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

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2018

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: 0-22427

HESKA CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	**77-0192527**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)
3760 Rocky Mountain Avenue Loveland, Colorado	**80538**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(970) 493-7272**

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

Public Common Stock, $.01 par value	**The Nasdaq Stock Market LLC**
(Title of Class)	(Name of Each Exchange on Which Registered)

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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

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

Large accelerated filer ☐	Accelerated filer ☒
Non-accelerated filer ☐	Smaller Reporting Company ☐
	Emerging Growth Company ☐

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

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

The aggregate market value of voting common stock held by non-affiliates of the Registrant was approximately $699,198,491 as of June 30, 2018 based upon the closing price on the Nasdaq Capital Market reported for such date. This calculation does not reflect a determination that certain persons are affiliates of the Registrant for any other purpose.

7,742,105 shares of the Registrant's Public Common Stock, $.01 par value, were outstanding at March 6, 2019.

DOCUMENTS INCORPORATED BY REFERENCE

Items 10, 11, 12, 13 and 14 of Part III incorporate by reference information from the Registrant's definitive proxy statement to be filed with the Securities and Exchange Commission in connection with the solicitation of proxies for the Registrant's 2019 Annual Meeting of Stockholders.

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Statement Regarding Forward Looking Statements

This 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"). For this purpose, any statements contained herein that are not statements of current or historical fact may be deemed to be forward-looking statements. Without limiting the foregoing, words such as "anticipates," "expects," "intends," "plans," "believes," "seeks," "estimates," variations of such words and similar expressions are intended to identify such forward-looking statements. These statements are not guarantees of future performance and are subject to certain risks, uncertainties and assumptions that are difficult to predict. Therefore, actual results could differ materially from those expressed or forecasted in any such forward-looking statements as a result of certain factors, including those set forth in "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Business" and elsewhere in this Form 10-K. Readers are cautioned not to place undue reliance on these forward-looking statements.

Although we believe that expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. We expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect the passage of time, any change in our expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based, except as otherwise required by applicable securities laws. These forward-looking statements apply only as of the date of this Form 10-K or for statements incorporated by reference from our 2019 proxy statement on Schedule 14A, as of the date of the Schedule 14A.

PART I

Item 1. Business

Unless we state otherwise or the context otherwise requires, the terms "Heska," "we," "our," "us" and the "Company" refer to Heska Corporation and its consolidated subsidiaries.

Overview

We sell veterinary and animal health diagnostic and specialty products. Our offerings include Point of Care diagnostic laboratory instruments and consumables; digital diagnostic imaging instruments, software and services; vaccines; local and cloud-based data services; allergy testing and immunotherapy; and single-use offerings such as in-clinic diagnostic tests and heartworm preventive products. Our core focus is on supporting veterinarians in the canine and feline healthcare space.

On February 24, 2013, the Company acquired a 54.6% interest in Cuattro Veterinary USA, LLC (the "Acquisition"), which was subsequently renamed Heska Imaging US, LLC ("U.S. Imaging") and marked our entry into the veterinary imaging market in the United States ("U.S."). The remaining minority position (45.4%) in U.S. Imaging was subject to purchase by Heska under performance-based puts and calls following the audit of our financial statements for 2016 and 2017. With the required performance criteria met in fiscal year 2016, we considered notice given on March 3, 2017 that the put option was being exercised and on May 31, 2017, we delivered $13.8 million in cash to obtain the remaining minority position in U.S. Imaging.

On May 31, 2016, the Company closed a transaction (the "Merger") to acquire Cuattro Veterinary, LLC ("Cuattro International"), which was subsequently renamed Heska Imaging International, LLC ("International Imaging") and marked our entry into the international veterinary imaging market. Financial information broken out by geographic region is incorporated by reference to Note 16 to the financial statements included

under Item 8 of this annual report on Form 10-K. As of the closing date of the Merger, the Company's interest in both International Imaging and U.S. Imaging was transferred to the Company's wholly-owned subsidiary, Heska Imaging Global, LLC ("Global Imaging").

On June 1, 2017, the Company consolidated its assets and liabilities in the U.S. Imaging and International Imaging companies into Global Imaging, which was re-named Heska Imaging, LLC ("Heska Imaging").

On June 13, 2017, the Company incorporated Heska Canada Limited in the province of British Columbia, in order to expand our footprint into more of the North American veterinary market.

On July 26, 2018, the Company incorporated Heska Australia Pty Ltd in the state of Victoria, in order to expand our footprint into the Australian veterinary market.

On February 26, 2019, the Company acquired Optomed. Optomed designs, develops, manufactures and distributes veterinary imaging solutions, with a primary focus and expertise in endoscopy technologies. Optomed also has a direct sales presence in France.

We were founded as Paravax, Inc. and incorporated in California in 1988. We changed our name to Heska Corporation in 1995, reincorporated in Delaware and completed our initial public offering in 1997.

Our principal executive offices are located at 3760 Rocky Mountain Avenue, Loveland, Colorado 80538. Our telephone number is (970) 493-7272 and our Internet address is www.heska.com.

Products and Services

Our business is composed of two reportable segments, Core Companion Animal ("CCA") and Other Vaccines and Pharmaceuticals ("OVP"). The CCA segment includes, primarily for canine and feline use, Point of Care laboratory instruments and consumables; digital imaging diagnostic instruments, software and services; local and cloud-based data services; allergy testing and immunotherapy; and single use offerings such as in-clinic diagnostic tests and heartworm preventive products. The CCA segment represents approximately 85% of our revenue. The OVP segment includes private label vaccine and pharmaceutical production, primarily for cattle but also for other species including equine, porcine, avian, feline and canine. OVP products are sold by third parties under third party labels. OVP represents approximately 15% of our revenue.

Core Companion Animal Segment

We presently sell a variety of companion animal health products and services, among the most significant of which are the following:

Point of Care Laboratory and Imaging Diagnostics

We offer a line of veterinary Point of Care (stationary and portable) laboratory diagnostic instruments for testing blood and other biological materials, for use in diagnostic imaging and for other uses, some of which are described below. We also market and sell consumable supplies and services for these instruments. Our line of veterinary instruments includes the following:

Blood Chemistry. Element DC® Veterinary Chemistry Analyzer (the "Element DC") is an easy-to-use, robust system that uses dry slide technology for blood chemistry and electrolyte analysis and has the ability to run 22 tests at a time with a single blood sample. Test slides are available as both pre-packaged panels as well as individual slides. The DRI-CHEM® 7000 Veterinary Chemistry Analyzer (the "DRI-CHEM 7000") is a complementary chemistry offering, co-branded with FUJIFILM Corporation ("FUJIFILM"), with higher

throughput, multiple patient staging and a "STAT" feature which provides emergency sample flexibility in critical cases. The Element DC5x® Veterinary Chemistry Analyzer (the "Element DC5x"), launched during 2018, delivers the highest throughput of the solutions, simultaneously staging five patient samples and was designed to replace the DRI-CHEM 7000. The Element DC, DRI-CHEM 7000 and Element DC5x utilize the same test slides. We are supplied with the Element DC, DRI-CHEM 7000 and Element DC5x, as well as the affiliated test slides and supplies, under a contractual agreement with FUJIFILM.

Hematology. The Element HT5® Hematology Analyzer (the "HT5") is a true 5-part hematology analyzer which measures key parameters such as white blood cell count, red blood cell count, platelet count and hemoglobin levels in animals. The HT5 can generate results in less than a minute with 15 µL of sample. We are supplied with the HT5 and affiliated reagents and supplies under a contractual agreement with Shenzen Mindray Bio-Medical Electronics Co., Ltd. ("Mindray"). The HemaTrue® Veterinary Hematology Analyzer (the "HemaTrue") is an easy-to-use and reliable 3-part hematology blood analyzer that we continue to offer to our customers. We are supplied with the HemaTrue instruments and affiliated reagents and supplies for the HemaTrue under a contractual agreement with Boule Medical AB ("Boule").

Blood Gases and Electrolytes. The Element POC® Blood Gas & Electrolyte Analyzer (the "EPOC") is a handheld, wireless analyzer which delivers rapid blood gas, electrolyte, metabolite and basic blood chemistry testing. The EPOC features test cards with room temperature storage which can offer results with less than 100 µL of sample as well as WiFi and Bluetooth connectivity. The EPOC and affiliated consumables and supplies are supplied to us under a contractual agreement with Siemens Healthcare Diagnostics, Inc., a unit of Siemens Healthineers AG.

Immunodiagnostics. The Element i® Immunodiagnostic Analyzer (the "Element i") utilizes fluorescence immunoassay technology to ensure sensitivity for accurate in-clinic detection of Total T4, TSH, Cortisol and Bile Acids. The Element i is a benchtop technology with a test time of 10 minutes or less per analyte. Along with confidence in results, this measurement principle allows for simplified reagents and testing protocols. Element i units are supplied to us under a contractual agreement with FUJIFILM.

Coagulation. The Element COAG® Veterinary Analyzer (the "Element COAG") is a compact benchtop, cartridge-based system used for coagulation and specialty testing. There are five test cartridges offered: the PT/aPTT Coag Combo, Equine Fibrinogen, Canine Fibrinogen, Canine DEA 1 Blood Typing and Feline A and B Blood Typing. Each of these cartridges perform accurate, automated analysis using less than 100 µL of sample in just minutes. We are supplied with the Element COAG and affiliated cartridges and supplies under a contractual agreement with Zoetis US, LLC, a unit of Zoetis Inc.

IV Pumps. The VET/IV 2.2™ infusion pump is a compact, affordable IV pump that allows veterinarians to easily provide regulated infusion of fluids for their patients.

Digital Radiography. We sell hardware, including digital radiography detectors, acquisition workstation equipment, positioning aides, viewing computers, radiographic generators, anti-scatter grids and other accessories for use in digital radiography imaging diagnostics. With this hardware, we also provide licensed embedded software, support, data hosting, warranty and other services. CloudDR™ solutions combine flat panel digital radiography detectors, acquisition workstations and acquisition software to produce, review, archive and share radiographic image studies, primarily in fixed location companion animal veterinary settings.

We also sell mobile digital radiography products, primarily for equine use, such as the Uno 6™, a full powered, portable digital radiography generator integrated with an embedded touchscreen acquisition and review function, based upon a patented design of Cuattro, LLC ("Cuattro"). In addition to Uno 6™, we sell the Slate HUB™, a mobile digital radiography acquisition console that is capable of operating as a general

full field wireless x-ray imager and as the control and display for DentiSlate™, a large format intraoral dental sensor, and SonoSlate™, a wireless ultrasound.

Ultrasound Systems. Our ultrasound products, including affiliated probes and peripherals, are provided to us by Esaote USA ("Esaote"). We sell several different ultrasound products with varying features and corresponding price points, all under Esaote's trade names or logos.

Diagnostic Data and Support. Cloudbank™ is an automatic, secure, web-based image storage solution designed to interface with the imaging products we sell. ViewCloud™ is a Picture Archival and Communications System (PACS) for Cloudbank™ for web or local viewing, reporting, planning and email sharing of studies on Internet devices, including personal computers, tablet devices and smartphones. SupportCloud™ is a support package including call center voice and remote diagnostics, recovery and other services, such as the provision of warranty-related loaner units, to support customers. Access and operation between our imaging devices, Cloudbank™ and SupportCloud™ is supported by the acquisition software used in the equipment we sell.

With the acquisition of U.S. Imaging, we entered into supply and license agreements with Cuattro to secure exclusive rights to, among other things, proprietary acquisition software, Cloudbank™, ViewCloud™, research and development and other benefits. Cuattro provided us with much of the hardware, software, data hosting and other services for our digital radiography solutions under these exclusive contractual arrangements. Cuattro is 100% owned by our President and Chief Executive Officer, Kevin S. Wilson, his spouse, Shawna M. Wilson ("Mrs. Wilson") and by trusts for the benefit of their children and family. On December 21, 2018, we closed on the purchase of the acquisition software previously provided by Cuattro in the amount of $8.2 million and terminated the supply and license agreement. Related party and acquisition disclosure incorporated by reference to Note 3 to the financial statements included under Item 8 of this annual report on Form 10-K.

Point of Care Heartworm Diagnostic Tests

Heartworm infections of dogs and cats are caused by the parasite *Dirofilaria immitis*. This parasitic worm is transmitted in larval form to dogs and cats through the bite of an infected mosquito. Larvae develop into adult worms that live in the pulmonary arteries and heart of the host, where they can cause serious cardiovascular, pulmonary, liver and kidney disease. Our canine and feline heartworm diagnostic tests use monoclonal antibodies or a recombinant heartworm antigen, respectively, to detect heartworm antigens or antibodies circulating in the blood of an infected animal.

We market and sell heartworm diagnostic tests for both canine and feline species. Solo Step® CH for dogs and Solo Step® FH for cats are available in point-of-care, single use formats that can be used by veterinarians on site. We obtain Solo Step® CH and Solo Step® FH from Quidel Corporation ("Quidel").

Heartworm Preventive Products

We have an agreement with Merck Animal Health, a unit of Merck & Co., Inc., granting Merck Animal Health the exclusive distribution and marketing rights for our canine heartworm prevention product, Tri-Heart® Plus Chewable Tablets, ultimately sold to or through veterinarians in the U.S. and Canada. Tri-Heart Plus Chewable Tablets (ivermectin/pyrantel) are indicated for use as a monthly preventive treatment of canine heartworm infection and for treatment and control of ascarid and hookworm infections. We manufacture Tri-Heart Plus Chewable Tablets at our Des Moines, Iowa production facility.

Allergy Products and Services

Allergy is common in companion animals. Clinical symptoms of allergy are variable, but are often manifested as persistent and serious skin disease in dogs and cats. Clinical management of allergic disease is problematic, as there are a large number of allergens that may give rise to these conditions. Although skin testing is often regarded as the most accurate diagnostic procedure, such tests can be painful, subjective and inconvenient. The effectiveness of the immunotherapy that is prescribed to treat symptoms of allergic disease is inherently limited by inaccuracies in the diagnostic process.

We believe that our ALLERCEPT® Definitive Allergen Panels provide the most accurate determination of which we are aware of the specific allergens to which an animal, such as a dog, cat or horse, is reacting. The panels use a highly specific recombinant version of the natural IgE receptor to test the serum of potentially allergic animals for IgE directed against a panel of known allergens. A typical test panel consists primarily of various pollen, grass, mold, insect and mite allergens. The test results serve as the basis for prescription ALLERCEPT® Therapy Shots and ALLERCEPT® Therapy Drops. We operate veterinary laboratories in Loveland, Colorado and Fribourg, Switzerland which both offer blood testing using our ALLERCEPT® Definitive Allergen Panels.

We sell kits to conduct blood testing using our ALLERCEPT® Definitive Allergen Panels to third party veterinary diagnostic laboratories outside of the U.S. We also sell products to screen for the presence of allergen-specific IgE to these customers - we sell kits to conduct preliminary blood testing using products based on our ALLERCEPT® Definitive Allergen Panels. Animals testing positive for allergen-specific IgE using these screening tests are candidates for further evaluation using our ALLERCEPT® Definitive Allergen Panels.

Veterinarians who use our ALLERCEPT® Definitive Allergen Panels often purchase our ALLERCEPT® Therapy Shots or ALLERCEPT® Therapy Drops. These prescription immunotherapy treatment sets are formulated specifically for each allergic animal and contain only the allergens to which the animal has significant levels of IgE antibodies. The prescription formulations are administered in a series of subcutaneous injections (Shots) or by daily sublingual (under the tongue) administration (Drops), with doses increasing over several months, to ameliorate the allergic condition of the animal. Immunotherapy is generally continued for an extended time. We offer canine, feline and equine subcutaneous and sublingual immunotherapy treatment products. We believe our ALLERCEPT® Therapy Drops offer a convenient alternative to subcutaneous injection, thereby increasing the likelihood of pet owner compliance.

Other Vaccines and Pharmaceuticals Segment

We developed a line of bovine vaccines that are licensed by the U.S. Department of Agriculture ("USDA"). Historically, the largest distributor of these vaccines was Agri Laboratories, Ltd. ("AgriLabs"), who sold these vaccines primarily under the Titanium® and MasterGuard® brands. In November 2013, AgriLabs assigned the long-term agreement with us related to these vaccines, and the agreement was assumed by, Eli Lilly and Company ("Eli Lilly") acting through Elanco. In January 2015, we signed a long-term Master Supply Agreement related to these vaccines with Eli Lilly acting through Elanco, thereby terminating the AgriLabs agreement previously assumed by Eli Lilly in November 2013.

We manufacture biological and pharmaceutical products for a number of other animal health companies. We manufacture products for animals other than cattle including horses, pigs, chickens, cats and dogs. Our offerings range from providing complete turnkey services which include research, licensing, production, labeling and packaging of products to providing any one of these services as needed by our customers as well as validation support and distribution services.

Marketing, Sales and Customer Support

We currently market our CCA products in the U.S. to veterinarians through an outside field organization, a telephone sales force and independent third party distributors, as well as through trade shows, print advertising and through other distribution relationships, such as Merck Animal Health in the case of our heartworm preventive. As of December 31, 2018, our customer facing sales, installed base support and utilization organization consisted of 97 individuals in various parts of the U.S.

Veterinarians may obtain our products directly from us or indirectly through others. All of our CCA products ultimately are sold primarily to or through veterinarians. The acceptance of our products by veterinarians is critical to our success.

We have a staff dedicated to customer and product support in our CCA segment including veterinarians, technical support specialists and service technicians. Individuals from our product development group may also be used as a resource in responding to certain product inquiries.

Internationally, we market our CCA products to veterinarians primarily through third party veterinary diagnostic laboratories and independent third party distributors.

All OVP products are marketed and sold by third parties under third party labels.

We grant third parties rights to our intellectual property as well as our products, with our compensation often taking the form of royalties and/or milestone payments.

Manufacturing

The majority of our revenue is from proprietary products manufactured by third parties. Third parties manufacture our veterinary instruments, including affiliated consumables and supplies, as well as other products including key components of our heartworm point-of-care diagnostic tests. We manufacture and supply Quidel with certain critical raw materials and perform the final packaging operations for these products.

Our facility in Des Moines, Iowa is a USDA, Food and Drug Administration ("FDA") and Drug Enforcement Agency ("DEA") licensed biological and pharmaceutical manufacturing facility. This facility currently has the capacity to manufacture more than 50 million doses of vaccine each year. We expect that we will, for the foreseeable future, manufacture most, or all of our pharmaceutical and biological products at this facility, as well as most, or all, of our recombinant proteins and other proprietary reagents for our diagnostic tests. We currently manufacture our canine heartworm prevention product, our allergy treatment products and all our OVP segment products at this facility. The OVP segment's customers purchase products in both finished and bulk format, and we perform all phases of manufacturing, including growth of the active bacterial and viral agents, sterile filling, lyophilization and packaging at this facility. We manufacture our various allergy products at our Des Moines facility, our Loveland facility and our Fribourg facility. We believe the raw materials for most of the products we manufacture are readily available from more than one source.

Product Development

We are committed to providing innovative products to address the health needs of companion animals. We may obtain such products from external sources, external collaboration or internal research and development.

We are committed to identifying external product opportunities and creating business and technical collaborations that lead to high value veterinary products. We believe that our active participation in scientific

networks and our reputation for investing in research enhances our ability to acquire external product opportunities. We have collaborated, and intend to continue to do so, with a number of companies and universities. Examples of such collaborations include:

- Quidel for the development of SOLO STEP CH Cassettes and SOLO STEP FH Cassettes;
- Mindray for the development of veterinary applications for the HT5 Veterinary Hematology Analyzer and associated reagents; and
- FUJIFILM for the development of veterinary applications for the Element DC and Element DC5x Veterinary Chemistry Analyzers and associated slides and supplies.

Internal research and development is managed on a case-by-case basis. We employ individuals with expertise in various applicable areas and will form multidisciplinary product-associated teams as appropriate.

Intellectual Property

We believe that patents, trademarks, copyrights and other proprietary rights represent opportunities to grow our business and maintain or enhance our competitive position. We also rely upon trade secrets, know-how, continuing technological innovations and licensing opportunities to develop and maintain our competitive position. The proprietary technologies of our OVP segment are primarily protected through trade secret protection of, for example, our manufacturing processes in this area.

We actively seek patent protection both in the U.S. and abroad. Our issued patent portfolios primarily relate to heartworm control, flea control, allergy, infectious disease vaccines, diagnostic and detection tests, immunomodulators, instrumentation, nutrition, pain control and vaccine delivery technologies. As of December 31, 2018, we owned, co-owned or had rights to 44 issued U.S. patents expiring at various dates from January 2019 to June 2025 and had no pending U.S. patent applications. Our corresponding foreign patent portfolio as of December 31, 2018 included 62 issued patents in various foreign countries expiring at various dates from January 2019 to August 2024 and had no pending applications.

We also have obtained exclusive and non-exclusive licenses for numerous other patents held by academic institutions and for profit companies.

Seasonality

We do not experience meaningful seasonality.

Government Regulation

Although the majority of our revenue is from the sale of unregulated items, many of our products or products that we may develop are, or may be, subject to extensive regulation by governmental authorities in the U.S., including the USDA and the FDA and by similar agencies in other countries. These regulations govern, among other things, the development, testing, manufacturing, labeling, storage, pre-market approval, advertising, promotion, sale and distribution of our products. Satisfaction of these requirements can take several years to achieve and the time needed to satisfy them may vary substantially, based on the type, complexity and novelty of the product. Any product that we develop must receive all relevant regulatory approval or clearances, if required, before it may be marketed in a particular country. The following summarizes the major U.S. government agencies that regulate animal health products:

- *USDA*. Vaccines and certain single use, point-of-care diagnostics are considered veterinary biologics and are therefore regulated by the Center for Veterinary Biologics, or CVB, of the USDA. In contrast to vaccines, single use, point-of-care diagnostics can typically be licensed by the USDA in about two years, at considerably less cost. However, vaccines or diagnostics that use innovative materials, such as those resulting from recombinant DNA technology, usually require additional time to license. The USDA licensing process involves the submission of several data packages. These packages include information on how the product will be manufactured, information on the efficacy and safety of the product in laboratory and target animal studies and information on performance of the product in field conditions.

- *FDA*. Pharmaceutical products, which typically include synthetic compounds, are approved and monitored by the Center for Veterinary Medicine of the FDA. Under the Federal Food, Drug and Cosmetic Act, the same statutory standard for FDA approval applies to both human and animal drugs: demonstrated safety, efficacy and compliance with FDA manufacturing standards. However, unlike human drugs, neither preclinical studies nor a sequential phase system of studies are required. Rather, for animal drugs, studies for safety and efficacy may be conducted immediately in the species for which the drug is intended. Thus, there is no required phased evaluation of drug performance, and the Center for Veterinary Medicine will review data at appropriate times in the drug development process. The time and cost for developing companion animal drugs may be significantly less than for drugs for livestock animals, which generally have enhanced standards designed to ensure safety in the food chain.

- *EPA*. Products that are applied topically to animals or to premises to control external parasites are regulated by the Environmental Protection Agency, or EPA.

After we have received regulatory licensing or approval for our products, numerous regulatory requirements typically apply. Among the conditions for certain regulatory approvals is the requirement that our manufacturing facilities or those of our third party manufacturers conform to current Good Manufacturing Practices or other manufacturing regulations, which include requirements relating to quality control and quality assurance as well as maintenance of records and documentation. The USDA, FDA and foreign regulatory authorities strictly enforce manufacturing regulatory requirements through periodic inspections and/or reports.

A number of our animal health products are not regulated. For example, certain products such as our ALLERCEPT panels are not regulated by either the USDA or FDA. Similarly, none of our veterinary instruments requires regulatory approval to be marketed and sold in the U.S.

We have pursued CE Marking for imaging equipment and regulatory approval outside the U.S. based on market demographics of foreign countries. For marketing outside the U.S., we are subject to foreign regulatory requirements governing regulatory licensing and approval for many of our products. Licensing and approval by comparable regulatory authorities of foreign countries must be obtained before we can market products in those countries. Product licensing approval processes and requirements vary from country to country and the time required for such approvals may differ substantially from that required in the U.S. We cannot be certain that approval of any of our products in one country will result in approvals in any other country.

To date, we or our distributors have sought regulatory approval for certain of our products from the Canadian Center for Veterinary Biologics, or CCVB (Canada); the Japanese Ministry of Agriculture, Forestry and Fisheries, or MAFF (Japan); the Australian Department of Agriculture, Fisheries and Forestry, or ADAFF (Australia); the Republic of South Africa Department of Agriculture, or RSADA (South Africa); the

Agriculture, Fisheries and Conservation Department, or ADCD (Hong Kong); the Macau Animal Health Division of Animal Control and Inspection, or IACM (Macau); and from the relevant regulatory authorities in certain other countries requiring such approval.

CCA products previously discussed which have received regulatory approval in the U.S. and/or elsewhere are summarized below:

Products	Country	Regulated	Agency	Status
ALLERCEPT Allergy Treatment Sets	U.S.	Yes	USDA	Licensed
	Canada	Yes	CCVB	Licensed
SOLO STEP CH	U.S.	Yes	USDA	Licensed
	EU	No-in most countries		
	Canada	Yes	CCVB	Licensed
	Japan	Yes	MAFF	Licensed
	Australia	Yes	ADAFF	Licensed
SOLO STEP CH Batch Test Strips	U.S.	Yes	USDA	Licensed
	Canada	Yes	CCVB	Licensed
SOLO STEP FH	U.S.	Yes	USDA	Licensed
	Canada	Yes	CCVB	Licensed
	Australia	Yes	ADAFF	Licensed
TRI-HEART Plus Heartworm Preventive	U.S.	Yes	FDA	Licensed
	Japan	Yes	MAFF	Licensed
	South Korea	Yes	NVRQS	Licensed
	Hong Kong	Yes	AFCD	Licensed
	Macau	Yes	IACM	Licensed

Customer Concentration

The information concerning our significant customers included in our Risk Factors section of this annual report under the caption "***The loss of significant customers who, for example, are historically large purchasers or who are considered leaders in their field could damage our business and financial results***" is incorporated herein by reference thereto.

Competition

Our market is intensely competitive. Our competitors include independent animal health companies and major pharmaceutical companies that have animal health divisions. We also compete with independent, third party distributors, including distributors who sell products under their own private labels. In the Point of Care diagnostic testing market, our major competitors include IDEXX Laboratories, Inc. ("IDEXX") and Zoetis Inc. ("Zoetis"). The products manufactured by our OVP segment for sale by third parties compete with similar products offered by a number of other companies, some of which have substantially greater financial, technical, research and other resources than us and may have more established marketing, sales, distribution and service organizations than our OVP segment's customers. Companies with a significant presence in the animal health market such as Bayer AG, CEVA Santé Animale, Eli Lilly, Merck, Sanofi, Vétoquinol S.A., Virbac S.A. and Zoetis may be marketing or developing products that compete with our products or would compete with them if successfully developed. These and other competitors and potential competitors may have substantially greater financial, technical, research and other resources and larger, more established marketing, sales, distribution and service organizations than we do. Our competitors may offer broader product lines and have greater name recognition than we do.

Environmental Regulation

In connection with our product development activities and manufacturing of our biological, pharmaceutical, diagnostic and detection products, we are subject to federal, state and local laws, rules, regulations and policies governing the use, generation, manufacture, storage, handling and disposal of certain materials, biological specimens and wastes. Although we believe that we have complied with these laws, regulations and policies in all material respects and have not been required to take any significant action to correct any noncompliance, we may be required to incur significant costs to comply with environmental and health and safety regulations in the future. Although we believe that our safety procedures for handling and disposing of such materials comply with the standards prescribed by state and federal regulations, the risk of accidental contamination or injury from these materials cannot be eliminated. In the event of such an accident, we could be held liable for any damages that result and any such liability could exceed our resources.

Employees

As of December 31, 2018 we and our subsidiaries employed 347 people.

Where You Can Find Additional Information

Our principal executive offices are located at 3760 Rocky Mountain Avenue, Loveland, Colorado 80538. Our telephone number is 970-493-7272 and our Internet address is www.heska.com. References to our website in this Annual Report on Form 10-K are inactive textual references only and the content of our website should not be deemed incorporated by reference for any purpose.

Because we believe it provides useful information in a cost-effective manner to interested investors, we make available free of charge, via a link on our website, our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practical after we electronically file such material with, or furnish it to, the Securities and Exchange Commission (the "SEC").

In addition, you may also review and download a copy of this annual report on Form 10-K, including any exhibits and any schedules filed therewith, and our other periodic and current reports, proxy and information statements, and other information that we file with the SEC, without charge, by visiting the SEC's website (http://www.sec.gov).

