Stock options assumed in acquisition cancelled	(1,255)	$ 40.35		
Balance as of April 30, 2022	5,219,124	$ 29.41	6.22	$ 266,021
Exercisable as of April 30, 2022	3,929,577	$ 18.84	5.70	$ 230,199

Stock options exercisable include 16,667 stock options that were unvested as of April 30, 2022.

Aggregate intrinsic value represents the difference between the exercise price of the stock options to purchase ordinary shares and the fair value of the Company's ordinary shares. The weighted-average grant-date fair value per share of stock options assumed related to the Cmd and build.security acquisitions was $122.13 for the year ended April 30, 2022. The weighted-average grant-date fair value per share of stock options granted was $52.43 and $80.01 for the years ended April 30, 2022 and 2021, respectively.

As of April 30, 2022, the Company had unrecognized stock-based compensation expense of $46.0 million related to unvested stock options that the Company expects to recognize over a weighted-average period of 2.16 years.

RSUs

The following table summarizes RSU activity under the 2012 Plan:

	Number of Awards	Weighted-Average Grant Date Fair Value
Outstanding and unvested at April 30, 2020	2,472,092	$ 66.78
RSUs granted	1,965,644	$ 123.48
RSUs released	(696,175)	$ 71.18
RSUs cancelled	(440,278)	$ 73.31
Outstanding and unvested at April 30, 2021	3,301,283	$ 98.74
RSUs granted	3,224,256	$ 113.91
RSUs released	(1,092,121)	$ 96.65
RSUs cancelled	(715,870)	$ 106.34
Outstanding and unvested at April 30, 2022	4,717,548	$ 108.44

During the year ended April 30, 2021, the Company cancelled 80,839 cash settled RSUs and contemporaneously granted 80,839 equity settled RSUs. The modification of the awards and related change in the classification of awards from liability-classified to equity-classified was accounted for under the provisions of ASC 718 - Stock Compensation. Prior to the conversion, the Company performed a final measurement of its stock-based compensation liability under the fair value method, which resulted in a non-cash stock-based compensation expense of $2.5 million. Additionally, upon modification of the awards, the Company reclassified $2.7 million stock-based compensation liability to additional-paid in capital.

As of April 30, 2022, the Company had unrecognized stock-based compensation expense of $459.1 million related to RSUs that the Company expects to recognize over a weighted-average period of 2.77 years.

Determination of Fair Value

The determination of the fair value of stock-based options on the date of grant using an option pricing model is affected by the fair value of the Company’s ordinary shares, as well as assumptions regarding a number of complex and subjective variables. The Company uses the Black-Scholes option pricing model to calculate the fair value of stock options, which requires the use of assumptions including actual and projected employee stock option exercise behaviors, expected price volatility of the Company’s ordinary shares, the risk-free interest rate and expected dividends.

Fair Value of Ordinary Shares: Subsequent to the IPO on October 8, 2018, the fair value of the underlying ordinary shares is determined by the closing price, on the date of the grant, of the Company’s ordinary shares, which are traded publicly on the New York Stock Exchange. Prior to the IPO, the fair value of ordinary shares underlying the stock awards had historically been determined by the board of directors, with input from the Company’s management. The board of directors previously determined the fair value of the ordinary shares at the time of grant of the awards by considering a number of objective and subjective factors, including valuations of comparable companies, sales of redeemable convertible preference shares, sales of ordinary shares to unrelated third parties, operating and financial performance, the lack of liquidity of the Company’s ordinary shares, and general and industry-specific economic outlook.

Expected Term: The expected term represents the period that options are expected to be outstanding. For option grants that are considered to be “plain vanilla,” the Company determines the expected term using the simplified method. The simplified method deems the term to be the average of the time-to-vesting and the contractual life of the options.

Expected Volatility: Since the Company has limited trading history of its ordinary shares, the expected volatility is derived from the average historical stock volatilities of several unrelated public companies within the Company’s industry that the Company considers to be comparable to its own business over a period equivalent to the option’s expected term.

Risk-Free Interest Rate: The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant for zero-coupon U.S. Treasury notes with maturities approximately equal to the option’s expected term.

Dividend Rate: The expected dividend is assumed to be zero as the Company has never paid dividends and has no current plans to do so.

The Company’s expected volatility and expected term involve management’s best estimates, both of which impact the fair value of the option calculated under the Black-Scholes option pricing model and, ultimately, the expense that will be recognized over the life of the option.

