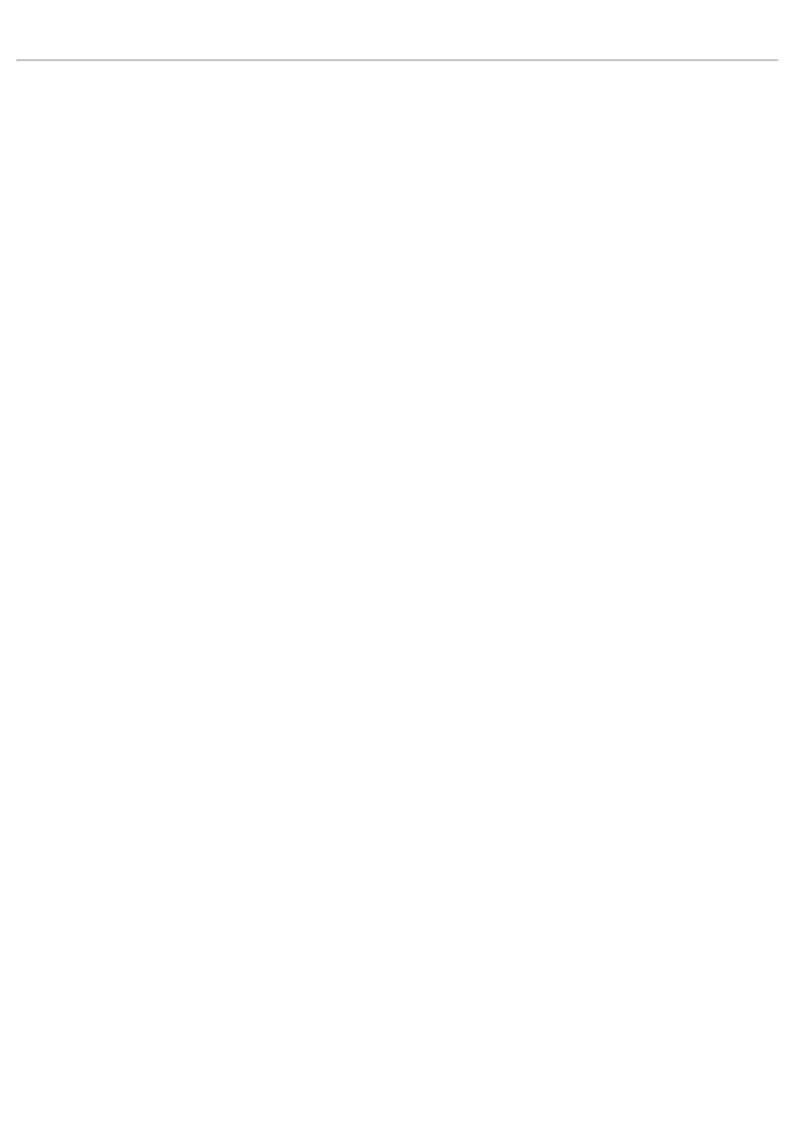
UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

		WASHINGTON	, DC 20040		
		FORM	10-Q		
Mark One)					
QUARTERLY ≥ 1934	Y REPORT PURSUAN	T TO SECTION 13	OR 15(d) OF	THE SECURITIES EXCHANGE A	CT OF
	For	the quarterly period end	ed September 30), 2019	
		OR			
☐ TRANSITION 1934	N REPORT PURSUAN	T TO SECTION 13	OR 15(d) OF	THE SECURITIES EXCHANGE A	CT OF
	For the	transition period from _	to		
		Commission File Nu	mber: 0-23081		
	EADO '	TECUNO:		ES INC	
		TECHNO		-	
(State or other Jurisd	Florida liction of Incorporation or Organia	zation)		59-3157093 (I.R.S. Employer Identification No.)	
	Technology Park, of Principal Executive Offices)	Lake Mary,	Florida	32746 (Zip Code)	
	((407) 333- Registrant's Telephone Numbe		de)	
	nt to Section 12(b) of the Act	1			
Title of each class	ф.004	Trading Symbol(s)		n exchange on which registered	
Common Stock, par val	ue \$.001	FARO	Nasdaq Glob	al Select Market	
luring the preceding 12 mo equirements for the past 90 ndicate by check mark who	onths (or for such shorter period) days. Yes ⊠ No □ ether the registrant has submi	od that the registrant was noted to the registrant was not the registrant was noted to the registrant was not the registrant	required to file su	n 13 or 15(d) of the Securities Exchange Act o ch reports), and (2) has been subject to such fil le required to be submitted pursuant to Rule 40	ling 05 of
Regulation S-T (§232.405 c iles). Yes ⊠ No □	of this chapter) during the pre	ceding 12 months (or for s	such shorter perio	d that the registrant was required to submit suc	:h
	See the definitions of "large			accelerated filer, a smaller reporting company, ler reporting company," and "emerging growtl	
Large accelerated filer	\boxtimes			Accelerated filer	
Non-accelerated filer				Smaller reporting company	
Emerging growth company					
evised financial accounting	pany, indicate by check mark g standards provided pursuant ether the registrant is a shell c	t to Section 13(a) of the E	xchange Act. □	xtended transition period for complying with a xchange Act). Yes \Box No x	ny new oi

There were 17,404,087 shares of the registrant's common stock outstanding as of October 28, 2019.



FARO TECHNOLOGIES, INC.

Quarterly Report on Form 10-Q Quarter Ended September 30, 2019

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PART I. FINANCIAL INFORMATION Item 1. Financial Statements

FARO TECHNOLOGIES, INC. AND SUBSIDIARIES

(in thousands, except share and per share data)		tember 30, 2019 (unaudited)	Dec	ember 31, 2018
ASSETS				
Current assets:	ф	110.000	ф	100 500
Cash and cash equivalents	\$	119,083	\$	108,783
Short-term investments		24,868		24,793
Accounts receivable, net		64,708		88,927
Inventories, net		69,779		65,444
Prepaid expenses and other current assets Total current assets		28,084		28,795
		306,522	-	316,742
Property and equipment:		02 570		76.040
Machinery and equipment Furniture and fixtures		82,578		76,048
Leasehold improvements		6,172		6,749
		21,066		20,304
Property and equipment at cost		109,816		103,101
Less: accumulated depreciation and amortization		(81,411)		(72,684)
Property and equipment, net		28,405		30,417
Operating lease right-of-use asset		18,672		
Goodwill		69,712		67,274
Intangible assets, net		27,530		33,054
Service and sales demonstration inventory, net		39,509		39,563
Deferred income tax assets, net		14,693		14,719
Other long-term assets Total assets	<u></u>	2,987	Φ.	4,475
	\$	508,030	\$	506,244
LIABILITIES AND SHAREHOLDERS' EQUITY				
Current liabilities:				
Accounts payable	\$	11,705	\$	20,093
Accrued liabilities		35,255		36,327
Income taxes payable		1,081		5,081
Current portion of unearned service revenues		35,273		32,878
Customer deposits		2,419		3,144
Lease liability		6,615		
Total current liabilities		92,348		97,523
Unearned service revenues - less current portion		18,171		15,505
Lease liability - less current portion		13,922		726
Deferred income tax liabilities		2,466		736
Income taxes payable - less current portion		12,567		12,247
Other long-term liabilities Total liabilities		1,031		3,624
		140,505		129,635
Commitments and contingencies - See Note 15				
Shareholders' equity:				
Common stock - par value \$.001, 50,000,000 shares authorized; 18,816,598 and 18,676,059 issued, respectively; 17,404,087 and 17,253,011 outstanding, respectively		19		19
Additional paid-in capital		260,737		251,329
Retained earnings		162,574		175,353
Accumulated other comprehensive loss		(24,430)		(18,483)
Common stock in treasury, at cost; 1,412,511 and 1,423,048 shares, respectively		(31,375)		(31,609)
Total shareholders' equity		367,525		376,609
Total liabilities and shareholders' equity	\$	508,030	\$	506,244

FARO TECHNOLOGIES, INC. AND SUBSIDIARIES CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (UNAUDITED)

		Three Mo	nths	Ended		Nine Mo	ths Ended	
(in thousands, except share and per share data)	Septe	mber 30, 2019	Se	eptember 30, 2018	September 30, 2019		Se	ptember 30, 2018
Sales								
Product	\$	63,641	\$	75,817	\$	200,434	\$	222,118
Service		26,875		23,888		77,190		68,665
Total sales		90,516		99,705		277,624		290,783
Cost of Sales								
Product		26,495		34,864		83,632		91,321
Service		13,249		14,229		39,461		40,750
Total cost of sales		39,744		49,093		123,093		132,071
Gross Profit		50,772		50,612		154,531		158,712
Operating Expenses								
Selling and marketing		30,218		28,482		87,438		87,877
General and administrative		15,662		13,102		44,471		36,789
Research and development		10,783		11,740		33,048		34,138
Total operating expenses		56,663		53,324		164,957		158,804
Loss from operations		(5,891)		(2,712)		(10,426)		(92)
Other (income) expense								
Interest (income) expense, net		(24)		(96)		72		(205)
Other expense, net		514		226		2,398		868
Loss before income tax (benefit) expense		(6,381)		(2,842)		(12,896)		(755)
Income tax (benefit) expense		(182)		(354)		(444)		73
Net loss	\$	(6,199)	\$	(2,488)	\$	(12,452)	\$	(828)
Net loss per share - Basic	\$	(0.36)	\$	(0.15)	\$	(0.72)	\$	(0.05)
Net loss per share - Diluted	\$	(0.36)	\$	(0.15)	\$	(0.72)	\$	(0.05)
Weighted average shares - Basic	1	7,367,228		17,122,705		17,352,386		16,976,459
Weighted average shares - Diluted	1	7,367,228		17,122,705		17,352,386		16,976,459

FARO TECHNOLOGIES, INC. AND SUBSIDIARIES

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS (UNAUDITED)

	Three Months Ended Nine Months Ended	
(in thousands)	September 30, September 30, September 30, September 30, September 30, September 30, 2019 2018 2019 2018	30,
Net loss	\$ (6,199) \$ (2,488) \$ (12,452) \$ (828)	8)
Currency translation adjustments	(5,646) $(4,911)$ $(5,947)$ $(9,074)$	4)
Comprehensive loss	\$ (11,845) \$ (7,399) \$ (18,399) \$ (9,902)	2)

FARO TECHNOLOGIES, INC. AND SUBSIDIARIESCONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(UNAUDITED)

(ONAUDITED)	Nine Mor	nths Ended
(in thousands)	September 30, 2019	September 30, 2018
Cash flows from:		
Operating activities:		
Net loss	\$ (12,452)	\$ (828)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Depreciation and amortization	14,203	13,467
Stock-based compensation	8,703	5,717
Provisions for bad debts, net of recoveries	1,000	360
Loss on disposal of assets	552	401
Provision for excess and obsolete inventory	2,431	5,357
Deferred income tax benefit	(69)	(161)
Impairment charge on equity method investment	1,535	_
Change in operating assets and liabilities:		
Decrease (Increase) in:		
Accounts receivable	21,883	(1,882)
Inventories	(9,471)	(12,104)
Prepaid expenses and other current assets	640	(4,257)
(Decrease) Increase in:		
Accounts payable and accrued liabilities	(13,404)	569
General Services Administration liability	6,470	_
Income taxes payable	(3,679)	(5,082)
Customer deposits	(685)	(107)
Unearned service revenues	5,809	3,415
Net cash provided by operating activities	23,466	4,865
Investing activities:		
Purchases of property and equipment	(5,922)	(6,895)
Proceeds from sale of investments	33,700	22,000
Purchases of investments	(33,700)	(31,000)
Payments for intangible assets	(2,035)	(1,716)
Acquisition of businesses	_	(27,638)
Loan originated to affiliate	(549)	_
Equity investments and advances to affiliates	<u> </u>	(1,786)
Net cash used in investing activities	(8,506)	(47,035)
Financing activities:		
Payments on finance leases	(273)	(84)
Payments of contingent consideration for acquisitions	(3,101)	(638)
Payments for taxes related to net share settlement of equity awards	(1,389)	_
Proceeds from issuance of stock related to stock option exercises	2,328	20,901
Net cash (used in) provided by financing activities	(2,435)	20,179
Effect of exchange rate changes on cash and cash equivalents	(2,225)	(3,871)
Increase (decrease) in cash and cash equivalents	10,300	(25,862)
Cash and cash equivalents, beginning of period	108,783	140,960
Cash and cash equivalents, end of period	\$ 119,083	\$ 115,098

FARO TECHNOLOGIES, INC. AND SUBSIDIARIES CONDENSED CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY (UNAUDITED)