Executive Officers of the Registrant

Our executive officers and their ages as of March 7, 2019 are as follows:

Name	Age	Position
Kevin S. Wilson	46	Chief Executive Officer and President
Catherine Grassman	43	Vice President, Chief Accounting Officer and Controller
Jason A. Napolitano	50	Chief Operating Officer and Chief Strategist
Nancy Wisnewski, Ph.D.	56	Executive Vice President, Diagnostic Operations and Product Development
Steven M. Eyl	53	Executive Vice President, Global Sales and Marketing
Steven M. Asakowicz	53	Executive Vice President, Companion Animal Health Sales
Rodney A. Lippincott	45	Executive Vice President, Companion Animal Health Sales
Jason D. Aroesty	44	Executive Vice President, International Diagnostics

Kevin S. Wilson was appointed President and Chief Executive Officer effective March 31, 2014. He previously served as our President and Chief Operating Officer from February 2013. Mr. Wilson became a member of our Board of Directors in May 2014. Mr. Wilson is a founder, member and officer of Cuattro, LLC. Since 2008, he has been involved in developing technologies for radiographic imaging with Cuattro, LLC and as a founder of Cuattro Software, LLC, Cuattro Medical, LLC and Cuattro Veterinary, LLC. Mr. Wilson served on the board of various private, non-profit and educational organizations from 2005 to 2011. He was a founder of Sound Technologies, Inc., a diagnostic imaging company, in 1996. After Sound Technologies, Inc. was sold to VCA Antech, Inc. in 2004, Mr. Wilson served as Chief Strategy Officer for VCA Antech, Inc. until 2006. Mr. Wilson attended Saddleback College.

Catherine Grassman, CPA, was appointed Vice President and Chief Accounting Officer on December 1, 2017. Previously serving as Heska's Corporate Controller, Ms. Grassman has been a central figure in the Company's accounting and finance leadership since January 2017. Prior to joining Heska, Ms. Grassman was Corporate Controller of a mid-sized private-equity backed company. She also spent more than 15 years with PricewaterhouseCoopers, LLP as a senior manager in the audit practice. She is licensed in Colorado as a Certified Public Accountant and possesses a Masters of Accountancy and a Bachelors of Business Administration from Stetson University.

Jason A. Napolitano was appointed Chief Strategist in September 2016 and Chief Operating Officer in October 2015. He previously served as Executive Vice President and Chief Financial Officer from May 2002 to September 2016 and Secretary from February 2009 to March 2019 and from May 2002 to December 2006. Prior to joining us formally, he was a financial consultant. From 1990 to 2001, Mr. Napolitano held various positions at Credit Suisse First Boston, an investment bank, including Vice President in health care investment banking and Director in mergers and acquisitions. He holds a BS degree from Yale University.

Nancy Wisnewski, Ph.D. was appointed Executive Vice President, Diagnostic Operations and Product Development in September 2016. She previously served as Executive Vice President, Product Development and Customer Service from April 2011 to September 2016 and as Vice President, Product Development and Technical Customer Service from December 2006 to April 2011. From January 2006 to November 2006, Dr. Wisnewski was Vice President, Research and Development. Dr. Wisnewski held various positions in Heska's Research and Development organization between 1993 and 2005. She holds a Ph.D. in Parasitology/ Biochemistry from the University of Notre Dame and a BS in Biology from Lafayette College.

Steven M. Eyl was appointed Executive Vice President, Global Sales and Marketing in September 2016. He previously served as our Executive Vice President, Commercial Operations from May 2013 to September 2016. Mr. Eyl was a principal of Eyl Business Services, a consulting firm, from January 2012 to May 2013. He was President of Sound Technologies, Inc. ("Sound") from 2000 to 2011, including after Sound's acquisition by VCA Antech, Inc. in 2004. Mr. Eyl has an extensive background in medical technology sales. He is a graduate of Indiana University.

Steven M. Asakowicz was appointed Executive Vice President, Companion Animal Health Sales in February 2013. From July 2011 to February 2013, he was employed by Cuattro, LLC as Vice President, Sales – U.S. Veterinary and sold exclusively on behalf of Cuattro Veterinary USA, LLC. Mr. Asakowicz previously worked as Sales Director for Sound Technologies, Inc. ("Sound") from November 2002 to June 2011, including after Sound was acquired by VCA Antech, Inc. in 2004. Prior to entering the animal health market, Mr. Asakowicz spent 3.5 years employed by Smith Micro Software, Inc. as a Sales Manager and spent 7.5 years employed by AirTouch Cellular and PacTel Cellular (currently Verizon Wireless) as a Corporate Account Executive. Mr. Asakowicz holds a BA degree from San Diego State University.

Rodney A. Lippincott was appointed Executive Vice President, Companion Animal Health Sales in February 2013. From July 2011 to February 2013, he was employed by Cuattro, LLC as Vice President, Sales – U.S. Veterinary and sold exclusively on behalf of Cuattro Veterinary USA, LLC. Mr. Lippincott held various positions including Sales Director for Sound Technologies, Inc., a unit of VCA Antech, Inc., from September 2007 to June 2011. Prior to entering the animal health market, Mr. Lippincott spent 13.5 years employed by Smith Micro Software, Inc. and held positions including U.S. and International Sales Manager and Director of Marketing. Mr. Lippincott attended Saddleback College and completed the Executive Education Marketing Management Program at Stanford University, Graduate School of Business.

Jason D. Aroesty was appointed Executive Vice President, International Diagnostics in April 2018. Mr. Aroesty worked more than 15 years in the In-Vitro Diagnostics industry, where he played key commercial leadership roles in the healthcare division at Siemens. Mr. Aroesty was based in Europe for more than 10 years, where he led multiple country organizations, eventually assuming regional responsibilities. Prior to joining Heska, he was responsible for Global Sales, Marketing and Communications for the Point of Care business. Mr. Aroesty graduated with a BS degree from Syracuse University and an MBA degree from the University of Rochester's Simon School.

Item 1A. Risk Factors

Our future operating results may vary substantially from period to period due to a number of factors, many of which are beyond our control. The following discussion highlights some of these factors and the possible impact of these factors on future results of operations. The risks and uncertainties described below are not the only ones we face. Additional risks or uncertainties not presently known to us or that we deem to be currently immaterial also may impair our business operations. If any of the following factors actually occur, our business, financial condition or results of operations could be harmed. In that case, the price of our Public Common Stock could decline and investors in our Public Common Stock could experience losses on their investment.

If the third parties who have substantial marketing rights for certain of our historical products, existing products or future products under development are not successful in marketing those products, then our sales and financial position may suffer.

We are party to an agreement with Merck Animal Health, which grants Merck Animal Health exclusive distribution and marketing rights for our canine heartworm preventive product, TRI-HEART Plus Chewable Tablets, ultimately sold to or through veterinarians in the U.S. and Canada. Historically, a significant portion

of our OVP segment's revenue has been generated from the sale of certain bovine vaccines, which have been sold primarily under the Titanium® and MasterGuard® brands. We have a supply agreement with Eli Lilly and its affiliates operating through Elanco for the production of these vaccines. Either of these marketing partners may not devote sufficient resources to marketing our products and our sales and financial position could suffer significantly as a result. Revenue from Merck & Co., Inc. ("Merck") entities, including Merck Animal Health, represented 12% of our 2018 revenue. Revenue from Eli Lilly entities, including Elanco, represented 9% of our 2018 revenue. If Merck Animal Health personnel fail to market, sell and support our heartworm preventive sufficiently or if Elanco personnel fail to market, sell and support the bovine vaccines we produce and sell to Elanco sufficiently, our sales could decline significantly. Furthermore, there may be nothing to prevent these partners from pursuing alternative technologies, products or supply arrangements, including as part of mergers, acquisitions or divestitures. For example, we believe a unit of Merck has obtained FDA approval for a canine heartworm preventive product with additional claims compared with our TRI-HEART Plus Chewable Tablets, but which we believe is not currently being marketed actively. Should Merck decide to emphasize sales and marketing efforts of this product rather than our TRI-HEART Plus Chewable Tablets or cancel our agreement regarding canine heartworm preventive distribution and marketing, our sales could decline significantly. In another example, if Elanco were to emphasize sales and marketing efforts for bovine vaccines other than those we produce or cancel our supply agreement and produce the vaccines we supply to it by itself, our sales could decline significantly. Third party marketing assistance may not be available in the future on reasonable terms, if at all. If the third parties with marketing rights for our products were to merge or go out of business, the sale and promotion of our products could be diminished.

Our Chief Executive Officer has acknowledged outside business interests which may occupy a portion of his time.

On November 26, 2018, Heska Imaging, LLC, entered into a Purchase Agreement for Certain Assets with Cuattro, LLC, pursuant to which Heska Imaging, LLC purchased certain software and related assets and terminated its existing Amended and Restated Master License Agreement and Supply Agreement with Cuattro, LLC. Heska Imaging, LLC is required to make a good faith effort to transition to a new cloud provider in a timely way however Cuattro, LLC is required to provide services until that transition happens. As discussed below, Mr. Wilson has an interest in these agreements and any time and resources devoted to monitoring and overseeing this relationship may prevent us from deploying such time and resources on more productive matters.

Mr. Wilson's employment agreements with us acknowledges that Mr. Wilson has business interests in Cuattro, LLC, Cuattro Software, LLC and Cuattro Medical, LLC which may require a portion of his time, resources and attention in his working hours. If Mr. Wilson is distracted by these or other business interests, he may not contribute as much as he otherwise would have to enhancing our business, to the detriment of our shareholder value. Mr. Wilson is the spouse of Shawna M. Wilson ("Mrs. Wilson"). Mr. Wilson, Mrs. Wilson and trusts for their children and family own a majority interest in Cuattro Medical, LLC. In addition, including equity held by Mrs. Wilson and by trusts for the benefit of Mr. and Mrs. Wilson's children and family, Mr. Wilson also owns a 100% interest in Cuattro, LLC. Cuattro, LLC owns a 100% interest in Cuattro Software, LLC.

Cuattro, LLC charged Heska Imaging $4.6 million, $17.7 million, and $14.5 million during 2018, 2017, and 2016, respectively, primarily related to digital imaging products, for which there was an underlying supply contract with minimum purchase obligations, software and services as well as other operating expenses. Heska Corporation charged Cuattro, LLC $3 thousand, $0.1 million, and $0.2 million in the years ended December 31, 2018, 2017, and 2016, respectively, primarily related to facility usage and other services.

We rely substantially on third party suppliers. The loss of products or delays in product availability from one or more third party suppliers could substantially harm our business.

To be successful, we must contract for the supply of, or manufacture ourselves, current and future products of appropriate quantity, quality and cost. Such products must be available on a timely basis and be in compliance with any regulatory requirements. Similarly, we must provide ourselves, or contract for the supply of, certain services. Such services must be provided in a timely and appropriate manner. Failure to do any of the above could substantially harm our business.

We rely on third party suppliers to manufacture those products we do not manufacture ourselves and to provide services we do not provide ourselves. Proprietary products provided by these suppliers represent a majority of our revenue. We currently rely on these suppliers for our Point of Care laboratory instruments and consumable supplies for these instruments, for our imaging products and related software and services, for key components of our point-of-care diagnostic tests as well as for the manufacture of other products.

The loss of access to products from one or more suppliers could have a significant, negative impact on our business. Major suppliers who sell us proprietary products are FUJIFILM and Shenzen Mindray Bio-Medical Electronics Co., Ltd. We often purchase products from our suppliers under agreements that are of limited duration or potentially can be terminated on an annual basis. In the case of our Point of Care laboratory instruments and our digital radiography solutions, post-termination, we are typically entitled to non-exclusive access to consumable supplies, or ongoing non-exclusive access to products and services to meet the needs of an existing customer base, respectively, for a defined period upon expiration of exclusive rights, which could subject us to competitive pressures in the period of non-exclusive access. Although we believe we will be able to maintain a supply of our major product and service offerings in the near future, there can be no assurance that our suppliers will meet their obligations under any agreements we may have in place with them or that we will be able to compel them to do so. Risks of relying on suppliers include:

- *Inability to meet minimum obligations.* Current agreements, or agreements we may negotiate in the future, may commit us to certain minimum purchase or other spending obligations. It is possible we will not be able to create the market demand to meet such obligations, which could create a drain on our financial resources and liquidity. Some such agreements may require minimum purchases and/or sales to maintain product rights and we may be significantly harmed if we are unable to meet such requirements and lose product rights.
- *Loss of exclusivity.* In the case of our Point of Care laboratory instruments, if we are entitled to non-exclusive access to consumable supplies for a defined period upon expiration of exclusive rights, we may face increased competition from a third party with similar non-exclusive access or our former supplier, which could cause us to lose customers and/or significantly decrease our margins and could significantly affect our financial results. In addition, current agreements, or agreements we may negotiate in the future, with suppliers may require us to meet minimum annual sales levels to maintain our position as the exclusive distributor of these products. We may not meet these minimum sales levels and maintain exclusivity over the distribution and sale of these products. If we are not the exclusive distributor of these products, competition may increase significantly, reducing our revenues and/or decreasing our margins.
- *Changes in economics.* An underlying change in the economics with a supplier, such as a large price increase or new requirement of large minimum purchase amounts, could have a significant, adverse effect on our business, particularly if we are unable to identify and implement an alternative source of supply in a timely manner.

- *The loss of product rights upon expiration or termination of an existing agreement.* Unless we are able to find an alternate supply of a similar product, we would not be able to continue to offer our customers the same breadth of products and our sales and operating results would likely suffer. In the case of an instrument supplier, we could also potentially suffer the loss of sales of consumable supplies, which would be significant in cases where we have built a significant installed base, further harming our sales prospects and opportunities. Even if we were able to find an alternate supply for a product to which we lost rights, we would likely face increased competition from the product whose rights we lost being marketed by a third party or the former supplier and it may take us additional time and expense to gain the necessary approvals and launch an alternative product.
- *High switching costs.* In our Point of Care laboratory instrument products, we could face significant competition and lose all or some of the consumable revenues from the installed base of those instruments if we were to switch to a competitive instrument. If we need to change to other commercial manufacturing contractors for certain of our regulated products, additional regulatory licenses or approvals generally must be obtained for these contractors prior to our use. This would require new testing and compliance inspections prior to sale, thus resulting in potential delays. Any new manufacturer would have to be educated in, or develop, substantially equivalent processes necessary for the production of our products. We likely would have to train our sales force, distribution network employees and customer support organization on the new product and spend significant funds marketing the new product to our customer base.
- *The involuntary or voluntary discontinuation of a product line.* Unless we are able to find an alternate supply of a similar product in this or similar circumstances with any product, we would not be able to continue to offer our customers the same breadth of products and our sales would likely suffer. Even if we are able to identify an alternate supply, it may take us additional time and expense to gain the necessary approvals and launch an alternative product, especially if the product is discontinued unexpectedly.
- *Inconsistent or inadequate quality control.* We may not be able to control or adequately monitor the quality of products we receive from our suppliers. Poor quality items could damage our reputation with our customers.
- *Limited capacity or ability to scale capacity.* If market demand for our products increases suddenly, our current suppliers might not be able to fulfill our commercial needs, which would require us to seek new manufacturing arrangements and may result in substantial delays in meeting market demand. If we consistently generate more demand for a product than a given supplier is capable of handling, it could lead to large backorders and potentially lost sales to competitive products that are readily available. This could require us to seek or fund new sources of supply, which may be difficult to find or may require terms that are less advantageous if available at all.
- *Regulatory risk.* Our manufacturing facility and those of some of our third party suppliers are subject to ongoing periodic unannounced inspection by regulatory authorities, including the FDA, USDA and other federal, state and foreign agencies for compliance with strictly enforced Good Manufacturing Practices, regulations and similar foreign standards. We do not have control over our suppliers' compliance with these regulations and standards. Regulatory violations could potentially lead to interruptions in supply that could cause us to lose sales to readily available competitive products. If one of our suppliers is unable to provide a raw material or finished product due to regulatory issues, it could have a material adverse financial impact on our business and could expose us to legal action if we are unable to perform on contracts to our customers involving related products.

- *Developmental delays.* We may experience delays in the scale-up quantities needed for product development that could delay regulatory submissions and commercialization of our products in development, causing us to miss key opportunities.
- *Limited geographic rights.* We typically do not have global geographic rights to products supplied by third parties. If we were to determine a market opportunity in a geography where we did not have distribution rights and were unable to obtain such rights from the supplier, it might hamper our ability to succeed in such geography and our sales and profits would be lower than they otherwise would have been.
- *Limited intellectual property rights.* We typically do not have intellectual property rights, or may have to share intellectual property rights, to the products supplied by third parties and any improvements to the manufacturing processes or new manufacturing processes for these products.
- *Changes to U.S. tariff and import/export regulations.* Changes to U.S. trade policies, treaties and tariffs could have a material adverse effect on global trade. These changes could result in increased costs of goods imported into the U.S. for the Company and our third party suppliers. Our third party suppliers may limit their trade with companies in the U.S., including us.

Potential problems with suppliers such as those discussed above could substantially decrease sales, lead to higher costs and/or damage our reputation with our customers due to factors such as poor quality goods or delays in order fulfillment, resulting in our being unable to sell our products effectively and substantially harming our business.

We depend on key personnel for our future success. If we lose our key personnel or are unable to attract and retain additional personnel, we may be unable to achieve our goals.

Our future success is substantially dependent on the efforts of our senior management and other key personnel, including our Chief Executive Officer and President, Kevin Wilson. The loss of the services of members of our senior management or other key personnel may significantly delay or prevent the achievement of our business objectives. Although we have employment agreements with many of these individuals, all are at-will employees, which means that either the employee or Heska may terminate employment at any time without prior notice. If we lose the services of, or fail to recruit, key personnel, the growth of our business could be substantially impaired. We do not maintain key person life insurance for any of our senior management or key personnel.

The loss of significant customers who, for example, are historically large purchasers or who are considered leaders in their field could damage our business and financial results.

In our CCA Segment, revenue from Butler Animal Health Supply, LLC d/b/a Henry Schein Animal Health ("Henry Schein") represented approximately 15%, 13% and 13% of our consolidated revenue for the years ended December 31, 2018, 2017 and 2016, respectively. Revenue from Merck entities, including Merck Animal Health, represented approximately 12%, 12% and 11% of our consolidated revenue for the years ended December 31, 2018, 2017 and 2016, respectively. Revenue from De Lage Landen Financial Services, Inc. ("DLL"), represented approximately 6%, 7% and 11% of our consolidated revenue for the years ended December 31, 2018, 2017 and 2016, respectively. DLL is a third party financing company that provides financing and leasing for, primarily, our imaging product customers. In our OVP segment, revenue from Eli Lilly entities, including Elanco, represented approximately 9%, 11% and 12% of our consolidated revenue for the years ended December 31, 2018, 2017 and 2016, respectively. No other customer accounted for more than 10% of our consolidated revenue for the years ended December 31, 2018, 2017 or 2016.

Henry Schein represented 12% and 17% of our consolidated accounts receivable at December 31, 2018 and 2017, respectively. Merck entities represented approximately 10% and 15% of our consolidated accounts receivable at December 31, 2018 and 2017, respectively. DLL represented 8% and 11% of our consolidated accounts receivable at December 31, 2018 and 2017, respectively. Eli Lilly entities, including Elanco, represented approximately 32% and 4% of our consolidated accounts receivable at December 31, 2018 and 2017, respectively. No other customer accounted for more than 10% of our consolidated accounts receivable at December 31, 2018 or 2017.

We operate in a highly competitive industry, which could render our products obsolete or substantially limit the volume of products that we sell. This would limit our ability to compete and maintain sustained profitability.

The market in which we compete is intensely competitive. Our competitors include independent animal health companies and major pharmaceutical companies that have animal health divisions. We also compete with independent, third party distributors, including distributors who sell products under their own private labels. In the point-of-care diagnostic testing market, our major competitors include IDEXX and Zoetis. The products manufactured by our OVP segment for sale by third parties compete with similar products offered by a number of other companies, some of which have substantially greater financial, technical, research and other resources than us and may have more established marketing, sales, distribution and service organizations than those of our OVP segment customers. Competitors may have facilities with similar capabilities to our OVP segment, which they may operate and sell at a lower unit price to customers than our OVP segment does, which could cause us to lose customers. Companies with a significant presence in the companion animal health market, such as Bayer AG, CEVA Santé Animale, Eli Lilly, Merck, Sanofi, Vétoquinol S.A. and Virbac S.A. may be marketing or developing products that compete with our products or would compete with them if developed. These and other competitors and potential competitors may have substantially greater financial, technical, research and other resources and larger, more established marketing, sales and service organizations than we do. For example, if Zoetis devotes its significant commercial and financial resources to growing its market share in the veterinary allergy market, our allergy-related sales could suffer significantly. Our competitors may offer broader product lines and have greater name recognition than we do. Our competitors may also develop or market technologies or products that are more effective or commercially attractive than our current or future products or that would render our technologies and products obsolete. Further, additional competition could come from new entrants to the animal health care market. Moreover, we may not have the financial resources, technical expertise, marketing, sales or support capabilities to compete successfully. Zoetis has recently launched allergy products which may diminish the competitiveness and sales prospects for our own allergy immunotherapy products. IDEXX has recently launched an SDMA test in its Point of Care laboratory chemistry line, which may cause veterinary customers to prefer IDEXX products to ours.

If we fail to compete successfully, our ability to achieve sustained profitability will be limited and sustained profitability, or profitability at all, may not be possible.

We benefit from relationships or collaboration with third parties, including but not limited to, companies, buying groups, veterinary hospital groups and reference laboratory entities that operate in our markets. Beneficial third party, semi-competitive, directly competitive and cooperative relationships that affect how we go to market, develop products, generate leads and other commercial efforts of Heska may be negatively affected as a result of consolidation, acquisition, merger, exclusive arrangement, or other agreements or activities between and amongst those third parties and others.

We often depend on third parties for products we intend to introduce in the future. If our current relationships and collaborations are not successful, we may not be able to introduce the products we intend to introduce in the future.

We are often dependent on third parties and collaborative partners to successfully and timely perform research and development activities to successfully develop new products. We routinely discuss Heska marketing in the veterinary market instruments being developed by third parties for use in the human health care market. In the future, one or more of these third parties or collaborative partners may not complete research and development activities in a timely fashion, or at all. Even if these third parties are successful in their research and development activities, we may not be able to come to an economic agreement with them. If these third parties or collaborative partners fail to complete research and development activities or fail to complete them in a timely fashion, or if we are unable to negotiate economic agreements with such third parties or collaborative partners, our ability to introduce new products will be impacted negatively and our revenues may decline.

We may be unable to market and sell our products successfully.

We may not develop and maintain marketing and/or sales capabilities successfully, and we may not be able to make arrangements with third parties to perform these activities on satisfactory terms. If our marketing and sales strategy is unsuccessful, our ability to sell our products will be negatively impacted and our revenues will decrease. This could result in the loss of distribution rights for products or failure to gain access to new products and could cause damage to our reputation and adversely affect our business and future prospects.

The market for companion animal healthcare products is highly fragmented. Because our CCA proprietary products are generally available only to veterinarians or by prescription and our medical instruments require technical training to operate, we ultimately sell all our CCA products primarily to or through veterinarians. The acceptance of our products by veterinarians is critical to our success. Changes in our ability to obtain or maintain such acceptance or changes in veterinary medical practice could significantly decrease our anticipated sales. As the vast majority of cash flow to veterinarians ultimately is funded by pet owners without private insurance or government support, our business may be more susceptible to severe economic downturns than other health care businesses which rely less on individual consumers.

For our Point of Care laboratory blood diagnostics products, we primarily rely on contracts with our veterinary customers for their use of our owned equipment and our consumable supplies over a multiple year period. If veterinarians under these contracts experience a significant downturn in their business, they may not fulfill their use and financial obligations under these contracts. If veterinarians breach our contracts, and we are unable to collect on default payment provisions or otherwise enforce the terms of our contracts, our business will be adversely affected. If we have to litigate against customer(s) to enforce our contracts, our expenses may increase, our sales may decrease to those customers, and our reputation may suffer. If significant numbers of our customers under contracts for use of our equipment and consumable supplies do not renew their contracts, our business will be adversely affected.

We have entered into agreements with independent third party distributors, including Henry Schein, which we anticipated to market and sell our products to a greater degree than in the recent past. Independent third party distributors may be effective in increasing sales of our products to veterinarians, although we would expect a corresponding lower gross margin as such distributors typically buy products from us at a discount to end user prices. It is possible new or existing independent third party distributors could cannibalize our direct sales efforts and lower our total gross margin. For us to be effective when working with an independent third party distributor, the distributor must agree to market and/or sell our products and we must provide proper economic incentives to the distributor as well as contend effectively for the time, energy and focus of the employees of such distributor given other products the distributor may be carrying, potentially including those of our competitors. If we fail to be effective with new or existing independent third party distributors, our financial performance may suffer.

A core component of our future growth strategy is international expansion. As we continue to expand our international footprint, we will be increasingly susceptible to the risks associated with international operations including, but not limited to, the following:

- Uncertain political and economic climates, fluctuations in exchange rates that may increase the volatility of foreign-based revenue and expenses.
- Burdens of complying with and unexpected changes in foreign laws, accounting and legal standards, regulatory requirements, taxes, tariffs and other barriers or trade restrictions.
- Lack of experience in connection with the customs, cultures, languages and sales cycle.
- Reduced or altered protection for intellectual property rights in foreign countries.
- Data privacy laws which require that data storage and processing be subject to laws different than the U.S.

As a result of these and other factors, international expansion may be more difficult and not generate the results we anticipate, which could negatively impact our business.

Our stock price has historically experienced high volatility, and could do so in the future, including experiencing a material price decline resulting from a large sale in a short period of time.

Should a relatively large shareholder decide to sell a large number of shares in a short period of time, it could lead to an excess supply of our shares available for sale and correspondingly result in a significant decline in our stock price.

The securities markets have experienced significant price and volume fluctuations and the market prices of securities of many small cap companies have in the past been, and can in the future be expected to be, especially volatile. During the twelve months ended December 31, 2018, the closing stock price of our Public Common Stock has ranged from a low of $58.36 to a high of $113.31. Fluctuations in the trading price or liquidity of our Public Common Stock may adversely affect our ability to raise capital through future equity financings. Factors that may have a significant impact on the market price and marketability of our Public Common Stock include:

- stock sales by large stockholders or by insiders;
- changes in the outlook for our business;
- our quarterly operating results, including as compared to expected revenue or earnings and in comparison to historical results;
- termination, cancellation or expiration of our third party supplier relationships;
- announcements of technological innovations or new products by our competitors or by us;
- litigation;

- regulatory developments, including delays in product introductions;
- developments or disputes concerning patents or proprietary rights;
- availability of our revolving line of credit and compliance with debt covenants;
- releases of reports by securities analysts;
- economic and other external factors; and
- general market conditions.

In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been instituted. If a securities class action suit is filed against us, it is likely we would incur substantial legal fees and our management's attention and resources would be diverted from operating our business in order to respond to the litigation.

On May 4, 2010, our shareholders approved an amendment (the "Amendment") to our Restated Certificate of Incorporation. The Amendment places restrictions on the transfer of our stock that could adversely affect our ability to use our domestic Federal Net Operating Loss carryforward ("NOL"). In particular, the Amendment prevents the transfer of shares without the approval of our Board of Directors if, as a consequence, an individual, entity or groups of individuals or entities would become a 5-percent holder under Section 382 of the Internal Revenue Code of 1986, as amended, and the related Treasury regulations, and also prevents any existing 5-percent holder from increasing his or her ownership position in the Company without the approval of our Board of Directors. Any transfer of shares in violation of the Amendment (a "Transfer Violation") shall be void *ab initio* under our Restated Certificate of Incorporation, as amended (our "Certificate of Incorporation") and our Board of Directors has procedures under our Certificate of Incorporation to remedy a Transfer Violation including requiring the shares causing such Transfer Violation to be sold and any profit resulting from such sale to be transferred to a charitable entity chosen by the Company's Board of Directors in specified circumstances. The Amendment could have an adverse impact on the value and trading liquidity of our stock if certain buyers who would otherwise have bid on or purchased our stock, including buyers who may not be comfortable owning stock with transfer restrictions, do not bid on or purchase our stock as a result of the Amendment. In addition, because some corporate takeovers occur through the acquirer's purchase, in the public market or otherwise, of sufficient shares to give it control of a company, any provision that restricts the transfer of shares can have the effect of preventing a takeover. The Amendment could discourage or otherwise prevent accumulations of substantial blocks of shares in which our stockholders might receive a substantial premium above market value and might tend to insulate management and the Board of Directors against the possibility of removal to a greater degree than had the Amendment not passed.

In February 2018, our Board of Directors granted a waiver to a non-affiliated stockholder to allow the purchase, subject to certain limitations, of up to 730,000 shares of our common stock without causing a Transfer Violation. This waiver can be withdrawn by our Board of Directors at any time, in which case the non-affiliated stockholder is to only sell our stock until the non-affiliated stockholder ceases to be a Five Percent Shareholder (as defined in our Certificate of Incorporation). This waiver, and any similar waivers that our Board of Directors may grant in the future, may make it more likely that we have a "change of ownership" as defined under the provisions of Section 382 of the Internal Revenue Code of 1986, as amended, which could place a significant restriction on our ability to utilize our domestic Federal NOL in the future and materially adversely affect our results of operations.