The fair value of stock options granted and assumed was estimated on the date of grant using the Black-Scholes option pricing model with the following assumptions:

	Year Ended April 30,		
	2022	**2021**	**2020**
Expected term (in years)	5.52 - 6.08	6.02 - 6.08	2.00 - 7.27
Expected stock price volatility	59.6% - 60.2%	62.6% - 63.9%	54.8%
Risk-free interest rate	1.4% - 1.8%	0.4% - 1.1%	1.4% - 2.0%
Dividend yield	0%	0%	0%

Stock-Based Compensation Expense

Total stock-based compensation expense recognized in the Company's consolidated statements of operations was as follows (in thousands):

	Year Ended April 30,		
	2022	2021	2020
Cost of revenue—cost of subscription—self-managed and SaaS	$ 8,368	$ 7,105	$ 4,147
Cost of revenue—professional services	6,463	4,824	2,980
Research and development	59,911	35,267	23,621
Sales and marketing	45,798	31,581	19,334
General and administrative	20,654	14,903	9,925
Stock-based compensation expense, net of amounts capitalized	141,194	93,680	60,007
Capitalized stock-based compensation expense	188	10	—
Total stock-based compensation expense	$ 141,382	$ 93,690	$ 60,007

12. Net Loss Per Share Attributable to Ordinary Shareholders

The following table sets forth the computation of basic and diluted net loss per share attributable to ordinary shareholders (in thousands, except share and per share data):

	Year Ended April 30,		
	2022	2021	2020
Numerator:			
Net loss	$ (203,848)	$ (129,434)	$ (167,174)
Denominator:			
Weighted-average shares used in computing net loss per share attributable to ordinary shareholders, basic and diluted	92,547,145	87,207,094	78,799,732
Net loss per share attributable to ordinary shareholders, basic and diluted	$ (2.20)	$ (1.48)	$ (2.12)

Since the Company is in a net loss position for all periods presented, basic net loss per share is the same as diluted net loss per share for all periods. The following outstanding potentially dilutive ordinary shares were excluded from the computation of diluted net loss per share attributable to ordinary shareholders for the periods presented because the impact of including them would have been antidilutive:

	Year Ended April 30,		
	2022	2021	2020
Stock options	5,219,124	7,611,016	15,260,506
RSUs	4,717,548	3,301,283	2,368,740
Contingently issuable shares	—	—	235,031
Total	9,936,672	10,912,299	17,864,277

13. Income Taxes

The Company is incorporated in the Netherlands but operates in various countries with differing tax laws and rates. The geographical breakdown of income (loss) before provision for (benefit from) income taxes is summarized as follows (in thousands):

	Year Ended April 30,		
	2022	2021	2020
Dutch	$ (261,097)	$ (163,770)	$ (173,338)
Foreign	63,308	42,056	4,196
Loss before income taxes	$ (197,789)	$ (121,714)	$ (169,142)

The components of the provision for (benefit from) income taxes were as follows (in thousands):

	Year Ended April 30,		
	2022	2021	2020
Current:			
Dutch	$ 2,187	$ 1,125	$ 518
Foreign	6,892	3,896	(560)
Total current tax expense (income)	$ 9,079	$ 5,021	$ (42)
Deferred:			
Dutch	$ (105)	$ —	$ —
Foreign	(2,915)	2,699	(1,926)
Total deferred tax expense (income)	(3,020)	2,699	(1,926)
Total provision for (benefit from) income taxes	$ 6,059	$ 7,720	$ (1,968)

The Company's effective tax rate substantially differed from the Dutch statutory tax rate of 25% primarily due to the valuation allowance on the Dutch, United States and United Kingdom deferred tax assets, partially offset by a tax benefit from stock-based compensation. A reconciliation of income taxes at the statutory income tax rate to the provision for (benefit from) income taxes included in the consolidated statement of operations is as follows (in thousands, except for rates):

	Year Ended April 30,					
	2022		2021		2020	
	Tax	Rate	Tax	Rate	Tax	Rate
Dutch statutory income tax	$ (49,448)	25.0 %	$ (30,428)	25.0 %	$ (42,286)	25.0 %
Foreign income taxed at different rates	(2,197)	1.1 %	(486)	0.4 %	313	(0.2)%
Stock-based compensation	(31,372)	15.9 %	(100,931)	82.9 %	(53,050)	31.4 %
Research and development credits	(10,834)	5.5 %	(11,020)	9.0 %	(7,771)	4.6 %
Change in valuation allowance	91,841	(46.4)%	146,571	(120.4)%	97,734	(57.8)%
Deferred tax asset revaluation	(302)	0.2 %	(256)	0.2 %	1,991	(1.2)%
Other	8,371	(4.4)%	4,270	(3.4)%	1,101	(0.6)%
Provision for (benefit from) income taxes	$ 6,059	(3.1)%	$ 7,720	(6.3)%	$ (1,968)	1.2 %

Deferred Income Taxes

Deferred tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between the carrying amounts and the tax basis of assets and liabilities. Management assesses whether it is more likely than not that some portion or all of the deferred tax assets will be realized. Deferred tax assets are reduced by a valuation allowance where management has concluded it is more likely than not that the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income. Management makes estimates and judgments about future taxable income based on assumptions that are consistent with the Company's plans and estimates.