(in thousands, except share data)	Commo	ck Amounts	Additional Paid-in Capital		Retained Earnings		Accumulated Other Comprehensive Loss		Common Stock in Treasury	Total
BALANCE JANUARY 1, 2019	17,253,011	\$ 19	\$ 251,329	\$	175,353	\$	(18,483)	\$	(31,609)	\$ 376,609
Net income					152					152
Currency translation adjustment							(1,564)			(1,564)
Stock-based compensation			2,564							2,564
Common stock issued, net of shares withheld for employee taxes	64,864		(1,053)						207	(846)
Cumulative effect of the adoption of ASU 2016-02					(327)					(327)
BALANCE MARCH 31, 2019	17,317,875	\$ 19	\$ 252,840	\$	175,178	\$	(20,047)	\$	(31,402)	\$ 376,588
Net loss				_	(6,405)	_		_		(6,405)
Currency translation adjustment							1,263			1,263
Stock-based compensation			2,752							2,752
Common stock issued, net of shares withheld for employee taxes	21,187		114						27	141
BALANCE JUNE 30, 2019	17,339,062	\$ 19	\$ 255,706	\$	168,773	\$	(18,784)	\$	(31,375)	\$ 374,339
Net loss				_	(6,199)	_				(6,199)
Currency translation adjustment							(5,646)			(5,646)
Stock-based compensation			3,387							3,387
Common stock issued, net of shares withheld for employee taxes	65,025		1,644							1,644
BALANCE SEPTEMBER 30, 2019	17,404,087	\$ 19	\$ 260,737	\$	162,574	\$	(24,430)	\$	(31,375)	\$ 367,525

(in thousands, except share data)	Comm	ck Amounts	.	Additional Paid-in Capital		Retained Earnings	Accumulated Other Comprehensive Loss	Common Stock in Treasury	Total
BALANCE JANUARY 1, 2018	16,796,884	\$ 18	\$	223,055	\$	168,624	\$ (7,822)	\$ (31,809)	\$ 352,066
Net income					_	455			455
Currency translation adjustment							5,214		5,214
Stock-based compensation				1,553					1,553
Common stock issued, net of shares withheld for employee taxes	158,795			6,601				75	6,676
Cumulative effect of the adoption of ASU 2014-09						2,365			2,365
BALANCE MARCH 31, 2018	16,955,679	\$ 18	\$	231,209	\$	171,444	\$ (2,608)	\$ (31,734)	\$ 368,329
Net income						1,205			1,205
Currency translation adjustment							(9,377)		(9,377)
Stock-based compensation				1,847					1,847
Common stock issued, net of shares withheld for employee taxes	23,079			699					699
BALANCE JUNE 30, 2018	16,978,758	\$ 18	\$	233,755	\$	172,649	\$ (11,985)	\$ (31,734)	\$ 362,703
Net loss						(2,488)			(2,488)
Currency translation adjustment							(4,911)		(4,911)
Stock-based compensation				2,317					2,317
Common stock issued, net of shares withheld for employee taxes	273,402	1		13,212				125	13,338
BALANCE SEPTEMBER 30, 2018	17,252,160	\$ 19	\$	249,284	\$	170,161	\$ (16,896)	\$ (31,609)	\$ 370,959

FARO TECHNOLOGIES, INC. AND SUBSIDIARIES

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

(in thousands, except share and per share data, or as otherwise noted)

NOTE 1 – DESCRIPTION OF BUSINESS

FARO Technologies, Inc. and its subsidiaries (collectively "FARO," the "Company," "us," "we" or "our") design, develop, manufacture, market and support software driven, three-dimensional ("3D") measurement and imaging solutions. This technology permits high-precision 3D measurement, imaging and comparison of parts and complex structures within production and quality assurance processes. Our devices are used for inspection of components and assemblies, rapid prototyping, reverse engineering, documenting large volume or structures in 3D, surveying and construction, as well as for investigation and reconstruction of accident sites or crime scenes. We sell the majority of our products through a direct sales force across a broad number of customers in a range of manufacturing, industrial, architecture, surveying, building information modeling, construction, public safety forensics, cultural heritage, dental, and other applications. Our FaroArm®, FARO ScanArm®, FARO Laser TrackerTM, FARO Laser Projector, and their companion CAM2®, BuildIT, and BuildIT Projector software solutions, provide for Computer-Aided Design ("CAD") based inspection, factory-level statistical process control, high-density surveying and laser-guided assembly and production. Together, these products integrate the measurement, quality inspection, and reverse engineering functions with CAD and 3D software to improve productivity, enhance product quality, and decrease rework and scrap in the manufacturing process, mainly supporting applications in our 3D Manufacturing vertical. Our FARO Focus, FARO ScanPlan and FARO Scanner Freestyle^{3D} X laser scanners, and their companion FARO SCENE, BuildIT, FARO As-BuiltTM, and FARO Zone public safety forensics software offerings, are utilized for a wide variety of 3D modeling, documentation and high-density surveying applications in our Construction Building Information Modeling ("Construction BIM") and Public Safety Forensics verticals. Our FARO ScanArm®, FARO Scanner Freestyle^{3D} X laser scanners and their companion SCENE software, and other 3D-structured light scanning solutions specific to the dental industry, also enable a fully digital workflow used to capture real world geometry for the purpose of empowering design, enabling innovation, and speeding up the design cycle, supporting our 3D Design vertical. Our line of galvanometer-based scan heads and laser scan controllers are used in a variety of laser applications and are integrated into larger components and systems, supporting our Photonics vertical.

We report our segment information in accordance with the provisions of Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 280, *Segment Reporting* ("FASB ASC Topic 280"). We evaluate business performance based upon several metrics, using revenue growth and segment profit as the primary financial measures. In the fourth quarter of 2018, we renamed our 3D Factory vertical and reporting segment "3D Manufacturing." There was no change in our total consolidated financial condition or results of operations previously reported as a result of this change.

We report our activities in the following three reportable segments:

- The 3D Manufacturing reporting segment contains our 3D Manufacturing vertical and provides both standardized and customized solutions for 3D measurement and inspection in an industrial or manufacturing environment. Applications include alignment, part inspection, dimensional analysis, first article inspection, incoming and in-process inspection, machine calibration, non-contact inspection, robot calibration, tool building and set-up, and assembly guidance.
- The Construction BIM reporting segment contains our Construction BIM vertical and provides solutions for as-built data capturing and 3D visualization in building information modeling applications, allowing our customers in the architecture, engineering and construction markets to quickly and accurately extract two-dimensional ("2D") and 3D measurement points. Applications include as-built documentation, construction monitoring, surveying, asset and facility management, and heritage preservation.
- The Emerging Verticals reporting segment includes our 3D Design, Public Safety Forensics, and Photonics verticals. Our 3D Design vertical provides advanced 3D solutions to capture and edit 3D shapes of products, people and/or environments for design purposes in product development, computer graphics and dental and medical applications. Our Public Safety Forensics vertical provides solutions to public safety officials and professionals to capture environmental or situational scenes in 2D and 3D for crime, crash and fire scene investigations and environmental safety evaluations. Our Photonics vertical develops and markets galvanometer-based laser measurement products and solutions.

All operating segments that do not meet the criteria to be reportable segments are aggregated in the Emerging Verticals reporting segment and have been combined based on the aggregation criteria and quantitative thresholds in accordance with the provisions of FASB ASC Topic 280. Our reporting segments have been determined in accordance with our internal management structure, which is based on operating activities. Each segment is responsible for its own product management, sales, strategy and profitability. Each reporting segment employs consistent accounting policies. See Note 14 – Segment Reporting for further information.

Reclassification and Related Changes to Presentation

Commencing with the third quarter of 2019, depreciation and amortization expenses are being reported in the accompanying statements of operations to reflect departmental costs. Previously, those expenses were reported as a separate line item under operating expenses. Amounts related to depreciation and amortization expenses for the three and nine months ended September 30, 2018 have been restated throughout this Quarterly Report on Form 10-Q to reflect this reclassification of depreciation and amortization expenses and to conform to the current period presentation, as follows:

For the three months ended, September 30, 2018

	<u>A</u>	<u>s Reported</u>	<u>.</u>	<u>Adjustment</u>	As Adjusted
Cost of Sales					
Product	\$	34,004	\$	860	\$ 34,864
Service		13,384		845	14,229
Total cost of sales	\$	47,388	\$	1,705	\$ 49,093
Operating Expenses					
Selling and marketing	\$	27,811	\$	671	\$ 28,482
General and administrative		12,496		606	13,102
Depreciation and amortization		4,747		(4,747)	_
Research and development		9,975		1,765	11,740
Total operating expenses	\$	55,029	\$	(1,705)	\$ 53,324

For the nine months ended, September 30, 2018

	As Reported	<u>Adjustment</u>	As Adjusted
Cost of Sales			
Product	\$ 88,766	\$ 2,555	\$ 91,321
Service	 38,223	2,527	\$ 40,750
Total cost of sales	\$ 126,989	\$ 5,082	\$ 132,071
Operating Expenses			
Selling and marketing	\$ 86,166	\$ 1,711	\$ 87,877
General and administrative	34,889	1,900	\$ 36,789
Depreciation and amortization	13,467	(13,467)	\$ _
Research and development	 29,364	4,774	\$ 34,138
Total operating expenses	\$ 163,886	\$ (5,082)	\$ 158,804

NOTE 2 - PRINCIPLES OF CONSOLIDATION

Our condensed consolidated financial statements include the accounts of FARO Technologies, Inc. and its subsidiaries, all of which are wholly-owned. All intercompany transactions and balances have been eliminated. The financial statements of our foreign subsidiaries are translated into U.S. dollars using exchange rates in effect at period-end for assets and liabilities and average exchange rates during each reporting period for results of operations. Adjustments resulting from financial statement translations are reflected as a separate component of accumulated other comprehensive loss. Foreign currency transaction gains and losses are included in net loss.

NOTE 3 - BASIS OF PRESENTATION

The accompanying unaudited condensed consolidated financial statements and notes thereto have been prepared in accordance with accounting principles generally accepted in the United States ("U.S. GAAP") for interim financial information and with the instructions of Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by U.S. GAAP for complete financial statements. These condensed consolidated financial statements include all normal recurring accruals and adjustments considered necessary by management for a fair presentation in conformity with U.S. GAAP. Preparing financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and 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 materially from those estimates. The condensed consolidated results of operations for the three and nine months ended September 30, 2019 are not necessarily indicative of results that may be expected for the year ending December 31, 2019 or any future period.

The information included in this Quarterly Report on Form 10-Q, including the interim condensed consolidated financial statements and the accompanying notes, should be read in conjunction with the audited consolidated financial statements and related notes included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018. The accompanying December 31, 2018 condensed consolidated balance sheet has been derived from those audited consolidated financial statements. As described in Note 1 – Description of Business, commencing with the third quarter of 2019, depreciation and amortization expenses are being reported in the accompanying statements of operations to reflect departmental costs. Previously, those expenses were reported as a separate line item under operating expenses. Amounts related to depreciation and amortization expenses for the three and nine months ended September 30, 2018 have been restated throughout this Quarterly Report on Form 10-Q to reflect this reclassification of depreciation and amortization expenses and to conform to the current period presentation.

NOTE 4 - IMPACT OF RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS

Impact of Recently Adopted Accounting Standards

In February 2016, the FASB issued Accounting Standards Update ("ASU") No. 2016-02, *Leases (Topic 842)* ("ASU 2016-02"), which is intended to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements to enable users of financial statements to assess the amount, timing and uncertainty of cash flows arising from leases. ASU No. 2018-11, *Leases (Topic 842): Targeted Improvements*, was issued by the FASB in July 2018 and allows for a cumulative-effect adjustment transition method of adoption. The new guidance is effective for fiscal years beginning after December 15, 2018 and interim periods within those years. We adopted ASU 2016-02 effective as of January 1, 2019 utilizing the cumulative-effect adjustment transition method of adoption, which resulted in the recognition on our condensed consolidated balance sheet as of September 30, 2019 of \$18.7 million of right-of-use assets for operating leases, \$19.7 million of lease liability for operating leases, \$0.8 million of property and equipment, net for finance leases and \$0.8 million of lease liability for finance leases under which we function as a lessee. We elected certain practical expedients available under the transition provisions to (i) allow aggregation of non-lease components with the related lease components when evaluating accounting treatment, (ii) apply the modified retrospective adoption method, utilizing the simplified transition option, which allows us to continue to apply the legacy guidance in FASB ASC Topic 840, including its disclosure requirements, in the comparative periods presented in the year of adoption, and (iii) use hindsight in determining the lease term (that is, when considering our options to extend or terminate the lease and to purchase the underlying asset) and in assessing impairment of our right-of-use assets. The adoption of ASU 2016-02 also required us to include any initial direct costs, which are

Impact of Recently Issued Accounting Standards

In January 2017, the FASB issued ASU No. 2017-04, *Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment* ("ASU 2017-04"), which is intended to simplify the subsequent measurement of goodwill by eliminating Step 2 from the goodwill impairment test. Under the current guidance, performance of Step 2 requires us to calculate the implied fair value of goodwill by following procedures that would be required to determine the fair value of assets acquired and liabilities assumed in a business combination. Under the new guidance, we will perform our goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. An impairment charge will be recognized for the amount by which the carrying amount exceeds the reporting unit's fair value up to the amount of the goodwill allocated to the reporting unit. The new guidance also eliminates the requirements for any reporting unit with a zero or negative carrying amount to perform Step 2 of the goodwill impairment test if it fails the qualitative assessment. As a result, all reporting units will be subject to the same impairment assessment. We will still have the option to perform the qualitative assessment for a reporting unit to determine if the quantitative impairment test is necessary. ASU 2017-04 becomes effective for annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019, with early adoption permitted for annual or any interim goodwill impairment tests after January 1, 2017. The amendments in this ASU will be applied on a prospective basis. Disclosure of the nature and reason for the change in accounting principle is required upon transition. This disclosure is required in the first annual period and in the interim period within the first annual period when we initially adopt the amendments in this ASU. We plan to adopt this guidance for our fiscal year ending December 31, 2020. We do not expect that the adoption of this guidance will have a material impact on

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* ("ASU 2016-13"), which requires the measurement and recognition of expected credit losses for financial assets held at amortized cost. ASU 2016-13, and subsequent related amendments to ASU 2016-13, replace the existing incurred loss impairment model with an expected loss model that requires the use of forward-looking information to calculate credit loss estimates. It also eliminates the concept of other-than-temporary impairment and requires credit losses related to available-for-sale debt securities to be recorded through an allowance for credit losses rather than as a reduction in the amortized cost basis of the securities. These changes will result in earlier recognition of credit losses. We will adopt ASU 2016-13 effective January 1, 2020. We are currently evaluating the effect of the adoption of ASU 2016-13, but we do not expect that the adoption of this guidance will have a material impact on our condensed consolidated financial statements.