Our Credit Facility contains restrictions that may limit our flexibility in operating our business.

Our Credit Agreement (the "Credit Agreement") with JPMorgan Chase Bank, N.A. ("Chase") provides for a revolving credit facility of up to $30.0 million (the "Credit Facility"). The Credit Facility contains various financial and non-financial operating covenants that limit our ability to engage in specified types of transactions. The financial covenants require that we maintain a minimum fixed charge coverage ratio and a maximum leverage ratio. The operating covenants limit our ability to, among other things:

- sell, transfer, lease or dispose of our assets;
- create, incur or assume additional indebtedness;
- encumber or permit lines on certain of our assets;
- make restricted payments, including paying dividends on, repurchasing or making distributions with respect to our common stock;
- make specified investments (including loans and advances);
- consolidate, merge, sell or otherwise dispose of substantially all of our assets; and
- enter into certain transactions.

A breach of any of these covenants or a material adverse change to our business could result in a default under the Credit Agreement. Upon the occurrence of an event of default under our Credit Agreement, our lenders could elect to declare all amounts outstanding to be immediately due and payable and terminate all commitments to extend further credit. If we were unable to repay those amounts, the lenders could proceed against the collateral granted to them to secure such indebtedness.

We may face costly legal disputes, including disputes related to our intellectual property or technology or that of our suppliers or collaborators.

We may face disputes related to our business. Even if meritless, these disputes may require significant expenditures on our part and could entail a significant distraction to members of our management team or other key employees. For example, it took us until October 10, 2018, to reach an agreement in principle to settle the complaint that was filed against the Company by Shaun Fauley on March 12, 2015 in the U.S. District Court Northern District of Illinois alleging our transmittal of unauthorized faxes in violation of the federal Telephone Consumer Protection Act of 1991, as amended by the Junk Fax Prevention Act of 2005, as a class action and the settlement, which was approved by the court on February 28, 2019, will require us, among other things, to make available a total of $6.75 million to pay class members, as well as to pay attorneys' fees and expenses to legal counsel to the class. Insurance coverage may not cover any costs required to litigate a legal dispute or an unfavorable ruling or settlement. For example, we do not have insurance coverage for the settlement arrangement regarding the Fauley class action. A legal dispute leading to an unfavorable ruling or settlement, whether or not insurance coverage may be available for any portion thereof, could have material adverse consequences on our business. On the other hand, we may have to use legal means and incur affiliated costs to secure the benefits to which we are entitled under third party agreements, such as to collect payment for amounts due from third parties, which would reduce our income as compared to what it otherwise would have been.

We may become subject to patent infringement claims and litigation in the U.S. or other countries or interference proceedings conducted in the U.S. Patent and Trademark Office, or USPTO, to determine the priority of inventions. The defense and prosecution of intellectual property suits, USPTO interference proceedings and related legal and administrative proceedings are likely to be costly, time-consuming and distracting. As is typical in our industry, from time to time we and our collaborators and suppliers have received, and may in the future receive, notices from third parties claiming infringement and invitations to take licenses under third-party patents. Any legal action against us or our collaborators or suppliers may

require us or our collaborators or suppliers to obtain one or more licenses in order to market or manufacture affected products or services. We or our collaborators or suppliers may not, however, be able to obtain licenses for technology patented by others on commercially reasonable terms, or at all, or to develop alternative approaches to access or replace such technology if we or they are unable to obtain such licenses or if current and future licenses prove inadequate, any of which could substantially harm our business.

We may also need to pursue litigation to enforce any patents issued to us or our collaborative partners, to protect trade secrets or know-how owned by us or our collaborative partners, or to determine the enforceability, scope and validity of the proprietary rights of others. Any litigation or interference proceedings will likely result in substantial expense to us and significant diversion of the efforts of our technical and management personnel. Any adverse determination in litigation or interference proceedings could subject us to significant liabilities to third parties. Further, as a result of litigation or other proceedings, we may be required to seek licenses from third parties which may not be available on commercially reasonable terms, or at all.

Interpretation of existing legislation, regulations and rules, including financial accounting standards, or implementation of future legislation, regulations and rules could cause our costs to increase or could harm us in other ways.

We prepare our financial statements in conformance with U.S. generally accepted accounting principles ("GAAP"). These accounting principles are established by and are subject to interpretation by the SEC, the Financial Accounting Standards Board ("FASB") and others who interpret and create accounting policies. A change in those policies or how those policies are interpreted can have a significant effect on our reported results and may affect our reporting of transactions completed before a change is made effective. Such changes may adversely affect our reported financial results and the way we conduct our business, or have a negative impact on us if we fail to track such changes.

If our regulators and/or auditors adopt or interpret more stringent standards than we anticipate, we could experience unanticipated changes in our reported financial statements, including but not limited to restatements, which could adversely affect our business due to litigation and investor confidence in our financial statements. In addition, changes in the underlying circumstances to which we apply given accounting standards and principles may affect our results of operations and have a negative impact on us. For example, we review goodwill recognized on our Consolidated Balance Sheets at least annually and if we were to conclude there was an impairment of goodwill, we would reduce the corresponding goodwill to its estimated fair value and recognize a corresponding expense in our statement of operations. This impairment and corresponding expense could be as large as the total amount of goodwill recognized on our Consolidated Balance Sheets, which was $26.7 million at December 31, 2018. There can be no assurance that future goodwill impairments will not occur if projected financial results are not met, or otherwise.

The Sarbanes-Oxley Act of 2002 ("Sarbanes-Oxley") has increased our required administrative actions and expenses as a public company since its enactment. The general and administrative costs of complying with Sarbanes-Oxley will depend on how it is interpreted over time. Of particular concern are the level of standards for internal control evaluation and reporting adopted under Section 404 of Sarbanes-Oxley. If our regulators and/or auditors adopt or interpret more stringent standards than we anticipate, we and/or our auditors may be unable to conclude that our internal controls over financial reporting are designed and operating effectively, which could adversely affect investor confidence in our financial statements and cause our stock price to decline. Even if we and our auditors are able to conclude that our internal control over financial reporting is designed and operating effectively in such a circumstance, our general and administrative costs are likely to increase. For example, in both 2018 and 2017, we were required to have our independent registered public accountant conduct an audit of our internal control over financial reporting

because as of June 30 of both years our stock market value was above a certain level prescribed by regulation. This increased our general and administrative costs from what they otherwise would have been.

Similarly, we are required to comply with the SEC's mandate to provide interactive data using the eXtensible Business Reporting Language as an exhibit to certain SEC filings. Compliance with this mandate has required a significant time investment, which has and may in the future preclude some of our employees from spending time on more productive matters. In addition, future legislative, regulatory or rule-making action or more stringent interpretations of existing legislation, regulations and rules may increase our general and administrative costs or have other adverse effects on us.

We intend to pursue acquisitions and other strategic development opportunities, which may not result as desired and could be detrimental to our financial position.

We intend to pursue acquisitions and other strategic development opportunities, including minority investments where strategic. The ultimate business and financial performance of these opportunities may not create, and may end up adversely affecting materially, the value we hope to enhance by pursuing them. Any acquisition may significantly underperform relative to our financial expectations and may serve to diminish rather than enhance shareholder value.

The success of any acquisition will depend on, among other things, our ability to integrate assets and personnel acquired in these transactions and to apply our internal controls process to these acquired businesses. The integration of acquisitions may require significant attention from our management, and the diversion of management's attention and resources could have a material adverse effect on our ability to manage our business. Furthermore, we may not realize the degree or timing of benefits we anticipated when we first entered into the acquisition transaction. If actual integration costs are higher than amounts originally anticipated, if we are unable to integrate the assets and personnel acquired in an acquisition as anticipated, or if we are unable to fully benefit from anticipated synergies, our business, financial condition, results of operations and cash flows could be materially adversely affected. Furthermore, it is possible we will use management time and resources to pursue opportunities we ultimately are unable or decide not to consummate, in which case, we may not be able to utilize such management time and resources on what may have proved to be more productive matters in other areas of our business.

Obtaining and maintaining regulatory approvals in order to market our products may be costly and delay the marketing and sales of our products. Failure to meet all regulatory requirements could cause significant losses from affected inventory and the loss of market share.

Many of the products we develop, market or manufacture may subject us to extensive regulation by one or more of the USDA, the FDA, the EPA and foreign and other regulatory authorities. These regulations govern, among other things, the development, testing, manufacturing, labeling, storage, pre-market approval, advertising, promotion and sale of some of our products. Satisfaction of these requirements can take several years and time needed to satisfy them may vary substantially, based on the type, complexity and novelty of the product. The decision by a regulatory authority to regulate a currently non-regulated product or product area could significantly impact our revenue and have a corresponding adverse impact on our financial performance and position while we attempt to comply with the new regulation, if such compliance is possible at all.

The effect of government regulation may be to delay or to prevent marketing of our products for a considerable period of time and to impose costly procedures upon our activities. We may not be able to estimate the time to obtain required regulatory approvals accurately and such approvals may require significantly more time than we anticipate. We have experienced in the past, and may experience in the future, difficulties that could delay or prevent us from obtaining the regulatory approval or license necessary to

introduce or market our products. Such delays in approval may cause us to forgo a significant portion of a new product's sales in its first year due to seasonality and advanced booking periods associated with certain products. Regulatory approval of our products may also impose limitations on the indicated or intended uses for which our products may be marketed.

Difficulties in making established products to all regulatory specifications may lead to significant losses related to affected inventory as well as market share. Among the conditions for certain regulatory approvals is the requirement that our facilities and/or the facilities of our third party manufacturers conform to current Good Manufacturing Practices and other requirements. If any regulatory authority determines that our manufacturing facilities or those of our third party manufacturers do not conform to appropriate manufacturing requirements, we or the manufacturers of our products may be subject to sanctions, including, but not limited to, warning letters, manufacturing suspensions, product recalls or seizures, injunctions, refusal to permit products to be imported into or exported out of the U.S., refusals of regulatory authorities to grant approval or to allow us to enter into government supply contracts, withdrawals of previously approved marketing applications, civil fines and criminal prosecutions. Furthermore, third parties may perceive procedures required to obtain regulatory approval objectionable and may attempt to disrupt or otherwise damage our business as a result. In addition, certain of our agreements may require us to pay penalties if we are unable to supply products, including for failure to maintain regulatory approvals.

Any of these events, alone or in combination with others, could damage our business.

Our future revenues depend on successful product development, commercialization and/or market acceptance, any of which can be slower than we expect or may not occur.

The product development and regulatory approval process for many of our potential products is extensive and may take substantially longer than we anticipate. Research projects may fail. New products that we may be developing for the veterinary marketplace may not perform consistently within our expectations. Because we have limited resources to devote to product development and commercialization, any delay in the development of one product or reallocation of resources to product development efforts that prove unsuccessful may delay or jeopardize the development of other product candidates. If we fail to successfully develop new products and bring them to market in a timely manner, our ability to generate additional revenue will decrease.

Even if we are successful in the development of a product or obtain rights to a product from a third party supplier, we may experience delays or shortfalls in commercialization and/or market acceptance of the product. For example, veterinarians may be slow to adopt a product, a product may not achieve the anticipated technical performance in field use or there may be delays in producing large volumes of a product. The former is particularly likely where there is no comparable product available or historical precedent for such a product. The ultimate adoption of a new product by veterinarians, the rate of such adoption and the extent veterinarians choose to integrate such a product into their practice are all important factors in the economic success of any new products and are factors that we do not control to a large extent. If our products do not achieve a significant level of market acceptance, demand for our products will not develop as expected and our revenues will be lower than we anticipate.

Many of our expenses are fixed and if factors beyond our control cause our revenue to fluctuate, this fluctuation could cause greater than expected losses, cash flow and liquidity shortfalls.

We believe that our future operating results will fluctuate on a quarterly basis due to a variety of factors which are generally beyond our control, including:

- supply of products, including minimum purchase agreements, from third party suppliers or termination, cancellation or expiration of such relationships;

- competition and pricing pressures from competitive products;
- the introduction of new products or services by our competitors or by us;
- large customers failing to purchase at historical levels;
- fundamental shifts in market demand;
- manufacturing delays;
- shipment problems;
- information technology problems, which may prevent us from conducting our business effectively, or at all, and may also raise our costs;
- regulatory and other delays in product development;
- product recalls or other issues which may raise our costs;
- changes in our reputation and/or market acceptance of our current or new products; and
- changes in the mix of products sold.

We have high operating expenses, including those related to personnel. Many of these expenses are fixed in the short term and may increase over time. If any of the factors listed above cause our revenues to decline, our operating results could be substantially harmed.

Cyberattack related breaches of the Company's information technology systems could have an adverse effect on our business.

Cyberattacks are increasing in their frequency, sophistication and intensity, and have become increasingly difficult to detect and defend against. Cyberattacks, ranging from the use of malware, computer viruses, dedicated denial of services attacks, credential harvesting, social engineering and other means for obtaining unauthorized access to or disrupting our Company's ability to operate normally, could have a disruptive effect on our business. Cyberattacks may cause equipment failures, loss of information, including sensitive personal information of third party vendors, customers or employees, or valuable technical and marketing information, as well as disruptions to our or our vendor or customers' operations. These attacks may be committed by company employees or external actors operating in any geography, including jurisdictions where law enforcement measures to address such attacks are unavailable or ineffective. Cyberattacks may occur alone or in conjunction with physical attacks, especially where disruption of service is an objective of the attacker. While, to date, we have not been subject to cyberattacks which, individually or in the aggregate, have been material to Heska Corporation's operations or financial condition, the preventive actions we take to reduce the risks associated with cyberattacks, including protection of our systems and networks, may be insufficient to repel or mitigate the effects of a major cyberattack in the future.

The Company devotes significant resources to network security, data encryption and other security measures to protect its systems and data, but these security measures cannot provide absolute security. The Company requires user names and passwords to access its information technology systems. The Company also uses encryption and authentication technologies designed to secure the transmission and storage of data and prevent unauthorized access. The Company also conducts periodic internal training and educational communications to raise and maintain employee cybersecurity awareness, and has purchased an insurance policy to offset all or a portion of a covered financial loss that may be associated with an instance of a cybersecurity breach. To the extent the Company was to experience a breach of its systems and was unable to protect sensitive data, such a breach could materially damage business partner and customer relationships, and reduce or otherwise negatively impact access to online services. Moreover, if a computer security breach affects the Company's systems or results in the unauthorized release of Personally Identifiable Information (PII), the Company's reputation and brand could be materially damaged. Use of the Company's products and services could decrease, the Company could suffer from reputational harm impacting sales revenue, and the Company could be faced with unforeseen regulatory investigation, remediation and litigation costs. Our insurance policies may not cover the full extent, or any, of the potential financial harm that could be caused by

a breach of our systems, including in respect of possible damages claims that may be brought against us by our business partners and customers in respect of any such breach.

To date, the Company has not experienced any material impact to the business or operations resulting from information or cybersecurity attacks; however, because of the frequently changing attack techniques, along with the increased volume and sophistication of the attacks, there is the potential for the Company to be adversely impacted. This impact could result in reputational, competitive, operational or other business harm as well as financial costs and regulatory action.

We may not be able to continue to achieve sustained profitability or increase profitability on a quarterly or annual basis.

Prior to 2005, we incurred net losses on an annual basis since our inception in 1988 and, as of December 31, 2018, we had an accumulated deficit of $135.0 million. Relatively small differences in our performance metrics may cause us to generate an operating or net loss in future periods. Our ability to continue to be profitable in future periods will depend, in part, on our ability to increase sales in our CCA segment, including maintaining and growing our installed base of instruments and related consumables, to maintain or increase gross margins and to limit the increase in our operating expenses to a reasonable level as well as avoid or effectively manage any unanticipated issues. We may not be able to generate, sustain or increase profitability on a quarterly or annual basis. If we cannot achieve or sustain profitability for an extended period, we may not be able to fund our expected cash needs, including the repayment of debt as it comes due, or continue our operations.

We have fewer than 300 holders of record, which could allow us to terminate voluntarily the registration of our common stock with the SEC and after which we would no longer be eligible to maintain the listing of our Public Common Stock on the Nasdaq Capital Market. We may also be unable to otherwise maintain our listing on the Nasdaq Capital Market.

We have fewer than 300 holders of record as of our latest information, a fact which could make us eligible to terminate voluntarily the registration of our common stock with the SEC and therefore suspend our reporting obligations with the SEC under the Exchange Act and become a non-reporting company. If we were to cease reporting with the SEC, we would no longer be eligible to maintain the listing of our common stock on the Nasdaq Capital Market, which we would expect to materially adversely affect the liquidity and market price for our common stock. The Nasdaq Capital Market has several additional quantitative and qualitative requirements companies must comply with to maintain this listing. While we believe, we are currently in compliance with all Nasdaq requirements, there can be no assurance we will continue to meet Nasdaq listing requirements, that Nasdaq will interpret these requirements in the same manner we do if we believe we meet the requirements, or that Nasdaq will not change such requirements or add new requirements to include requirements we do not meet in the future.

If we are delisted from the Nasdaq Capital Market, our Public Common Stock may be considered a penny stock under the regulations of the SEC and would therefore be subject to rules that impose additional sales practice requirements on broker-dealers who sell our securities. The additional burdens imposed upon broker-dealers may discourage broker-dealers from effecting transactions in our Public Common Stock, which could severely limit market liquidity of the Public Common Stock and any stockholder's ability to sell our securities in the secondary market. This lack of liquidity would also likely make it more difficult for us to raise capital in the future.

We may face product returns and product liability litigation in excess of, or not covered by, our insurance coverage or indemnities and/or warranties from our suppliers. If we become subject to product liability claims resulting from defects in our products, we may fail to achieve market acceptance of our products and our sales could substantially decline.

The testing, manufacturing and marketing of our current products as well as those currently under development entail an inherent risk of product liability claims and associated adverse publicity. Following the introduction of a product, adverse side effects may be discovered. Adverse publicity regarding such effects could affect sales of our other products for an indeterminate time period. To date, we have not experienced any material product liability claims, but any claim arising in the future could substantially harm our business. Potential product liability claims may exceed the amount of our insurance coverage or may be excluded from coverage under the terms of the policy. We may not be able to continue to obtain adequate insurance at a reasonable cost, if at all. In the event that we are held liable for a claim against which we are not indemnified or for damages exceeding the $10 million limit of our insurance coverage or which results in significant adverse publicity against us, we may lose revenue, be required to make substantial payments which could exceed our financial capacity and/or lose or fail to achieve market acceptance.

We may be held liable for the release of hazardous materials, which could result in extensive remediation costs or otherwise harm our business.

Certain of our products and development programs produced at our Des Moines, Iowa facility involve the controlled use of hazardous and biohazardous materials, including chemicals and infectious disease agents. Although we believe that our safety procedures for handling and disposing of such materials comply with the standards prescribed by applicable local, state and federal regulations, we cannot eliminate the risk of accidental contamination or injury from these materials. In the event of such an accident, we could be held liable for any fines, penalties, remediation costs or other damages that result. Our liability for the release of hazardous materials could exceed our resources, which could lead to a shutdown of our operations, significant remediation costs and potential legal liability. In addition, we may incur substantial costs to comply with environmental regulations if we choose to expand our manufacturing capacity.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our principal administrative and research and development activities are located in Loveland, Colorado. We lease approximately 60,000 square feet at a facility in Loveland, Colorado under an agreement which expires in 2023. Our principal production facility located in Des Moines, Iowa, consists of approximately 160,000 square feet of buildings on 34 acres of land, which we own. We also own a 169-acre farm used principally for testing products, located in Carlisle, Iowa. Our European facility in Fribourg, Switzerland has approximately 6,000 square feet leased under an agreement which expires in 2022.

Item 3. Legal Proceedings

From time to time, the Company may be involved in litigation relating to claims arising out of its operations. The Company records accruals for outstanding legal matters when it believes it is probable that a loss will be incurred, and the amount can be reasonably estimated.

As previously disclosed in the Company's Current Report on Form 8-K filed with the SEC on October 16, 2018, on October 10, 2018, we reached an agreement in principle to settle the complaint that was filed against

the Company by Shaun Fauley on March 12, 2015 in the U.S. District Court Northern District of Illinois alleging our transmittal of unauthorized faxes in violation of the federal Telephone Consumer Protection Act of 1991, as amended by the Junk Fax Prevention Act of 2005, as a class action. The settlement, which was approved by the court on February 28, 2019, will require us, among other things, to make available a total of $6.75 million to pay class members, as well as to pay attorneys' fees and expenses to legal counsel to the class. The Company has recorded an estimated loss provision of approximately $7.0 million in connection with the settlement agreement and expenses associated with the matter, which is included in general and administrative expenses in the Consolidated Statements of Income, and included in accrued liabilities on the Consolidated Balance Sheet. The Company does not have insurance coverage for the settlement arrangement regarding the Fauley class action.

As of December 31, 2018, we were not a party to any other legal proceedings that are expected, individually or in the aggregate, to have a material adverse effect on our business, financial condition or operating results.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Our Public common stock is quoted on the Nasdaq Capital Market under the symbol "HSKA".

As of March 7, 2019, there were approximately 250 holders of record of our Public Common Stock, and approximately 3,900 beneficial stockholders. We do not anticipate any dividend payments in the foreseeable future.

Unregistered Sales of Equity Securities and Use of Proceeds

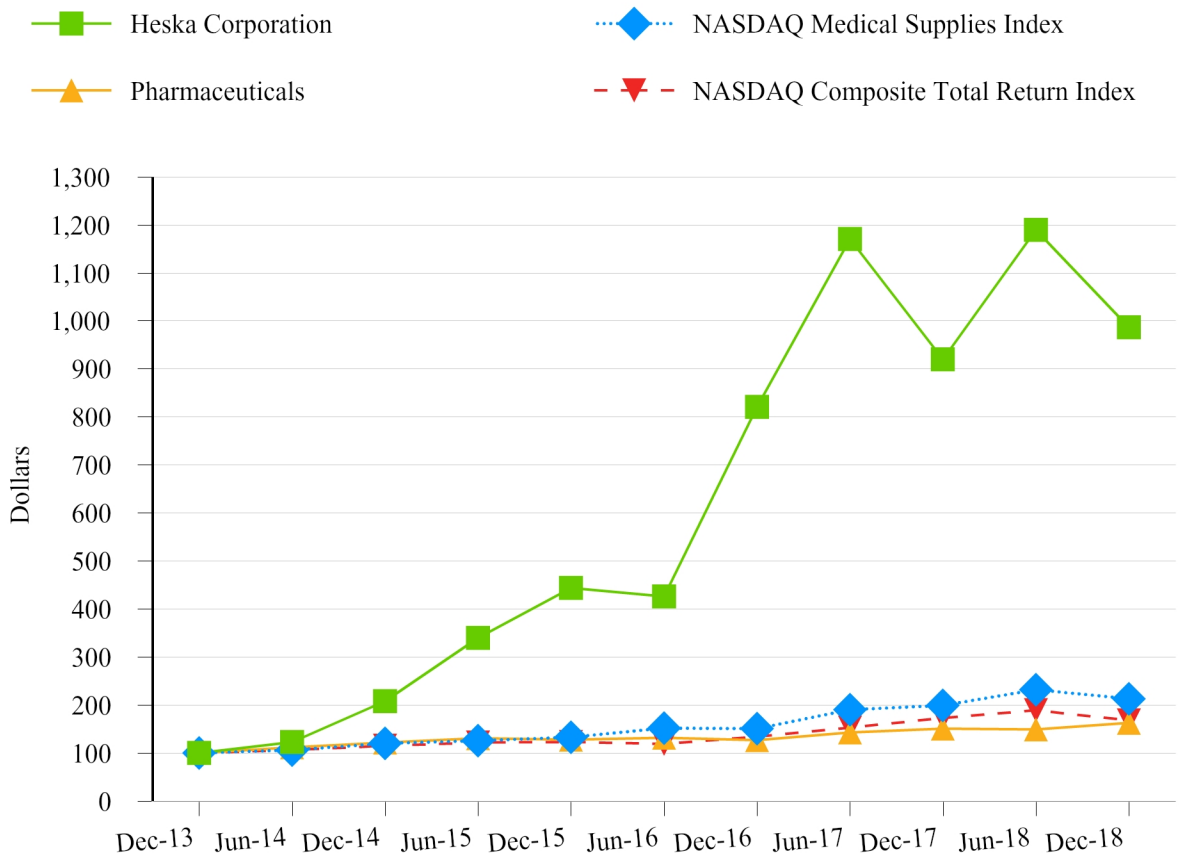
The following table sets forth information about our purchases of our outstanding Public Common Stock during the Fiscal Year Ended December 31, 2018.

Period	Total Number of Shares Purchased (1)	Average Price Paid per Share (1)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plans or Programs
March 17, 2018	14,334	$78.50	—	—
Total	14,334	$78.50	—	—

(1) Shares of Public Common Stock we purchased between January 1, 2018 and December 31, 2018 were solely for the cancellation of shares of restricted stock to pay withholding taxes.

STOCK PRICE PERFORMANCE GRAPH

The following graph provides a comparison over the five-year period ended December 31, 2018 of the cumulative total shareholder return from a $100 investment in the Company's common stock with the NASDAQ Medical Supplies Index and the NASDAQ Composite Total Return:



	Dec-13	Dec-14	Dec-15	Dec-16	Dec-17	Dec-18
Heska Corporation	$ 100	$ 208	$ 444	$ 821	$ 920	$ 987
NASDAQ Medical Supplies Index	$ 100	$ 120	$ 133	$ 151	$ 199	$ 213
NASDAQ Composite Total Return Index	$ 100	$ 115	$ 123	$ 134	$ 173	$ 168

Item 6. Selected Financial Data

The selected consolidated statements of income and consolidated balance sheets data have been derived from our consolidated financial statements. The information set forth below is not necessarily indicative of the results of future operations and should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the Consolidated Financial Statements and related Notes included as Items 7 and 8, respectively, in this Form 10-K.

	2018	2017	2016	2015	2014
	(In thousands, except per share data)				
Consolidated Statements of Income Data:					
Revenue, net	$ 127,446	$ 129,341	$ 130,083	$ 104,597	$ 89,837
Net income attributable to Heska Corporation	$ 5,850	$ 9,953	$ 10,508	$ 5,239	$ 2,603
Earnings per share attributable to Heska Corporation:					
Basic earnings per share attributable to Heska Corporation	$ 0.81	$ 1.42	$ 1.55	$ 0.80	$ 0.44
Diluted earnings per share attributable to Heska Corporation	$ 0.74	$ 1.30	$ 1.43	$ 0.74	$ 0.41
Basic weighted-average common shares outstanding	7,220	7,026	6,783	6,509	5,951
Diluted weighted-average common shares outstanding	7,856	7,642	7,361	7,074	6,409
Consolidated Balance Sheets Data:					
Total assets	$ 156,452	$ 135,444	$ 130,844	$ 109,719	$ 96,844
Long-term obligations and redeemable preferred stock	$ 6,031	$ 6,000	$ —	$ —	$ —
Cash dividends declared per share:	$ —	$ —	$ —	$ —	$ —

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 "Selected Financial Data" and the Consolidated Financial Statements and related Notes included in Items 6 and 8, respectively, of this Form 10-K. This discussion contains forward-looking statements that involve risks and uncertainties. Such statements, which include statements concerning future revenue sources and concentration, gross profit margins, selling and marketing expenses, research and development expenses, general and administrative expenses, capital resources, additional financings or borrowings and additional losses, are subject to risks and uncertainties, including, but not limited to, those discussed below and elsewhere in this Form 10-K, particularly in Item 1A "Risk Factors," that could cause actual results to differ materially from those projected. The forward-looking statements set forth in this Form 10-K are as of the close of business on March 6, 2019, and we undertake no duty and do not intend to update this information, except as required by applicable securities laws.

Overview

We sell advanced veterinary diagnostic and specialty products. Our offerings include Point of Care laboratory instruments and consumables; Point of Care digital imaging diagnostic products; vaccines; local and cloud-based data services; allergy testing and immunotherapy; and single-use offerings such as in-clinic diagnostic tests and heartworm preventive products. Our core focus is on supporting veterinarians in the canine and feline healthcare space.

Our business is composed of two reportable segments, CCA and OVP. The CCA segment includes, primarily for canine and feline use, Point of Care laboratory instruments and consumables; digital imaging diagnostic instruments, software and services; local and cloud-based data services; allergy testing and immunotherapy; and single use offerings such as in-clinic diagnostic tests and heartworm preventive products. The OVP segment includes private label vaccine and pharmaceutical production, primarily for cattle but also for other species including equine, porcine, avian, feline and canine. OVP products are sold by third parties under third party labels.

CCA represented approximately 85% of our 2018 revenue. OVP represented approximately 15% of our 2018 revenue.