Significant components of the Company's deferred tax assets and liabilities are summarized as follows (in thousands):

	As of April 30,	
	2022	2021
Deferred tax assets:		
Accrued compensation	$ 2,883	$ —
Net operating loss carryforward	458,733	385,443
Deferred revenue	8,780	4,609
Stock-based compensation	12,063	11,614
Research and development credits	28,467	22,988
Lease liabilities	5,139	4,956
Other	9,239	3,156
Gross deferred tax assets	525,304	432,766
Less valuation allowance	(498,996)	(409,756)
Total deferred tax assets	$ 26,308	$ 23,010
Deferred tax liabilities:		
Accrued compensation	$ —	$ (41)
Deferred contract acquisition costs	(17,244)	(13,173)
Intangible assets	(6,752)	(8,191)
Right of use assets	(4,673)	(4,523)
Gross deferred tax liabilities	(28,669)	(25,928)
Net deferred tax liabilities	$ (2,361)	$ (2,918)

The valuation allowance for deferred tax assets as of April 30, 2022 and 2021 was $499.0 million and $409.8 million, respectively. As the Company has generated losses since inception in the Netherlands and California (United States) jurisdictions, management maintains a full valuation allowance against the net deferred tax assets in these jurisdictions. In addition, the United States and the United Kingdom jurisdictions are anticipated to have cumulative losses for the foreseeable future, and as such a valuation allowance has been established for these regions. The valuation allowance in the Netherlands, the United States and the United Kingdom jurisdictions increased by $53.8 million, $30.3 million and $5.1 million, respectively, during the year ended April 30, 2022 and $61.0 million, $113.1 million and $10.5 million, respectively, for the year ended April 30, 2021. The valuation allowance for the Dutch deferred tax assets as of April 30, 2022 and 2021 was $203.2 million and $149.4 million, respectively, the valuation allowance for the United States deferred tax assets as of April 30, 2022 and 2021 was $276.3 million and $246.0 million, respectively, and the valuation allowance for the United Kingdom deferred tax assets as of April 30, 2022 and April 30, 2021 was $19.5 million and $14.4 million, respectively.

As of April 30, 2022, the Company had net operating loss ("NOL") carryforwards for Dutch, United States (Federal and State, respectively) and United Kingdom income tax purposes of $758.4 million, $1,002.5 million, $651.8 million and $67.5 million, respectively, which begin to expire in the year ending, April 30, 2031 and April 30, 2025 in the United States (Federal and State, respectively), with Dutch and United Kingdom losses being carried forward indefinitely. The Company also has research and development tax credit carryforwards for United States (Federal and State, respectively) and Canada, income tax purposes of $20.0 million, $5.3 million and $0.7 million respectively, which begin to expire April 30, 2033, April 30, 2023, and April 30, 2039, respectively. Research and development tax credit carryforwards related to the UK of $0.6 million have an indefinite life. The deferred tax assets associated with the NOL carryforwards and other tax attributes in the Netherlands, the United States, and the United Kingdom are subject to a full valuation allowance.

Uncertain Tax Positions

The calculation of the Company's tax obligations involves dealing with uncertainties in the application of complex tax laws and regulations. ASC 740, *Income Taxes*, provides that a tax benefit from an uncertain tax position may be recognized when it is more likely than not that the position will be sustained upon examination, including resolutions of any related appeals or litigation processes, on the basis of the technical merits. The Company has assessed its income tax positions and recorded tax benefits for all years subject to examination, based upon the Company's evaluation of the facts, circumstances and information available at each period end.

Although the Company believes that it has adequately reserved for its uncertain tax positions, the Company can provide no assurance that the final tax outcome of these matters will not be materially different. As the Company expands, it will face increased complexity, and the Company's unrecognized tax benefits may increase in the future. The Company makes adjustments to its reserves when facts and circumstances change, such as the closing of a tax audit or the refinement of an estimate. To the extent that the final tax outcome of these matters is different than the amounts recorded, such differences will affect the provision for (benefit from) income taxes in the period in which such determination is made.

The Company had unrecognized tax benefits of $16.6 million as of April 30, 2022, of which none would impact the effective tax rate before consideration of any valuation allowance. The activity within the Company's unrecognized gross tax benefits is summarized as follows (in thousands):

	As of April 30,		
	2022	2021	2020
Balance as of beginning of year	$ 13,656	$ 9,706	$ 3,870
Increase (decrease) related to tax positions taken in prior periods	(1,029)	432	2,283
Increase related to tax positions taken in the current period	3,995	3,518	3,553
Balance as of end of year	$ 16,622	$ 13,656	$ 9,706

Approximately $1.0 million of the decrease in fiscal 2022 for tax positions taken in prior periods is due to the filing of tax returns during the current fiscal year and lapse of statute of limitations. Approximately $4.0 million of the increase in tax positions related to the current period is primarily from the research and development tax credits generated for fiscal 2022.

The Company's policy is to recognize penalties and interests accrued on any unrecognized tax benefits as a component of income tax expense. For the years ended April 30, 2022, 2021 and 2020 the Company recognized interest and penalties of $0.3 million, less than $0.1 million and less than $0.1 million, respectively. The amount of accrued interest and penalties recorded on the consolidated balance sheet as of April 30, 2022 and 2021 was $0.3 million and $0.1 million, respectively.

The Company is subject to periodic examination of income tax returns by various domestic and international tax authorities. During the fiscal year, the Company was not subject to any new audits. The Company is currently under examination with the Internal Revenue Service for foreign withholding taxes for the calendar year 2018.

The Company does not anticipate any significant increases or decreases in its uncertain tax positions within the next twelve months. The Company files tax returns in multiple jurisdictions, including the Netherlands and United States. The Company's tax filings for fiscal years starting with the year ended April 30, 2017 remain open in various tax jurisdictions.