NOTE 5 – REVENUES

The following tables present our revenues by sales type as presented in our condensed consolidated statements of operations disaggregated by the timing of transfer of goods or services (in thousands, unaudited):

	F	or the Three Months Ended	September 30,
		2019	2018
Product sales			
Product transferred to customers at a point in time	\$	63,641 \$	75,817
Product transferred to customers over time		_	_
	\$	63,641 \$	75,817
	F	or the Nine Months Ended	September 30,
		2019	2018
Product sales			
Product transferred to customers at a point in time	\$	200,434 \$	222,118
Product transferred to customers over time			
	\$	200,434 \$	222,118
	E	or the Three Months Ended	Santambar 20
	F	or the Three Months Ended 2019	September 30, 2018
Service sales		2019	2018
Service transferred to customers at a point in time	F	12,526 \$	2018
		12,526 \$ 14,349	2018
Service transferred to customers at a point in time		12,526 \$	2018
Service transferred to customers at a point in time	\$	12,526 \$ 14,349 26,875 \$	2018 11,580 12,308 23,888
Service transferred to customers at a point in time	\$	12,526 \$ 14,349	2018 11,580 12,308 23,888
Service transferred to customers at a point in time	\$	2019 12,526 \$ 14,349 26,875 \$ or the Nine Months Ended	2018 11,580 12,308 23,888 September 30,
Service transferred to customers at a point in time Service transferred to customers over time	\$	2019 12,526 \$ 14,349 26,875 \$ or the Nine Months Ended	2018 11,580 12,308 23,888 September 30,
Service transferred to customers at a point in time Service transferred to customers over time Service sales	\$ \$	2019 12,526 \$ 14,349 26,875 \$ or the Nine Months Ended 2019	2018 11,580 12,308 23,888 September 30, 2018

The following table presents our revenues disaggregated by geography, based on the billing addresses of our customers (in thousands, unaudited):

	For the Three Months Ended September 30,				
	 2019		2018		
Total sales to external customers					
United States	\$ 37,166	\$	38,090		
EMEA (1)	26,424		29,577		
Other APAC (1)	16,120		16,602		
China	7,751		11,340		
Other Americas (1)	3,055		4,096		
	\$ 90,516	\$	99,705		
	For the Nine Months	Ended	September 30,		
	 2019		2018		
Total sales to external customers					
United States	\$ 108,174	\$	115,670		
EMEA (1)	87,554		88,858		
Other APAC (1)	46,550		48,502		
China	25,007		26,973		
Other Americas (1)	10,339		10,780		
		_			

⁽¹⁾ Regions represent Europe, the Middle East, and Africa (EMEA); Asia-Pacific, excluding China (Other APAC); and Canada, Mexico, and Brazil (Other Americas).

290,783

277,624

For revenue related to our measurement and imaging equipment and related software, we allocate the contract price to performance obligations based on our best estimate of the standalone selling price. We make this allocation estimate utilizing data from the sale of our applicable products and services to customers separately in similar circumstances, with the exception of software licenses. With respect to software licenses, we use the residual method for allocating the contract price to performance obligations. Revenue related to our measurement and imaging equipment and related software is generally recognized upon shipment from our facilities or when delivered to the customer location, as determined by the agreed upon shipping terms, at which time we are entitled to payment and title and control has passed to the customer. Software arrangements generally include short-term maintenance that is considered post-contract support ("PCS"), which is considered to be a separate performance obligation. We generally establish a standalone sales price for this PCS component based on our maintenance renewal rate. Maintenance renewals, when sold, are recognized on a straight-line basis over the term of the maintenance agreement. Payments for products and services are collected within a short period of time following transfer of control or commencement of delivery of services, as applicable.

Further, customers frequently purchase extended warranties with the purchase of measurement equipment and related software. Warranties are considered a performance obligation when services are transferred to a customer over time, and, as such, we recognize revenue on a straight-line basis over the warranty term. Extended warranty sales primarily include contract periods that extend between one month and three years.

We capitalize commission expenses related to deliverables transferred to a customer over time and amortize such costs ratably over the term of the contract. As of September 30, 2019, the deferred cost asset related to deferred commissions was approximately \$2.8 million. For classification purposes, \$1.9 million and \$0.9 million are comprised within the Prepaid expenses and other current assets and Other long-term assets, respectively, on our condensed consolidated balance sheet as of September 30, 2019. As of December 31, 2018, the deferred cost asset related to deferred commissions was approximately \$2.7 million. For classification purposes, \$1.8 million and \$0.9 million were comprised within the Prepaid expenses and other current assets and Other long-term assets, respectively, on our condensed consolidated balance sheet as of December 31, 2018.

The unearned service revenue liabilities reported on our condensed consolidated balance sheets reflect the contract liabilities to satisfy the remaining performance obligations for extended warranties and software maintenance. The current portion of unearned service revenues on our condensed consolidated balance sheets is what we expect to recognize to revenue within twelve months after the applicable balance sheet date relating to extended warranty and software maintenance contract liabilities. The Unearned service revenues - less current portion on our condensed consolidated balance sheets is what we expect to recognize to revenue extending beyond twelve months after the applicable balance sheet date relating to extended warranty and software maintenance contract liabilities. During the three and nine months ended September 30, 2019, we recognized \$6.3 million and \$25.9 million, respectively, of service revenue that was deferred on our condensed consolidated balance sheet as of December 31, 2018. During the three and nine months ended September 30, 2018, we recognized \$5.3 million and \$21.5 million, respectively, of service revenue that was deferred on our consolidated balance sheet as of December 31, 2017.

The nature of certain of our contracts gives rise to variable consideration, which may be constrained, primarily related to an allowance for sales returns and contracts with certain government customers. We are required to estimate the contract asset related to sales returns and record a corresponding adjustment to Cost of Sales. Our allowance for sales returns was approximately \$0.1 million as of both September 30, 2019 and September 30, 2018.

Shipping and handling fees billed to customers in a sales transaction are recorded in Product Sales and shipping and handling costs incurred are recorded in Cost of Sales. We exclude from Sales any value-added sales and other taxes that we collect concurrently with revenue-producing activities.

NOTE 6 - STOCK-BASED COMPENSATION

Stock-based compensation expense reflects the fair value of stock-based awards measured at the grant date. For awards with only a service condition, we expense stock-based compensation using the straight-line method over the requisite service period for the entire award. For awards with both performance and service conditions, we expense the stock-based compensation on a straight-line basis over the requisite service period taking into account the probability that we will satisfy the performance condition.

We have two compensation plans that provide for the granting of stock options and other share-based awards to key employees and non-employee members of the Board of Directors (the "Board"). The 2009 Equity Incentive Plan (the "2009 Plan") and the 2014 Equity Incentive Plan (the "2014 Plan") provide for granting options, restricted stock, restricted stock units or stock appreciation rights to employees and non-employee directors. In May 2018, our shareholders approved an amendment to the 2014 Plan, which increased the number of shares available for issuance under the 2014 Plan by 1,000,000 shares. A maximum of 2,974,543 shares are available for issuance under the 2014 Plan, as amended, plus the number of shares (not to exceed 891,960) that were underlying awards outstanding under the 2004 Equity Incentive Plan (the "2004 Plan") and the 2009 Plan as of May 29, 2014 that thereafter terminate or expire unexercised or are canceled, forfeited or lapse for any reason. No awards were outstanding under the 2004 Plan as of September 30, 2019, and no further grants will be made under the 2004 Plan or the 2009 Plan.

Upon election to the Board, each non-employee director receives an initial equity grant of shares of restricted common stock with a value equal to \$100,000, calculated using the closing price of our common stock on the date of the non-employee director's election to the Board. The initial restricted stock grant vests on the third anniversary of the grant date, subject to the non-employee director's continued membership on the Board. Annually, the non-employee directors are granted restricted shares with a value equal to \$100,000 on the first business day following the annual meeting of shareholders, calculated using the closing price of our common stock on that day. In addition, the independent Chairman of the Board is annually granted restricted shares with a value equal to \$50,000, and the Lead Director, if one has been appointed, would be annually granted restricted shares with a value of \$40,000, on the first business day following the annual meeting of shareholders, calculated using the closing price of our common stock on that day. The shares of restricted stock granted annually to our non-employee directors, our independent Chairman of the Board and, if applicable, our Lead Director vest on the day prior to the following year's annual meeting date, subject to the non-employee director's continued membership on the Board. We record compensation expense associated with our restricted stock grants on a straight-line basis over the vesting term. Also, beginning in October 2018, our non-employee directors may elect to have their annual cash retainers and annual equity retainers paid in the form of deferred stock units pursuant to the 2014 Plan and the 2018 Non-Employee Director Deferred Compensation Plan. Each deferred stock unit represents the right to receive one share of our common stock upon the non-employee director's separation of service from the Company. We record compensation expense associated with our deferred stock units over the period of service.

Annually, upon approval by our Compensation Committee, we grant stock-based awards, which historically have been in the form of stock options and/or restricted stock units, to certain employees. We also grant stock-based awards, which historically have been in the form of stock options and/or restricted stock units, to certain new employees throughout the year. The fair value of these stock-based awards is determined by using (a) the current market price of our common stock on the grant date in the case of restricted stock units without a market condition, (b) the Monte Carlo Simulation valuation model in the case of performance-based restricted stock units with a market condition, or (c) the Black-Scholes option valuation model in the case of stock options.

Our annual grants in February 2019 and the stock-based awards granted to Michael D. Burger upon the commencement of his service as our President and Chief Executive Officer in June 2019 and to Allen Muhich upon the commencement of his service as our Chief Financial Officer in July 2019 consisted of performance-based restricted stock units and time-based restricted stock units. Our annual grants in March 2018 consisted of time-based stock options and time-based restricted stock units. The number of stock options and/or restricted stock units granted was based on the employee's individual objectives, performance against operational metrics assigned to the employee and overall contribution to the Company over the last year.

For the stock-based awards granted in 2019, the time-based restricted stock units vest in three equal annual installments beginning one year after the grant date. The performance-based restricted stock unit awards vest at the end of the 3-year performance period if the applicable performance measure is achieved. The related stock-based compensation expense will be recognized over the requisite service period, taking into account the probability that we will satisfy the performance measure. The performance-based restricted stock units granted in 2019 will be earned and will vest based upon our total shareholder return ("TSR") relative to the TSR attained by companies within our defined benchmark group, the Russell 2000 Growth Index. Due to the TSR presence in these performance-based restricted stock units, the fair value of these awards was determined using the Monte Carlo Simulation valuation model. We expense these market condition awards over the three-year vesting period regardless of the value the award recipients ultimately receive.

For 2018 grants, stock options vest in three equal annual installments beginning one year after the grant date and time-based restricted stock unit awards vest in full on the three-year anniversary of the grant date. The fair value of these stock-based awards is determined by using (a) the Black-Scholes option valuation model in the case of stock options or (b) the current market price of our common stock on the grant date in the case of restricted stock units.