CCA Segment

Revenue from Point of Care laboratory including instruments, consumables and other revenue such as service represented $57.4 million, $54.9 million and $48.8 million of our 2018, 2017 and 2016 revenue, respectively. Revenue in this area primarily involves placing an instrument under contract in the field and generating future revenue from testing consumables, such as cartridges and reagents, as that instrument is used. Approximately $44.8 million, $39.2 million and $36.3 million of our 2018, 2017 and 2016 revenue, respectively, resulted from the sale of such testing consumables to an installed base of instruments. Approximately $10.8 million, $13.8 million and $10.4 million of our 2018, 2017 and 2016 revenue, respectively, was from instrument sales, including revenue recognized from sales-type lease treatment. Included in instrument sales are sales of infusion pumps, which are sold outright through distribution. Sales of infusion pumps were $2.7 million, $4.0 million, and $3.7 million for 2018, 2017, and 2016, respectively. Approximately $1.8 million, $1.9 million and $2.0 million of our 2018, 2017 and 2016 revenue, respectively, was from other revenue sources, such as charges for repairs. Instruments placed under subscription agreements are considered operating or sales-type (capital) leases, depending on the duration and other factors of the underlying agreement. A loss of, or disruption in, the supply of consumables we are selling to an installed base of instruments could substantially harm our business. All of our Point of Care laboratory and

other non-imaging instruments and consumables are supplied by third parties, who typically own the product rights and supply the product to us under marketing and/or distribution agreements. In many cases, we have collaborated with a third party to adapt a human instrument for veterinary use. Major products in this area include our instruments for chemistry, hematology, blood gas and immunodiagnostic testing and their affiliated operating consumables.

Point of Care digital imaging hardware, software and services represented approximately $22.8 million, $21.9 million and $29.6 million of 2018, 2017 and 2016 revenue, respectively. Digital radiography is the largest product offering in this area, which also includes ultrasound instruments. Digital radiography solutions typically consist of a combination of hardware and software placed with a customer, often combined with an ongoing service and support contract. We sell our imaging solutions both in the U.S. and internationally. Our experience has been that most of the revenue is generated at the time of sale in this area, in contrast to the Point of Care diagnostics laboratory placements discussed above where ongoing consumable revenue is often a larger component of economic value as a given instrument is used.

Other CCA revenue, including single use diagnostic and other tests, pharmaceuticals and biologicals, as well as research and development, licensing and royalty revenue, represented $28.7 million, $28.4 million and $29.0 million of our 2018, 2017 and 2016 revenue, respectively. Since items in this area are often single use by their nature, our typical aim is to build customer satisfaction and loyalty for each product, generate repeat annual sales from existing customers and expand our customer base in the future. Products in this area are both supplied by third parties and provided by us. Major products and services in this area include heartworm diagnostic tests and preventives, and allergy test kits, allergy immunotherapy and testing. Of our annual revenue, heartworm produced primarily for private-label accounted for approximately $16.8 million in both 2018 and 2017, and $16.7 million in 2016.

We consider the CCA segment to be our core business and devote most of our management time and other resources to improving the prospects for this segment. Maintaining a continuing, reliable and economic supply of products we currently obtain from third parties is critical to our success in this area. Virtually all of our sales and marketing expenses occur in the CCA segment. The majority of our research and development spending is dedicated to this segment as well.

All of our CCA products are ultimately sold primarily to or through veterinarians. In many cases, veterinarians will mark up their costs to their customer. The acceptance of our products by veterinarians is critical to our success. CCA products are sold directly to end users by us as well as through distribution relationships, such as the sale of kits to conduct blood testing to third party veterinary diagnostic laboratories and independent third party distributors. Revenue from direct sales and distribution relationships represented approximately 57% and 43%, respectively, of CCA 2018 revenue, 58% and 42%, respectively, of CCA 2017 revenue and 61% and 39%, respectively, of CCA 2016 revenue.

OVP Segment

The OVP segment includes our approximately 160,000 square foot USDA and FDA licensed production facility in Des Moines, Iowa. We view this facility as an asset which could allow us to control our cost of goods on any pharmaceuticals and vaccines that we may commercialize in the future. We have increased integration of this facility with our operations elsewhere. For example, virtually all our U.S. inventory, excluding our imaging products, is now stored at this facility and related fulfillment logistics are managed there. CCA segment products manufactured at this facility are transferred at cost and are not recorded as revenue for our OVP segment. We view OVP reported revenue as revenue primarily to cover the overhead costs of the facility and to generate incremental cash flow to fund our CCA segment.

Historically, a significant portion of our OVP segment's revenue has been generated from the sale of certain bovine vaccines, which have been sold primarily under the Titanium® and MasterGuard® brands. We have an agreement with Eli Lilly and Company and its affiliates operating through Elanco for the production of these vaccines (the "Elanco Agreement"). Our OVP segment also produces vaccines and pharmaceuticals for other third parties.

Critical Accounting Estimates

The discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. We evaluate our estimates on an ongoing basis. We base our estimates on historical experience and on various assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates. "Part II, Item 8. Note 1 Summary of Significant Accounting Policies" to the consolidated financial statements included in this Annual Report on Form 10-K describes the significant accounting policies used in preparation of these consolidated financial statements. We believe the following critical accounting estimates and assumptions may have a material impact on reported financial condition and operating performance and involve significant levels of judgment to account for highly uncertain matters or are susceptible to significant change.

Revenue Recognition

Effective January 1, 2018, we adopted FASB Accounting Standards Codification ("ASC") Topic 606, *Revenue from Contracts with Customers* (the "New Revenue Standard"), using the modified retrospective method for all contracts not completed as of the date of adoption. Under the New Revenue Standard, revenue is recognized when, or as, performance obligations under the terms of a contract are satisfied, which occurs when control of the promised products or services is transferred to a customer. We exclude sales, use, value-added, and other taxes we collect on behalf of third parties from revenue. Revenue is measured as the amount of consideration we expect to receive in exchange for transferring products or services to a customer. To meet the requirements of the New Revenue Standard and accurately present the consideration received in exchange for promised products or services, we applied the prescribed five-step model outlined below:

1. Identification of a contract or agreement with a customer
2. Identification of our performance obligations in the contract or agreement
3. Determination of the transaction price
4. Allocation of the transaction price to the performance obligations
5. Recognition of revenue when, or as, we satisfy a performance obligation

See "Part II. Item 8. Financial Statements and Supplementary Data, Note 2. Revenue Recognition" to the consolidated financial statements for the year ended December 31, 2018, included in this Annual Report on Form 10-K for additional information about our revenue recognition policy and criteria for recognizing revenue.

Application of the various accounting principles in GAAP related to the measurement and recognition of revenue requires us to make judgments and estimates. Specifically, our subscription arrangements related to our Point of Care laboratory products provide our customers the right to use our instruments upon entering into multi-year agreements to purchase a minimum amount of consumables. These types of agreements include an embedded lease, designated as either an operating-type lease ("OTL") or a sales-type lease ("STL"), dependent upon individual contract terms, most often relating to the term of the contract relative to

the life of the underlying instruments being placed under that contract. The determination of the amounts allocated to each component of the contract are based upon fair value. Changes in fair value in any period of the underlying components will impact that amount of revenue recognized.

Allowance for Doubtful Accounts

We maintain an allowance for doubtful accounts receivable based on client-specific allowances, as well as a general allowance. Specific allowances are maintained for clients which are determined to have a high degree of collectability risk based on such factors, among others, as: (i) the aging of the accounts receivable balance; (ii) the client's past payment history; and (iii) a deterioration in the client's financial condition, evidenced by weak financial condition and/or continued poor operating results, reduced credit ratings and/or a bankruptcy filing. In addition to the specific allowance, the Company maintains a general allowance for credit risk in its accounts receivable which is not covered by a specific allowance. The general allowance is established based on such factors, among others, as: (i) the total balance of the outstanding accounts receivable, including considerations of the aging categories of those accounts receivable; (ii) past history of uncollectable accounts receivable write-offs; and (iii) the overall creditworthiness of the client base. A considerable amount of judgment is required in assessing the realizability of accounts receivable. Should any of the factors considered in determining the adequacy of the overall allowance change, an adjustment to the provision for doubtful accounts receivable may be necessary.

Inventory Valuation

We write down the carrying value of inventory for estimated obsolescence by an amount equal to the difference between the cost of inventory and the estimated market value when warranted based on assumptions of future demand, market conditions, remaining shelf life or product functionality. If actual market conditions or results of estimated functionality are less favorable than those we estimated, additional inventory write-downs may be required, which would have a negative effect on results of operations. The inventory allowance was $1.6 million as of December 31, 2018 and 2017.

Deferred Tax Assets – Valuation Allowance

We evaluate our ability to realize the tax benefits associated with a deferred tax asset (“DTA”) by analyzing our forecasted taxable income using both historical and projected future operating results, the reversal of existing temporary differences, taxable income in prior carry back years (if permitted) and the availability of tax planning strategies. A valuation allowance is required to be established unless management determines that it is more likely than not that we will ultimately realize the tax benefit associated with a deferred tax asset. As of December 31, 2018 and 2017, we had valuation allowances of approximately $10.2 million and $14.5 million, respectively. The change in the valuation allowance resulted from the expiration of deferred tax assets which were offset with a valuation allowance at December 31, 2017. See Note 4 - Income Taxes in the accompanying notes to the consolidated financial statements for additional information regarding our income taxes.

Valuation of Goodwill and Intangibles

We assess goodwill for impairment annually, at the reporting unit level, in the fourth quarter and whenever events or circumstances indicate impairment may exist. In evaluating goodwill for impairment, we have the option to first assess the qualitative factors to determine whether it is more-likely-than-not that the estimated fair value of the reporting unit is less than its carrying amount as a basis for determining whether it is necessary to perform the comparison of the estimated fair value of the reporting unit to the carrying value. The more-likely-than-not threshold is defined as having a likelihood of more than 50 percent. If, after assessing the totality of events or circumstances, we determine that is it more-likely-than-not that the

estimated fair value of a reporting is less than its carrying amount, we would then estimate the fair value of the reporting unit and compare it to the carrying value. If the carrying value exceeds the estimated fair value we would recognize an impairment for the difference; otherwise, no further impairment test would be required. In contrast, we can opt to bypass the qualitative assessment for any reporting unit in any period and proceed directly to quantitative analysis. Doing so does not preclude us from performing the qualitative assessment in any subsequent period.

We performed qualitative assessments in the fourth quarters of 2018, 2017 and 2016 and determined that no indications of impairment existed.

We assess the realizability of intangible assets other than goodwill whenever events or changes in circumstances indicate that the carrying value may not be recoverable. If an impairment review is triggered, we evaluate the carrying value of intangible assets based on estimated undiscounted future cash flows over the remaining useful life of the primary asset of the asset group and compare that value to the carrying value of the asset group. The cash flows that are used contain our best estimates, using appropriate and customary assumptions and projections at the time. If the net carrying value of an intangible asset exceeds the related estimated undiscounted future cash flows, an impairment to adjust the intangible asset to its fair value would be reported as a non-cash charge to earnings. If necessary, we would calculate the fair value of an intangible asset using the present value of the estimated future cash flows to be generated by the intangible asset, and applying a risk-adjusted discount rate. We had no impairments of our intangible assets during the years ended December 31, 2018, 2017 and 2016.

These valuations require the use of management’s assumptions, which would not reflect unanticipated events and circumstances that may occur.

Share-Based Compensation Expense

We utilize share-based compensation arrangements as part of our long-term incentive plan. Under these incentive arrangements, we currently issue restricted stock awards, both tied to time vesting or performance and time vesting to employees and directors. We also issue stock options awards to employees. All significant inputs into the determination of expense as well as the related expense are discussed further in "Part II. Item 8. Financial Statements and Supplementary Data, Note 11. Capital Stock".

Restricted Stock Awards (Time Vesting)

The fair value of restricted stock awards with only time-based vesting terms used in our expense recognition method is measured based on the number of shares granted and the closing market price of our common stock on the date of grant. Such value is recognized as an expense over the corresponding requisite service period. Forfeitures are accounted for as they occur.

Restricted Stock Awards (Performance Vesting)

We also grant restricted stock awards subject to performance vesting criteria, in addition to service to our executive officers and other key employees. This type of grant consists of the right to receive shares of common stock, subject to achievement of time-based criteria and certain corporate and market performance-related goals over a specified period, as established by the Compensation Committee of our Board of Directors. We recognize any related share-based compensation expense ratably over the service period based on the probability assessment on the outcome of the performance condition related to corporate performance metrics. The fair value used in our expense recognition method is measured based on the number of shares granted and the closing market price of our common stock on the date of grant. The amount of share-based compensation expense recognized in any one period can vary based on the attainment or expected attainment

of the performance goals. If such performance goals are not ultimately met, no compensation expense is recognized and any previously recognized compensation expense is reversed. We recognize any related share-based compensation expense ratably over the service period based on the most probable outcome of the performance condition related to market performance metrics. The fair value used in our expense recognition method is measured based on the number of shares granted, and a Monte Carlo simulation model, which incorporates the probability of the achievement of the market-related performance goals as part of the grant date fair value. If such performance goals are not ultimately met, the expense is not reversed.

As of December 31, 2018, we reviewed each of the underlying corporate performance targets and determined that approximately 167,000 of shares of common stock were related to corporate performance targets in which we did not deem achievement probable. No compensation expense had been recorded at any period prior to December 31, 2018. The unrecognized compensation cost associated with the restricted stock awards not deemed probable, based on grant date fair value, is approximately $13.5 million. Any change in the probability determination could accelerate the recognition of this expense.

Recent Accounting Pronouncements

In addition to the impacts from new accounting pronouncements included above, see "Part II. Item 8. Financial Statements and Supplementary Data, Note 1. Summary of Significant Accounting Policies" to the consolidated financial statements for the year ended December 31, 2018, included in this Annual Report on Form 10-K for a complete discussion of recent accounting pronouncements adopted and not adopted.

Results of Operations

Our analysis presented below is organized to provide the information we believe will facilitate an understanding of our historical performance and relevant trends going forward. This discussion should be read in conjunction with our consolidated financial statements, including the notes thereto, in Item 8 of this annual report on Form 10-K.

The following table sets forth, for the periods indicated, certain data derived from our Consolidated Statements of Income (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Revenue	$ 127,446	$ 129,341	$ 130,083
Gross profit	56,638	58,261	53,892
Operating expenses	52,844	40,042	37,359
Operating income	3,794	18,219	16,533
Interest and other (income) expense, net	(13)	(150)	29
Income before income taxes and equity in losses of unconsolidated affiliates	3,807	18,369	16,504
Income tax (benefit) expense	(2,115)	8,913	4,339
Net income before equity in losses of unconsolidated affiliates	5,922	9,456	12,165
Equity in losses of unconsolidated affiliates	(72)	—	—
Net income, after equity in losses of unconsolidated affiliates	5,850	9,456	12,165
Net (loss) income attributable to non-controlling interest	—	(497)	1,657
Net income attributable to Heska Corporation	$ 5,850	$ 9,953	$ 10,508

The following tables set forth, for the periods indicated, segment data derived from our Consolidated Statements of Income (in thousands):

CCA Segment

	Year Ended December 31,			Change			
	2018	2017	2016	Dollar Change	% Change	Dollar Change	% Change
Point of Care Laboratory:	$ 57,375	$ 54,855	$ 48,817	$ 2,520	5 %	$ 6,038	12 %
Consumables	44,771	39,161	36,344	5,610	14 %	2,817	8 %
Instruments	10,810	13,773	10,438	(2,963)	(22)%	3,335	32 %
Other	1,794	1,921	2,035	(127)	(7)%	(114)	(6)%
Point of Care Imaging	22,832	21,907	29,609	925	4 %	(7,702)	(26)%
Other CCA Revenue	28,717	28,429	28,972	288	1 %	(543)	(2)%
Total CCA Revenue	$ 108,924	$ 105,191	$ 107,398	$ 3,733	4 %	$ (2,207)	(2)%
Percent of Total Revenue	85.5%	81.3%	82.6%				
Cost of Revenue	56,326	54,509	59,066	1,817	3 %	(4,557)	(8)%
Gross Profit	52,598	50,682	48,332	1,916	4 %	2,350	5 %
Operating Income	$ 2,040	$ 12,656	$ 13,015	$ (10,616)	(84)%	$ (359)	(3)%

OVP Segment

	Year Ended December 31,			Change			
	2018	2017	2016	Dollar Change	% Change	Dollar Change	% Change
Revenue	$ 18,522	$ 24,150	$ 22,685	$ (5,628)	(23)%	$ 1,465	6 %
Percent of Total Revenue	14.5%	18.7%	17.4%				
Cost of Revenue	14,482	16,570	17,125	(2,088)	(13)%	(555)	(3)%
Gross Profit	4,040	7,580	5,560	(3,540)	(47)%	2,020	36 %
Operating Income	$ 1,754	$ 5,563	$ 3,518	$ (3,809)	(68)%	$ 2,045	58 %

Revenue

Total revenue decreased 1% to $127.4 million in 2018 compared to $129.3 million in 2017. Total revenue decreased 1% to $129.3 million in 2017 compared to $130.1 million in 2016.

CCA segment revenue increased 4% to $108.9 million in 2018 compared to $105.2 million in 2017. The increase was driven primarily by a 14% increase in revenue from Point of Care laboratory consumables, as well as a 4% increase in revenue from Point of Care imaging products due to increased sales of digital radiography systems. This was partially offset by a 22% decrease in revenue from Point of Care laboratory instruments due to lower sales-type lease instrument revenue recognition of $1.5 million and lower infusion pump sales of $1.3 million. CCA segment revenue decreased 2% to $105.2 million in 2017 compared to $107.4 million in 2016. The decrease was driven primarily by a 26% decrease in revenue from sales of our imaging products, partially offset by a 12% increase in revenue from Point of Care laboratory subscriptions, equipment and consumables. CCA segment sales are expected to be negatively impacted by a reduction in sales of TRI-HEART heartworm preventative as previously disclosed on our fourth quarter earnings release.

OVP segment revenue decreased 23% to $18.5 million in 2018 compared to $24.2 million in 2017. The decrease was driven by decreased volume of sales under contract manufacturing arrangements. OVP segment

revenue increased 6% to $24.2 million in 2017 compared to $22.7 million in 2016. The increase in 2017 from 2016 was due to various customer contracts.

Gross Profit

Gross profit decreased 3% to $56.6 million in 2018 compared to $58.3 million in 2017. Gross margin decreased to 44.4% in 2018 compared to 45.0% in 2017. The decrease in both gross profit and gross margin percentage was driven primarily by unfavorable product mix and plant utilization charges in our OVP segment. Gross profit increased 8% to $58.3 million in 2017 compared to $53.9 million in 2016. Gross margin percent increased to 45.0% in 2017 compared to 41.4% in 2016. The increase in gross profit was driven primarily by favorable pricing, while the increase in gross margin percentage was driven in part by favorable margins on consumables in our CCA segment and product mix in our OVP segment.

Operating Expenses

Selling and marketing expenses increased 6% to $24.7 million in 2018 compared to $23.2 million in 2017. The increase was primarily driven by an increase in compensation, including stock-based compensation, benefits and commissions expense, which is mostly related to our commercial team expansion. Selling and marketing expenses increased 5% to $23.2 million in 2017 compared to $22.1 million in 2016. The increase was driven primarily by an increase in compensation and benefits, and an increase in stock compensation, partially offset by a decrease in commissions and other incentive compensation.

Research and development expenses increased 66% to $3.3 million in 2018, compared to $2.0 million in 2017. The increase was primarily driven by spending on product development for imaging solutions, urine and fecal sedimentation and immunotherapy diagnostic offerings. Research and development decreased 7% to $2.0 million in 2017, as compared to $2.1 million in 2016. The decrease was driven primarily by a decrease in other incentive compensation.

General and administrative expenses increased 68% to $24.8 million in 2018, compared to $14.8 million in 2017. The increase was driven by a $7.0 million settlement accrual and related legal expenses, a $1.4 million increase in stock-based compensation, a $0.6 million increase in compensation and benefits, a $0.5 million increase in legal fees and a $0.5 million increase in consulting fees. General and administrative expenses increased 13% to $14.8 million in 2017, as compared to $13.1 million in 2016. The increase was driven primarily by a $0.7 million increase in general consulting services, $0.6 million increase in compensation and benefits (net of a decrease in other incentive compensation) and a $0.2 million increase in severance expense.

Interest and Other (Income) Expense, Net

Interest and other (income) expense, net, was income of $13 thousand in 2018, compared to income of $150 thousand in 2017 and expense of $29 thousand in 2016. The decrease in other income in 2018 was primarily driven by an increase in net foreign currency losses, and an increase in interest expense, partially offset by an increase in interest income and other gains. The increase in other income in 2017, compared to 2016, was driven primarily by an increase in net foreign currency gains offset by an increase in interest expense.

Income Tax (Benefit) Expense

In 2018, we had total income tax benefit of $2.1 million, including approximately $1.9 million related to employee share-based payment awards which are recorded in the income statement. In 2017 and 2016 respectively, we had total income tax expense of $8.9 million and $4.3 million. In 2017, our deferred income tax expense was increased by $5.9 million (i.e. the write down of deferred tax asset balances and the valuation allowance) for tax reform legislation and our current income tax expense was reduced by $5.5 million for employee share-based payment awards. See "Part II, Item 8. Financial Statements and Supplementary Data, Note 4. Income Taxes" in the accompanying notes to the consolidated financial statements for additional information regarding our income taxes.

Net Income Attributable to Heska Corporation

Net income attributable to Heska Corporation was $5.9 million in 2018, compared to net income attributable to Heska Corporation of $10.0 million in 2017 and net income attributable to Heska Corporation of $10.5 million in 2016. The difference between this line item and "Net income, after equity in losses of unconsolidated affiliates" is the net income or loss attributable to our minority interest in U.S. Imaging, which we purchased on May 31, 2017. As a result of the purchase, there was no difference between these line items for 2018. The difference between these line items was a gain of $0.5 million in 2017, and a loss of $1.7 million in 2016.

Non-GAAP Financial Measures

The following tables provide a summary of our results for the year ended December 31, 2018, after adjusting for one-time non-recurring expenses associated with the pending settlement arrangement (see "Part II, Item 8. Financial Statements and Supplementary Data, Note 13. Commitments and Contingencies") and other legal and consulting fees described elsewhere herein, and our results for the year ended December 31, 2017, after adjusting for the impact of the Act. The following tables reconcile our adjusted non-GAAP financial measures to our most directly comparable as-reported financial measures calculated in accordance with GAAP.

These adjusted results are non-GAAP financial measures that have been included for the reasons discussed below.

Year Ended December 31, 2018

	Operating expenses	Operating income	Income tax (benefit) expense	Net income attributable to Heska Corporation	Basic net earnings per share	Diluted net earnings per share
	($ in thousands, except per share data)					
Reported - GAAP	$ 52,844	$ 3,794	$ (2,115)	$ 5,850	$ 0.81	$ 0.74
Litigation Provision and Other One-Time Costs	7,407	7,407	2,094	5,313	0.74	0.68
Adjusted Non-GAAP	$ 45,437	$ 11,201	$ (21)	$ 11,163	$ 1.55	$ 1.42

Year Ended December 31, 2017

	Operating expenses	Operating income	Income tax (benefit) expense	Net income attributable to Heska Corporation	Basic net earnings per share	Diluted net earnings per share
	($ in thousands, except per share data)					
Reported - GAAP	$ 40,042	$ 18,219	$ 8,913	$ 9,953	$ 1.42	$ 1.30
U.S. Tax Reform	—	—	(5,898)	5,898	0.84	0.77
Adjusted Non-GAAP	$ 40,042	$ 18,219	$ 3,015	$ 15,851	$ 2.26	$ 2.07

A non-GAAP financial measure includes a numerical measure of a company's financial performance, financial position or cash flows that excludes amounts, or is subject to adjustments that have the effect of excluding amounts, that are included in the most directly comparable measure calculated and presented in accordance with GAAP in the statement of income, balance sheet or statement of cash flows (or equivalent statements) of the company. The non-GAAP financial measures included in the table above exclude the impact of the following one-time items. We exclude these one-time items and the related tax effects as management monitors litigation judgments, settlements and distinct extraordinary items separately from ongoing operations and evaluates ongoing performance without these amounts.

- During the year ended December 31, 2018, we recorded a one-time settlement charge of $6.75 million and approximately $0.3 million in related legal fees in general and administrative expenses, relating to the pending settlement of the Shaun Fauley complaint filed on March 12, 2015. See "Part II, Item 8. Financial Statements and Supplementary Data, Note 13. Commitments and Contingencies" in the accompanying notes to the Consolidated Financial Statements for further discussion of the settlement. Other one-time costs were approximately $0.4 million for the year ended December 31, 2018.

- During the year ended December 31, 2017, our deferred income tax expense was increased by $5.9 million due to the revaluation of our deferred tax assets as a result of the Act.

Our management believes that the non-GAAP financial measures presented facilitate an understanding of our operating performance and provide a more meaningful comparison of our results between periods. Our management uses non-GAAP financial measures to, among other things, evaluate our ongoing operations in relation to historical results and for internal planning and forecasting purposes.

Operating expenses, operating income, income tax (benefit) expense, net income attributable to Heska and basic and diluted earnings per share, adjusted for one-time items, are non-GAAP financial measures and should not be relied upon as substitutes for measures calculated in accordance with GAAP.

Impact of Inflation

In recent years, inflation has not had a significant impact on our operations.

Liquidity, Capital Resources and Financial Condition

We believe that adequate liquidity and cash generation is important to the execution of our strategic initiatives. Our ability to fund our operations, acquisitions, capital expenditures and product development efforts may depend on our ability to generate cash from operating activities, which is subject to future operating performance, as well as general economic, financial, competitive, legislative, regulatory and other conditions, some of which may be beyond our control. Our primary sources of liquidity are our available cash, cash generated from current operations and availability under our credit facility noted below.

For the year ended December 31, 2018, we had net income of $5.9 million and net cash provided by operations of $13.3 million. At December 31, 2018, we had $13.4 million of cash and cash equivalents, working capital of $42.0 million and $6.0 million outstanding borrowings under our revolving line of credit, discussed below.

On July 27, 2017, and as subsequently amended in May and December of 2018, we entered into a Credit Agreement (the "Credit Agreement") with JPMorgan Chase Bank, N.A. ("Chase") which provides for a revolving credit facility of up to $30.0 million (the "Credit Facility"). The Credit Facility provides us with the ability to borrow up to $30.0 million, although the amount of the Credit Facility may be increased by an additional $20.0 million up to a total of $50.0 million subject to receipt of additional lender commitments and other conditions. Any interest on borrowings due is to be charged at either the (i) rate of interest per annum publicly announced from time to time by Chase at its prime rate in effect at its principal offices in New York City, subject to a floor, minus 1.65%, or (ii) the interest rate per annum equal to (a) LIBOR for the interest period in effect multiplied by (b) Chase's Statutory Reserve Rate (as defined in the Credit Agreement), plus 1.10% and payable monthly. There is an annual minimum interest charge of $60 thousand under the Credit Agreement. Chase holds first right of priority over all other liens, if any were to exist. Borrowings under the Credit Facility are subject to certain financial and non-financial covenants and are available for various corporate purposes, including general working capital, capital investments and certain permitted acquisitions.

Failure to comply with any of the covenants, representations or warranties could result in our being in default on the loan and could cause all outstanding amounts payable to Chase to become immediately due and payable or impact our ability to borrow under the agreement. The Credit Agreement also permits us to issue letters of credit, although there are currently none outstanding. The maturity date of the Credit Facility is July 27, 2020. At December 31, 2018, we had $6.0 million of borrowings outstanding on this line of credit and we were in compliance with all financial covenants.

Concurrent with the Credit Agreement, we repaid all outstanding balances and closed our $15.0 million asset-based revolving line of credit with Wells Fargo, which had a maturity date of December 31, 2017.

A summary of our cash provided by and used in operating, investing and financing activities is as follows (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Net cash provided by operating activities	$ 13,287	$ 10,409	$ 5,855
Net cash used in investing activities	(12,174)	(17,169)	(3,302)
Net cash provided by financing activities	2,627	5,551	1,403
Effect of currency translation on cash	(10)	74	(52)
Increase (decrease) in cash and cash equivalents	3,730	(1,135)	3,904
Cash and cash equivalents, beginning of the period	9,659	10,794	6,890
Cash and cash equivalents, end of the period	$ 13,389	$ 9,659	$ 10,794

Net cash provided by operating activities was $13.3 million in 2018, compared to net cash provided by operating activities of $10.4 million in 2017, an increase of approximately $2.9 million. Net cash provided by operating activities increased due to significant working capital fluctuations such as a $19.9 million increase in cash provided by inventories, due to the timing of inventory purchases in 2017; a $7.5 million increase in cash provided by accrued liabilities, largely due to a preliminary settlement agreement relating to outstanding litigation in the amount of $6.75 million which we expect to pay in the first half of 2019 (See Note 13 - Commitments and Contingencies in our Consolidated Financial Statements included in Item 8 of this Form 10-K); and a $2.8 million increase in cash provided by current and non-current lease receivables due to a lower level of capital lease placements and timing of collections on existing leases. These factors were partially offset by a $3.6 million decrease in net income, as well as a $15.2 million increase in cash used by the aggregate of accounts receivable, accounts payable, related party balances, deferred revenue and other current assets, due to the timing of collections and payments in the ordinary course of business. Non-cash transactions impacting cash provided by operating activities included a $11.1 million increase in our deferred tax benefit, net, offset by a $2.5 million increase in stock-based compensation.