Dutch income taxes and non-Dutch withholding taxes associated with the repatriation of earnings or for temporary differences related to investments in non-Dutch subsidiaries, excluding the U.S subsidiaries, have not been provided for, as the Company intends to reinvest the earnings of such subsidiaries indefinitely or the Company has concluded that an immaterial additional tax liability would arise on the distribution of such earnings. Earnings from the Company's U.S. subsidiaries are being treated as being currently repatriated back to the Netherlands though no Dutch income taxes nor U.S. withholding taxes in regard to such repatriations are being recorded due to the Dutch participation exemption provisions and exemption from withholding taxes under the income tax treaty between the Netherlands and the United States. As of April 30, 2022, there were cumulative earnings of $104.8 million, from the non-U.S. subsidiaries. If such earnings were to be repatriated they would be exempt from taxation in the Netherlands and the amount of dividend withholding taxes from such foreign jurisdictions would be $2.4 million, due to the various income tax treaties between the Netherlands and the respective foreign jurisdictions.

The Company is subject to Global Intangible Low Taxed Income ("GILTI"). Due to the Company's net operating loss, GILTI provision was zero, $1.0 million and zero for the years ended April 30, 2022, 2021 and 2020, respectively. The GILTI provision did not have a material impact on the Company's results for any of the years presented.

14. Employee Benefit Plans

The Company has a defined-contribution plan in the U.S. intended to qualify under Section 401 of the Internal Revenue Code (the "401(k) Plan"). The Company has contracted with a third-party provider to act as a custodian and trustee, and to process and maintain the records of participant data. Substantially all the expenses incurred for administering the 401(k) Plan are paid by the Company. This 401(k) Plan covers substantially all employees who meet minimum age and service requirements and allows participants to defer a portion of their annual compensation on a pre-tax basis The Company makes contributions to the 401(k) Plan up to 6% of the participating employee's W-2 earnings and wages. The Company recorded $15.2 million, $11.4 million and $8.3 million of expense related to the 401(k) Plan during the years ended April 30, 2022, 2021 and 2020, respectively.

The Company also has defined-contribution plans in certain other countries for which the Company recorded $7.2 million, $5.1 million and $3.6 million of expense during the years ended April 30, 2022, 2021 and 2020, respectively.

15. Segment Information

The following table summarizes the Company's total revenue by geographic area based on the billing address of the customers (in thousands):

	Year Ended April 30,		
	2022	2021	2020
United States	$ 481,589	$ 331,769	$ 241,648
Rest of world	380,785	276,720	185,972
Total revenue	$ 862,374	$ 608,489	$ 427,620

Other than the United States, no other individual country exceeded 10% or more of total revenue during the periods presented.

The following table presents the Company's long-lived assets, including property and equipment, net, and operating lease right-of-use assets, by geographic region (in thousands):

	As of April 30,	
	2022	2021
United States	$ 22,112	$ 23,443
United Kingdom	4,478	7,151
India	3,407	—
Rest of world	2,647	3,751
Total long-lived assets	$ 32,644	$ 34,345

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 defined in Rule 13a-15(e) and Rule 15d-15(e) under the Exchange Act, that are designed to ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to our management, including our principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure.

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this Annual Report on Form 10-K. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that as of April 30, 2022, our disclosure controls and procedures were effective to provide reasonable assurance that the information required to be disclosed by us in the reports we file or submit under the Exchange Act (a) is recorded, processed, summarized and reported within the time periods specified by the SEC rules and forms and (b) is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate "internal control over financial reporting," as defined in Rule 13a-15(f) and Rule 15d-15(f) under the Exchange Act. Our management conducted an evaluation of the effectiveness of our internal control over financial reporting as of April 30, 2022 based on the criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Based on the results of its evaluation, management concluded that our internal control over financial reporting was effective as of April 30, 2022. The effectiveness of our internal control over financial reporting as of April 30, 2022 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in its report which is included in Item 8 of this Annual Report on Form 10-K.

Changes in Internal Control Over Financial Reporting

During the quarter ended April 30, 2022, the Company implemented a new revenue accounting system. As a result of this implementation, the Company modified certain existing controls and implemented new controls to maintain appropriate internal control over financial reporting during and after the system change. Other than updates to the relevant control structure related to this implementation, there were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the quarter ended April 30, 2022, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management, including our Chief Executive Officer and Chief Financial Officer, believes that our disclosure controls and procedures and internal control over financial reporting are designed to provide reasonable assurance of achieving their objectives and are effective at the reasonable assurance level. However, our management does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of the controls. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Item 9B. Other Information.

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions That Prevent Inspections.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information required by this Item (other than the information set forth in the next paragraph) will be included in our definitive proxy statement for our 2022 annual general meeting of shareholders (the “2022 Proxy Statement”), which will be filed with the SEC within 120 days after the end of our year ended April 30, 2022, and is incorporated herein by reference.