The Black-Scholes option and Monte Carlo Simulation valuation models incorporate assumptions as to stock price volatility, the expected life of options or awards, a risk-free interest rate and dividend yield. The weighted-average grant-date fair value of the performance-based restricted stock units that were granted during the nine months ended September 30, 2019 and valued using the Monte Carlo Simulation valuation model was \$66.16. No performance-based restricted stock units were granted during the nine months ended September 30, 2018. For performance-based restricted stock units granted during the nine months ended September 30, 2019 valued using the Monte Carlo Simulation waluation model, we used the following assumptions:

	Nille Molitus Elided
	September 30, 2019
Risk-free interest rate	1.8% - 2.48%
Expected dividend yield	— %
Expected volatility	45.0 %
Weighted-average expected volatility	45.0 %

The weighted-average grant-date fair value of the stock options that were granted during the nine months ended September 30, 2018 and valued using the Black-Scholes option valuation model was \$23.43 per option. No stock options were granted during the nine months ended September 30, 2019. For stock options granted during the nine months ended September 30, 2018 valued using the Black-Scholes option valuation model, we used the following assumptions:

	Nine Months Ended
	September 30, 2018
Risk-free interest rate	2.65 %
Expected dividend yield	— %
Expected term of option	4 years
Expected volatility	45.0 %
Weighted-average expected volatility	45.0 %

Historical information was the primary basis for the selection of the expected dividend yield, expected volatility and the expected lives of the options. The risk-free interest rate was based on the yields of U.S. zero coupon issues and U.S. Treasury issues, with a term approximating the expected life of the option being valued.

A summary of stock option activity and weighted-average exercise prices during the nine months ended September 30, 2019 follows:

	Options	Weighted- Average Exercise Price		Average		Average		Weighted-Average Remaining Contractual Term (Years)	Ö	regate Intrinsic Value as of ember 30, 2019
Outstanding at January 1, 2019	792,943	\$	47.59							
Granted	_		_							
Forfeited or expired	(77,064)		54.64							
Exercised	(70,936)		32.71							
Outstanding at September 30, 2019	644,943	\$	48.66	3.8	\$	3,757				
Options exercisable at September 30, 2019	577,240	\$	48.62	2.6	\$	3,331				

The total intrinsic value of stock options exercised during the three months ended September 30, 2019 and September 30, 2018 was \$1.0 million and \$4.7 million, respectively. The total intrinsic value of stock options exercised during the nine months ended September 30, 2019 and September 30, 2018 was \$1.3 million and \$7.5 million, respectively. The fair value of stock options vested during the three months ended September 30, 2019 and September 30, 2018 was \$0.6 million and \$0.1 million, respectively. The fair value of stock options vested during the nine months ended September 30, 2019 and September 30, 2018 was \$4.9 million and \$3.2 million, respectively.

The following table summarizes the restricted stock and restricted stock unit activity and weighted average grant-date fair values for the nine months ended September 30, 2019:

	Shares	W	eighted-Average Grant Date Fair Value
Non-vested at January 1, 2019	311,000	\$	42.66
Granted	250,359		49.05
Forfeited	(25,738)		47.57
Vested	(130,527)		37.94
Non-vested at September 30, 2019	405,094	\$	47.81

We recorded total stock-based compensation expense of \$3.4 million and \$2.3 million for the three months ended September 30, 2019 and September 30, 2018, respectively, and \$8.7 million and \$5.7 million for the nine months ended September 30, 2019 and September 30, 2018, respectively.

As of September 30, 2019, there was \$12.2 million of total unrecognized stock-based compensation expense related to non-vested stock-based compensation arrangements. The expense is expected to be recognized over a weighted average period of 2.1 years.

The following table summarizes total stock-based compensation expense for each of the line items on our condensed consolidated statement of operations:

		Three Months Ended				Nine Mo	nths E	Ended
	Se	September 30, 2019 September 30, 2018			September 30, 2019	September 30, 2018		
Cost of Sales								
Product	\$	170	\$	143	\$	482	\$	351
Service		100		98		288		269
Total cost of sales	\$	270	\$	241	\$	770	\$	620
Operating Expenses								
Selling and marketing	\$	356	\$	411	\$	1,110	\$	1,123
General and administrative		2,389		1,172		5,942		2,808
Research and development		372		442		881		1,166
Total operating expenses	\$	3,117	\$	2,025	\$	7,933	\$	5,097

NOTE 7 - SHORT-TERM INVESTMENTS

Short-term investments at September 30, 2019 were composed of U.S. Treasury Bills totaling \$24.9 million, consisting of \$8.9 million maturing on March 12, 2020 and \$16.0 million maturing on December 12, 2019. The interest rates on the U.S. Treasury Bills held on September 30, 2019 that are maturing on March 12, 2020 and December 12, 2019 were 1.8% and 1.9%, respectively. Short-term investments at December 31, 2018 were composed of U.S. Treasury Bills totaling \$24.8 million, consisting of \$9.0 million, \$10.9 million, and \$4.9 million that matured on March 14, 2019, June 6, 2019, and June 20, 2019, respectively. The interest rates on the U.S. Treasury Bills held on December 31, 2018 that matured on March 14, 2019, June 6, 2019, and June 20, 2019 were 2.2%, 2.4%, and 2.3%, respectively. These investments are classified as held-to-maturity and recorded at cost plus accrued interest, which approximates fair value. We do not intend to sell these investments, and it is not more likely than not that we will be required to sell the investments before we recover their amortized cost bases.

NOTE 8 - ACCOUNTS RECEIVABLE

Accounts receivable consist of the following:

	As of Septemb	er 30, 2019	As of December 31, 2018		
Accounts receivable	\$	67,162	\$	90,675	
Allowance for doubtful accounts		(2,454)		(1,748)	
Total	\$	64,708	\$	88,927	

NOTE 9 - INVENTORIES

Inventories are stated at the lower of cost or net realizable value using the first-in first-out (FIFO) method. We have three principal categories of inventory: 1) manufactured product to be sold; 2) sales demonstration inventory - completed product used to support our sales force for demonstrations and held for sale; and 3) service inventory - completed product and parts used to support our service department and held for sale. Shipping and handling costs are classified as a component of Cost of Sales in our condensed consolidated statements of operations. Sales demonstration inventory is held by our sales representatives for up to three years, at which time it would be refurbished and transferred to finished goods as used equipment, stated at the lower of cost or net realizable value. We expect these refurbished units to remain in finished goods inventory and sold within 12 months at prices that produce reduced gross margins. Service inventory is used to provide a temporary replacement product to a customer covered by a premium warranty when the customer's unit requires service or repair and as training equipment. Service inventory is available for sale; however, management does not expect service inventory to be sold within 12 months and, as such, classifies this inventory as a long-term asset. Service inventory that we utilize for training or repairs and which we deem as no longer available for sale is transferred to fixed assets at the lower of cost or net realizable value and depreciated over its remaining life, typically three years.

Inventories consist of the following:

	As of September 30, 2019		As of Decem	ber 31, 2018
Raw materials	\$	36,944	\$	39,859
Finished goods		32,835		25,585
Inventories, net	\$	69,779	\$	65,444
Service and sales demonstration inventory, net	\$	39,509	\$	39,563

NOTE 10 - LOSS PER SHARE

Basic earnings (loss) per share is computed by dividing net income by the weighted average number of shares outstanding. Diluted earnings (loss) per share is computed by also considering the impact of potential common stock on both net income and the weighted average number of shares outstanding. Our potential common stock consists of employee stock options, restricted stock units and performance-based awards. Our potential common stock is included in the diluted earnings per share calculation when adding such potential common stock would not be anti-dilutive. Performance-based awards are included in the computation of diluted earnings per share only to the extent that the underlying performance conditions (and any applicable market condition) (i) are satisfied as of the end of the reporting period or (ii) would be considered satisfied if the end of the reporting period were the end of the related contingency period and the result would be dilutive under the treasury stock method. When we report a net loss for the period presented, the calculation of diluted net loss per share excludes our potential common stock, as the effect would be anti-dilutive.

For the three and nine months ended September 30, 2019, there were approximately 1,050,039 shares issuable upon the exercise of options and the contingent vesting of performance-based restricted stock units that were excluded from the dilutive calculations, as they were anti-dilutive. For the three and nine months ended September 30, 2018, there were approximately 546,538 and 627,733 shares, respectively, issuable upon the exercise of options that were excluded from the dilutive calculations, as they were anti-dilutive.

September 30, 2019

Three Months Ended

September 30, 2018

A reconciliation of the number of common shares used in the calculation of basic and diluted loss per share is presented below:

	Shares		Per-Share Amount	Shares		Per-Share Amount
Basic loss per share	17,367,228	\$	(0.36)	17,122,705	\$	(0.15)
Effect of dilutive securities	_		_	_		_
Diluted loss per share	17,367,228	\$ (0.36)		17,122,705	\$	(0.15)
	Septemb	er 30, 20	018			
	Shares	Per-Share Amount				Per-Share Amount
Basic loss per share	17,352,386	\$	(0.72)	16,976,459	\$	(0.05)
Effect of dilutive securities	_		_	_		_
Diluted loss per share	17,352,386	\$	(0.72)	16,976,459	\$	(0.05)

NOTE 11 - ACCRUED LIABILITIES

Accrued liabilities consist of the following:

	As of Se	As of September 30, 2019		ecember 31, 2018
Accrued compensation and benefits	\$	13,489	\$	17,745
Accrued warranties		2,111		2,571
Professional and legal fees		2,319		2,154
Taxes other than income		2,570		3,550
General services administration contract contingent liability (see Note 15)		11,739		5,267
Other accrued liabilities		3,027		5,040
	\$	35,255	\$	36,327

Activity related to accrued warranties was as follows:

	Nine Months Ended				
	September 3	30, 2019	September 30, 2018		
Balance, beginning of period	\$	2,571	\$	2,628	
Provision for warranty expense		2,672		2,888	
Fulfillment of warranty obligations		(3,132)		(2,911)	
Balance, end of period	\$	2,111	\$	2,605	

NOTE 12 - FAIR VALUE MEASUREMENTS

Our financial instruments include cash and cash equivalents, short-term investments, accounts receivable, customer deposits, accounts payable and accrued liabilities. The carrying amounts of such financial instruments approximate their fair value due to the short-term nature of these instruments.

Liabilities measured at fair value on a recurring basis are categorized in the tables below based upon the lowest level of significant input to the valuations:

	As of September 30, 2019					
	Level 1		Level 2		Level 3	
Liabilities:		'				
Contingent consideration (1)	\$ _	\$	_	\$	1,988	
Total	\$ _	\$	_	\$	1,988	
		As of December 31, 2018				
	Level 1	Le	vel 2		Level 3	
Liabilities:		'				
Contingent consideration (1)	\$ _	\$	_	\$	5,531	
Total	\$ _	\$	_	\$	5,531	

⁽¹⁾ Contingent consideration liability represents arrangements to pay the former owners of certain companies we acquired based on the former owners attaining future product release milestones. We use a probability-weighted discounted cash flow model to estimate the fair value of contingent consideration liabilities. These probability weightings are developed internally and assessed on a quarterly basis. As of September 30, 2019, \$2.0 million of these arrangements are reported in Accrued liabilities in our condensed consolidated balance sheet. As of December 31, 2018, \$3.4 million of these arrangements were reported in Accrued liabilities and \$2.1 million were reported in Other long-term liabilities in our condensed consolidated balance sheet. The remaining undiscounted maximum payment under these arrangements was \$2.2 million as of September 30, 2019. The change in the fair value of the contingent consideration from December 31, 2018 to September 30, 2019 was primarily related to our payment of \$3.1 million as part of these arrangements during the nine months ended September 30, 2019, as well as changes in our estimates regarding the probability that the former owners will attain certain product release milestones.

NOTE 13 - VARIABLE INTEREST ENTITY

A variable interest entity ("VIE") is an entity that has one of three characteristics: (1) it is controlled by someone other than its shareowners or partners, (2) its shareowners or partners are not economically exposed to the entity's earnings (for example, they are protected against losses), or (3) it lacks sufficient equity to permit the entity to finance its activities without additional subordinated financial support from other parties.

On April 27, 2018, we invested \$1.8 million in present4D GmbH ("present4D"), a software solutions provider for professional virtual reality presentations and training environments, in the form of an equity capital contribution. This initial contribution represented a minority investment in present4D. This investment's business purpose is to coordinate the design and development of modules supporting compatibility with virtual reality for our existing software offerings.

As of our April 27, 2018 investment date, present4D was thinly capitalized and lacked sufficient equity to finance its activities without additional subordinated financial support and is classified as a VIE. We do not have power over decisions that significantly affect present4D's economic performance and do not represent its primary beneficiary. After April 27, 2020, present4D may request additional equity financing up to \$1.8 million from us in exchange for additional share capital, which additional equity financing would be at our discretion. We did not provide support to present4D during 2018 or the first six months of 2019 outside of our initial investment of \$1.8 million. During the three months ended September 30, 2019, we originated a \$0.5 million note with present4D, which we may convert into additional equity in present4D at our discretion in the event of a default. Further, the note is collateralized by the perpetual and royalty-free, non-exclusive, transferable and sublicensable license granted to us to use present4D's software. Our 16.5% portion of present4D's net loss for each of the three and nine month periods ended September 30, 2019 was less than \$0.1 million. Present4D is currently accounted for using the equity method of accounting. Our equity in the net loss from this equity-method investment is recorded as loss with a corresponding decrease in the investment.