Net cash provided by operating activities was $10.4 million in 2017, compared to net cash provided by operating activities of $5.9 million in 2016, an increase of approximately $4.6 million. The change was driven primarily by a $9.9 million increase in cash provided by accounts receivable, a $4.9 million increase in deferred tax expense, a $3.8 million increase in cash provided by accounts payable, a $1.0 million decrease in cash used for other non-current assets, a $0.9 million decrease in cash used by deferred revenue and a $0.5 million increase in stock-based compensation. These factors were partially offset by a $9.1 million increase in cash used for inventory, a $2.7 million decrease in net income, a $1.4 million increase in cash used for other current assets, a $1.1 million decrease in cash provided by related party payables, a $1.0 million increase in cash used for accrued liabilities and a $1.4 million increase in current and non-current lease receivables.

Net cash used in investing activities was $12.2 million in 2018, compared to net cash used in investing activities of $17.2 million in 2017, a decrease of approximately $5.0 million. The decrease in cash used for investing activities was mainly driven by the 2017 purchase of the Heska Imaging minority for $13.8 million, compared to the 2018 investments made in unconsolidated affiliates for $8.1 million and 2018 intangible asset acquisition for $2.8 million (cash portion). Additionally, we had a $2.1 million decrease in cash used for purchases of property and equipment. Net cash used in investing activities was $17.2 million in 2017, compared to net cash used in investing activities of $3.3 million in 2016, an increase of approximately $13.9 million. The increase was driven primarily by our purchase of the minority interest in U.S. Imaging for $13.8 million.

Net cash provided by financing activities was $2.6 million in 2018, compared to net cash provided by financing activities of $5.6 million in 2017, an decrease of approximately $2.9 million. The change was driven primarily by a $5.3 million decrease in borrowings, net of repayments. This was partially offset by a $1.6 million increase in proceeds from issuance of common stock, net of distributions, and a $0.8 million decrease in distributions to non-controlling interest members. Net cash provided by financing activities was $5.6 million in 2017, compared to net cash provided by financing activities of $1.4 million in 2016, an increase of approximately $4.1 million. The change was driven primarily by a $4.8 million increase in borrowings, net of repayments, partially offset by $1.0 million of distributions to non-controlling interest members.

Our financial plan for 2019 indicates that our available cash and cash equivalents, together with cash from operations and borrowings expected to be available under our Credit Facility, will be sufficient to fund our operations for the foreseeable future. Additionally, we are actively seeking acquisitions that are consistent with our strategic direction, which may require additional capital. Our actual results may differ from this plan and we may be required to consider alternative strategies. We may be required to raise additional capital in the future, even in the absence of any acquisitions. If necessary, we expect to raise these additional funds through the sale of equity securities or the issuance of debt. There is no guarantee that additional capital will be available from these sources on acceptable terms, if at all, and certain of these sources may require approval by existing lenders. See "Risk Factors" in Item 1A of this Form 10-K for a discussion of some of the factors that affect our capital raising alternatives.

Effect of currency translation on cash

Net effect of foreign currency translations on cash changed $84 thousand to a $10 thousand negative impact in 2018, compared to a $74 thousand positive impact in 2017. The net effect of foreign currency translation on cash changed $126 thousand to a $74 thousand positive impact in 2017 from a $52 thousand negative impact in 2016. These effects are related to changes in exchange rates between the U.S. Dollar and the Swiss Franc, which is the functional currency of our Swiss subsidiary.

Off Balance Sheet Arrangements

We have no off balance sheet arrangements or variable interest entities.

Contractual Obligations

The Company has not entered into any transactions with unconsolidated entities whereby the Company has financial guarantees, subordinated retained interests, derivative instruments, or other contingent arrangements that expose the Company to material continuing risks, contingent liabilities, or any other obligation under a variable interest in an unconsolidated entity that provided financing, liquidity, market risk or credit risk support to the Company, or engages in leasing, hedging or research and development services with the Company.

Purchase obligations represent contractual agreements to purchase goods or services that are legally binding; specify a fixed, minimum or range of quantities; specify a fixed, minimum, variable, or indexed price provision; and specify approximate timing of the transaction.

See "Part II, Item 8. Financial Statements and Supplementary Data, Note 13. Commitments and Contingencies", included in this Form 10-K for a description of our operating lease obligations, and "Part II, Item 8. Financial Statements and Supplementary Data, Note 1. Operations and Summary of Significant Accounting Policies", for a discussion of the impact of the adoption of FASB Accounting Standards Codification ("ASC") Topic 842, *Leases*.

The following table presents certain future payments due by the Company as of December 31, 2018, and excludes amounts already recorded on the Consolidated Balance Sheet, except for our line of credit and other (in thousands):

	Total	Less Than 1 Year	1 - 3 Years	3 - 5 Years	After 5 Years
Purchase obligations	$ 14,219	$ 8,161	$ 4,537	$ 1,170	$ 351
Operating lease obligations	10,108	2,134	3,852	4,122	—
Line of credit and other borrowings	6,051	20	6,031	—	—
Future interest obligations	95	60	35	—	—
Total	$ 30,473	$ 10,375	$ 14,455	$ 5,292	$ 351

Net Operating Loss Carryforwards

As of December 31, 2018, we had a net domestic operating loss carryforward (“NOL”) and domestic research and development tax credit carryforward. See "Part II, Item 8. Financial Statements and Supplementary Data, Note 4. Income Taxes" in our Consolidated Financial Statements for additional information regarding our carryforwards.

Recent Accounting Pronouncements

From time to time, the FASB or other standard setting bodies issue new accounting pronouncements. Updates to the FASB ASC are communicated through issuance of an ASU. Unless otherwise discussed, we believe that the impact of recently issued guidance, whether adopted or to be adopted in the future, is not expected to have a material impact on our Consolidated Financial Statements upon adoption.

To understand the impact of recently issued guidance, whether adopted or to be adopted, please review the information provided in Note 1- *Operations and Summary of Significant Accounting Policies* to our Consolidated Financial Statements included in Item 8 of this Form 10-K.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Market risk represents the risk of loss that may impact the financial position, results of operations or cash flows due to adverse changes in financial and commodity market prices and rates. We are exposed to market risk in the areas of changes in U.S. and foreign interest rates and changes in foreign currency exchange rates as measured against the U.S. Dollar. These exposures are directly related to our normal operating and funding activities.

Interest Rate Risk

At December 31, 2018, there was $6.0 million outstanding on our revolving credit facility with Chase. We had no interest rate hedge transactions in place on December 31, 2018. We completed an interest rate risk sensitivity analysis based on the above and an assumed one-percentage point increase in interest rates would have an approximate $60 thousand negative impact on our pre-tax earnings based on our outstanding balances as of December 31, 2018.

Foreign Currency Risk

Foreign currency risk may impact our results of operations. In cases where we purchase inventory in one currency and sell corresponding products in another, our gross margin percentage is typically at risk based on foreign currency exchange rates. In addition, in cases where we may be generating operating income in foreign currencies, the magnitude of such operating income when translated into U.S. dollars will be at risk based on foreign currency exchange rates. We had no foreign currency hedge transactions in place on December 31, 2018. We do not consider foreign currency risk to be material to our business.

Item 8. **Financial Statements and Supplementary Data**

HESKA CORPORATION

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors of Heska Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheet of Heska Corporation and subsidiaries (the "Company") as of December 31, 2018, and the related consolidated statements of income, comprehensive income, stockholders' equity, and cash flows for the year ended December 31, 2018, and the related notes (collectively referred to as the "financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "COSO framework").

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2018, and the results of its operations and its cash flows for the year ended December 31, 2018, 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 December 31, 2018, based on criteria established in the COSO framework.

As discussed in Note 1 to the financial statements, the Company adopted Accounting Standards Codification (ASC) Topic 606, "Revenue from Contracts with Customers," using the modified retrospective adoption method on January 1, 2018.

Basis for Opinion

The Company's management is responsible for these 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 the accompanying Management's Report on Internal Controls over Financial Reporting. Our responsibility is to express an opinion on the Company's financial statements and an opinion on the Company's internal control over financial reporting based on our audit. 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the 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 audit of the financial statements included performing procedures to assess the risks of material misstatement of the 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 financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the 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 audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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 (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 (3) 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.

/s/ Plante & Moran, PLLC

We have served as the Company’s auditor since 2006.

Denver, Colorado

March 7, 2019

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of
Heska Corporation
Loveland, Colorado

OPINION ON THE CONSOLIDATED FINANCIAL STATEMENTS

We have audited the accompanying consolidated balance sheets of Heska Corporation (the "Company") as of December 31, 2017 and 2016, and the related consolidated statements of income, comprehensive income, stockholders' equity, and cash flows, for each year in the two year period ended December 31, 2017, and the related notes (collectively referred to as the "financial statements").

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for each year in the two year period ended December 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

BASIS FOR OPINION

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud.

/s/ EKS&H LLLP

March 19, 2018
Denver, Colorado

HESKA CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share amounts)

	December 31, 2018	December 31, 2017
ASSETS		
Current assets:		
Cash and cash equivalents	$ 13,389	$ 9,659
Accounts receivable, net of allowance for doubtful accounts of $245 and $215, respectively	16,454	15,367
Due from – related parties	—	1
Inventories, net	25,104	32,596
Lease receivable, current, net of allowance for doubtful accounts of $40 and $0, respectively	2,989	2,069
Other current assets	4,471	3,096
Total current assets	62,407	62,788
Property and equipment, net	15,981	17,331
Goodwill	26,679	26,687
Other intangible assets, net	9,764	1,958
Deferred tax asset, net	14,121	11,877
Lease receivable, non-current	11,908	9,615
Investments in unconsolidated affiliates	8,018	—
Other non-current assets	7,574	5,188
Total assets	$ 156,452	$ 135,444
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 7,469	$ 9,489
Due to – related parties	226	1,828
Accrued liabilities	10,142	4,074
Current portion of deferred revenue, and other	2,526	3,992
Total current liabilities	20,363	19,383
Deferred revenue, net of current portion	7,082	8,431
Line of credit and other long-term borrowings	6,031	6,000
Other liabilities	567	1,190
Total liabilities	34,043	35,004
Commitments and contingencies (Note 13)		
Stockholders' equity:		
Preferred stock, $.01 par value, 2,500,000 shares authorized, none issued or outstanding	—	—
Common stock, $.01 par value, 10,250,000 and 10,000,000 shares authorized, respectively, none issued or outstanding	—	—
Public common stock, $.01 par value, 10,250,000 and 10,000,000 shares authorized, 7,675,692 and 7,302,954 shares issued and outstanding, respectively	77	73
Additional paid-in capital	257,034	243,598
Accumulated other comprehensive income	277	232
Accumulated deficit	(134,979)	(143,463)
Total stockholders' equity	122,409	100,440
Total liabilities and stockholders' equity	$ 156,452	$ 135,444

See accompanying notes to consolidated financial statements.

HESKA CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(in thousands, except per share amounts)

	Year Ended December 31,		
	2018	**2017**	**2016**
Revenue:			
Core companion animal	$ 108,924	$ 105,191	$ 107,398
Other vaccines and pharmaceuticals	18,522	24,150	22,685
Total revenue, net	127,446	129,341	130,083
Cost of revenue	70,808	71,080	76,191
Gross profit	56,638	58,261	53,892
Operating expenses:			
Selling and marketing	24,663	23,225	22,092
Research and development	3,334	2,004	2,147
General and administrative	24,847	14,813	13,120
Total operating expenses	52,844	40,042	37,359
Operating income	3,794	18,219	16,533
Interest and other (income) expense, net	(13)	(150)	29
Income before income taxes and equity in losses of unconsolidated affiliates	3,807	18,369	16,504
Income tax (benefit) expense:			
Current income tax expense	140	49	407
Deferred income tax (benefit) expense	(2,255)	8,864	3,932
Total income tax (benefit) expense	(2,115)	8,913	4,339
Net income before equity in losses of unconsolidated affiliates	5,922	9,456	12,165
Equity in losses of unconsolidated affiliates	(72)	—	—
Net income, after equity in losses of unconsolidated affiliates	5,850	9,456	12,165
Net (loss) income attributable to non-controlling interest	—	(497)	1,657
Net income attributable to Heska Corporation	$ 5,850	$ 9,953	$ 10,508
Basic earnings per share attributable to Heska Corporation	$ 0.81	$ 1.42	$ 1.55
Diluted earnings per share attributable to Heska Corporation	$ 0.74	$ 1.30	$ 1.43
Weighted average outstanding shares used to compute basic earnings per share attributable to Heska Corporation	7,220	7,026	6,783
Weighted average outstanding shares used to compute diluted earnings per share attributable to Heska Corporation	7,856	7,642	7,361

See accompanying notes to consolidated financial statements.

HESKA CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(in thousands)

	Year Ended December 31,		
	2018	2017	2016
Net income, after equity in losses of unconsolidated affiliates	$ 5,850	$ 9,456	$ 12,165
Other comprehensive income (loss):			
Minimum pension liability	70	12	75
Sale of equity investment	—	—	(90)
Foreign currency translation	(25)	123	(75)
Comprehensive income	5,895	9,591	12,075
Comprehensive (loss) income attributable to non-controlling interest	—	(497)	1,657
Comprehensive income attributable to Heska Corporation	$ 5,895	$ 10,088	$ 10,418

See accompanying notes to consolidated financial statements.

HESKA CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balances, January 1, 2016	6,625	$ 66	$ 227,267	$ 187	$ (163,992)	$ 63,528
Net income, after equity in losses of unconsolidated affiliates	—	—	—	—	12,165	12,165
Issuance of common stock related to the acquisition of Cuattro Veterinary International, LLC	175	2	6,347	—	—	6,349
Issuance of common stock, net of shares withheld for employee taxes	226	2	1,616	—	—	1,618
Stock-based compensation	—	—	2,260	—	—	2,260
Accretion of non-controlling interest	—	—	1,145	—	—	1,145
Other comprehensive loss	—	—	—	(90)	—	(90)
Balances, December 31, 2016	7,026	$ 70	$ 238,635	$ 97	$ (151,827)	$ 86,975
Net income, after equity in losses of unconsolidated affiliates	—	—	—	—	9,456	9,456
Issuance of common stock, net of shares withheld for employee taxes	277	3	1,373	—	—	1,376
Stock-based compensation	—	—	2,745	—	—	2,745
Accretion of non-controlling interest	—	—	845	—	—	845
Distribution for Heska Imaging minority	—	—	—	—	(1,092)	(1,092)
Other comprehensive income	—	—	—	135	—	135
Balances, December 31, 2017	7,303	$ 73	$ 243,598	$ 232	$ (143,463)	$ 100,440
Adoption of accounting standards	—	—	—	—	2,634	2,634
Balances, January 1, 2018, as adjusted	7,303	73	243,598	232	(140,829)	103,074
Net income, after equity in losses of unconsolidated affiliates	—	—	—	—	5,850	5,850
Issuance of common stock, net of shares withheld for employee taxes	318	3	2,759	—	—	2,762
Issuance of common stock related to acquisition of assets from Cuattro, LLC	55	1	5,450	—	—	5,451
Stock-based compensation	—	—	5,227	—	—	5,227
Other comprehensive income	—	—	—	45	—	45
Balances, December 31, 2018	7,676	$ 77	$ 257,034	$ 277	$ (134,979)	$ 122,409

See accompanying notes to consolidated financial statements.

HESKA CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Year Ended December 31,		
	2018	**2017**	**2016**
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income, after equity in losses from unconsolidated affiliates	$ 5,850	$ 9,456	$ 12,165
Adjustments to reconcile net income to cash provided by operating activities:			
Depreciation and amortization	4,595	4,754	4,645
Deferred income tax (benefit) expense	(2,255)	8,864	3,932
Stock-based compensation	5,227	2,745	2,260
Other losses (gains)	80	(46)	(3)
Changes in operating assets and liabilities:			
Accounts receivable	(1,076)	5,243	(4,700)
Inventories	6,046	(13,834)	(4,731)
Due from related parties	1	99	(59)
Lease receivable, current	(920)	(1,244)	(736)
Other current assets	(505)	(474)	883
Accounts payable	(2,020)	3,143	(688)
Due to related parties	(1,477)	250	1,356
Accrued liabilities and other	6,146	(1,380)	(351)
Lease receivable, non-current	(2,294)	(4,782)	(3,867)
Other non-current assets	(871)	(984)	(1,951)
Deferred revenue and other	(3,240)	(1,401)	(2,300)
Net cash provided by operating activities	13,287	10,409	5,855
CASH FLOWS FROM INVESTING ACTIVITIES:			
Proceeds from sale of equity investment	—	—	115
Acquisition of intangible asset	(2,750)	—	—
Investments in unconsolidated affiliates	(8,091)	—	—
Purchase of minority interest	—	(13,757)	—
Purchases of property and equipment	(1,358)	(3,469)	(3,417)
Proceeds from disposition of property and equipment	25	57	—
Net cash used in investing activities	(12,174)	(17,169)	(3,302)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from issuance of common stock	4,034	2,452	2,382
Repurchase of common stock	(1,271)	(1,076)	(762)
Distributions to non-controlling interest members	(126)	(965)	—
Proceeds from line of credit borrowings	3,000	40,307	34,792
Repayments of line of credit borrowings	(3,000)	(34,979)	(34,262)
Repayments of other debt	(10)	(68)	(747)
Payment of debt issuance costs	—	(120)	—
Net cash provided by financing activities	2,627	5,551	1,403
NET EFFECT OF EXCHANGE RATE CHANGES ON CASH	(10)	74	(52)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	3,730	(1,135)	3,904
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	9,659	10,794	6,890
CASH AND CASH EQUIVALENTS, END OF YEAR	$ 13,389	$ 9,659	$ 10,794
NON-CASH TRANSACTIONS:			
Transfers of equipment between inventory and property and equipment, net	$ 1,449	$ 1,637	$ 1,250
Common stock issued as partial consideration of Cuattro acquisition transactions (See Note 3)	$ 5,450	$ —	$ 6,349

See accompanying notes to consolidated financial statements.

1. OPERATIONS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Heska Corporation and its wholly-owned subsidiaries ("Heska", the "Company", "we" or "our") sell veterinary and animal health diagnostic and specialty products. Our offerings include Point of Care diagnostic laboratory instruments and supplies; digital imaging diagnostic products, software and services; vaccines; local and cloud-based data services; allergy testing and immunotherapy; and single-use offerings such as in-clinic diagnostic tests and heartworm preventive products. Our core focus is on supporting veterinarians in the canine and feline healthcare space.

Basis of Presentation and Consolidation

In the opinion of management, the accompanying Consolidated Financial Statements contain all adjustments, consisting of normal, recurring adjustments, necessary to present fairly the financial position of the Company as of December 31, 2018 and 2017, as well as the results of our operations, statements of stockholders' equity and cash flows for the twelve months ended December 31, 2018, 2017 and 2016.

The audited Consolidated Financial Statements included herein have been prepared pursuant to the rules and regulations of the SEC. Our audited Consolidated Financial Statements include our accounts and the accounts of our wholly-owned subsidiaries since their respective dates of acquisitions. All intercompany accounts and transactions have been eliminated in consolidation. Where our ownership of a subsidiary was less than 100%, the non-controlling interest is reported on our consolidated balance sheets. The non-controlling interest in our consolidated net income is reported as "Net income (loss) attributable to non-controlling interest" on our Consolidated Statements of Income. Our audited Consolidated Financial Statements are stated in U.S. Dollars and have been prepared in accordance with accounting principles generally accepted in the U.S. ("GAAP").

Reclassification

To maintain consistency and comparability, certain amounts in the financial statements have been reclassified to conform to current year presentation.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant estimates are required when establishing the allowance for doubtful accounts and the net realizable value of inventory; determining future costs associated with warranties provided; determining the period over which our obligations are fulfilled under agreements to license product rights and/or technology rights; evaluating long-lived and intangible assets and investments for estimated useful lives and impairment; estimating the useful lives of instruments under leasing arrangements; determining the allocation of purchase price under purchase accounting; estimating the expense associated with the granting of stock options; and determining the need for, and the amount of a valuation allowance on deferred tax assets.

Concentration of Credit Risk

Financial instruments that potentially subject us to a concentration of credit risk consist of cash and cash equivalents and accounts receivable. We maintain the majority of our cash and cash equivalents with financial institutions that management believes are creditworthy in the form of demand deposits. We have no off-balance-sheet concentrations of credit risk such as foreign exchange contracts, options contracts or other

foreign currency hedging arrangements. Our accounts receivable balances are due largely from distribution partners, domestic veterinary clinics and individual veterinarians and other animal health companies.

Henry Schein represented 12% and 17% of our consolidated accounts receivable at December 31, 2018 and 2017, respectively. Merck entities represented approximately 10% and 15% of our consolidated accounts receivable at December 31, 2018 and 2017, respectively. DLL represented 8% and 11% of our consolidated accounts receivable at December 31, 2018 and 2017, respectively. Eli Lilly entities, including Elanco, represented approximately 32% and 4% of our consolidated accounts receivable at December 31, 2018 and 2017, respectively. No other customer accounted for more than 10% of our consolidated accounts receivable at December 31, 2018 or 2017.

We have established an allowance for doubtful accounts based upon factors surrounding the credit risk of specific customers, historical trends and other information.

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable are recorded at net realizable value. From time to time, our customers are unable to meet their payment obligations. We continuously monitor our customers' credit worthiness and use our judgment in establishing a provision for estimated credit losses based upon our historical experience and any specific customer collection issues that we have identified. While such credit losses have historically been within our expectations and the provisions established, there is no assurance that we will continue to experience the same credit loss rates that we have in the past. A significant change in the liquidity or financial position of our customers could have a material adverse impact on the collectability of accounts receivable and our future operating results.

Changes in allowance for doubtful accounts are summarized as follows (in thousands):

	Years Ended December 31,		
	2018	2017	2016
Balances at beginning of period	$ 215	$ 237	$ 189
Additions - charged to expense	104	168	163
Deductions - write offs, net of recoveries	(74)	(190)	(115)
Balances at end of period	$ 245	$ 215	$ 237

Cash and Cash Equivalents

Cash and cash equivalents are stated at cost, which approximates market value, and include short-term, highly liquid investments with original maturities of less than three months. We valued our foreign cash accounts at the spot market foreign exchange rate as of each balance sheet date, with changes due to foreign exchange fluctuations recorded in current earnings. We held 1.6 million and 1.1 million Euros at December 31, 2018 and 2017, respectively. We held 0.2 million and 0.1 million Swiss Francs at December 31, 2018 and 2017, respectively. The majority of our cash and cash equivalents are held at U.S.-based or Swiss-based financial institutions in accounts not insured by governmental entities.

Fair Value of Financial Instruments

Our financial instruments consist of cash and cash equivalents, short-term trade receivables and payables and the Company's revolving line of credit. The carrying values of cash and cash equivalents and short-term trade receivables and payables approximate fair value because of the short-term nature of the instruments. The fair value of our line of credit balance is estimated based on current rates available for similar debt with similar

maturities and collateral, and at December 31, 2018 and 2017, approximates the carrying value due primarily to the floating rate of interest on such debt instruments.

Inventories

Inventories are stated at the lower of cost or net realizable value using the first-in, first-out method. Inventory we manufacture includes the cost of material, labor and overhead. If the cost of inventories exceeds estimated net realizable value, provisions are made to reduce the carrying value to estimated net realizable value. This estimate is calculated utilizing various information including assumptions of future market demand, market conditions and remaining shelf life.

Inventories, net consist of the following (in thousands):

	December 31,	
	2018	2017
Raw materials	$ 15,000	$ 18,465
Work in process	3,592	4,296
Finished goods	8,085	11,465
Allowance for excess or obsolete inventory	(1,573)	(1,630)
	$ 25,104	$ 32,596

Property and Equipment

Property and equipment is stated at cost, net of accumulated depreciation. The costs of additions and improvements are capitalized, while maintenance and repairs are charged to expense as incurred. When an item is sold or retired, the cost and related accumulated depreciation is relieved and the resulting gain or loss, if any, is recognized in the Consolidated Statements of Income. We provide for depreciation primarily using the straight-line method by charges to income in amounts that allocate the cost of property and equipment over their estimated useful lives as follows:

Asset Classification	Estimated Useful Life
Building	10 to 20 years
Machinery and equipment	2 to 7 years
Office furniture and equipment	3 to 7 years
Computer hardware and software	3 to 5 years
Leasehold and building improvements	5 to 15 years

We capitalize certain costs incurred in connection with developing or obtaining software designated for internal use based on three distinct stages of development. Qualifying costs incurred during the application development stage, which consist primarily of internal payroll and direct fringe benefits and external direct project costs, including labor and travel, are capitalized and amortized on a straight-line basis over the estimated useful life of the asset, which range from three to five years. Costs incurred during the preliminary project and post-implementation and operation phases are expensed as incurred. These costs are general and administrative in nature and related primarily to the determination of performance requirements, data conversion and training.

Investments in Unconsolidated Affiliates

Investments in unconsolidated affiliates are measured and recorded as either non-marketable equity securities or equity method investments. Non-marketable equity securities are equity securities without readily determinable fair value that are measured and recorded using a measurement alternative which measures the securities at cost minus impairment, if any, plus or minus changes from qualifying observable price changes. Equity method investments are equity securities in investees we do not control but over which we have the ability to exercise significant influence. When the equity method of accounting is determined to be appropriate, the initial measurement of the investment includes the cost of the investment and all direct transaction costs incurred to acquire the investment. Equity method investments are measured at cost minus impairment, if any, plus or minus our share of equity method investee income or loss, which will be recorded as a separate line on the income statement. Both types of investments will be evaluated for impairment if a triggering event occurs.

Goodwill, Intangible and Other Long-Lived Assets

Goodwill is initially valued based on the excess of the purchase price of a business combination over the fair value of acquired net assets recognized and represents the future economic benefits arising from other assets acquired that could not be individually identified and separately recognized. Intangible assets other than goodwill are initially valued at fair value. If a quoted price in an active market for the identical asset is not readily available at the measurement date, the fair value of the intangible asset is estimated based on discounted cash flows using market participant assumptions, which are assumptions that are not specific to the Company. The selection of appropriate valuation methodologies and the estimation of discounted cash flows require significant assumptions about the timing and amounts of future cash flows, risks, appropriate discount rates, and the useful lives of intangible assets. When material, we utilize independent valuation experts to advise and assist us in determining the fair values of the identified intangible assets acquired in connection with a business acquisition and in determining appropriate amortization methods and periods for those intangible assets.

We assess goodwill for impairment annually, at the reporting unit level, in the fourth quarter and whenever events or circumstances indicate impairment may exist. In evaluating goodwill for impairment, we have the option to first assess the qualitative factors to determine whether it is more-likely-than-not that the estimated fair value of the reporting unit is less than its carrying amount as a basis for determining whether it is necessary to perform the comparison of the estimated fair value of the reporting unit to the carrying value. The more-likely-than-not threshold is defined as having a likelihood of more than 50 percent. If, after assessing the totality of events or circumstances, we determine that is it more-likely-than-not that the estimated fair value of a reporting is less than its carrying amount, we would then estimate the fair value of the reporting unit and compare it to the carrying value. If the carrying value exceeds the estimated fair value we would recognize an impairment for the difference; otherwise, no further impairment test would be required. In contrast, we can opt to bypass the qualitative assessment for any reporting unit in any period and proceed directly to quantitative analysis. Doing so does not preclude us from performing the qualitative assessment in any subsequent period.

We performed qualitative assessments in the fourth quarters of 2018, 2017, and 2016 and determined that no indications of impairment existed.

We assess the realizability of intangible assets other than goodwill whenever events or changes in circumstances indicate that the carrying value may not be recoverable. If an impairment review is triggered, we evaluate the carrying value of intangible assets based on estimated undiscounted future cash flows over the remaining useful life of the primary asset of the asset group and compare that value to the carrying value of the asset group. The cash flows that are used contain our best estimates, using appropriate and customary

assumptions and projections at the time. If the net carrying value of an intangible asset exceeds the related estimated undiscounted future cash flows, an impairment to adjust the intangible asset to its fair value would be reported as a non-cash charge to earnings. If necessary, we would calculate the fair value of an intangible asset using the present value of the estimated future cash flows to be generated by the intangible asset, and applying a risk-adjusted discount rate. We had no impairments of our intangible assets during the years ended December 31, 2018, 2017, and 2016.