We have adopted a Code of Business Conduct and Ethics (the “Code of Conduct”), applicable to all of our employees, officers and directors, including our chief executive officer, chief financial officer and other executive and senior financial officers. The full text of the Code of Conduct is available on our website at elastic.co. The audit committee of our board of directors is responsible for overseeing the Code of Conduct. The board of directors, or its designated committee, must approve any waivers of the Code of Conduct for members of the board of directors or executive officers, including our Chief Executive Officer, Chief Financial Officer and other executive and senior financial officers, and the General Counsel, or, if the General Counsel is not available, the Chief Financial Officer, who will consult with the Chief Ethics & Compliance Officer, must approve any waiver of the Code of Conduct for any other person. We expect that any amendments to the Code of Conduct, or any waivers of its requirements, will be disclosed on our website, as required by applicable law or the listing standards of the NYSE. The inclusion of our website address in this Form 10-K does not include or incorporate by reference into this Form 10-K the information on or accessible through our website.

Item 11. Executive Compensation.

The information required by this item will be set forth in the 2022 Proxy Statement and is incorporated herein by reference.

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

The information required by this item will be set forth in the 2022 Proxy Statement and is incorporated herein by reference.

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

The information required by this item will be set forth in the 2022 Proxy Statement and is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services.

The information required by this item will be set forth in the 2022 Proxy Statement and is incorporated herein by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

(a)(1) Financial Statements

See Index to Financial Statements in Item 8 of this Annual Report on Form 10-K.

(a)(2) Financial Statement Schedule

All financial statement schedules have been omitted as the information is not required under the related instructions or is not applicable or because the information required is already included in the financial statements or the notes to those financial statements.

(a)(3) Exhibits

We have filed or incorporated by reference the exhibits listed on the accompanying Exhibit Index.

Exhibit Index

		Incorporated by Reference				
Exhibit No.	Description of Exhibit	Form	File No.	Exhibit	Filing Date	Filed Herewith
2.1	Agreement and Plan of Reorganization, dated as of June 5, 2019, by and among Elastic N.V, Avengers Acquisition Corp., Endgame, Inc. and Shareholder Representative Services LLC, solely in its capacity as the representative of the securityholders of Endgame.	8-K	001-38675	2.1	6/5/2019	
3.1	Articles of Association of Elastic N.V. (English translation).	10-Q	001-38675	3.1	12/12/2018	
3.2	Deed of Amendment of the Articles of Association of Elastic N.V. (English translation).	10-Q	001-38675	3.2	12/12/2018	
3.3	Deed of Conversion and Amendment of the Articles of Association of Elastic N.V. Articles of Association (English translation).	10-Q	001-38675	3.3	12/12/2018	
4.1	Amended and Restated Investors' Rights Agreement among the Company and certain holders of its ordinary shares, dated as of July 19, 2016.	S-1	333-227191	4.1	9/5/2018	
4.2	Description of share capital.	10-K	001-38675	4.2	6/28/2019	
4.3	Indenture, dated as of July 6, 2021, by and between Elastic N.V. and U.S. Bank National Association, as trustee.	8-K	001-38675	4.1	7/6/2021	
4.4	Form of 4.125% Senior Note due 2029 (included in Exhibit 4.3).	8-K	001-38675	4.1	7/6/2021	
10.1+	Form of Indemnification Agreement between the Registrant and each of its directors and executive officers.	S-1/A	333-227191	10.1	9/24/2018	
10.2+	Amended and Restated 2012 Stock Option Plan and related form agreements.	10-Q	001-38675	10.4	3/10/2022	
10.3+	Form of Change in Control and Severance Agreement.	S-1	333-227191	10.3	9/5/2018	
10.4+	Change in Control and Severance Agreement between the Company and Janesh Moorjani, dated as of August 1, 2018.	S-1	333-227191	10.4	9/5/2018	
10.5+	Amended and Restated Employment Agreement between the Company and Shay Banon, dated January 11, 2022.	10-Q	001-38675	10.2	3/10/2022	

10.6+	Employment Letter between the Company and Janesh Moorjani, dated as of August 1, 2018.	S-1	333-227191	10.6	9/5/2018	
10.7+	Employment Letter between the Company and W.H. Baird Garrett, dated as of July 31, 2018.	S-1	333-227191	10.9	9/5/2018	
10.8+	Offer Letter between the Company and Jonathan Chadwick, dated as of July 27, 2018.	S-1	333-227191	10.10	9/5/2018	
10.9+	Offer Letter between the Company and Paul Appleby, dated as of August 10, 2020.	8-K	001-38675	10.1	8/26/2020	
10.10+	Separation and Transition Agreement between the Company and Paul Appleby, dated as of January 12, 2022.	10-Q	001-38675	10.3	3/10/2022	
10.11+	Amended and Restated Offer Letter between the Company and Ashutosh Kulkarni, dated as of January 11, 2022.	10-Q	001-38675	10.1	3/10/2022	
10.12+	Offer Letter between the Company and Carolyn Herzog, dated as of March 23, 2022.					X
10.13	Office Lease Agreement, by and between the Company and Asset Growth Partners, L.P., dated as of July 9, 2014.	S-1	333-227191	10.11	9/5/2018	
10.14	First Amendment to Office Lease Agreement, by and between the Company and Asset Growth Partners, L.P., dated as of March 30, 2015.	S-1	333-227191	10.12	9/5/2018	
10.15	Second Amendment to Office Lease Agreement, by and between the Company and Asset Growth Partners, L.P., dated as of September 16, 2015.	S-1	333-227191	10.13	9/5/2018	
10.16	Third Amendment to Office Lease Agreement, by and between the Company and Asset Growth Partners, L.P., dated as of April 18, 2018.	S-1	333-227191	10.14	9/5/2018	
10.17	Fourth Amendment to Office Lease Agreement, by and between the Company and Asset Growth Partners, L.P., dated as of December 27, 2019.	10-K	001-38675	10.14	6/25/2021	
10.18+	Endgame, Inc. Amended and Restated 2010 Stock Incentive Plan, as amended, and related form agreements.	10-Q	001-38675	10.1	12/9/2021	
10.19+	Build Security Ltd. 2020 Share Incentive Plan, as amended, and related form agreements.	S-8	333-261544	4.2	12/8/2021	
10.20+	cmdWatch Security Inc. Stock Option Plan, as amended, and related form agreements.	S-8	333-261544	4.3	12/8/2021	
21.1	List of subsidiaries of the Registrant.					X
23.1	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm.					X
24.1	Power of Attorney (contained in the signature page of this report).					X
31.1	Certification of Principal Executive Officer pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of Principal Financial Officer pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1*	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X