During the three months ended June 30, 2019, we determined it is more likely than not that we will not recover our cost basis in present4D and recorded an impairment charge of \$1.5 million, which is included in Other expense, net on our statement of operations for the nine months ended September 30, 2019. Our investment in this unconsolidated VIE at September 30, 2019 was \$0.2 million and at December 31, 2018 was \$1.7 million and is included in Other long-term assets in our condensed consolidated balance sheets.

NOTE 14 - SEGMENT REPORTING

General and administrative

Research and development

Loss from operations

We have three reportable segments: 3D Manufacturing, Construction BIM, and Emerging Verticals. These segments are based upon the vertical markets that we currently serve. Business activities that do not meet the criteria to be reportable segments are aggregated in the Emerging Verticals segment. Each of our reporting segments employs consistent accounting policies.

We develop, manufacture, market, support and sell CAD-based quality assurance products integrated with CAD-based inspection and statistical process control software and 3D documentation systems in each of these reportable segments. These activities represent more than 99% of consolidated sales.

Our Chief Operating Decision Maker (CODM), our Chief Executive Officer, evaluates segment performance and allocates resources based upon profitable growth. We use segment profit to evaluate the performance of our reportable segments. Segment profit is calculated as gross profit, net of selling and marketing expenses, for the reporting segment. Our definition of segment profit may not be comparable to similarly titled measures reported by other companies.

In the fourth quarter of 2018, we renamed our 3D Factory vertical and reporting segment "3D Manufacturing." Additionally, commencing with the third quarter of 2019, depreciation and amortization expenses are being reported in the accompanying statements of operations to reflect departmental costs. Previously, those expenses were reported as a separate line item under operating expenses. Amounts related to depreciation and amortization expenses for the three and nine months ended September 30, 2018 have been restated throughout this Quarterly Report on Form 10-Q to reflect this reclassification of depreciation and amortization expenses and to conform to the current period presentation.

The following tables present information about our reportable segments, including a reconciliation of segment profit to loss from operations included in the condensed consolidated statements of operations for the three and nine months ended September 30, 2019 and 2018:

	3D	3D Manufacturing		Construction BIM		Emerging Verticals		Total
Three Months Ended September 30, 2019								
Total sales	\$	56,017	\$	23,884	\$	10,615	\$	90,516
Segment profit	\$	13,660	\$	6,720	\$	174	\$	20,554
General and administrative								15,662
Research and development								10,783
Loss from operations							\$	(5,891)
	3D	Manufacturing	Con	struction BIM	Emerging Verticals			Total
Three Months Ended September 30, 2018		<u> </u>	-			0 0		
Total sales	\$	64,182	\$	23,710	\$	11,813	\$	99,705
Segment profit	\$	15,190	\$	6,106	\$	834	\$	22,130

13,102 11,740

(2,712)

\$

Nine Months Ended September 30, 2019		O Manufacturing	Cons	struction BIM	Emer	rging Verticals	 Total
Total sales	\$	171,586	\$	73,485	\$	32,553	\$ 277,624
Segment profit (loss)	\$	48,004	\$	20,113	\$	(1,024)	\$ 67,093
General and administrative							44,471
Research and development							33,048
Loss from operations							\$ (10,426)
	31	O Manufacturing	Cons	struction BIM	Eme	rging Verticals	 Total
Nine Months Ended September 30, 2018							

	3D Manufacturing		Construction BIM		Emerging Verticals		Total
Nine Months Ended September 30, 2018							
Total sales	\$	190,584	\$	69,994	\$	30,205	\$ 290,783
Segment profit	\$	52,489	\$	16,999	\$	1,347	\$ 70,835
General and administrative							36,789
Research and development							34,138
Loss from operations							\$ (92)

NOTE 15 - COMMITMENTS AND CONTINGENCIES

Purchase Commitments — We enter into purchase commitments for products and services in the ordinary course of business. These purchases generally cover production requirements for 60 to 120 days as well as materials necessary to service customer units through the product lifecycle and for warranty commitments. As of September 30, 2019, we had approximately \$54.0 million in purchase commitments that are expected to be delivered within the next 12 months.

Legal Proceedings — We are not involved in any legal proceedings, including routine litigation arising in the normal course of business, that we believe will have a material adverse effect on our business, financial condition or results of operations.

U.S. Government Contracting Matter — We have sold our products and related services to the U.S. Government (the "Government") under General Services Administration ("GSA") Federal Supply Schedule contracts (the "GSA Contracts") since 2002 and are currently selling our products and related services to the Government under two such GSA Contracts. Each GSA Contract is subject to extensive legal and regulatory requirements and includes, among other provisions, a price reduction clause (the "Price Reduction Clause"), which generally requires us to reduce the prices billed to the Government under the GSA Contracts to correspond to the lowest prices billed to certain benchmark customers.

Late in the fourth quarter of 2018, during an internal review we preliminarily determined that certain of our pricing practices may have resulted in the Government being overcharged under the Price Reduction Clauses of the GSA Contracts (the "GSA Matter"). As a result, we performed remediation efforts, including but not limited to, the identification of additional controls and procedures to ensure future compliance with the pricing and other requirements of the GSA Contracts. We also retained outside legal counsel and forensic accountants to assist with these efforts and to conduct a comprehensive review of our pricing and other practices under the GSA Contracts (the "Review"). On February 14, 2019, we reported the GSA Matter to the GSA and its Office of Inspector General.

As a result of the GSA Matter, for fourth quarter 2018, we reduced our total sales by a \$4.8 million estimated cumulative sales adjustment, representative of the last six years of estimated overcharges to the Government under the GSA Contracts. In addition, for the fourth quarter of 2018, we recorded \$0.5 million of imputed interest related to the estimated cumulative sales adjustment, which increased Interest expense, net and resulted in an estimated total liability of \$5.3 million for the GSA Matter. This adjustment was based on our preliminary review as of February 20, 2019, the date of our Annual Report on Form 10-K for the year ended December 31, 2018. In addition, in first quarter 2019, we recorded an additional \$0.1 million of imputed interest related to the estimated cumulative sales adjustment.

On July 15, 2019, we submitted a report to the GSA and its Office of Inspector General setting forth the findings of the Review conducted by our outside legal counsel and forensic accountants. Based on the results of the Review, we reduced our total sales for second quarter 2019 by an incremental \$5.8 million sales adjustment, reflecting an estimated aggregate overcharge of \$10.6 million under the GSA Contracts for the period from July 2011 to March 2019. In addition, we recorded an incremental \$0.4 million of imputed interest related to the estimated cumulative sales adjustment in the second quarter 2019, which increased Interest expense, net and resulted in a \$6.2 million total incremental increase in the estimated total liability for the GSA Matter. We recorded an incremental \$0.1 million of imputed interest related to the estimated cumulative sales adjustment in the third quarter 2019. As of the date of the filing of this Quarterly Report on Form 10-Q, we have recorded an aggregate estimated total liability for the GSA Matter of \$11.7 million.

While we have reported this matter and submitted the findings of the Review to the GSA, the Government may conduct its own investigation or review (including an audit). We intend to cooperate fully with any Government inquiry. The Government's review of, or investigation into, this matter could result in civil and criminal penalties, administrative sanctions, and contract remedies being imposed on us, including but not limited to, termination of the GSA Contracts, repayments of amounts already received under the GSA Contracts, forfeiture of profits, damages, suspension of payments, fines, and suspension or debarment from doing business with the Government and possibly U.S. state and local governments. We may also be subject to litigation and recovery under the federal False Claims Act and possibly similar state laws, which could include claims for treble damages, penalties, fees and costs. As a result, we cannot reasonably predict the outcome of the Government's review of, or investigation into, this matter at this time or the resulting future financial impact on us. Any of these outcomes could have a material adverse effect on our reputation, our sales, results of operations, cash flows and financial condition, and the trading price of our common stock. In addition, we have incurred, and will continue to incur, legal and related costs in connection with the Review and the Government's response to this matter.

NOTE 16 - LEASES

We have operating and finance leases for manufacturing facilities, corporate offices, research and development facilities, sales and training facilities, vehicles, and certain equipment under which we assume the role of lessee. We do not lease assets as a lessor. Our leases have remaining lease terms of less than one year to approximately seven years, some of which include options to extend the leases for up to eight years, and some of which include options to terminate the leases within three months. We currently do not sublease any of our leased assets.

We determine if an arrangement is a lease at inception. Operating leases are included in Operating lease right-of-use ("ROU") asset, Lease liability, and Lease liability - less current portion in our condensed consolidated balance sheets. Finance leases are included in Property and equipment, net, Lease liability, and Lease liability - less current portion in our condensed consolidated balance sheets.

ROU assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease ROU assets and lease liabilities are recognized on the commencement date of the lease based on the present value of lease payments over the lease term. Variable lease payments that depend on an index or rate include the variable portion when calculating ROU assets and lease liabilities. Variable lease payments that do not depend on an index or rate are expensed as incurred. As most of our leases do not provide an implicit rate, we use our incremental borrowing rate based on the information available on the commencement date of the lease to determine the present value of lease payments. We use the implicit rate when readily determinable. The operating lease ROU assets also include any lease payments made and lease incentives. Our lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option at the time the lease is commenced. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

While we have lease agreements with lease and non-lease components, we account for the lease and non-lease components as a single lease component.

The components of lease expense were as follows:

	Months Ended mber 30, 2019	Nine Months Ended September 30, 2019	
Operating lease cost	\$ 2,039	\$ 6,036	
Finance lease cost:			
Amortization of ROU assets	\$ 88	\$ 278	
Interest on lease liabilities	\$ 11	\$ 35	
Total finance lease cost	\$ 99	\$ 313	

We recognize lease payments made for short-term leases where terms are 12 months or less as the payments are incurred. Our short-term lease cost for the three and nine months ended September 30, 2019 was less than \$0.1 million and \$0.2 million, respectively.

Supplemental balance sheet information related to leases was as follows:

		As of
	Sept.	tember 30, 2019
Operating leases:		
Operating lease right-of-use asset	\$	18,672
Current operating lease liability	\$	6,290
Operating lease liability - less current portion		13,418
Total operating lease liability	\$	19,708
Finance leases:		
Property and equipment, at cost	\$	1,851
Accumulated depreciation		(1,069)
Property and equipment, net	\$	782
Current finance lease liability	\$	325
Finance lease liability - less current portion		504
Total finance lease liability	\$	829
Weighted Average Remaining Lease Term (in years):		
Operating leases		4.65
Finance leases		2.70
Weighted Average Discount Rate:		
Operating leases		5.23 %
Finance leases		5.06 %

Supplemental cash flow information related to leases was as follows:

	 Three Months Ended September 30, 2019	Nine Months Ended September 30, 2019	
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows from operating leases	\$ 2,024	\$ 6,134	
Operating cash flows from finance leases	\$ 11	\$ 35	
Financing cash flows from finance leases	\$ 86	\$ 273	
ROU assets obtained in exchange for lease obligations:			
Operating leases	\$ 2,254	\$ 8,170	
Finance leases	\$ <u> </u>	\$ _	

Maturities of lease liabilities are as follows:

Year Ending December 31,	Operating leases			Finance leases		
2019 (excluding the first 9 months)	\$	1,778	\$	94		
2020		6,454		351		
2021		3,562		312		
2022		2,892		86		
2023		2,711		37		
Thereafter		4,987		6		
Total lease payments	\$	22,384	\$	886		
Less imputed interest		(2,676)		(57)		
Total	\$	19,708	\$	829		

NOTE 17 - BUSINESS COMBINATIONS

On March 9, 2018, we acquired all of the outstanding shares of Laser Control Systems Limited ("Laser Control Systems"), a laser component technology business located in Bedfordshire, United Kingdom, which specializes in the design and manufacture of advanced digital scan heads and laser software, for a purchase price of \$1.7 million. This acquisition supports our Photonics vertical and our long-term strategy to expand our presence and product portfolio in Photonics applications. The results of Laser Control Systems' operations as of and after the date of acquisition have been included in our condensed consolidated financial statements as of September 30, 2019 and December 31, 2018, and for the three and nine months ended September 30, 2019 and September 30, 2018.

On March 16, 2018, we acquired all of the outstanding shares of Photocore AG ("Photocore"), a vision-based 3D measurement application and software developer in Zurich, Switzerland, for a total purchase price of \$2.4 million. This acquisition supports our Construction BIM vertical and our long-term strategy to improve our existing software offerings with innovative technology in photogrammetry. The results of PhotoCore's operations as of and after the date of acquisition have been included in our condensed consolidated financial statements as of September 30, 2019 and December 31, 2018, and for the three and nine months ended September 30, 2019 and September 30, 2018.

On July 6, 2018, we acquired all of the outstanding shares of Lanmark Controls, Inc. ("Lanmark"), a high-speed laser marking control boards and laser marking software provider located in Acton, Massachusetts, for a purchase price of \$6.3 million. This acquisition supports the development of components used in new 3D laser inspection product development in order to further expand the product portfolio of our Photonics vertical. The results of Lanmark's operations as of and after the date of acquisition have been included in our condensed consolidated financial statements as of September 30, 2019 and December 31, 2018, and for the three and nine months ended September 30, 2019 and September 30, 2018.