Revenue Recognition

We account for revenue in accordance with ASC Topic 606, *Revenue from Contracts with Customers,* which we adopted on January 1, 2018, using the modified retrospective transition approach. See "Adoption of New Accounting Pronouncements" below for impacts of adoption.

We generate our CCA segment revenue through the sale of products, either by outright purchase by our customers or through a subscription agreement whereby our customers receive instruments and pay us a monthly fee for the usage of the instrument as well as the consumables needed to conduct testing. Outright sales to customers are the majority of both Point of Care imaging diagnostic transactions and the sale of pharmaceuticals and vaccines, while subscription placement is the majority of Point of Care laboratory transactions.

For outright sales of products, revenue is recognized when control of the promised product or service is transferred to our customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for those products or services (the transaction price). Taxes assessed by governmental authorities and collected from the customer are excluded from our revenue recognition. A performance obligation is a promise in a contract to transfer a distinct product or service to a customer and is the unit of account under ASC 606. For instruments, consumables and most software licenses sold by the Company, control transfers to the customer at a point in time. To indicate the transfer of control, the Company must have a present right to payment, legal title must have passed to the customer, the customer must have the significant risks and rewards of ownership and where acceptance is not a formality, the customer must have accepted the product or service. Heska's principal terms of sale are FOB Shipping Point, or equivalent, and, as such, we primarily transfer control and record revenue for product sales upon shipment. If a performance obligation to the customer with respect to a sales transaction remains unfulfilled following shipment (typically owed installation or acceptance by the customer), revenue recognition for that performance obligation is deferred until such commitments have been fulfilled. For extended warranty and service plans, control transfers to the customer over the term of the arrangement. Revenue for extended warranties and service is recognized based upon the period of time elapsed under the arrangement.

Our revenue under subscription agreements relates to OTL arrangements or STL arrangements. Determination of an OTL or STL is primarily determined as a result of the length of the contract as compared to the estimated useful life of the instrument, among other factors. Leases are outside of the scope of ASC 606 and are therefore accounted for in accordance with ASC 840*, Leases*. A STL would result in earlier recognition of instrument revenue as compared to an OTL, which is generally upon installation of the instruments. The cash collected under both arrangements is over the term of the contract. The cost of the customer-leased instruments is removed from inventory and recognized in the Consolidated Statements of Income. Instrument lease revenue for OTL agreements is recognized on a straight-line basis over the life of the lease, and the costs of customer-leased instruments are recorded within property and equipment in the accompanying Consolidated Balance Sheets and depreciated over the instrument's estimated useful life. The depreciation expense is reflected in cost of revenue in the accompanying Consolidated Statements of Income. The OTLs and STLs are not cancellable until after an initial term. OTLs may include a minimum utilization rather than a minimum supply credit. Adoption of ASC 842 (refer to *Accounting Pronouncements Not Yet Adopted*) may

impact the classification of this type of lease on a go-forward basis due to the change in lessor requirements within the new standard.

For contracts with multiple performance obligations, the Company allocates the contracts' transaction price for each performance obligation on a relative standalone selling price basis using our best estimate of the standalone selling price of each distinct product or service in the contract. The primary method used to estimate the standalone selling price is the price observed in standalone sales to customers of a prior period. Changes in these values can impact the amount of consideration allocated to each component of the contract. When prices in standalone sales are not available, we may use a cost-plus margin approach. Allocation of the transaction price is determined at the contracts' inception. The Company does not adjust the transaction price for the effects of a significant financing component when the period between the transfer of the promised good or service to the customer and payment for that good or service by the customer is expected to be one year or less. This allocation approach also applies to contracts for which a portion of the contract relates to a lease component.

To the extent the transaction price includes variable consideration, such as future payments based on consumable usage over time, we apply judgment to determine if the variable consideration should be constrained. As the variable consideration is highly susceptible to factors outside of the Company’s influence, and the potential values contain a broad range of possible outcomes given all potential amounts of consumption that could occur, it is likely that a significant revenue reversal would occur should the variable consideration be estimated at an amount greater than the minimum stated amount until such a time as the uncertainty is resolved.

We generate revenue within our OVP segment through contract manufacturing agreements with customers. The timing of revenue recognition of our customer contracts are generally recognized upon shipment or acceptance by our customer, under the same guidelines noted above for other outright product sales. Heska assessed the over-time criteria within ASC 606 and concluded that while products within this segment have no alternative use to Heska, as Heska is contractually prohibited to redirect the product to other customers, Heska does not have right to payment for performance to date. Therefore, point in time revenue recognition has been determined to be appropriate.

Revenue generated from licensing arrangements is recognized based on the underlying term of the contract.

Recording revenue from the sale of products involves the use of estimates and management's judgment. We must make a determination at the time of sale whether the customer has the ability and intent to make payments in accordance with arrangements. While we do utilize past payment history and, to the extent available for new customers, public credit information in making our assessment, the determination of whether collectability is reasonably assured is ultimately a judgment that must be made by management. We must also make estimates regarding our future obligations relating to returns, rebates, allowances and similar other programs. We do not generally allow return of products or instruments. Distributor rebates are recorded as a reduction to revenue.

Refer to Note 2 for additional disclosures required by ASC 606.

Prior to the adoption of ASC 606 on January 1, 2018, the Company recognized revenue in accordance with Topic 605, *Revenue Recognition*. Our policy was to recognize revenue when the applicable revenue recognition criteria were met, which generally included the following: persuasive evidence of an arrangement exists; delivery has occurred or services rendered; price is fixed or determinable; and collectability is reasonably assured. The adoption of the new revenue standard did not materially change our recognition from ASC 605 (as disclosed under *Adoption of New Accounting Pronouncements*).

Stock-based Compensation

Stock-based compensation expense is measured at the grant date based upon the estimated fair value of the portion of the award that is ultimately expected to vest and is recognized as expense over the applicable vesting period of the award generally using the straight-line method.

Advertising Costs

Advertising costs are expensed as incurred and are included in sales and marketing expenses. Advertising expenses were $0.2 million for each of the years ended December 31, 2018, 2017 and 2016.

Income Taxes

The Company records a current provision for income taxes based on estimated amounts payable or refundable on tax returns filed or to be filed each year. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates, in each tax jurisdiction, expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates, including the prior year impact of the enacted 21% U.S. corporate income tax rate under the Tax Cuts and Jobs Act, is recognized in operations in the period that includes the enactment date. The overall change in deferred tax assets and liabilities for the period measures the deferred tax expense or benefit for the period. Deferred tax assets are reduced by a valuation allowance based on a judgmental assessment of available evidence if the Company is unable to conclude that it is more likely than not that some or all of the deferred tax assets will be realized.

Earnings Per Share

Basic earnings per share is computed by dividing income available to common shareholders by the weighted-average number of shares of common stock outstanding during the period. Diluted earnings per share is computed by dividing income available to common shareholders by the weighted-average number of shares of common stock outstanding during the period increased to include the number of additional shares of common stock that would have been outstanding if the potentially dilutive securities had been issued.

Foreign Currency Translation

The functional currency of our Swiss subsidiary is the Swiss Franc. Assets and liabilities of our Swiss subsidiary are translated using the exchange rate in effect at the balance sheet date. Revenue and expense accounts and cash flows are translated using an average of exchange rates in effect during the period. Cumulative translation gains and losses are shown in the Consolidated Balance Sheets as a separate component of stockholders' equity. Exchange gains and losses arising from transactions denominated in foreign currencies (i.e., transaction gains and losses) are recognized as a component of other income (expense) in current operations, as are exchange gains and losses on intercompany transactions expected to be settled in the near term.

Warranty Costs

The Company generally provides for the estimated cost of hardware and software warranties in the period the related revenue is recognized. The Company assesses the adequacy of its accrued warranty liabilities and adjusts the amounts as necessary based on actual experience and changes in future estimates. Should product failure rates differ from our estimates, actual costs could vary significantly from our expectations. Extended warranties

are sold to our customers and revenue is recognized over the term of the warranty agreement, as expected costs are incurred.

Adoption of New Accounting Pronouncements

Effective January 1, 2018, we adopted FASB ASU 2017-09, *Compensation - Stock Compensation (Topic 718): Scope of Modification Accounting*, which provides clarification on accounting for modifications in share-based payment awards. The adoption of this guidance did not have an impact on our consolidated financial statements or related disclosures as there were no modifications to our share-based payment awards during 2018.

In March 2018, we adopted FASB ASU 2018-05, *Income Taxes (Topic 740): Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 118*, which updates the income tax accounting to reflect the SEC's interpretive guidance released on December 22, 2017, when the 2017 Tax Act was signed into law. See Item 8, Note 4 - Income Taxes, for the impact of adoption to our consolidated financial statements.

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers* and has subsequently issued several supplemental and/or clarifying ASUs (collectively "ASC 606"). ASC 606 prescribes a single common revenue standard that replaces most existing GAAP revenue recognition guidance. ASC 606 outlines a five-step model, under which Heska recognized revenue as performance obligations within customer contracts are satisfied. ASC 606 is intended to provide more consistent interpretation and application of the principles outlined in the standard across filers in multiple industries and within the same industries compared to current practices, which should improve comparability. Along with the issuance of ASC 606, additional cost guidance was issued and codified under ASC 340-40 that outlines the requirements for capitalizing incremental costs of obtaining a contract and costs to fulfill a contract that meet certain capitalization criteria.

On January 1, 2018, we adopted ASC 606 using the modified retrospective method for all customer contracts not yet completed as of the adoption date. Results for reporting periods beginning January 1, 2018 are presented under ASC 606, while prior period amounts were not adjusted and continue to be reported in accordance with the Company's historic accounting under Topic 605, *Revenue Recognition.*

We recorded an increase to beginning retained earnings of $2.6 million as of January 1, 2018 due to the cumulative impact of adopting ASC 606. The impact to beginning retained earnings was primarily driven by the capitalization of certain costs to obtain our customer contracts, which were primarily sales-related commissions. The adoption of ASC 606 did not have a significant impact on our Consolidated Financial Statements as of and for the twelve months ended December 31, 2018. As a result, comparisons of revenues and operating profit performance between periods are not affected by the adoption of this ASU.

Accounting Pronouncements Not Yet Adopted

In June 2018, the FASB issued ASU 2018-07, *Compensation – Stock Compensation (Topic 718)*, Improvements to Nonemployee Share-Based Payment Accounting. This ASU is intended to simplify aspects of share-based compensation issued to non-employees by making the guidance consistent with accounting for employee share-based compensation. ASU 2018-07 is effective for annual periods beginning after December 15, 2018 and interim periods within those annual periods, with early adoption permitted but no earlier than an entity’s adoption date of Topic 606. We will adopt the provisions of this ASU in the first quarter of 2019. Adoption of the new standard is not expected to have a material impact on our Consolidated Financial Statements.

In February 2018, the FASB issued ASU 2018-02, *Income Statement-Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*. The

ASU permits companies to elect a reclassification of the disproportionate tax effects in accumulated other comprehensive income ("AOCI") caused by the Tax Cuts and Jobs Act of 2017 to retained earnings. The ASU also requires additional disclosures. This update is effective for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years, with early adoption permitted. We will adopt the provisions of this ASU in the first quarter of 2019. As of December 31, 2018, the Company does not have any disproportionate income tax effects in AOCI to reclassify, therefore, adoption of the new standard is not expected to have a material impact on our Consolidated Financial Statements.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments - Credit Losses (Topic 326)*, which require that financial assets measured at amortized cost be presented at the net amount expected to be collected. The allowance for credit losses is a valuation account that is deducted from the amortized cost basis of the financial asset to present the net carrying value at the amount expected to be collected. The income statement reflects the measurement of credit losses for newly recognized financial assets, as well as the increases or decreases of expected credit losses that have taken place during the period. The measurement of expected credit losses is based upon historical experience, current conditions and reasonable and supportable forecasts that affect the collectability of the reported amount. In November 2018, the FASB issued ASU 2018-19, *Codification Improvements to Topic 326, Financial Instruments - Credit Losses*. This ASU clarifies that receivables from operating leases are accounted for using the lease guidance and not as financial instruments. The amendments in this update are effective for fiscal years beginning after December 15, 2019 and interim periods within those annual periods. Early adoption for fiscal year beginning after December 15, 2018 is permitted. We will adopt the provisions of this ASU in the first quarter of 2020. We are currently evaluating the effect of this update on our consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*, which supersedes ASC 840, *Leases*. This update requires lessees to recognize a lease liability and a right-of-use ("ROU") asset for all leases, including operating leases, with a term greater than 12 months on its balance sheet. The update also expands the required quantitative and qualitative disclosures surrounding leases. The accounting for lessors does not fundamentally change except for changes to conform and align guidance to the lessee guidance as well as to the new revenue recognition guidance in ASU 2014-09. In July 2018, the FASB issued ASU 2018-10, *Codification Improvements to Topic 842, Leases* and ASU 2018-11, *Leases, Targeted Improvements,* which provide additional clarification and implementation guidance on certain aspects of ASU 2016-02 and have the same effective date and transition requirements. Specifically, ASU 2018-10 provides certain amendments that affect narrow aspects of the guidance issued in ASU 2016-02, and ASU 2018-11 creates an additional transition method option allowing entities to record a cumulative effect adjustments to the opening retained earnings balance in the year of adoption. ASU 2018-11 also allows lessors to not separate nonlease components from the associated lease component if certain conditions are met. In December 2018, the FASB issued ASU 2018-20, *Leases: Narrow-Scope Improvements for Lessors.* This ASU provides an election for lessors to exclude sales and related taxes from consideration in the contract, requires lessors to exclude from revenue and expense lessor costs paid directly to a third party by lessees, and clarifies lessors' accounting for variable payments related to both lease and nonlease components.

Adoption of ASC 842 is required for annual reporting periods beginning after December 15, 2018, including interim periods within those fiscal years. A modified retrospective transition approach is required, applying the new standard to all leases existing at the date of initial application. An entity may choose to use either (1) its effective date or (2) the beginning of the earliest comparative period presented in the financial statements as its date of initial application. The Company has elected, as of January 1, 2019, to adopt the standard using the effective date as our date of initial application. The comparative information will not be recast and will continue to be reported under the accounting standard in effect for those periods. A package of practical expedients were made available to lessees and will be elected by the Company, which among other things, allows us to carry forward the historical lease classification.

Heska assessed the impact that the adoption of ASC 842 is expected to have on its Consolidated Financial Statements by analyzing its current portfolio of leases, including a review of historical accounting policies and practices to identify potential differences in applying the guidance of ASC 842. We also performed a comprehensive review of our current processes and systems to determine and implement changes required to support the adoption of ASC 842 on January 1, 2019.

Based on a review of contracts that convey the right to control use of an identified asset within our Core Companion Animal ("CCA") segment, we determined we are both a lessee and a lessor. We evaluated the types of assets, the terms associated with their contracts and the present value of future lease payments expected to be paid. As a lessor, our revenue under subscription agreements relates to either OTL or STL arrangements, which will now be recognized under ASC 842. As a lessee, our most significant lease balances are related to buildings and vehicles which have lease terms through 2023 and 2021, respectively.

Based on a review of contracts that convey the right to control use of an identified asset within our Other Vaccines and Pharmaceuticals ("OVP") segment, we determined we are only a lessee. We evaluated the types of assets, the terms associated with their contracts and the present value of future lease payments expected to be paid. Our OVP segment does not enter into transactions as a lessor and has relatively immaterial agreements of which were entered into as a lessee.

The standard will not have a material net impact in our Consolidated Balance Sheets, Consolidated Statements of Income or Consolidated Statements of Cash Flows. The most significant impact will be the recognition of ROU assets and lease liabilities for the operating leases, of which we are the lessee. The effect of this update is expected to be a ROU asset and lease liability of between $6.5 to 7.0 million dollars. As a lessor, accounting for our subscription agreements which are operating-type leases will remain substantially unchanged.

2. REVENUE

We separate our goods and services among:

- Point of Care laboratory products including instruments, consumables and services;
- Point of Care imaging products including instruments, software and services;
- Single use pharmaceuticals, vaccines and diagnostic tests primarily related to companion animals; and
- Other vaccines and pharmaceuticals.

The following table summarizes our CCA revenue (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Point of Care laboratory revenue:	$ 57,375	$ 54,855	$ 48,817
Consumables	*44,771*	*39,161*	*36,344*
Sales-type leases	*5,888*	*7,382*	*4,754*
Outright instrument sales	*4,922*	*6,391*	*5,684*
Other	*1,794*	*1,921*	*2,035*
Point of Care imaging revenue:	22,832	21,907	29,609
Outright instrument sales	*19,746*	*19,187*	*26,936*
Service revenue	*854*	*713*	*1,206*
Operating type leases	*2,232*	*2,007*	*1,467*
Other CCA revenue:	28,717	28,429	28,972
Other pharmaceuticals, vaccines and diagnostic tests	*28,265*	*28,008*	*28,596*
Research and development, license and royalty revenue	*452*	*421*	*376*
Total CCA revenue	$ 108,924	$ 105,191	$ 107,398

Revenue from our OVP segment consists of revenue generated from contract manufacturing agreements and from other license and research and development revenue. The following table summarizes our OVP revenue (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Contract manufacturing	$ 17,508	$ 23,490	$ 21,477
License, research and development	1,014	660	1,208
Total OVP revenue	$ 18,522	$ 24,150	$ 22,685

Remaining Performance Obligations

Remaining performance obligations related to ASC 606 represent the aggregate transaction price allocated to performance obligations with an original contract term greater than one year which are fully or partially unsatisfied at the end of the period. Remaining performance obligations include noncancelable purchase orders, the non-lease portion of minimum purchase commitments under long-term supply arrangements, extended warranty, service and other long-term contracts. Remaining performance obligations do not include revenue from contracts with customers with an original term of one year or less, revenue from long-term supply arrangements with no minimum purchase requirements, revenue expected from purchases made in excess of the minimum purchase requirements, or revenue from instruments leased to customers. While the remaining performance obligation disclosure is similar in concept to backlog, the definition of remaining performance obligations excludes leases and contracts that provide the customer with the right to cancel or terminate for convenience with no substantial penalty, even if historical experience indicates the likelihood of cancellation or termination is remote. Additionally, the Company has elected to exclude contracts with

customers with an original term of one year or less from remaining performance obligations while these contracts are included within backlog.

As of December 31, 2018, the aggregate amount of the transaction price allocated to remaining minimum performance obligations was approximately $84.1 million. As of December 31, 2018, the Company expects to recognize revenue as follows (in thousands):

Year Ending December 31,		Revenue
2019	$	23,194
2020		19,556
2021		15,474
2022		12,281
2023		8,744
Thereafter		4,873
	$	84,122

Contract Balances

The timing of revenue recognition, billings and cash collections results in billed accounts receivable, unbilled receivables, deferred revenue, and customer deposits and billings in excess of revenue recognized (contract liabilities) on the Consolidated Balance Sheets. In addition, the Company defers certain costs incurred to obtain contracts (contract costs).

Contract Receivables

Certain unbilled receivable balances related to long-term contracts for which we provide a free term to the customer but have recognized revenue are recorded in other current and other non-current assets. We have no further performance obligations related to these receivable balances and the collection of these balances occurs over the term of the underlying contract. The balances as of December 31, 2018 were $0.9 million and $3.3 million for current and non-current assets, respectively, shown net of related unearned interest. The balances as of December 31, 2017 were $0.7 million and $3.1 million for current and non-current assets, respectively.

Contract Liabilities

The Company receives cash payments from customers for licensing fees or other arrangements that extend for a specified term. These contract liabilities are classified as either current or long-term in the Consolidated Balance Sheets based on the timing of when the Company expects to recognize revenue. As of December 31, 2018 and 2017, contract liabilities were $9.6 million and $12.3 million, respectively, and are included within "Current portion of deferred revenue, and other" and "Deferred revenue, net of current portion" in the accompanying Consolidated Balance Sheets. The decrease in the contract liability balance during the year ended December 31, 2018 is $4.1 million of revenue recognized during the period, offset by $1.4 million of additional deferred sales. The decrease in the contract liability balance during the year ended December 31, 2017 is $4.0 million of revenue recognized during the period, offset by $2.5 million of additional deferred sales.

Contract Costs

The Company capitalizes certain direct incremental costs incurred to obtain customer contracts, typically sales-related commissions, where the recognition period for the related revenue is greater than one year. Contract costs are classified as current or non-current, and are included in "Other current assets" and "Other non-current assets" in the Consolidated Balance Sheets based on the timing of when the Company expects to recognize the expense. Contract costs are generally amortized into selling and marketing expense with a certain percentage recognized immediately based upon placement of the instrument with the remainder recognized on a straight-line basis (which is consistent with the transfer of control for the related goods or services) over the average term of the underlying contracts, approximately 6 years. Management assesses these costs for impairment at least quarterly on a portfolio basis and as “triggering” events occur that indicate it is more-likely-than-not that an impairment exists. The balance of contract costs as of December 31, 2018 and at the date of adoption was $2.5 million and $2.4 million, respectively. Amortization expense for the year ended December 31, 2018 was approximately $1.0 million, offset by approximately $1.0 million of additional contract costs capitalized.

Contract liabilities are reported on the accompanying Consolidated Balance Sheets on a contract-by-contract basis whereas contract costs are calculated and reported on a portfolio basis.

3. ACQUISITION AND RELATED PARTY ITEMS

Purchase Agreement for Certain Assets

On December 21, 2018, the Company closed a transaction (the "Asset Acquisition") to acquire certain assets from Cuattro, LLC ("Cuattro"), all related to the CCA segment. Cuattro is owned by Kevin S. Wilson, the CEO and President of Heska Corporation. Pursuant to the Asset Acquisition, dated November 26, 2018, the Company issued 54,763 shares of the Company's common stock, $0.01 par value per share (the "Common Stock"), to Cuattro on the Closing Date, at an aggregate value equal to approximately $5.4 million based on the adjusted closing price per share of the Common Stock as reported on the Nasdaq Stock Market on the Asset Acquisition agreement date. These shares were issued to Cuattro in a private placement in reliance upon an exemption from the registration requirements of the Securities Act pursuant to Section 4(a)(2) thereof and the safe harbor provided by Rule 506 of Regulation D promulgated thereunder. In addition to the Common Stock, the Company paid cash in the amount of $2.8 million to Cuattro as part of the transaction. The total purchase price was determined based on a valuation report from an independent third party. Part of the Asset Acquisition was an agreement to terminate the supply and license agreement that Heska had been operating under since the acquisition of Cuattro Veterinary USA, LLC.

The Company evaluated the acquisition of the purchased assets under ASC 805, *Business Combinations* and ASU 2017-01, *Business Combinations (Topic 805)* and concluded that as substantially all of the fair value of the gross assets acquired is concentrated in an identifiable group of similar assets, the transaction did not meet the requirements to be accounted for as a business combination and therefore was accounted for as an asset acquisition. Accordingly, the purchase price of the purchased assets was allocated entirely to an identifiable intangible asset as identified below. In addition to the software assets acquired, Cuattro is obligated, without further compensation, to assist the Company with the implementation of third-party image hosting platform and necessary data migration.

Intangible assets acquired, amortization method and estimated useful life as of December 31, 2018 was as follows (dollars in thousands) (life in years):

	Useful Life	Amortization Method	Fair Value
Acquired Technology	10.00	Straight-line	$8,200

Cuattro Veterinary, LLC

On May 31, 2016, the Company closed a transaction (the "Merger") to acquire Cuattro Veterinary, LLC ("Cuattro International") from Kevin S. Wilson, and all of the members of Cuattro International (the "Members"). Pursuant to the Merger, the Company issued 175,000 shares of the Company's common stock, $0.01 par value per share (the "Common Stock"), to the Members on the Closing Date, at an aggregate value equal to approximately $6.3 million based on the adjusted closing price per share of the Common Stock as reported on the Nasdaq Stock Market on the Merger closing date. These shares were issued to the Members in a private placement in reliance upon an exemption from the registration requirements of the Securities Act pursuant to Section 4(a)(2) thereof and the safe harbor provided by Rule 506 of Regulation D promulgated thereunder. Effective on the Merger closing date, each of the Members executed lock-up agreements with the Company that restricted their ability to sell any of the shares of Common Stock received in the Merger until 180 days after the Merger closing date. In addition, the Company assumed approximately $1.5 million in debt as part of the transaction.

Mr. Wilson is a founder of Cuattro International, Cuattro, LLC, Cuattro Software, LLC and Cuattro Medical, LLC. Mr. Wilson, Mrs. Wilson and trusts for the benefit of Mr. and Mrs. Wilson's children and family own a 100% interest in Cuattro, LLC and a majority interest in Cuattro Medical, LLC. Cuattro, LLC owns a 100% interest in Cuattro Software, LLC and, prior to the Merger, owned a majority interest in Cuattro International.

The Company recorded assets acquired and liabilities assumed at their estimated fair values. Intangible assets were valued based on a report from an independent third party. The goodwill associated with the acquisition is the result of expected synergies and expansion of the technology into additional markets.

The following summarizes the aggregate consideration paid by the Company and the allocation of the purchase price (in thousands):

Common stock issued - 175,000 shares	$	6,347
Debt assumed		1,535
Total fair value of consideration transferred	$	7,882

Accounts receivable	$	222
Inventories		39
Due from Cuattro, LLC		963
Property and equipment		80
Other tangible assets		164
Deferred tax asset		56
Intangible assets		2,521
Goodwill		5,783
Accounts payable		(112)
Deferred tax liability		(905)
Other assumed liabilities		(929)
Total fair value of consideration transferred	$	7,882

Intangible assets acquired, amortization method and estimated useful lives as of May 31, 2016 was as follows (dollars in thousands):

	Useful Life	Amortization Method	Fair Value
Customer relationships	6.67	Straight-line	$2,521

Cuattro International is a provider to international markets of digital radiography technologies for veterinarians. As a leading provider of advanced veterinary diagnostic and specialty products, we made the acquisition in an effort to combine Cuattro International's international reach with our domestic success in the imaging and Point of Care laboratory markets in the U.S. International markets represent a significant portion of worldwide veterinary revenues for which we intend to compete.

As of the closing date of the Merger, Cuattro International was renamed Heska Imaging International, LLC, and the Company's interest in both Heska Imaging International, LLC ("International Imaging") and Heska Imaging US, LLC ("U.S. Imaging") was transferred to the Company's wholly-owned subsidiary, Heska Imaging Global, LLC ("Global Imaging").

Cuattro Veterinary USA, LLC

On February 24, 2013, the Company acquired a 54.6% interest in Cuattro Veterinary USA, LLC (the "Acquisition"), which was subsequently renamed Heska Imaging US, LLC ("U.S. Imaging"). The remaining minority position (45.4)% in U.S. Imaging was subject to purchase by Heska under performance-based puts and calls following the audit of our financial statements for 2016 and 2017. The required performance criteria were met in 2016, we considered notice given on March 3, 2017 that the put option was being exercised and on May 31, 2017, we delivered $13.8 million in cash to obtain the remaining minority position in U.S. Imaging.

Prior to the purchase of the minority position (the "Imaging Minority"), Shawna M. Wilson, Clint Roth, DVM, Steven M. Asakowicz, Rodney A. Lippincott, Kevin S. Wilson and Cuattro, LLC owned approximately 29.75%, 8.39%, 4.09%, 3.07%, 0.05% and 0.05% of U.S. Imaging, respectively. Kevin S. Wilson is the Chief Executive Officer and President of the Company and the spouse of Shawna M. Wilson. Steven M. Asakowicz and Rodney A. Lippincott each serve as Executive Vice President, Companion Animal Health Sales for the Company. On April 3, 2017, and in accordance with the terms of its Operating Agreement, U.S. Imaging distributed $2.1 million based on past operating performance, including $1.0 million to its minority interest members. As of December 31, 2017, U.S. Imaging accrued an additional $0.3 million distribution, including $0.1 million to its minority interest members, all of which was paid in January 2018.

On June 1, 2017, the Company consolidated its assets and liabilities in the U.S. Imaging and International Imaging companies into Global Imaging, which was re-named Heska Imaging, LLC ("Heska Imaging").

Related Party Activities

Cuattro, LLC charged Heska Imaging $4.6 million, $17.7 million and $14.5 million during 2018, 2017 and 2016, respectively, primarily related to digital imaging products, pursuant to an underlying supply contract that contains minimum purchase obligations, software and services as well as other operating expenses. The Company charged Cuattro, LLC $3 thousand, $0.1 million and $0.2 million in the years ended December 31, 2018, 2017 and 2016, respectively, for facility usage and other services. As of the December 21, 2018, the closing date of the aforementioned Asset Acquisition, all supply and license agreements with Cuattro have been terminated.