32.2*	Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	X
101	The following financial information from Elastic N.V.'s Annual Report on Form 10-K for the fiscal year ended April 30, 2022 formatted in Inline XBRL (eXtensible Business Reporting Language): (i) Consolidated Balance Sheets as of April 30, 2022 and April 30, 2021; (ii) Consolidated Statements of Operations for the fiscal years ended April 30, 2022, April 30, 2021, and April 30, 2020; (iii) Consolidated Statements of Comprehensive Loss for the fiscal years ended April 30, 2022, April 30, 2021, and April 30, 2020; (iv) Consolidated Statements of Shareholders' Equity for the fiscal years ended April 30, 2022, April 30, 2021, and April 30, 2020; (v) Consolidated Statements of Cash Flows for the fiscal years ended April 30, 2022, April 30, 2021, and April 30, 2020; and (vi) Notes to the Consolidated Financial Statements	X
104	The cover page from Elastic N.V.'s Annual Report on Form 10-K for the fiscal year ended April 30, 2022 formatted in Inline XBRL (included as Exhibit 101).	X

+ Indicates a management contract or compensatory plan or arrangement.

* The certifications attached as Exhibits 32.1 and 32.2 hereto accompany this Annual Report on Form 10-K pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and shall not be deemed "filed" by the Registrant for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and are not to be incorporated by reference into any of the Registrant's filings under the Securities Act, irrespective of any general incorporation language contained in any such filing.

Item 16. Form 10-K Summary

None.

SIGNATURE

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

Elastic N.V.

Date: June 21, 2022 By: /s/ Ashutosh Kulkarni

Ashutosh Kulkarni
Chief Executive Officer and Director
(*Principal Executive Officer*)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Ashutosh Kulkarni and Janesh Moorjani, and each of them, as his or her true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such individual in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or the individual's substitute, may lawfully do or cause to be done by virtue hereof.

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

Name	Title	Date
/s/ Ashutosh Kulkarni **Ashutosh Kulkarni**	Chief Executive Officer and Director (Principal Executive Officer)	June 21, 2022
/s/ Janesh Moorjani **Janesh Moorjani**	Chief Financial Officer and Chief Operating Officer (Principal Financial and Accounting Officer)	June 21, 2022
/s/ Shay Banon **Shay Banon**	Chief Technology Officer and Director	June 21, 2022
/s/ Chetan Puttagunta **Chetan Puttagunta**	Chairman and Director	June 21, 2022
/s/ Jonathan Chadwick **Jonathan Chadwick**	Director	June 21, 2022
/s/ Alison Gleeson **Alison Gleeson**	Director	June 21, 2022
/s/ Shelley Leibowitz **Shelley Leibowitz**	Director	June 21, 2022
/s/ Caryn Marooney **Caryn Marooney**	Director	June 21, 2022
/s/ Steven Schuurman **Steven Schuurman**	Director	June 21, 2022
/s/ Michelangelo Volpi **Michelangelo Volpi**	Director	June 21, 2022

Exhibit 10.12

March 23, 2022

Carolyn Herzog Dear Carolyn,

Elasticsearch, Inc. (the "Company"), is pleased to offer you employment with the Company on the terms described below.

1. **Position.** Your position will be Chief Legal Officer, reporting to the Chief Executive Officer, Ashutosh Kulkarni. As this offer is for a position that will be an "executive officer" position (as such term is defined in Rule 3b-7 under the Securities and Exchange Act of 1934 (the "'34 Act")) and an "officer" position (as such term is defined in Section 16 of the '34 Act), the terms of this offer letter and your appointment to the position contemplated hereby are subject to the approval of the board of directors of Elastic N.V. (the "Board") and the Compensation Committee of the Board (the
"Compensation Committee"). By signing this offer letter you will confirm with the Company that you are under no contractual or other legal obligations that would prohibit you from performing your duties with the Company.