On July 13, 2018, we acquired all of the issued and outstanding corporate capital of Opto-Tech SRL and its subsidiary Open Technologies SRL (collectively, "Open Technologies"), a 3D-structured light scanning solution company located in Brescia, Italy, for an aggregate purchase price of up to €18.5 million (\$21.6 million), subject to post-closing adjustments based on actual net working capital, net financial position and transaction expenses. The aggregate purchase price included up to €4.0 million (\$4.7 million) in contingent consideration that may be earned by the former owners if certain product development milestones are met. The U.S. Dollar amounts have been converted from Euros based on the foreign exchange rate in effect on the closing date of the acquisition. This acquisition supports our 3D Design vertical and our long-term strategy to establish a presence in 3D measurement technology used in other industries and applications, especially dental and medical. The results of Open Technologies' operations as of and after the date of acquisition have been included in our condensed consolidated financial statements as of September 30, 2019 and December 31, 2018, and for the three and nine months ended September 30, 2019 and September 30, 2018.

The acquisitions of Laser Control Systems, Photocore, Lanmark and Open Technologies constitute business combinations as defined by ASC Topic 805, *Business Combinations*. Accordingly, the assets acquired and liabilities assumed were recorded at their fair values on the date of acquisition. The purchase price allocations below represent our final determination of the fair value of the assets acquired and liabilities assumed for such acquisitions. In the nine months ended September 30, 2019, certain refinements were booked for the Open Technologies acquisition as part of the finalization process, which included a reduction of \$2.6 million to the valuation of the customer relationship intangible and the recognition of a deferred tax liability of \$1.9 million. Goodwill increased \$4.5 million as result of these changes in the finalization process.

Following is a summary of our allocations of the purchase price to the fair values of the assets acquired and liabilities assumed as of the date of each acquisition:

	Laser Control Systems		Photocore		Lanmark	Open Technologie	
Accounts receivable	\$	— \$	_	\$	610	\$	2,735
Inventory		_	_		299		1,852
Other assets		_	_		76		634
Intangible assets		1,400	1,435		1,366		7,821
Goodwill		928	1,010		5,355		13,573
Accounts payable and accrued liabilities		_	_		(159)		(2,926)
Other liabilities (1)		(579)	_		(971)		(5,201)
Deferred income tax liabilities		_	_		(325)		(1,876)
Total purchase price, net of cash acquired	\$	1,749 \$	2,445	\$	6,251	\$	16,612

⁽¹⁾ For Laser Control Systems, Lanmark and Open Technologies, this total consists primarily of the fair value of the projected contingent consideration.

Following are the details of the purchase price allocated to the intangible assets acquired for the acquisitions noted above:

	Laser Cor	trol Systems	Pho	tocore	Lar	Lanmark		echnologies	
	Amount	Weighted Average Life (Years)	Amount	Weighted Average Life (Years)	Amount	Weighted Average Life (Years)	Amount	Weighted Average Life (Years)	
Brand	26	1	22	1	26	1	103	1	
Non-competition agreement	29 1,319	3 7	9	3 7	— 760	0 7	— 4,441	0	
Technology	1,319	/	1,343	/	/60	/	4,441	/	
Customer relationship	26	10	61	10	580	10	3,277	10	
Fair value of intangible assets acquired	\$ 1,400	7	\$ 1,435	- 7 =	\$ 1,366	8	\$ 7,821	8	

The goodwill for the Laser Control Systems, Lanmark and Open Technologies acquisitions has been allocated to the Emerging Verticals reporting segment. The goodwill for the Photocore acquisition has been allocated to the Construction BIM reporting segment.

Acquisition and integration costs are not included as components of consideration transferred, but are recorded as expense in the period in which such costs are incurred. To date, we have incurred approximately \$0.8 million in acquisition and integration costs for the Laser Control Systems, Photocore, Lanmark and Open Technologies acquisitions. Pro forma financial results for Laser Control Systems, Photocore, Lanmark and Open Technologies have not been presented because the effects of these transactions, individually and in the aggregate, were not material to our consolidated financial results.

⁽²⁾ Amounts converted from Euros to U.S. Dollars based on the foreign exchange rate on the closing date of the acquisition.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following information should be read in conjunction with the condensed consolidated financial statements, including the notes thereto, included elsewhere in this Form 10-Q and Management's Discussion and Analysis of Financial Condition and Results of Operations included in our Annual Report on Form 10-K for the year ended December 31, 2018.

FARO Technologies, Inc. ("FARO," the "Company," "us," "we" or "our") has made "forward-looking statements" in this report (within the meaning of the Private Securities Litigation Reform Act of 1995). Statements that are not historical facts or that describe our plans, beliefs, goals, intentions, objectives, projections, expectations, assumptions, strategies, or future events are forward-looking statements. In addition, words such as "may," "might," "would," "will," "will be," "future," "strategy," "believe," "plan," "should," "could," "seek," "expect," "anticipate," "intend," "estimate," "goal," "objective," "project," "forecast," "target" and similar words identify forward-looking statements.

Forward-looking statements are not guarantees of future performance and are subject to a number of known and unknown risks, uncertainties, and other factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements. Consequently, undue reliance should not be placed on these forward-looking statements. We do not intend to update any forward-looking statements, whether as a result of new information, future events, or otherwise, unless otherwise required by law. Important factors that could cause actual results to differ materially from those contemplated in such forward-looking statements include, among others, the following:

- an economic downturn in the manufacturing industry or the domestic and international economies in the regions of the world where we operate;
- our inability to further penetrate our customer base and target markets;
- · development by others of new or improved products, processes or technologies that make our products less competitive or obsolete;
- our inability to maintain what we believe to be our technological advantage by developing new products and enhancing our existing products;
- the outcome of the U.S. Government's review of, or investigation into, our potential overcharging of the U.S. Government under our General Services Administration Federal Supply Schedule contracts, any resulting penalties, damages or sanctions imposed on us and the outcome of any resulting litigation to which we may become a party, loss of future government sales and potential impacts on customer and supplier relationships and our reputation;
- risks associated with expanding international operations, such as difficulties in staffing and managing foreign operations, increased political and economic instability, compliance with potentially evolving import and export regulations, and the burdens and potential exposure of complying with a wide variety of U.S. and foreign laws and labor practices;
- changes in trade regulation, which result in rising prices of imported steel, steel byproducts, aluminum and aluminum byproducts and various other raw materials that we use in the production of measurement devices, and our ability to pass those costs on to our customers or require our suppliers to absorb such costs;
- changes in foreign regulation which may result in rising prices of our measurement devices sold as exports to our international customers, our
 customers' willingness to absorb incremental import tariffs, and the corresponding impact on our profitability;
- our inability to successfully identify and acquire target companies and achieve expected benefits from, and effectively integrate, acquisitions that are consummated;
- the cyclical nature of the industries of our customers and material adverse changes in our customers' access to liquidity and capital;
- changes in the potential for the computer-aided measurement market and the potential adoption rate for our products, which are difficult to quantify and predict;
- our inability to protect our patents and other proprietary rights in the United States and foreign countries;
- our inability to adequately establish and maintain effective internal controls over financial reporting;

- fluctuations in our annual and quarterly operating results and the inability to achieve our financial operating targets as a result of a number of factors including, without limitation (i) litigation and regulatory action brought against us, (ii) quality issues with our products, (iii) excess or obsolete inventory, shrinkage or other inventory losses due to product obsolescence, change in demand for our products, scrap or material price changes, (iv) raw material price fluctuations and other inflationary pressures, (v) expansion of our manufacturing capability, (vi) the size and timing of customer orders, (vii) the amount of time that it takes to fulfill orders and ship our products, (viii) the length of our sales cycle to new customers and the time and expense incurred in further penetrating our existing customer base, (ix) manufacturing inefficiencies associated with new product introductions, (x) costs associated with new product introductions, such as product development, marketing, assembly line start-up costs and low introductory period production volumes, (xi) the timing and market acceptance of new products and product enhancements, (xii) customer order deferrals in anticipation of new products and product enhancements, (xiii) the inability of our sales and marketing programs to achieve their sales targets, (xiv) start-up costs associated with opening new sales offices outside of the United States, (xv) fluctuations in revenue without proportionate adjustments in fixed costs, (xvi) inefficiencies in the management of our inventories and fixed assets, (xvii) compliance with government regulations including health, safety, and environmental matters, and (xviii) costs associated with the training and ramp-up time for new sales people;
- changes in gross margins due to a changing mix of products sold and the different gross margins on different products and sales channels;
- changes in applicable laws, rules or regulations, or their interpretation or enforcement, or the enactment of new laws, rules or regulations that apply to our business operations or require us to incur significant expenses for compliance;
- our inability to successfully comply with the requirements of the Restriction of Hazardous Substances Directive and the Waste Electrical and Electronic Equipment Directive in the European Union;
- the inability of our products to displace traditional measurement devices and attain broad market acceptance;
- the impact of competitive products and pricing on our current offerings;
- our ability to successfully complete our executive officer transitions and the loss of any of our executive officers or other key personnel;
- difficulties in recruiting research and development engineers and application engineers;
- the failure to effectively manage the effects of any future growth;
- the impact of reductions or projected reductions in government spending, or uncertainty regarding future levels of government expenditures, particularly in the defense sector;
- variations in our effective income tax rate, which makes it difficult to predict our effective income tax rate on a quarterly and annual basis, and the impact of the U.S. Tax Cuts and Jobs Act of 2017 on the global intangible low-taxed income of foreign subsidiaries;
- the loss of key suppliers and the inability to find sufficient alternative suppliers in a reasonable period of time or on commercially reasonable terms;
- the impact of fluctuations in exchange rates;
- the effect of estimates and assumptions with respect to critical accounting policies and the impact of the adoption of recently issued accounting pronouncements;
- the magnitude of increased warranty costs from new product introductions and enhancements to existing products;
- the sufficiency of our plants to meet manufacturing requirements;
- the continuation of our share repurchase program;
- the sufficiency of our working capital and cash flow from operations to fund our long-term liquidity requirements;
- the impact of geographic changes in the manufacturing or sales of our products on our effective income tax rate;
- our ability to comply with the requirements for favorable tax rates in foreign jurisdictions; and
- other risks and uncertainties discussed in Part I, Item 1A. Risk Factors in our Annual Report on Form 10-K for the year ended December 31, 2018.

Moreover, new risks and uncertainties emerge from time to time, and we undertake no obligation to update publicly or review the risks and uncertainties included in this Quarterly Report on Form 10-Q, unless otherwise required by law.

Overview

FARO Technologies, Inc. and its subsidiaries (collectively "FARO," the "Company," "us," "we" or "our") design, develop, manufacture, market and support software driven, three-dimensional ("3D") measurement and imaging solutions. This technology permits high-precision 3D measurement, imaging and comparison of parts and complex structures within production and quality assurance processes. Our devices are used for inspection of components and assemblies, rapid prototyping, reverse engineering, documenting large volume or structures in 3D, surveying and construction, as well as for investigation and reconstruction of accident sites or crime scenes. We sell the majority of our products through a direct sales force across a broad number of customers in a range of manufacturing, industrial, architecture, surveying, building information modeling, construction, public safety forensics, cultural heritage, dental, and other applications. Our FaroArm®, FARO ScanArm®, FARO Laser Tracker™, FARO Laser Projector, and their companion CAM2®, BuildIT, and BuildIT Projector software solutions, provide for Computer-Aided Design ("CAD") based inspection, factory-level statistical process control, high-density surveying and laser-guided assembly and production. Together, these products integrate the measurement, quality inspection, and reverse engineering functions with CAD and 3D software to improve productivity, enhance product quality, and decrease rework and scrap in the manufacturing process, mainly supporting applications in our 3D Manufacturing vertical. Our FARO Focus, Faro ScanPlan and FARO Scanner Freestyle^{3D} X laser scanners, and their companion FARO SCENE, BuildIT, FARO As-BuiltTM, and FARO Zone public safety forensics software offerings, are utilized for a wide variety of 3D modeling, documentation and high-density surveying applications in our Construction Building Information Modeling ("Construction BIM") and Public Safety Forensics verticals. Our FARO ScanArm®, FARO Scanner Freestyle^{3D} X laser scanners and their companion SCENE software, and other 3D-structured light scanning solutions specific to the dental industry, also enable a fully digital workflow used to capture real world geometry for the purpose of empowering design, enabling innovation, and speeding up the design cycle, supporting our 3D Design vertical. Our line of galvanometer-based scan heads and laser scan controllers are used in a variety of laser applications and are integrated into larger components and systems, supporting our Photonics vertical.

We derive our revenues primarily from the sale of our measurement equipment and related multi-faceted software programs. Revenue related to these products is generally recognized upon shipment. In addition, we sell extended warranties and training and technology consulting services relating to our products. We recognize the revenue from extended warranties on a straight-line basis over the term of the warranty, and revenue from training and technology consulting services when the services are provided.