The Company had receivables from Cuattro, LLC of approximately $0 and $1 thousand as of December 31, 2018 and 2017, respectively which is included in "Due from - related parties" on the Company's Consolidated Balance Sheets. Heska Imaging owed Cuattro $0.2 million and $1.7 million as of December 31, 2018 and 2017, respectively, which is included in "Due to - related parties" on the Company's Consolidated Balance Sheets.

Heska Corporation charged U.S. Imaging $2.9 million from January 1, 2017 to May 31, 2017, prior to the acquisition of the minority interest, and $5.3 million for the year ended December 31, 2016, for sales and other administrative related expenses.

4. INCOME TAXES

Income Taxes

As of December 31, 2018, the Company had a domestic federal net operating loss carryforward ("NOL"), of approximately $74.3 million and a domestic research and development tax credit carryforward of approximately $0.5 million. Our federal NOL is expected to expire as follows if unused: $68.3 million in 2019 through 2023, $5.5 million in 2024 and 2025 and $0.5 million in 2027 and later.

The Company is subject to income taxes in the U.S. federal jurisdiction, and various foreign, state and local jurisdictions. Tax regulations within each jurisdiction are subject to the interpretation of the related tax laws and regulations and require significant judgment to apply. Although the U.S. and many states generally have statutes of limitations ranging from 3 to 5 years, those statutes could be extended due to the Company’s net operating loss and tax credit carryforward positions in a number of the Company’s tax jurisdictions. In the U.S., the tax years 2015 - 2017 remain open to examination by the Internal Revenue Service.

Cash paid for income taxes for the years ended December 31, 2018, 2017 and 2016 was $36 thousand, $213 thousand and $357 thousand, respectively.

The components of income before income taxes were as follows (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Domestic	$ 3,602	$ 18,188	$ 16,375
Foreign	205	181	129
	$ 3,807	$ 18,369	$ 16,504

Temporary differences that give rise to the components of net deferred tax assets are as follows (in thousands):

	December 31,	
	2018	2017
Inventory	$ 1,249	$ 1,321
Accrued compensation	110	103
Stock options	1,281	914
Research and development	476	442
Legal Settlement	1,678	—
Deferred revenue	3,305	2,002
Property and equipment	3,065	2,531
Net operating loss carryforwards – domestic	17,088	22,627
Foreign tax credit carryforward	38	54
Capital leases	(3,936)	(3,757)
Unremitted earnings for controlled foreign corporations	—	(50)
Other	—	194
	24,354	26,381
Valuation allowance	(10,233)	(14,504)
Total net deferred tax assets	$ 14,121	$ 11,877

The components of the income tax (benefit) expense are as follows (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Current income tax expense:			
Federal	$ (115)	$ —	$ 197
State	192	6	179
Foreign	63	43	31
Total current expense	$ 140	$ 49	$ 407
Deferred income tax (benefit) expense:			
Federal	$ (1,877)	$ 9,736	$ 3,545
State	(378)	(872)	387
Foreign	—	—	—
Total deferred (benefit) expense	(2,255)	8,864	3,932
Total income tax (benefit) expense	$ (2,115)	$ 8,913	$ 4,339

The Company's income tax (benefit) expense relating to income (loss) for the periods presented differs from the amounts that would result from applying the federal statutory rate to that income (loss) as follows:

	Year Ended December 31,		
	2018	2017	2016
Statutory federal tax rate	21 %	34 %	34 %
State income taxes, net of federal benefit	(8)%	(5)%	2 %
Non-controlling interest in Heska Imaging US, LLC	— %	1 %	(3)%
Non-temporary stock option benefit	(50)%	(30)%	(7)%
Meals and entertainment permanent difference	1 %	— %	— %
GILTI permanent difference	1 %	— %	— %
Other permanent differences	1 %	1 %	(1)%
Change in tax rate	— %	32 %	— %
Change in valuation allowance	— %	16 %	— %
Other deferred differences	(21)%	— %	— %
Other	(1)%	— %	1 %
Effective income tax rate	(56)%	49 %	26 %

In 2018, we had total income tax benefit of $2.1 million, including $2.3 million in domestic deferred income tax benefit, a non-cash benefit, and $0.1 million in current income tax expense. In 2017, we had total income tax expense of $8.9 million, including $8.9 million in domestic deferred income tax expense, a non-cash expense, and $0.05 million in current income tax expense. In 2016, we had total income tax expense of $4.3 million, including $3.9 million in domestic deferred income tax expense, a non-cash expense, and $0.4 million in current income tax expense. Income tax expense decreased in 2018 from 2017 from the recognition of $1.9 million in tax benefits related to stock based compensation deductions. The overall increase in tax expense in 2017 from 2016 was due to the re-measurement of our deferred tax assets (including the valuation allowance) due to the U.S. Tax Cuts and Jobs Act, offset by the reduction of tax expense from stock based compensation deductions.

ASC 740 provides detailed guidance for the financial statement recognition, measurement and disclosure of uncertain tax positions recognized in the financial statements. Tax positions must meet a "more-likely-than-not" recognition threshold before a benefit is recognized in the financial statements. As of December 31, 2018, the Company has not recorded a liability for uncertain tax positions. The Company would recognize interest and penalties related to uncertain tax positions in income tax (benefit) expense. No interest and penalties related to uncertain tax positions were accrued at December 31, 2018.

U.S. Tax Reform

On December 22, 2017, the tax legislation commonly known as the U.S. Tax Cuts and Jobs Act (the "Act") was signed into law. This enactment resulted in a number of significant changes to U.S. federal income tax law for U.S. corporations. Most notably, the statutory U.S. federal corporate income tax rate was changed from 35% to 21% for corporations; a one-time transition tax via a mandatory deemed repatriation of post-1986 undistributed foreign earnings; a tax on global intangible low-taxed income (“GILTI”) for tax years beginning after December 31, 2017; the further limitation of the deductibility of share-based compensation of certain highly compensated employees; and the repeal of the corporate alternative minimum tax; amongst other things.

Shortly after enactment, the SEC issued SAB 118, which provides guidance on accounting for the new legislation. Under SAB 118, an entity should recognize amounts for which accounting can be completed. Where accounting under ASC 740 is incomplete relative to certain income tax effects of tax reform, the entity should recognize provisional amounts and adjust such amounts as more information becomes available and disclose this information in its financial statements. The measurement period under SAB 118 is one year from date of enactment. The measurement period for these changes ended on December 22, 2018. In the fourth quarter of 2017, the Company recorded a provisional net inclusion amount of $38 thousand for the one-time transition tax. After finalizing the accounting for the transition tax, the Company recorded an additional $10 thousand for the net inclusion of the transition tax in the fourth quarter of 2018. The Company elected to pay this tax liability in one payment instead of the optional eight year period. As of December 31, 2018, the Company completed its analysis of the impact of the Act in accordance with SAB 118 and the amounts are no longer considered provisional.

GILTI, added by the Act for years beginning after December 31, 2017, is the excess, if any, of the Company's share of our foreign subsidiaries' (CFC) "net CFC tested income" over its "net deemed tangible income" for the tax year. For 2018, the Company has recorded a GILTI addition to taxable gross income of $230 thousand. The Company has elected to treat GILTI as a period cost instead of recording a deferred tax liability and to use the "tax law ordering approach" when assessing the need for a valuation allowance related to the potential loss of cash tax savings from net operating losses used to offset future GILTI.

The Act made significant changes to IRC §162(m), limit on the deduction for excessive remuneration to covered employees of public corporations. IRC §162(m) disallows the Company from deducting the compensation of any covered employee which exceeds $1.0 million with respect to such employee, for the taxable year. For the limitation, the Company has elected to allocate compensation on a cash first approach. Tax deductible compensation will be allocated to cash-compensation first and a deferred tax asset will only be recorded for share-based compensation up to the limit of $1.0 million per covered employee per year. If cash-based compensation is expected to exceed the limitation, no deferred tax asset will be recorded for any share based compensation in that taxable year. Any excess compensation over the limitation will be a non-deductible expense to the Company and would increase our effective tax rate in future periods.

As of December 31, 2017, Heska no longer asserted indefinite reinvestment under the exception noted in ASC 740-30-25-3, which states that the presumption that all undistributed earnings will be transferred to the parent entity may be overcome, and no income taxes shall be accrued by the parent entity. In 2017, we had an excess of the amount for financial reporting over the tax basis in our foreign subsidiaries and we recorded an estimated $0.2 million of deferred tax liability for the unremitted earnings of foreign subsidiaries. In 2018, tax liability from the GILTI tax resulted in an excess of the amount for tax over the financial reporting basis in our foreign subsidiaries. Therefore, in accordance with ASC 740, we have removed our deferred tax liability and have not recorded a deferred tax asset for the excess tax basis in unremitted earnings from foreign subsidiaries.

5. SALES-TYPE LEASES

In our CCA segment, primarily related to our Point of Care laboratory products, the Company enters into sales-type leases as part of our subscription agreements. Detail of scheduled minimum lease receipts for our sales-type leases are as follows (in thousands):

Year Ending December 31,		
2019	$	2,989
2020		3,163
2021		3,089
2022		2,715
2023		1,854
Thereafter		1,087
	$	14,897

6. EARNINGS PER SHARE

Basic earnings per share ("EPS") is computed by dividing net income attributable to the Company by the weighted-average number of common shares outstanding during the period. The computation of diluted EPS is similar to the computation of basic EPS except that the numerator is increased to exclude charges that would not have been incurred, and the denominator is increased to include the number of additional common shares that would have been outstanding (using the if-converted and treasury stock methods), if securities containing potentially dilutive common shares (stock options and restricted stock awards but excluding options to purchase fractional shares resulting from the Company's December 2010 1-for-10 reverse stock split) had been converted to common shares, and if such assumed conversion is dilutive.

The following is a reconciliation of the weighted-average shares outstanding used in the calculation of basic and diluted earnings per share for the years ended December 31, 2018, 2017 and 2016 (in thousands, except per share data):

	Years ended December 31,		
	2018	2017	2016
Net income attributable to Heska Corporation	$ 5,850	$ 9,953	$ 10,508
Basic weighted-average common shares outstanding	7,220	7,026	6,783
Assumed exercise of dilutive stock options and restricted stock awards	636	616	578
Diluted weighted-average common shares outstanding	7,856	7,642	7,361
Basic earnings per share	$ 0.81	$ 1.42	$ 1.55
Diluted earnings per share	$ 0.74	$ 1.30	$ 1.43

The following stock options and restricted awards were excluded from the computation of diluted earnings per share because they would have been anti-dilutive (in thousands):

	Years ended December 31,		
	2018	2017	2016
Stock options	111	123	234

7. INVESTMENTS IN UNCONSOLIDATED AFFILIATES

The carrying values of investments in unconsolidated affiliates, categorized by type of investment, is as follows (in thousands):

	December 31, 2018
Equity method investment	$ 5,000
Non-marketable equity security investment	3,018
	$ 8,018

Equity Method Investment

On September 24, 2018, the Company invested $5.1 million, including costs, in exchange for a 28.7% interest of a business as part of our product development strategy. The Company accounts for this investment using the equity method of accounting. Under the equity method, the carrying value of the investment is adjusted

for the Company's proportionate share of the investee's reported earnings or losses with the corresponding share of earnings or losses reported as Equity in Losses of Unconsolidated Affiliates, listed below Net income (loss) within the Consolidated Statements of Income.

Additionally, the Company entered into a 15-year Manufacturing Supply Agreement, which grants the Company global exclusivity to specified goods.

Non-Marketable Equity Security Investment

On August 8, 2018, the Company invested $3.0 million, including costs, in MBio Diagnostics, Inc. ("MBio"), in exchange for 1,714,285 shares of Series B-3 preferred stock, representing a 6.9% interest in MBio. The Company's investment in MBio is a non-marketable equity security, recorded using the measurement alternative of cost minus impairment, if any, plus or minus changes resulting from qualifying observable price changes.

As part of the agreement, the Company entered into a Supply and License Agreement with MBio, which provides that MBio produce and commercialize products that will enhance the Company's diagnostic portfolio. As part of this agreement, the Company made upfront payment to MBio of $1.0 million related to a worldwide exclusive license agreement over a 20-year period, recorded in both short and long-term other assets. In addition, the agreement provides for an additional contingent payment from Heska to MBio of $10.0 million, relating to the successful achievement of sales milestones. This potential future milestone payment has not yet been accrued as it is not deemed by the Company to be probable at this time.

Both parties in this arrangement are active participants and are exposed to significant risks and rewards dependent on the commercial success of the activities of the collaboration. The parties are actively working on developing and testing the product as well as funding the research and development. Heska classifies the amounts paid for MBio's research and development work within the CCA segment research and development operating segments. Expense is recognized ratably when incurred and in accordance with the development plan.

The Company evaluated both its equity method investment and non-marketable equity security investment for impairment as of December 31, 2018, and determined that no indications of impairment existed.

8. GOODWILL AND OTHER INTANGIBLES

The following summarizes the changes in goodwill during the years ended December 31, 2018 and 2017 (in thousands):

Carrying amount, December 31, 2016	$	26,647
Foreign currency adjustments		40
Carrying amount, December 31, 2017	$	26,687
Foreign currency adjustments		(8)
Carrying amount, December 31, 2018	$	26,679

Other intangibles assets, net consisted of the following as of December 31, 2018 and 2017 (in thousands):

	2018			2017		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Acquired technology	$ 8,200	$ —	$ 8,200	$ —	$ —	$ —
Customer relationships and other	3,303	(1,739)	1,564	3,309	(1,351)	1,958
Total intangible assets	$ 11,503	$ (1,739)	$ 9,764	$ 3,309	$ (1,351)	$ 1,958

Amortization expense relating to other intangibles is as follows (in thousands):

	Years Ended December 31,		
	2018	2017	2016
Amortization expense	$ 388	$ 388	$ 230

Estimated amortization expense related to intangibles for each of the five years from 2019 through 2023 and thereafter is as follows (in thousands):

Year Ending December 31,	
2019	$ 1,208
2020	1,208
2021	1,203
2022	1,198
2023	851
Thereafter	4,096
	$ 9,764

9. PROPERTY AND EQUIPMENT

Property and equipment, net, consisted of the following (in thousands):

	December 31,	
	2018	2017
Land	$ 377	$ 377
Building	2,978	2,868
Machinery and equipment	33,087	32,188
Office furniture and equipment	1,687	1,665
Computer hardware and software	4,704	4,579
Leasehold and building improvements	9,953	8,156
Construction in progress	1,274	3,531
	54,060	53,364
Less accumulated depreciation	(38,079)	(36,033)
Total property and equipment, net	$ 15,981	$ 17,331

The Company has subscription agreements whereby its instruments in inventory may be placed in a customer's location on a rental basis. The cost of these instruments is transferred to machinery and equipment and depreciated, typically over a five to seven-year period depending on the circumstance under which the instrument is placed with the customer. Our cost of equipment under operating leases at December 31, 2018 and 2017, respectively, was $10.8 million and $10.8 million, before accumulated depreciation of $6.1 million and $5.0 million.

Depreciation expense for property and equipment was $4.2 million, $4.3 million and $4.4 million for the years ended December 31, 2018, 2017 and 2016, respectively.

10. ACCRUED LIABILITIES

Accrued liabilities consisted of the following (in thousands):

	2018	2017
Accrued payroll and employee benefits	$ 759	$ 1,209
Accrued property taxes	632	661
Accrued settlement (see Note 13)	6,750	—
Other	2,001	2,204
Total accrued liabilities	$ 10,142	$ 4,074

Other accrued liabilities consists of items that are individually less than 5% of total current liabilities.

11. CAPITAL STOCK

Stock Plans

We have two stock option plans which authorize granting of stock options, restricted and stock purchase rights to our employees, officers, directors and consultants. In 1997, the board of directors adopted the 1997 Stock Incentive Plan (the "1997 Plan") and terminated two prior stock plans. All shares that remained available for grant under the terminated plans were incorporated into the 1997 Plan, including shares subsequently canceled under prior plans. In May 2012, the stockholders approved an amendment to the 1997 Plan allowing for an increase of 250,000 shares and an annual increase through 2016 based on the number of non-employee directors serving as of our Annual Meeting of Stockholders, subject to a maximum of 45,000 shares per year. In May 2016, the stockholders approved a further amendment to the 1997 Plan to authorize an additional 500,000 shares to be available for issuance thereunder. In May 2018, the stockholders approved a further amendment to the 1997 Plan to authorize an additional 250,000 shares to be available for issuance thereunder. In December 2018, the Company's Board of Directors amended the 1997 Plan and renamed it the "Stock Incentive Plan". In May 2003, the stockholders approved a new plan, the 2003 Equity Incentive Plan (the "2003 Plan"), which allows for the granting of stock options/restricted stock for up to 239,050 shares of the Company's common stock. The number of shares reserved for issuance under both plans as of December 31, 2018 was 252,448.

Stock Options

The stock options granted by the Board of Directors may be either incentive stock options ("ISOs") or non-qualified stock options ("NQs"). The exercise price for options under all of the plans may be no less than 100% of the fair value of the underlying common stock. Options granted will expire no later than the tenth anniversary subsequent to the date of grant or three months following termination of employment, except in cases of death or disability, in which case the options will remain exercisable for up to twelve months. Under

the terms of the 1997 Plan, in the event we are sold or merged, outstanding options will either be assumed by the surviving corporation or vest immediately.

There are four key inputs to the Black-Scholes model which we use to estimate the fair value for options which we issue: expected term, expected volatility, risk-free interest rate and expected dividends, all of which require us to make estimates. Our estimates for these inputs may not be indicative of actual future performance and changes to any of these inputs can have a material impact on the resulting estimated fair value calculated for the option. Our expected term input was estimated based on our historical experience for time from option grant to option exercise for all employees in 2018, 2017 and 2016. We treated all employees in one grouping in all three years. Our expected volatility input was estimated based on our historical stock price volatility in 2018, 2017 and 2016. Our risk-free interest rate input was determined based on the U.S. Treasury yield curve at the time of option issuance in 2018, 2017 and 2016. Our expected dividends inputs were zero in all periods as we did not anticipate paying dividends in the foreseeable future. We recognize forfeitures as they occur.

Weighted average assumptions used in 2018, 2017 and 2016 for each of these four key inputs are listed in the following table:

	2018	2017	2016
Risk-free interest rate	2.66%	1.76%	1.76%
Expected lives	4.9 years	4.8 years	4.5 years
Expected volatility	40%	41%	41%
Expected dividend yield	0%	0%	0%

A summary of our stock option plans, excluding options to purchase fractional shares resulting from our December 2010 1-for-10 reverse stock split, is as follows:

	Year Ended December 31, 2018	
	Options	Weighted Average Exercise Price
Outstanding at beginning of period	630,847	$ 29.312
Granted at Market	153,700	$ 75.244
Forfeited	(18,978)	$ 53.010
Expired	(896)	$ 65.414
Exercised	(144,120)	$ 25.740
Outstanding at end of period	620,553	$ 40.741
Exercisable at end of period	386,176	$ 21.214

The total estimated fair value of stock options granted were computed to be approximately $4.4 million, $1.0 million and $3.2 million during the years ended December 31, 2018, 2017 and 2016, respectively. The amounts are amortized ratably over the vesting periods of the options. The weighted average estimated fair value of options granted was computed to be approximately $28.81, $37.35 and $24.59 during the years ended December 31, 2018, 2017 and 2016, respectively. The total intrinsic value of options exercised was $10.5 million, $17.7 million and $9.9 million during the years ended December 31, 2018, 2017 and 2016, respectively. The cash proceeds from options exercised was $3.2 million, $1.8 million and $1.9 million during the years ended December 31, 2018, 2017 and 2016, respectively.

The following table summarizes information about stock options outstanding and exercisable at December 31, 2018.

	Options Outstanding			Options Exercisable		
Exercise Prices	Number of Options Outstanding at December 31, 2018	Weighted Average Remaining Contractual Life in Years	Weighted Average Outstanding Price	Number of Options Exercisable at December 31, 2018	Weighted Average Remaining Contractual Life in Years	Weighted Average Exercise Price
$4.50 - $7.36	167,737	3.61	$ 6.565	167,737	3.61	$ 6.565
$7.37 - $32.21	128,465	5.26	$ 15.777	127,261	5.25	$ 15.631
$32.22 - $62.50	75,972	7.03	$ 39.745	54,133	7.04	$ 39.647
$62.51 - $69.77	130,000	9.18	$ 69.770	—	0.00	$ —
$69.78 - $108.25	118,379	8.40	$ 85.020	37,045	8.12	$ 79.793
$4.50 - $108.25	620,553	6.45	$ 40.741	386,176	5.06	$ 21.214

As of December 31, 2018, there was approximately $5.3 million of total unrecognized compensation cost related to outstanding stock options. That cost is expected to be recognized over a weighted-average period of 1.9 years with all cost to be recognized by the end of October 2022, assuming all options vest according to the vesting schedules in place at December 31, 2018. As of December 31, 2018, the aggregate intrinsic value of outstanding options was approximately $28.9 million and the aggregate intrinsic value of exercisable options was approximately $25.2 million.

Employee Stock Purchase Plan

Under the 1997 Employee Stock Purchase Plan (the "ESPP"), we are authorized to issue up to 450,000 shares of common stock to our employees, of which 429,729 had been issued as of December 31, 2018. On May 5, 2015, our shareholders approved the amendment and restatement of the ESPP, including a 75,000 share increase to 450,000 total shares authorized under the ESPP as well as changes discussed below as compared to the ESPP prior to the amendment and restatement. Employees who are expected to work at least 20 hours per week and 5 months per year are eligible to participate and can choose to have up to 10% of their compensation withheld to purchase our stock under the ESPP when they choose to withhold a whole percentage of their compensation.

Beginning on July 1, 2013, our ESPP had a 27-month offering period and three-month accumulation periods ending on each March 31, June 30, September 30 and December 31. The purchase price of stock on March 31, June 30, September 30 and December 31 was the lesser of (1) 85% of the fair market value at the time of purchase and (2) the greater of (i) 95% of the fair market value at the beginning of the applicable offering period or (ii) 65% of the fair market value at the time of purchase. In addition, participating employees may purchase shares under the ESPP at the beginning of an applicable offering period for a purchase price of stock equal to 95% of the fair market value at such time or at 5 pm on a day other than March 31, June 30, September 30 and December 31 during the applicable offering period for a purchase price of stock equal to 95% of the fair market value at purchase.

Beginning April 1, 2015, employees may elect to withhold a positive fixed amount from each compensation payment in addition to the previous approach of withholding a whole percentage of such compensation payment, with all withholding for a given employee subject to a maximum monthly amount of $2,500 following the amendment and restatement as opposed to a $25,000 maximum annual amount prior to the amendment and restatement. For offering periods beginning on or after April 1, 2015, the purchase price of stock on March 31, June 30, September 30 and December 31 is to be the lesser of (1) 85% of the fair market

value at the time of purchase and (2) the greater of (i) 85% of the fair market value at the beginning of the applicable offering period, (ii) the fair market value at the beginning of the applicable offering period less 1 cent and (iii) 65% of the fair market value at the time of purchase. In addition, participating employees may elect to purchase shares under the ESPP at the beginning of an applicable offering period for a purchase price of stock equal to the greater of (1) 85% of the fair market value at the beginning of the applicable offering period and (2) the fair market value at the beginning of the applicable offering period less 1 cent or at 5 pm on a day other than March 31, June 30, September 30 and December 31 during the applicable offering period for a purchase price of stock equal to the greater of (1) 85% of the fair market value at the time of purchase and (2) the fair market value at the time of purchase less 1 cent.

We issued 10,078, 10,983 and 17,826 shares under the ESPP for the years ended December 31, 2018, 2017 and 2016, respectively.

For the years ended December 31, 2018**,** 2017 and 2016, we estimated the fair values of stock purchase rights granted under the ESPP using the Black-Scholes pricing model and the following weighted average assumptions:

	2018	2017	2016
Risk-free interest rate	1.67%	0.74%	0.54%
Expected lives	1.2 years	1.2 years	1.2 years
Expected volatility	42%	45%	42%
Expected dividend yield	0%	0%	0%

The weighted-average fair value of the purchase rights granted was $18.14, $15.72 and $8.23 per share for the years ended December 31, 2018, 2017 and 2016, respectively.

Restricted Stock

We have granted non-vested restricted stock awards (“restricted stock”) to management and directors pursuant to the 1997 Plan. The restricted stock awards have varying vesting periods, but generally become fully vested between one and four years after the grant date, depending on the specific award, performance targets met for performance based awards granted to management, and vesting period for time based awards. Management performance based awards are granted at the target amount of shares that may be earned. We valued the restricted stock awards related to service and/or company performance targets based on grant date fair value and expense over the period when achievement of those conditions is deemed probable. For restricted stock awards related to market conditions, we utilize a Monte Carlo simulation model to estimate grant date fair value and expense over the requisite period. We recognize forfeitures as they occur.

The following table summarizes restricted stock transactions for the year ended December 31, 2018:

	RSAs		Weighted-Average Grant Date Fair Value Per Award
Non-vested as of December 31, 2017	124,943	$	57.67
Granted	190,730	$	71.77
Vested	(56,243)	$	28.97
Forfeited	—		—
Non-vested as of December 31, 2018	259,430	$	74.26

The weighted average grant date fair value of awards granted during the year was $71.77, $82.36 and $33.64 for the years ended December 31, 2018, 2017 and 2016, respectively. Fair value of restricted stock vested was $4.4 million, $3.9 million and $1.5 million for the years ended December 31, 2018, 2017 and 2016, respectively.

As of December 31, 2018, there was approximately $3.0 million of total unrecognized compensation cost related to restricted stock. The Company expects to recognize this expense over a weighted average period of 1.6 years. As of December 31, 2018, we reviewed each of the underlying corporate performance targets and determined that approximately 167,000 of shares of common stock were related to corporate performance targets in which we did not deem achievement probable. No compensation expense had been recorded at any period prior to December 31, 2018. The unrecognized compensation cost associated with the restricted stock awards not deemed probable, based on grant date fair value, is approximately $13.5 million. Any change in the probability determination could accelerate the recognition of this expense.

Restrictions on the transfer of Company stock

The Company's Restated Certificate of Incorporation, as amended (the "Certificate of Incorporation"), places restrictions (the "Transfer Restrictions") on the transfer of the Company's stock that could adversely affect the Company's ability to utilize its domestic Federal Net Operating Loss Position. In particular, the Transfer Restrictions prevent the transfer of shares without the approval of the Company's Board of Directors if, as a consequence of such transfer, an individual, entity or groups of individuals or entities would become a 5-percent holder under Section 382 of the Internal Revenue Code of 1986, as amended, and the related Treasury regulations, and also prevents any existing 5-percent holder from increasing his or her ownership position in the Company without the approval of the Company's Board of Directors. Any transfer of shares in violation of the Transfer Restrictions (a "Transfer Violation") shall be void *ab initio* under the Certificate of Incorporation, and the Company's Board of Directors has procedures under the Certificate of Incorporation to remedy a Transfer Violation including requiring the shares causing such Transfer Violation to be sold and any profit resulting from such sale to be transferred to a charitable entity chosen by the Company's Board of Directors in specified circumstances.

12. ACCUMULATED OTHER COMPREHENSIVE INCOME

Accumulated other comprehensive income consisted of the following (in thousands):

	Minimum pension liability	Foreign currency translation	Total accumulated other comprehensive income
Balances at December 31, 2016	$ (501)	$ 598	$ 97
Other comprehensive income	12	123	135
Balances at December 31, 2017	(489)	721	232
Other comprehensive income (loss)	70	(25)	45
Balances at December 31, 2018	$ (419)	$ 696	$ 277

13. COMMITMENTS AND CONTINGENCIES

Royalty Agreements

The Company holds certain rights to market and manufacture all products developed or created under certain research, development and licensing agreements with various entities. In connection with such agreements, the Company has agreed to pay the entities royalties on net product sales. Royalties of $0.3 million became payable under these agreements in the years ended December 31, 2018 and 2017, and $0.4 million in the year ended December 31, 2016.

Operating Leases

The Company has entered into operating leases for its office and research facilities, vehicles and certain equipment with future minimum payments as of December 31, 2018 as follows (in thousands):

Year Ending December 31,		
2019	$	2,134
2020		1,993
2021		1,859
2022		1,765
2023		2,357
Thereafter		—
	$	10,108

The Company had rent expense, relating to office space, of $1.5 million for the year ended December 31, 2018 and $1.6 million for the years ended December 31, 2017 and 2016. Other rent expense totaled $0.4 million for the years ended December 31, 2018 and 2017 and $0.3 million for the year ended December 31, 2016.

Litigation

From time to time, the Company may be involved in litigation relating to claims arising out of its operations. The Company records accruals for outstanding legal matters when it believes it is probable that a loss will be incurred, and the amount can be reasonably estimated.