2. **Compensation.**

   a. **Base Salary**. You will be paid a starting salary at the rate of $425,000 per year, which will be paid in accordance with the Company's standard payroll policies and subject to applicable withholdings and other required deductions.

   b. **Annual Incentive Compensation**. Your annual target incentive compensation for fiscal year 2021 will be equal to 60% of your annual base salary, less applicable withholding, and will be subject to the terms and conditions of the Company's Executive Incentive Compensation Plan or any successor plan or arrangement adopted and implemented by the Company.

   You should note that the Company reserves the right to modify salaries and/or incentive compensation opportunities from time to time as it deems necessary.

3. **Equity Award.** Subject to the approval of the Board or the Compensation Committee, you will be granted awards covering ordinary shares of Elastic N.V. with an aggregate approximate value of
$5,000,000 (each an "Equity Award", and together, the "Equity Awards"). 75% of the value of the Equity Awards will be in the form of a restricted stock unit award, and 25% of the value of the Equity Awards will be in the form of a stock option grant to purchase shares of Elastic N.V. The dollar value of each Equity Award will be converted into a number of shares subject to the Equity Award at the time the award is granted in accordance with our equity grant practices in effect at that time. Each Equity Award will vest over a 4-year period ratably on designated vesting dates following the vesting commencement date in accordance with our equity grant practices, subject to your continuous service with the Company or its affiliates through each vesting date. Each Equity Award will be subject to the terms and conditions set forth in the Elastic N.V. Amended and Restated 2012 Stock Option Plan or a future equity plan, a standard form of either a restricted stock unit award agreement or an option award agreement adopted under such plan, as applicable, and our equity grant practices in effect from time to time.

4. **Vacation and Holidays.** During your employment with the Company, you will be entitled to 4 weeks of paid vacation during each calendar year, which shall accrue ratably over the calendar year and be pro-rated for the remainder of this calendar year. Such vacation shall be subject to and taken in accordance with the vacation policies of the Company. We strongly encourage you to take the vacation that you accrue in a calendar year in the same calendar year. Vacation must be taken by you at such time or times as mutually agreed between you and the Company. You will also be entitled to the paid holidays as set forth in the Company's policies. Upon termination of your employment with the Company, you will be paid for any unused vacation accrued by you as of the termination date.

5. **Employee Benefits**. As a regular employee of the Company, you will be eligible to participate in the employee benefit plans, if any, currently and hereafter maintained by the Company, subject in each case to the terms and conditions of the plan in question, including any eligibility requirements set forth therein, and the determination of any person or committee administering the plan. You should note that the Company may modify or terminate benefits from time to time as it deems necessary or appropriate.

6. **Severance & Change of Control Benefits.** As an executive of the Company, you will be eligible to receive severance and change of control benefits under certain circumstances pursuant to a Change in Control and Severance Agreement to be entered into between you and the Company, in substantially the form of the Company's standard agreements with its executives (the "**Severance Agreement**"). Accordingly, your potential severance and change of control benefits and the terms and conditions thereof shall be set forth in the Severance Agreement.

7. **Confidential Information and Invention Assignment Agreement.** Like all Company employees, you will be required as a condition of your employment with the Company, to sign the Company's standard Confidential Information and Invention Assignment Agreement.

8. **Employment Relationship.** Employment with the Company is for no specific period of time. Your employment with the Company will be "at will," meaning that either you or the Company may terminate your employment at any time and for any reason, with or without cause or notice. Any contrary representations which may have been made to you are superseded by this offer. This is the full and complete agreement between you and the Company on this term. Although your job duties, title, compensation and benefits, as well as the Company's personnel policies and procedures, may change from time to time, the "at will" nature of your employment may only be changed in an express written agreement signed by you and the Company's Chief Executive Officer.

9. **Location:** You will work from the Company's Mountain View, CA Office.

10. **Outside Activities.** Except for pre-existing engagements previously disclosed to the Company in writing, while you render services to the Company, you agree that you will not engage in any other employment, consulting, or other business activity without the written consent of the Company. In addition, while you render services to the Company, you will not assist any person or entity in competing with the Company, in preparing to compete with the Company, or in hiring any employees or consultants of the Company.

11. **Withholding and Required Deductions**. All forms of compensation referred to in this letter are subject to all withholding and any other deductions required by applicable law.

12. **Entire Agreement and Governing Law.** This letter supersedes and replaces any prior or contemporaneous understandings or agreements, whether oral, written or implied, between you and the Company regarding the matters described in this letter. This letter will be interpreted in accordance with the laws of the State of California without giving effect to provisions governing the choice of law.

13. **Counterparts.** This letter may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Execution of a facsimile, electronic, or scanned image will have the same force and effect as execution of an original, and a facsimile signature, electronic, or scanned image will be deemed an original and valid signature. If you wish to accept this offer, please sign electronically as presented.

As required by law, your employment with the Company is also contingent upon your providing legal proof of your identity and authorization to work in the United States. If visa sponsorship is needed, employment may not commence until an approval notice is received by the Company from USCIS. Employment may be contingent upon successfully obtaining an export license, if one is required for you to perform the duties you are being hired to perform. In addition, the Company may conduct a background verification and/or reference check, not to exceed the limitations of the law, and you acknowledge that this offer is contingent upon our receipt of satisfactory results of any and all performed checks. You acknowledge and agree that by signing this offer and returning it to the Company, you are consenting to the Company's performance of such background verification and/or reference checks.