We operate in international markets throughout the world and maintain sales offices in Australia, Brazil, Canada, China, France, Germany, India, Italy, Japan, Malaysia, Mexico, the Netherlands, Poland, Portugal, Singapore, South Korea, Spain, Switzerland, Thailand, Turkey, the United Kingdom, and the United States.

We manufacture our FaroArm® and FARO ScanArm® products in our manufacturing facility located in Switzerland for customer orders from Europe, the Middle East and Africa, in our manufacturing facility located in Singapore for customer orders from the Asia-Pacific region, and in our manufacturing facility located in Florida for customer orders from the Americas. We manufacture our FARO Focus in our manufacturing facilities located in Germany and Switzerland for customer orders from Europe, the Middle East and Africa ("EMEA") and the Asia-Pacific region, and in our manufacturing facility located in Pennsylvania for customer orders from the Americas. We manufacture our FARO Freestyle^{3D} X products in our facility located in Germany. We manufacture our FARO Laser Projector and FARO Laser TrackerTM products in our facility located in Pennsylvania. We manufacture our 3D-structured light scanning solutions specific to the dental industry in our engineering and manufacturing facility in Italy. We expect all of our existing manufacturing facilities to have the production capacity necessary to support our volume requirements through the remainder of 2019.

We account for wholly-owned foreign subsidiaries in the currency of the respective foreign jurisdiction; therefore, fluctuations in exchange rates may have an impact on the value of the intercompany account balances denominated in different currencies and reflected in our condensed consolidated financial statements. We are aware of the availability of off-balance sheet financial instruments to hedge exposure to foreign currency exchange rates, including cross-currency swaps, forward contracts and foreign currency options. However, we have not used such instruments in the past, and none were utilized in 2018 or the nine months ended September 30, 2019.

We have sold our products and related services to the U.S. Government (the "Government") under General Services Administration ("GSA") Federal Supply Schedule contracts (the "GSA Contracts") since 2002 and are currently selling our products and related services to the Government under two such GSA Contracts. Each GSA Contract is subject to extensive legal and regulatory requirements and includes, among other provisions, a price reduction clause (the "Price Reduction Clause"), which generally requires us to reduce the prices billed to the Government under the GSA Contracts to correspond to the lowest prices billed to certain benchmark customers.

Late in the fourth quarter of 2018, during an internal review we preliminarily determined that certain of our pricing practices may have resulted in the Government being overcharged under the Price Reduction Clauses of the GSA Contracts (the "GSA Matter"). On February 14, 2019, we reported the GSA Matter to the GSA and its Office of Inspector General.

As a result of the GSA Matter, for the fourth quarter of 2018, we reduced our total sales by a \$4.8 million estimated cumulative sales adjustment, representative of the last six years of estimated overcharges to the Government under the GSA Contracts. In addition, for the fourth quarter of 2018, we recorded \$0.5 million of imputed interest related to the estimated cumulative sales adjustment, which increased Interest expense, net and resulted in an estimated total liability of \$5.3 million for the GSA Matter. This adjustment was based on our preliminary review as of February 20, 2019, the date of our Annual Report on Form 10-K for the year ended December 31, 2018. In addition, in the first quarter 2019, we recorded an additional \$0.1 million of imputed interest related to the estimated cumulative sales adjustment.

On July 15, 2019, we submitted a report to the GSA and its Office of Inspector General setting forth the findings of the review of our pricing and other practices under the GSA Contracts conducted by our outside legal counsel and forensic accountants (the "Review"). Based on the results of the Review, we reduced our total sales for second quarter 2019 by an incremental \$5.8 million sales adjustment, reflecting an estimated aggregate overcharge of \$10.6 million under the GSA Contracts for the period from July 2011 to March 2019. In addition, we recorded an incremental \$0.4 million of imputed interest related to the estimated cumulative sales adjustment in the second quarter 2019, which increased Interest expense, net and resulted in a \$6.2 million total incremental increase in the estimated total liability for the GSA Matter. We recorded an incremental \$0.1 million of imputed interest related to the estimated cumulative sales adjustment in the third quarter 2019. As of the date of the filing of this Quarterly Report on Form 10-Q, we have recorded an aggregate estimated total liability for the GSA Matter of \$11.7 million.

On April 27, 2018, we invested \$1.8 million in present4D GmbH ("present4D"), a software solutions provider for professional virtual reality presentations and training environments, in the form of an equity capital contribution. This initial contribution represented a minority investment in present4D. This investment's business purpose is to coordinate the design and development of modules supporting compatibility with virtual reality for our existing software offerings. During the three months ended June 30, 2019, we determined it is more likely than not that we will not recover our cost basis in present4D and recorded an impairment charge of \$1.5 million, which is included in Other expense, net. Notwithstanding the aforementioned impairment charge, based on our current valuation of present4D, we continue to believe in the benefits of present4D's technology and intellectual property to our business. We did not provide support to present4D during 2018 or the first six months of 2019 outside of our initial investment of \$1.8 million. During the three months ended September 30, 2019, we originated a \$0.5 million note with present4D, which we may convert into additional equity in present4D at our discretion in the event of a default. Further, the note is collateralized by the perpetual and royalty-free, non-exclusive, transferable and sublicensable license granted to us to use present4D's software.

Under our new management team, we have begun to formulate our strategic plan. As part of our strategic planning process, we have identified areas of our business that need enhanced focus or change, including our go-to-market strategy and marketing engagement with our customers. While our full strategic plan remains in process, we expect to disclose more information regarding our plan in early 2020.

Amounts reported in millions within this Quarterly Report on Form 10-Q are computed based on the amounts in thousands. As a result, the sum of the components reported in millions may not equal the total amount reported in millions due to rounding. Certain columns and rows within the tables that follow may not add due to the use of rounded numbers. Percentages presented are calculated based on the respective amounts in thousands.

Commencing with the third quarter of 2019, depreciation and amortization expenses are being reported in our statements of operations to reflect departmental costs. Previously, those expenses were reported as a separate line item under operating expenses. Amounts related to depreciation and amortization expenses for the three and nine months ended September 30, 2018 have been restated throughout this Quarterly Report on Form 10-Q to reflect this reclassification of depreciation and amortization expenses and to conform to the current period presentation.

Results of Operations

The following table sets forth, for the periods indicated, our unaudited results of operations expressed as dollar amounts and as a percentage of total sales.

	Th	ree months end	led Septem	ber 30,	N	ine Months End	Ionths Ended September 30,		
(dollars in thousands)	2019	% of Sales	2018	% of Sales	2019	% of Sales	2018	% of Sales	
Sales									
Product	\$ 63,641	70.3 %	\$ 75,81	7 76.0 %	\$ 200,434	72.2 %	\$ 222,118	76.4 %	
Service	26,875	29.7 %	23,88	3 24.0 %	77,190	27.8 %	68,665	23.6 %	
Total sales	90,516	100.0 %	99,70	100.0 %	277,624	100.0 %	290,783	100.0 %	
Cost of Sales									
Product	26,495	29.3 %	34,86	4 35.0 %	83,632	30.1 %	91,321	31.4 %	
Service	13,249	14.6 %	14,22	9 14.3 %	39,461	14.2 %	40,750	14.0 %	
Total cost of sales	39,744	43.9 %	49,09	3 49.2 %	123,093	44.3 %	132,071	45.4 %	
Gross Profit	50,772	56.1 %	50,61	2 50.8 %	154,531	55.7 %	158,712	54.6 %	
Operating Expenses									
Selling and marketing	30,218	33.4 %	28,48	2 28.6 %	87,438	31.5 %	87,877	30.2 %	
General and administrative	15,662	17.3 %	13,10	2 13.1 %	44,471	16.0 %	36,789	12.7 %	
Research and development	10,783	11.9 %	11,74	11.8 %	33,048	11.9 %	34,138	11.7 %	
Total operating expenses	56,663	62.6 %	53,32	53.5 %	164,957	59.4 %	158,804	54.6 %	
Loss from operations	(5,891)	(6.5)%	(2,712	(2.7)%	(10,426)	(3.8)%	(92)	— %	
Other (income) expense						-			
Interest (income) expense, net	(24)	— %	(90	6) (0.1)%	72	— %	(205)	(0.1)%	
Other expense, net	514	0.6 %	22	6 0.2 %	2,398	0.9 %	868	0.3 %	
Loss before income tax (benefit) expense	(6,381)	(7.0)%	(2,842	2) (2.9)%	(12,896)	(4.6)%	(755)	(0.3)%	
Income tax (benefit) expense	(182)	(0.2)%	(354	, , ,		(0.2)%	73	— %	
Net loss	\$ (6,199)	(6.8)%	\$ (2,488			(4.5)%	\$ (828)	(0.3)%	

Consolidated Results

Three Months Ended September 30, 2019 Compared to the Three Months Ended September 30, 2018

Sales. Total sales decreased by \$9.2 million, or 9.2%, to \$90.5 million for the three months ended September 30, 2019 from \$99.7 million for the three months ended September 30, 2018. Total product sales decreased by \$12.2 million, or 16.1%, to \$63.6 million for the three months ended September 30, 2019 from \$75.8 million for the three months ended September 30, 2018. Our product sales decreased primarily due to a decrease in unit sales within our 3D Manufacturing reporting segment, especially in our Asia-Pacific region and broader automotive industry, primarily due to the uncertainty surrounding ongoing trade disputes. Service revenue increased by \$3.0 million, or 12.5%, to \$26.9 million for the three months ended September 30, 2019 from \$23.9 million for the three months ended September 30, 2018, primarily due to an increase in repair revenue and warranty revenue driven by the growth of our installed base and our focused sales initiatives to maintain customer relationships after the initial purchase of our measurement devices. Foreign exchange rates had a negative impact on total sales of \$1.1 million, increasing the percent that our overall sales declined by approximately 1.1 percentage points, primarily due to the weakening of the Euro relative to the U.S. dollar.

Gross profit. Gross profit increased by \$0.2 million, or 0.3%, to \$50.8 million for the three months ended September 30, 2019 from \$50.6 million for the three months ended September 30, 2018, and gross margin increased to 56.1% for the three months ended September 30, 2019 from 50.8% for the three months ended September 30, 2018, primarily due to a charge recorded in the third quarter of 2018 for excess and obsolete inventory based on the determination that quantities on-hand for certain legacy products exceeded sales projections, which charge did not recur in the three months ended September 30, 2019, and an increase in gross margin from service revenue. Gross margin from product revenue increased by 4.4 percentage points to 58.4% for the three months ended September 30, 2019 from 54.0% for the prior year period, primarily due to the charge for excess and obsolete inventory recorded in the three months ended September 30, 2018. Gross margin from service revenue increased by 10.3 percentage points to 50.7% for the three months ended September 30, 2019 from 40.4% for the prior year period, primarily as a result of service revenue growth and improved efficiencies in our customer service repair process.

Selling and marketing expenses. Selling and marketing expenses increased by \$1.7 million, or 6.1%, to \$30.2 million for the three months ended September 30, 2019 from \$28.5 million for the three months ended September 30, 2018. This increase was driven primarily by an increase in compensation expense resulting from higher selling headcount, partially offset by lower selling commission expense driven by lower product sales. Selling and marketing expenses as a percentage of sales increased to 33.4% for the three months ended September 30, 2019, compared with 28.6% of sales for the three months ended September 30, 2018. Our worldwide period-ending selling headcount increased by 46, or 6.5%, to 753 at September 30, 2019, from 707 at September 30, 2018.

General and administrative expenses. General and administrative expenses increased by \$2.6 million, or 19.5%, to \$15.7 million for the three months ended September 30, 2019 from \$13.1 million for the three months ended September 30, 2018. This increase was mostly due to an aggregate incremental cost of \$2.7 million related to executive team transition costs, as we recognized additional compensation expense during the third quarter of 2019 in connection with the accelerated vesting of equity awards and severance costs. General and administrative expenses increased to 17.3% of sales for the three months ended September 30, 2019 from 13.1% of sales for the three months ended September 30, 2018.

Research and development expenses. Research and development expenses decreased by \$0.9 million, or 8.2%, to \$10.8 million for the three months ended September 30, 2019 from \$11.7 million for the three months ended September 30, 2018. This decrease was mainly driven by a decrease in materials and consulting costs, as well as favorable changes in foreign currencies as the U.S. dollar strengthened against the Euro, which decreased the compensation cost of foreign research and development employees. Research and development expenses as a percentage of sales increased to 11.9% for the three months ended September 30, 2018.

Interest (income) expense, net. For the three months ended September 30, 2019, we recorded interest income of less than \$0.1 million compared with interest income of \$0.1 million for the three months ended September 30, 2018. This change was mainly due to the imputed interest expense recorded related to the GSA Matter in the three months ended September 30, 2019.

Other expense, net. For the three months ended September 30, 2019, other expense increased by \$0.3 million to \$0.5 million from \$0.2 million for the three months ended September 30, 2018. These amounts were primarily driven by the effect of foreign exchange rates on the value of intercompany account balances of our subsidiaries denominated in other currencies.