On October 10, 2018, we reached an agreement in principle to settle the complaint that was filed against the Company by Shaun Fauley on March 12, 2015 in the U.S. District Court Northern District of Illinois alleging our transmittal of unauthorized faxes in violation of the federal Telephone Consumer Protection Act of 1991, as amended by the Junk Fax Prevention Act of 2005, as a class action. The settlement, which was approved by the court on February 28, 2019, will require us, among other things, to make available a total of $6.75 million to pay class members, as well as to pay attorneys' fees and expenses to legal counsel to the class. The Company has recorded an estimated loss provision of approximately $7.0 million in 2018 in connection with the settlement agreement and expenses associated with the matter, which is included in general and administrative expenses in the Consolidated Statements of Income. The Company does not have insurance coverage for the Fauley Complaint.

At December 31, 2018, the Company was not a party to any other legal proceedings that were expected, individually or in the aggregate, to have a material adverse effect on our business, financial condition or operating results.

Warranties

The Company's current terms and conditions of sale include a limited warranty that its products and services will conform to published specifications at the time of shipment and a more extensive warranty related to certain of its products. The Company also sells a renewal warranty for certain of its products. The typical remedy for breach of warranty is to correct or replace any defective product, and if not possible or practical, the Company will accept the return of the defective product and refund the amount paid. Historically, the Company has incurred minimal warranty costs. The Company's warranty reserve was $0.2 million as of December 31, 2018 and 2017.

14. INTEREST AND OTHER (INCOME) EXPENSE

Interest and other (income) expense, net, consisted of the following (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Interest income	$ (261)	$ (167)	$ (124)
Interest expense	310	245	160
Other expense (income), net	(62)	(228)	(7)
	$ (13)	$ (150)	$ 29

Cash paid for interest was $224 thousand, $206 thousand and $78 thousand for the years ended December 31, 2018, 2017 and 2016, respectively.

15. CREDIT FACILITY AND LONG-TERM DEBT

On July 27, 2017, and as subsequently amended in May and December of 2018, we entered into a Credit Agreement (the "Credit Agreement") with JPMorgan Chase Bank, N.A. ("Chase") which provides for a revolving credit facility of up to $30.0 million (the "Credit Facility"). The Credit Facility provides us with the ability to borrow up to $30.0 million, although the amount of the Credit Facility may be increased by an additional $20.0 million up to a total of $50.0 million subject to receipt of additional lender commitments and other conditions. Any interest on borrowings due is to be charged at either the (i) rate of interest per annum publicly announced from time to time by Chase at its prime rate in effect at its principal offices in New York City, subject to a floor, minus 1.65%, or (ii) the interest rate per annum equal to (a) LIBOR for the interest period in effect multiplied by (b) Chase's Statutory Reserve Rate (as defined in the Credit Agreement), plus 1.10% and payable monthly. There is an annual minimum interest charge of $60 thousand under the Credit Agreement. Chase holds first right of priority over all other liens, if any were to exist. Borrowings under the Credit Facility are subject to certain financial and non-financial covenants and are available for various corporate purposes, including general working capital, capital investments and certain permitted acquisitions. The Credit Agreement also permits us to issue letters of credit, although there are currently none outstanding. The maturity date of the Credit Facility is July 27, 2020. The foregoing discussion of the Credit Facility is a summary only and is qualified in its entirety by reference to the full text of the Credit Agreement, a copy of which has been filed as an exhibit to the Company's Current Report on Form 8-K filed with the SEC on August 2, 2017. Additionally, a Facility Amendment has been filed as an exhibit to the Company's Current Report on Form 10-Q filed with the SEC on August 8, 2018 followed by a second Facility Amendment which has been filed as an exhibit to this Annual Report on Form 10-K for the year ended December 31, 2018.

As of December 31, 2018 and 2017, we had $6.0 million of borrowings outstanding on this line of credit and we were in compliance with all financial covenants. In connection with the Credit Agreement, the Company

incurred debt issuance costs of $120 thousand. These costs are included in other non-current assets on the Company's Consolidated Balance Sheets, and will be amortized to interest expense ratably over the term of the agreement.

Concurrent with the Credit Agreement, we repaid all outstanding balances and closed our $15.0 million asset-based revolving line of credit with Wells Fargo, which had a maturity date of December 31, 2017.

16. SEGMENT REPORTING

The Company's two reportable segments are CCA and OVP. The CCA segment includes Point of Care diagnostic laboratory instruments and consumables, and Point of Care digital imaging diagnostic instruments and software services as well as single use diagnostic and other tests, pharmaceuticals and vaccines, primarily for canine and feline use. These products are sold directly by the Company as well as through independent third party distributors and through other distribution relationships. CCA segment products manufactured at the Des Moines, Iowa production facility included in the OVP segment's assets are transferred at cost and are not recorded as revenue for the OVP segment. The OVP segment includes private label vaccine and pharmaceutical production, primarily for cattle, in addition to other small mammals. All OVP products are sold by third parties under third party labels.

Summarized financial information concerning the Company's reportable segments is shown in the following tables (in thousands):

Year Ended December 31, 2018	Core Companion Animal	Other Vaccines and Pharmaceuticals	Total
Total revenue	$ 108,924	$ 18,522	$ 127,446
Operating income	2,040	1,754	3,794
Income before income taxes	2,053	1,754	3,807
Investments in unconsolidated affiliates	8,018	—	8,018
Total assets	133,586	22,866	156,452
Net assets	96,129	26,280	122,409
Capital expenditures	180	1,178	1,358
Depreciation and amortization	3,369	1,226	4,595

Year Ended December 31, 2017	Core Companion Animal	Other Vaccines and Pharmaceuticals	Total
Total revenue	$ 105,191	$ 24,150	$ 129,341
Operating income	12,656	5,563	18,219
Income before income taxes	12,828	5,541	18,369
Investments in unconsolidated affiliates	—	—	—
Total assets	111,625	23,819	135,444
Net assets	75,984	24,456	100,440
Capital expenditures	209	3,260	3,469
Depreciation and amortization	3,736	1,018	4,754

Year Ended December 31, 2016	Core Companion Animal	Other Vaccines and Pharmaceuticals	Total
Total revenue	$ 107,398	$ 22,685	$ 130,083
Operating income	13,015	3,518	16,533
Income before income taxes	12,938	3,566	16,504
Investments in unconsolidated affiliates	—	—	—
Total assets	110,995	19,849	130,844
Net assets	68,072	18,903	86,975
Capital expenditures	1,135	2,282	3,417
Depreciation and amortization	3,800	845	4,645

Revenue is attributed to individual countries based on customer location. Total revenue by principal geographic area was as follows (in thousands):

	For the Years Ended December 31,		
	2018	2017	2016
U.S.	$ 115,543	$ 116,823	$ 120,082
Canada	2,992	2,924	2,378
Europe	5,995	4,780	4,781
Other International	2,916	4,814	2,842
Total	$ 127,446	$ 129,341	$ 130,083

Total assets by principal geographic areas were as follows (in thousands):

	As of December 31,		
	2018	2017	2016
U.S.	$ 152,633	$ 132,070	$ 127,827
Europe	3,819	3,374	3,017
Total	$ 156,452	$ 135,444	$ 130,844

In our CCA segment, revenue from Butler Animal Health Supply, LLC d/b/a Henry Schein Animal Health ("Henry Schein") represented approximately 15%, 13% and 13% of our consolidated revenue for the years ended December 31, 2018, 2017 and 2016, respectively. Revenue from Merck entities, including Merck Animal Health, represented approximately 12%, 12% and 11% for the years ended December 31, 2018, 2017 and 2016, respectively. Revenue from De Lage Landen Financial Services, Inc. ("DLL"), represented approximately 6%, 7% and 11% of our consolidated revenue for the years ended December 31, 2018, 2017 and 2016, respectively; DLL is a third party that provides financing and leasing for our customers, primarily for our Point of Care imaging products. In our OVP segment, revenue from Eli Lilly entities, including Elanco, represented approximately 9%, 11% and 12% for the years ended December 31, 2018, 2017 and 2016, respectively. No other customer accounted for more than 10% of our consolidated revenue for the years ended December 31, 2018, 2017 or 2016.

17. SUPPLEMENTAL QUARTERLY FINANCIAL DATA (Unaudited)

The following tables present quarterly unaudited results for the two years ended December 31, 2018 and 2017 (amounts in thousands, except per share data).

	Q1	Q2	Q3	Q4	Total
2018					
Total revenue	$ 32,765	$ 29,662	$ 30,955	$ 34,064	$ 127,446
Gross profit	13,307	13,065	14,794	15,472	56,638
Operating income (loss)	1,871	2,204	(3,595)	3,314	3,794
Net income (loss) before equity in losses of unconsolidated affiliates	2,155	1,897	(1,670)	3,540	5,922
Net income (loss), after equity in losses of unconsolidated affiliates	2,155	1,897	(1,670)	3,468	5,850
Net income (loss) attributable to Heska Corporation	2,155	1,897	(1,670)	3,468	5,850
Basic earnings (loss) per share attributable to Heska Corporation	0.30	0.26	(0.23)	0.47	0.81
Diluted earnings (loss) per share attributable to Heska Corporation	0.28	0.24	(0.23)	0.44	0.74
2017					
Total revenue	$ 29,559	$ 33,405	$ 30,336	$ 36,041	$ 129,341
Gross profit	13,209	14,929	13,553	16,570	58,261
Operating income	2,788	4,560	3,778	7,093	18,219
Net income (loss)	4,303	3,139	3,083	(1,069)	9,456
Net income (loss) attributable to Heska Corporation	4,606	3,333	3,083	(1,069)	9,953
Basic earnings (loss) per share attributable to Heska Corporation	0.67	0.47	0.43	(0.15)	1.42
Diluted earnings (loss) per share attributable to Heska Corporation	0.60	0.44	0.40	(0.15)	1.30

Note that the sum of each value line for the four quarters does not necessarily equal the amount reported for the full year due to rounding.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our principal executive officer and our principal financial officer, evaluated the effectiveness of our disclosure controls and procedures, as defined by Rule 13a-15 of the Exchange Act, as of December 31, 2018. Based on this evaluation, our principal executive officer and principal financial officer have concluded that our disclosure controls and procedures were effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time period specified in the SEC's rules and forms and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding 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 Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, the Company conducted an evaluation of the effectiveness of its internal control over financial reporting based on criteria set forth in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this evaluation, the Company's management has concluded that the Company's internal control over financial reporting was effective as of December 31, 2018.

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 risks that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. Accordingly, even an effective system of internal control will provide only reasonable assurance that the objectives of the internal control system are met.

Plante & Moran, PLLC, an independent registered public accounting firm, has audited our Consolidated Financial Statements included in this Form 10-K, and as part of the audit, has issued a report, included herein, on the effectiveness of our internal control over financial reporting as of December 31, 2018.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting that occurred during the fourth quarter of 2018 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Certain information required by Part III is incorporated by reference to our definitive Proxy Statement to be filed with the SEC in connection with the solicitation of proxies for our 2019 Annual Meeting of Stockholders.

Item 10. Directors, Executive Officers and Corporate Governance

Executive Officers

The information required by this item with respect to executive officers is incorporated by reference to Item 1 of this report and can be found under the caption "Executive Officers of the Registrant."

Directors

The information required by this section with respect to our directors will be incorporated by reference to the information in the sections entitled "Election of Directors" and "Section 16(a) Beneficial Ownership Reporting Compliance" in the Proxy Statement.

Code of Ethics

Our Board of Directors has adopted a code of ethics for our senior executive and financial officers (including our principal executive officer, principal financial officer and principal accounting officer). The code of ethics is available on our website at www.heska.com under the Corporate Governance section under the Investor Relations section under the "Company" tab. We intend to disclose any amendments to or waivers from the code of ethics at that location.

Audit Committee

The information required by this section with respect to our Audit Committee will be incorporated by reference to the information in the section entitled "Board Structure and Committees" in the Proxy Statement.

Section 16(a) Beneficial Ownership Reporting Compliance

The information required by this item is incorporated by reference to the information in the section entitled "Section 16(a) Beneficial Ownership Reporting Compliance" in the Proxy Statement.

Item 11. Executive Compensation

The information required by this section will be incorporated by reference to the information in the sections entitled "Director Compensation," "Executive Compensation," "Compensation Committee Report" and "Compensation Committee Interlocks and Insider Participation" in the Proxy Statement.

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

The other information required by this section will be incorporated by reference to the information in the section entitled "Ownership of Securities - Common Stock Ownership of Certain Beneficial Owners and Management" in the Proxy Statement.

Equity Compensation Plan Information

The following table sets forth information about our common stock that may be issued upon exercise of options and rights under all of our equity compensation plans as of December 31, 2018, including the 1997 Stock Incentive Plan, the 2003 Stock Incentive Plan and the 1997 Employee Stock Purchase Plan. Our stockholders have approved all of these plans.

Plan Category	(a) Number of Securities to be Issued Upon Exercise of Outstanding Options and Rights	(b) Weighted-Average Exercise Price of Outstanding Options and Rights	(c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans
Equity Compensation Plans Approved by Stockholders	620,553	$40.74	273,998
Equity Compensation Plans Not Approved by Stockholders	None	None	None
Total	620,553	$40.74	273,998

Item 13. Certain Relationships and Related Transactions and Director Independence

The information required by this section will be incorporated by reference to the information in the sections entitled "Board Structure and Committees" and "Significant Relationships and Transactions with Directors, Officers or Principal Stockholders" in the Proxy Statement.

Item 14. Principal Accountant Fees and Services

The information required by this section will be incorporated by reference to the information in the section entitled "Auditor Fees and Services" in the Proxy Statement.

The information required by Part III to the extent not set forth herein, will be incorporated herein by reference to our definitive Proxy Statement for the 2019 Annual Meeting of Stockholders.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) The following documents are filed as a part of this Form 10-K.

(1) Financial Statements:

Reference is made to the Index to Consolidated Financial Statements under Item 8 in Part II of this Form 10-K.

(2) Financial Statement Schedules:

NOTE: All schedules have been omitted because they are either not required or the information is included in the financial statements and notes thereto.

(3) Exhibits:

The exhibits listed below are required by Item 601 of Regulation S-K. Each management contract or compensatory plan or arrangement required to be filed as an exhibit to this Form 10-K has been identified.

Exhibit Number	Notes	Description of Document
3(i)	(8)	Restated Certificate of Incorporation of the Registrant.
3(ii)	(8)	Certificate of Amendment to Restated Certificate of Incorporation of Registrant.
3(iii)	(8)	Certificate of Amendment to the Restated Certificate of Incorporation, as amended, of Registrant.
3(iv)	(19)	Certificate of Amendment to the Restated Certificate of Incorporation, as amended, of Registrant.
3(v)	(20)	Certificate of Amendment to the Restated Certificate of Incorporation, as amended, of Registrant.
3(vi)	(25)	Certificate of Amendment to the Restated Certificate of Incorporation, as amended, of Registrant.
3(vii)	(26)	Amended and Restated Bylaws of the Registrant, as amended.
10.1*		Stock Incentive Plan, as amended and restated.
10.2*		Stock Incentive Plan Restricted Stock Grant Agreement.
10.3*		Stock Incentive Plan Restricted Stock Grant Agreement (Performance-based Award).
10.4*		Stock Incentive Plan Restricted Stock Grant Agreement (Management Incentive Plan Award).
10.5*		Stock Incentive Plan Restricted Stock Grant Agreement (Outside Director Award).
10.6*		Stock Incentive Plan Employees and Consultants Option Agreement.
10.7*		Stock Incentive Plan Outside Directors Option Agreement.
10.8*	(6)	2003 Equity Incentive Plan, as amended and restated.
10.9*	(19)	2003 Equity Incentive Plan Restricted Stock Grant Agreement (Performance-based Award).
10.10*	(19)	2003 Equity Incentive Plan Restricted Stock Grant Agreement (Management Incentive Plan Award).

10.11*	(19)	2003 Equity Incentive Plan Restricted Stock Grant Agreement (Outside Director Award).
10.12*	(19)	2003 Equity Incentive Plan Employees and Consultants Option Agreement.
10.13*	(19)	2003 Equity Incentive Plan Outside Directors Option Agreement.
10.14*	(14)	1997 Employee Stock Purchase Plan of Registrant, as amended and restated.
10.15*	(13)	Amended and Restated Management Incentive Plan Master Document.
10.16*	(21)	Director Compensation Policy.
10.17*	(5)	Form of Indemnification Agreement entered into between Registrant and its directors and certain officers.
10.18*	(24)	Employment Agreement between Registrant and Kevin S. Wilson, effective as of March 7, 2018.
10.19*	(11)	Restricted Stock Grant Agreement between Registrant and Kevin S. Wilson, effective as of March 26, 2014.
10.20*	(13)	Restricted Stock Grant Agreement between Registrant and Kevin S. Wilson, effective as of May 6, 2014.
10.21*	(23)	Restricted Stock Grant Agreement between Registrant and Kevin S. Wilson, effective as of December 1, 2017.
10.22*	(24)	Restricted Stock Grant Agreement between Registrant and Kevin S. Wilson, effective as of March 7, 2018.
10.23*	(26)	Restricted Stock Grant Agreement between Registrant and Kevin S. Wilson, effective as of May 3, 2018.
10.24*	(1)	Employment Agreement between Registrant and Jason A. Napolitano, effective as of May 6, 2002.
10.25*	(5)	Amendment to Employment Agreement between Registrant and Jason A. Napolitano, effective as of January 1, 2008.
10.26*	(24)	Employment Agreement between Registrant and Catherine I. Grassman, effective as of March 7, 2018.
10.27*	(4)	Employment Agreement between Registrant and Nancy Wisnewski, effective as of April 15, 2002.
10.28*	(5)	Amendment to Employment Agreement between Registrant and Nancy Wisnewski, effective as of January 1, 2008.
10.29*	(11)	Employment Agreement between Registrant and Steven M. Eyl, effective as of May 15, 2013.
10.30*	(24)	Amendment to Employment Agreement between Registrant and Steven M. Eyl, effective as of January 1, 2018.
10.31*	(8)	Employment Agreement between Registrant and Steven M. Asakowicz, effective as of February 22, 2013.
10.32*	(13)	Amendment to Employment Agreement between Registrant and Steven M. Asakowicz, effective as of March 1, 2015.
10.33*	(24)	Amendment to Employment Agreement between Registrant and Steven M. Asakowicz, effective as of January 1, 2018.
10.34*	(8)	Employment Agreement between Registrant and Rodney A. Lippincott, effective as of February 22, 2013.
10.35*	(13)	Amendment to Employment Agreement between Registrant and Rodney A. Lippincott, effective as of March 1, 2015.
10.36*	(24)	Amendment to Employment Agreement between Registrant and Rodney A. Lippincott, effective as of January 1, 2018.

10.37*	(26)	Employment Agreement between Registrant and Jason D. Aroesty, effective as of April 23, 2018.
10.38*	(27)	Restricted Stock Agreement and Notice of Stock Option Grant for grants issued to Jason D. Aroesty on July 25, 2018.
10.39*	(24)	Restricted Stock Grant Agreement form for grants issued on March 7, 2018 (for officers other than Kevin S. Wilson).
10.40*	(24)	Notice of Stock Option Grant for grants issued on March 7, 2018.
10.41*	(23)	Separation Agreement and Release between Registrant and Michael J. McGinley, effective as of December 22, 2017.
10.42*	(23)	Separation Agreement and Release between Registrant and John McMahon, effective as of November 30, 2017.
10.43	(2)	Net Lease Agreement between Registrant and CCMRED 40, LLC, effective as of May 24, 2004.
10.44	(3)	First Amendment to Net Lease Agreement and Development Agreement between Registrant and CCMRED 40, LLC, dated February 11, 2005.
10.45	(3)	Second Amendment to Net Lease Agreement between Registrant and CCMRED 40, LLC, dated July 14, 2005.
10.46	(7)	Third Amendment to Net Lease Agreement between Registrant and Millbrae Square Company, effective as of January 1, 2010.
10.47+	(4)	Supply and License Agreement between Registrant and Schering-Plough Animal Health Corporation, effective as of August 1, 2003.
10.48+	(6)	Amendment No. 1 to Supply and License Agreement between Registrant and Schering-Plough Animal Health Corporation, effective as of August 31, 2005.
10.49+	(8)	Amendment No. 2 to Supply and License Agreement between Registrant and Intervet Inc., d/b/a Merck Animal Health, effective as of December 7, 2011.
10.50+	(10)	Amendment No. 3 to Supply and License Agreement between Registrant and Intervet Inc., d/b/a Merck Animal Health, effective as of July 30, 2013.
10.51+	(11)	Amendment No. 4 to Supply and License Agreement between Registrant and Intervet Inc., d/b/a Merck Animal Health, effective as of December 9, 2013.
10.52+	(17)	Amendment No. 5 to Supply and License Agreement between Registrant and Intervet Inc., d.b.a. Merck Animal Health, effective as of October 30, 2015.
10.53+	(23)	Amendment No. 6 to Supply and License Agreement between Registrant and Intervet Inc., d.b.a. Merck Animal Health, effective as of November 27,2017.
10.54+	(12)	Clinical Chemistry Analyzer Agreement between Registrant and FUJIFILM Corporation, effective as of January 30, 2007; and First Amendment to Clinical Chemistry Analyzer Agreement between Registrant and FUJIFILM Corporation, effective as of April 1, 2014.
10.55	(14)	Second Amendment to Clinical Chemistry Analyzer Agreement between Registrant and FUJIFILM Corporation, effective as of April 1, 2015.
10.56	(28)	Purchase Agreement for Certain Assets between Heska Imaging, LLC and Cuattro, LLC, dated November 26, 2018.
10.57+	(9)	Asset Purchase and License Agreement between Diamond Animal Health, Inc., and Elanco Animal Health, a division of Eli Lilly and Company effective as of June 17, 2013.
10.58+	(15)	Master Supply Agreement between Diamond Animal Health, Inc. and Eli Lilly and Company and its Affiliates, operating through its Elanco Animal Health division, effective as of October 1, 2014.

10.59+	(15)	Supplemental Agreement between Diamond Animal Health, Inc. and Eli Lilly and Company and its Affiliates, operating through its Elanco Animal Health division, effective as of October 1, 2014.
10.60+	(23)	Exclusive Supply Agreement by and between Registrant and Shenzhen Mindray Bio-Medical Electronics Co., Ltd., effective as of September 1, 2013; and Supplemental memo to September 1, 2013 Exclusive Supply Agreement by and between Registrant and Shenzhen Mindray Bio-Medical Electronics Co., Ltd., effective as of March 1, 2015.
10.61+	(23)	Exclusive Supply Agreement by and between Registrant and Shenzhen Mindray Bio-Medical Electronics Co., Ltd., effective as of February 1, 2016; and Amendment to February 1, 2016 Exclusive Supply Agreement by and between Registrant and Shenzhen Mindray Bio-Medical Electronics Co., Ltd., effective as of January 1, 2017.
10.62+	(23)	Master Supply Agreement between Registrant and Butler Animal Health Supply, LLC d/b/a Henry Schein Animal Health effective as of October 17, 2014.
10.63	(22)	Credit Agreement among Registrant, Diamond Animal Health, Inc., Heska Imaging, LLC, as Borrowers, the other Loan Parties party hereto, the Lenders party hereto, and JPMorgan Chase Bank, N.A., as Administrative Agent dated as of July 27, 2017 ("Credit Agreement").
10.64	(22)	Pledge and Security Agreement by and among Registrant, Diamond Animal Health, Inc., Heska Imaging, LLC and JPMorgan Chase Bank, N.A., in its capacity as administrative agent, effective as of July 27, 2017.
10.65	(26)	First Amendment to Credit Agreement.
10.66		Second Amendment to Credit Agreement.
10.67	(8)	Amended and Restated Master License Agreement between Heska Imaging US, LLC and Cuattro, LLC, effective as of February 22, 2013.
10.68	(18)	Assignment and Assumption Agreement (License Agreement) between Heska Imaging US, LLC, Heska Imaging Global, LLC, Cuattro, LLC, and Heska Imaging International, LLC, dated as of March 14, 2016.
10.69	(8)	Supply Agreement between Cuattro, LLC and Heska Imaging US, LLC effective as of February 24, 2013.
10.70	(16)	First Amendment to Supply Agreement between Heska Imaging US, LLC and Cuattro, LLC, effective as of August 10, 2015.
10.71	(18)	Assignment and Assumption Agreement (Supply Agreement) between Heska Imaging US, LLC, Heska Imaging Global, LLC, Cuattro, LLC, and Heska Imaging International, LLC, dated as of March 14, 2016.
10.72		Termination Agreement between Heska Imaging, LLC and Cuattro, LLC, dated December 18, 2018.
21.1		Subsidiaries of the Company.
23.1		Consent of Plante & Moran, PLLC, Independent Registered Public Accounting Firm.
23.2		Consent of EKS&H LLLP, Independent Public Accounting Firm.
24.1		Power of Attorney (See Signature Page of this Form 10-K).
31.1		Certification of Chief Executive Officer Pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended.
31.2		Certification of Chief Financial Officer Pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended.
32.1**		Certification of Chief Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.

Notes

*	Indicates management contract or compensatory plan or arrangement.
+	Portions of the exhibit have been omitted pursuant to a request for confidential treatment.
**	Furnished herewith but not filed.
(1)	Filed with the Registrant's Form 10-K for the year ended December 31, 2002.
(2)	Filed with the Registrant's Form 10-K for the year ended December 31, 2004.
(3)	Filed with the Registrant's Form 10-Q for the quarter ended June 30, 2005.
(4)	Filed with the Registrant's Form 10-K for the year ended December 31, 2006.
(5)	Filed with the Registrant's Form 10-K for the year ended December 31, 2007.
(6)	Filed with the Registrant's Form 10-K for the year ended December 31, 2008.
(7)	Filed with the Registrant's Form 10-K for the year ended December 31, 2011.
(8)	Filed with the Registrant's Form 10-K for the year ended December 31, 2012.
(9)	Filed with the Registrant's Form 8-K/A on August 29, 2013.
(10)	Filed with the Registrant's Form 10-Q for the quarter ended September 30, 2013.
(11)	Filed with the Registrant's Form 10-K for the year ended December 31, 2013.
(12)	Filed with the Registrant's Form 10-Q for the quarter ended June 30, 2014.
(13)	Filed with the Registrant's Form 10-K for the year ended December 31, 2014.
(14)	Filed with the Registrant's Form 10-Q for the quarter ended March 31, 2015.
(15)	Filed with the Registrant's Form 10-Q for the quarter ended June 30, 2015.
(16)	Filed with the Registrant's Form 10-Q for the quarter ended September 30, 2015.
(17)	Filed with the Registrant's Form 10-Q for the quarter ended March 31, 2016.
(18)	Filed with the Registrant's Form 10-Q for the quarter ended June 30, 2016.
(19)	Filed with the Registrant's Form 10-K for the year ended December 31, 2016.
(20)	Filed with the Registrant's Form 10-Q for the quarter ended March 31, 2017.
(21)	Filed with the Registrant's Form 10-Q for the quarter ended June 30, 2017.
(22)	Filed with the Registrant's Form 8-K on August 2, 2017.
(23)	Filed with the Registrant's Form 10-K for the year ended December 31, 2017.
(24)	Filed with the Registrant's Form 10-Q for the quarter ended March 31, 2018.
(25)	Filed with the Registrant's Form 8-K on May 9, 2018.
(26)	Filed with the Registrant's Form 10-Q for the quarter ended June 30, 2018.
(27)	Filed with the Registrant's Form 10-Q for the quarter ended September 30, 2018.
(28)	Filed with the Registrant's Form 8-K on November 30, 2018.

Item 16. Form 10-K Summary

Registrants may voluntarily include a summary of information required by Form 10-K under this item 16. The Registrant has elected not to include such summary information.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on March 7, 2019.

HESKA CORPORATION

By: /s/ KEVIN S. WILSON
Kevin S. Wilson
Chief Executive Officer and President

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Catherine Grassman his or her true and lawful attorneys-in-fact, with full power of substitution, for him or her in any and all capacities, to sign any amendments to this report on Form 10-K and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all of said attorney-in-fact or their substitute may do or cause to be done by virtue hereof.

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

Signature	Title	Date
/s/ KEVIN S. WILSON Kevin S. Wilson	Chief Executive Officer, President and Director (Principal Executive Officer)	March 7, 2019
/s/ CATHERINE GRASSMAN Catherine Grassman	Vice President, Chief Accounting Officer and Controller (Principal Financial and Accounting Officer)	March 7, 2019
/s/ SCOTT HUMPHREY Scott Humphrey	Chair	March 7, 2019
/s/ G. IRWIN GORDON G. Irwin Gordon	Director	March 7, 2019
/s/ SHARON J. LARSON Sharon J. Larson	Director	March 7, 2019
/s/ DAVID E. SVEEN David E. Sveen, Ph.D.	Director	March 7, 2019
/s/ BONNIE J. TROWBRIDGE Bonnie J. Trowbridge	Director	March 7, 2019
/s/ CAROL A. WRENN Carol A. Wrenn	Director	March 7, 2019