[Signature page follows.]

This offer, if not accepted, will expire at the close of business on March 25, 2022. We look forward to your favorable reply and to working with you at Elastic.

Very truly yours, ELASTICSEARCH, INC

/s/ Leah Sutton

Leah Sutton, SVP Global HR

March 23, 2022

Date

ACCEPTED AND AGREED:

/s/ Carolyn Herzog

Carolyn Herzog

March 23, 2022

Date

Anticipated Start Date: May 1st, 2022

Exhibit 21.1

SUBSIDIARIES OF ELASTIC N.V.

Name of Subsidiary	Jurisdiction of Incorporation
Build Security Ltd.	Israel
Build Security, Inc. (in liquidation)	Delaware
Cmd Watch Security (US), Corp.	Delaware
Cyclops Acquisition Corp.	Canada
Elastic International B.V.	Netherlands
Elastic Technologies (India) Private Limited	India
Elastic Technologies (Israel) Ltd.	Israel
Elastic Worldwide B.V.	Netherlands
Elasticsearch AB	Sweden
Elasticsearch AS	Norway
Elasticsearch B.C. Ltd.	Canada
elasticsearch B.V.	Netherlands
Elasticsearch (Beijing) Information Technology Co., Ltd.	People’s Republic of China
Elasticsearch (CH) AG	Switzerland
Elasticsearch Federal Inc.	Delaware
Elasticsearch Finance B.V.	Netherlands
Elasticsearch GmbH	Germany
Elasticsearch Government, Inc. (in liquidation)	Delaware
Elasticsearch HK Limited	Hong Kong
Elasticsearch KK	Japan
Elasticsearch, Inc.	Delaware
Elasticsearch Korea Limited	Korea
Elasticsearch Limited	United Kingdom
Elasticsearch Pte. Ltd.	Singapore
Elasticsearch Pty Ltd	Australia
Elasticsearch SARL	France
Elasticsearch, S.L.U.	Spain
Endgame, Inc.	Delaware
Endgame Systems, LLC	Delaware
Opbeat ApS	Denmark
Opbeat, LLC	Delaware
optimyze.cloud AG	Switzerland
Optimyze.cloud, Inc.	Delaware
Prelert Inc. (in liquidation)	Delaware
Swiftype, Inc.	Delaware

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (No. 333-227782, No. 333-233467, No. 333-234152, No. 333-239492, No. 333-257382 and No. 333-261544) of Elastic N.V. of our report dated June 21, 2022 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
San Jose, California
June 21, 2022

Exhibit 31.1

Certification by the Principal Executive Officer pursuant to
Securities Exchange Act Rules 13a-14(a) and 15d-14(a)
as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Ashutosh Kulkarni, certify that:

1. I have reviewed this Annual Report on Form 10-K of Elastic N.V. (the “registrant”) for the fiscal year ended April 30, 2022;
2. Based on my knowledge, this 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 report;
3. Based on my knowledge, the financial statements, and other financial information included in this 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 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 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 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 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 most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
    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.

Date: June 21, 2022	By:		/s/ Ashutosh Kulkarni
		Name:	Ashutosh Kulkarni
		Title:	Chief Executive Officer and Director
			(Principal Executive Officer)

Certification by the Principal Financial Officer pursuant to
Securities Exchange Act Rules 13a-14(a) and 15d-14(a)
as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Janesh Moorjani, certify that:

1. I have reviewed this Annual Report on Form 10-K of Elastic N.V. (the "registrant") for the fiscal year ended April 30, 2022;
2. Based on my knowledge, this 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 report;
3. Based on my knowledge, the financial statements, and other financial information included in this 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 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 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 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 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 most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
    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.

Date: June 21, 2022	By:		/s/ Janesh Moorjani
		Name:	Janesh Moorjani
		Title:	Chief Financial Officer and Chief Operating Officer
			(Principal Financial and Accounting Officer)

Exhibit 32.1

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

I, Ashutosh Kulkarni, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report on Form 10-K of Elastic N.V. for the fiscal year ended April 30, 2022 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that information contained in such Annual Report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of Elastic N.V.

Date: June 21, 2022	By:		/s/ Ashutosh Kulkarni
		Name:	Ashutosh Kulkarni
		Title:	Chief Executive Officer and Director *(Principal Executive Officer)*

This certification accompanies the Annual Report, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Elastic N.V. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Annual Report on Form 10-K), irrespective of any general incorporation language contained in such filing.

Exhibit 32.2

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

I, Janesh Moorjani, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report on Form 10-K of Elastic N.V. for the fiscal year ended April 30, 2022 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that information contained in such Annual Report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of Elastic N.V.

Date: June 21, 2022	By:		/s/ Janesh Moorjani
		Name:	Janesh Moorjani
		Title:	Chief Financial Officer and Chief Operating Officer *(Principal Financial and Accounting Officer)*

This certification accompanies the Annual Report, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Elastic N.V. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Annual Report on Form 10-K), irrespective of any general incorporation language contained in such filing.