Income tax (benefit) expense. For the three months ended September 30, 2019, we recorded an income tax benefit of \$0.2 million compared with \$0.4 million for the three months ended September 30, 2018. Our effective tax rate was (2.9%) for the three months ended September 30, 2019 compared with (12.5%) in the prior year period. The changes in our income tax benefit and our effective tax rate were primarily due to return-to-provision adjustments identified in the preparation of our 2018 U.S. tax return and a change in our reserve for uncertain tax positions recorded during the three months ended September 30, 2019.

Our quarterly estimate of our annual effective tax rate and our quarterly provision for income tax (benefit) expense are subject to significant variation due to numerous factors, including variability in accurately predicting our pretax and taxable income or loss and the mix of jurisdictions to which they relate, as well as the amount of pretax income or loss recognized during the quarter.

Net loss. Our net loss was \$6.2 million for the three months ended September 30, 2019 compared with a net loss of \$2.5 million for the prior year period, reflecting the impact of the factors described above.

Nine Months Ended September 30, 2019 Compared to the Nine Months Ended September 30, 2018

Sales. Total sales decreased by \$13.2 million, or 4.5%, to \$277.6 million for the nine months ended September 30, 2019 from \$290.8 million for the nine months ended September 30, 2018. Based on the results of the review of the GSA Matter conducted by our outside legal counsel and forensic accountants, we reduced our total sales for second quarter 2019 by an incremental \$5.8 million sales adjustment, reflecting an estimated aggregate overcharge of \$10.6 million under the GSA Contracts for the period from July 2011 to March 2019, which included a \$5.0 million reduction in product sales and a \$0.8 million reduction in service sales (the "GSA incremental sales adjustment"). Total product sales decreased by \$21.7 million, or 9.8%, to \$200.4 million for the nine months ended September 30, 2019 from \$222.1 million for the nine months ended September 30, 2018. Our product sales decreased primarily due to a decrease in unit sales within our 3D Manufacturing reporting segment driven by the impact of our sales portfolio realignment in the first quarter of 2019 and the decline in our 3D Manufacturing product sales in our Asia-Pacific region and broader automotive industry primarily due to the uncertainty surrounding ongoing trade disputes, which negatively impacted sales in the second and third quarters of 2019, as well as the reduction in product sales related to the GSA incremental sales adjustment and the impact of changes in foreign currencies, partially offset by an increase in unit sales within our Construction BIM and Emerging Verticals reporting segments. Service revenue increased by \$8.5 million, or 12.4%, to \$77.2 million for the nine months ended September 30, 2019 from \$68.7 million for the nine months ended September 30, 2018, primarily due to an increase in repair revenue and warranty revenue driven by the growth of our installed base and our focused sales initiatives to maintain customer relationships after the initial purchase of our measurement devices. Foreign exchange rates had a negative impact on sales

Gross profit. Gross profit decreased by \$4.2 million, or 2.6%, to \$154.5 million for the nine months ended September 30, 2019 from \$158.7 million for the nine months ended September 30, 2018, primarily due to our reduction in sales related to the GSA incremental sales adjustment. Gross margin increased to 55.7% for the nine months ended September 30, 2019 from 54.6% for the nine months ended September 30, 2018, primarily due to the increase in gross margin from service revenue and the charge recorded in the third quarter of 2018 increasing our reserve for excess and obsolete inventory, which did not recur in the nine months ended September 30, 2019, partially offset by the GSA incremental sales adjustment in the second quarter of 2019. Gross margin from product revenue decreased by 0.6 percentage points to 58.3% for the nine months ended September 30, 2019 from 58.9% for the prior year period, primarily as a result of the GSA incremental sales adjustment in the second quarter of 2019, partially offset by the charge recorded in the third quarter of 2018 increasing our reserve for excess and obsolete inventory, which did not recur in the nine months ended September 30, 2019. Gross margin from service revenue increased by 8.2 percentage points to 48.9% for the nine months ended September 30, 2019 from 40.7% for the prior year period, primarily as a result of service revenue growth and improved efficiencies in our customer service repair process.

Selling and marketing expenses. Selling and marketing expenses decreased by \$0.5 million, or 0.5%, to \$87.4 million for the nine months ended September 30, 2019 from \$87.9 million for the nine months ended September 30, 2018. This decrease was driven primarily by lower marketing expenses and a decrease in selling commission expense due to a reduction in our 3D Manufacturing product sales, partially offset by an increase in compensation expenses related to our increased selling headcount. Selling and marketing expenses as a percentage of sales increased to 31.5% for the nine months ended September 30, 2019, compared with 30.2% of sales for the nine months ended September 30, 2018. Our worldwide period-ending selling headcount increased by 46, or 6.5%, to 753 at September 30, 2019, from 707 at September 30, 2018.

General and administrative expenses. General and administrative expenses increased by \$7.7 million, or 20.9%, to \$44.5 million for the nine months ended September 30, 2019 from \$36.8 million for the nine months ended September 30, 2018. This increase was mostly due to executive team transition costs, as we recognized an additional \$4.7 million of compensation expense in connection with the accelerated vesting of equity grants and severance costs, as well as the advisory fees of \$1.2 million incurred related to the GSA Matter. General and administrative expenses increased to 16.0% of sales for the nine months ended September 30, 2019 from 12.7% of sales for the nine months ended September 30, 2018.

Research and development expenses. Research and development expenses decreased by \$1.1 million, or 3.2%, to \$33.0 million for the nine months ended September 30, 2019 from \$34.1 million for the nine months ended September 30, 2018. This decrease was mainly driven by a decrease in materials and consulting costs, as well as favorable changes in foreign currencies as the U.S. dollar strengthened against the Euro, which decreased the compensation cost of foreign research and development employees, partially offset by higher compensation expense resulting from increased engineering headcount due to our 2018 acquisitions. Research and development expenses as a percentage of sales increased to 11.9% for the nine months ended September 30, 2019 from 11.7% for the nine months ended September 30, 2018.

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Interest (income) expense, net. For the nine months ended September 30, 2019, we recorded interest expense of \$0.1 million compared with interest income of \$0.2 million for the nine months ended September 30, 2018. This change was mainly due to the imputed interest expense recorded related to the GSA Matter in the second and third quarters of 2019.

Other expense, net. For the nine months ended September 30, 2019, other expense increased by \$1.5 million to \$2.4 million from \$0.9 million for the nine months ended September 30, 2018. The increase was mainly due to the \$1.5 million impairment charge related to our equity investment in present4D recorded in the second quarter of 2019.

Income tax (benefit) expense. For the nine months ended September 30, 2019, we recorded an income tax benefit of \$0.4 million compared with income tax expense of \$0.1 million for the nine months ended September 30, 2018. Our effective tax rate was (3.4%) for the nine months ended September 30, 2019 compared with 9.7% in the prior year period. The changes in our income tax (benefit) expense and our effective tax rate were primarily due to an increase in our pretax loss during the nine months ended September 30, 2019 compared to the same period of 2018 and return-to-provision adjustments identified in the preparation of our 2018 U.S. tax return during the three months ended September 30, 2019.

Our quarterly estimate of our annual effective tax rate and our quarterly provision for income tax expense are subject to significant variation due to numerous factors, including variability in accurately predicting our pretax and taxable income or loss and the mix of jurisdictions to which they relate, as well as the amount of pretax income or loss recognized during the quarter.

Net loss. Our net loss was \$12.5 million for the nine months ended September 30, 2019 compared to \$0.8 million for the prior year period, reflecting the impact of the factors described above.

Segment Results

We use segment profit to evaluate the performance of our reportable segments, which are 3D Manufacturing, Construction BIM and Emerging Verticals. Segment profit is calculated as gross profit less selling and marketing expenses for the reporting segment. The discussion of segment results for the three and nine months ended September 30, 2019 and 2018 presented below is based on segment profit, as described above, and segment profit as a percent of sales, which is calculated as segment profit divided by total sales for such reporting segment, which we believe will aid investors in understanding and analyzing our operating results. Our definition of segment profit may not be comparable to similarly-titled measures reported by other companies. For additional information, including a reconciliation of segment profit to loss from operations, see Note 14 – Segment Reporting, in Part I, Item 1 of this Quarterly Report on Form 10-Q.

Commencing with the third quarter of 2019, depreciation and amortization expenses are being reported in our statements of operations to reflect departmental costs. Previously, those expenses were reported as a separate line item under operating expenses. Our reporting segment information for the three and nine months ended September 30, 2018 have been restated below to reflect this reclassification of depreciation and amortization expenses and to conform to the current period presentation.

Three Months Ended September 30, 2019 Compared to the Three Months Ended September 30, 2018

Total sales by segment for the three months ended September 30, 2019 and September 30, 2018 were as follows (in thousands):

Inree Months Ended					
		% of		% of	
Septer	nber 30, 2019	Total	September 30, 2018	Total	
\$	56,017	61.9 %	\$ 64,182	64.4 %	
	23,884	26.4 %	23,710	23.8 %	
	10,615	11.7 %	11,813	11.8 %	
\$	90,516		\$ 99,705		
	Septer \$	23,884 10,615	September 30, 2019 % of Total \$ 56,017 61.9 % 23,884 26.4 % 10,615 11.7 %	September 30, 2019 % of Total September 30, 2018 \$ 56,017 61.9 % \$ 64,182 23,884 26.4 % 23,710 10,615 11.7 % 11,813	

3D Manufacturing

(dollars in thousands)		Three Months Ended		
	5	September 30, 2019		September 30, 2018
Total sales	\$	56,017	\$	64,182
Segment profit	\$	13,660	\$	15,190
Segment profit as a % of 3D Manufacturing segment sales		24.4 %		23.7 %

Sales. Total sales in our 3D Manufacturing segment decreased by \$8.2 million, or 12.7%, to \$56.0 million for the three months ended September 30, 2019 from \$64.2 million in the prior year period. This decrease was primarily due to a decrease in product units sold, especially in our Asia-Pacific region and broader automotive industry, partially offset by continued growth in service revenue.

Segment profit. Segment profit in our 3D Manufacturing segment decreased by \$1.5 million, or 10.1%, to \$13.7 million for the three months ended September 30, 2019 from \$15.2 million in the prior year period. This decrease was primarily due to increased compensation expenses associated with higher selling headcount and the decrease in 3D Manufacturing sales, partially offset by the charge increasing the reserve for excess and obsolete inventory recorded in the three months ended September 30, 2018, which did not recur in the three months ended September 30, 2019.

Construction BIM

(dollars in thousands)		Three Months Ended		Inded
	Sej	otember 30, 2019		September 30, 2018
Total sales	\$	23,884	\$	23,710
Segment profit	\$	6,720	\$	6,106
Segment profit as a % of Construction BIM segment sales		28.1 %		25.8 %

Sales. Total sales in our Construction BIM segment increased by \$0.2 million, or 0.7%, to \$23.9 million for the three months ended September 30, 2019 from \$23.7 million in the prior year period, primarily due to an increase in service revenue driven by the growth of our installed, serviceable base.

Segment profit. Segment profit in our Construction BIM segment increased by \$0.6 million, or 10.1%, to \$6.7 million for the three months ended September 30, 2019 from \$6.1 million in the prior year period, primarily driven by an increase in product gross margin, reflecting the charge increasing the reserve for excess and obsolete inventory recorded in the three months ended September 30, 2018, which did not recur in the three months ended September 30, 2019.

Emerging Verticals

(dollars in thousands)	 Three Months Ended		
	September 30, 2019		September 30, 2018
Total sales	\$ 10,615	\$	11,813
Segment profit	\$ 174	\$	834
Segment profit as a % of Emerging Verticals segment sales	1.6 %		7.1 %

Sales. Total sales in our Emerging Verticals segment decreased by \$1.2 million, or 10.1%, to \$10.6 million for the three months ended September 30, 2019 from \$11.8 million in the prior year period. This decrease was primarily due to a decrease in unit sales for our 3D Design vertical.

Segment profit. Segment profit in our Emerging Verticals segment decreased to \$0.2 million for the three months ended September 30, 2019 compared to \$0.8 million in the prior year period. This decrease of \$0.6 million was primarily due to the decrease in unit sales for our 3D Design vertical.

Nine Months Ended September 30, 2019 Compared to the Nine Months Ended September 30, 2018

Total sales by segment for the nine months ended September 30, 2019 and September 30, 2018 were as follows (dollars in thousands):

		Nine Months Ended					
			% of		% of		
	Sept	tember 30, 2019	Total	September 30, 201	8 Total		
3D Manufacturing	\$	171,586	61.8 %	\$ 190,584	65.5 %		
Construction BIM		73,485	26.5 %	69,994	24.1 %		
Emerging Verticals		32,553	11.7 %	30,205	10.4 %		
Total sales	\$	277,624		\$ 290,783			

3D Manufacturing

(dollars in thousands)	Nine Months Ended			
	-	September 30, 2019		September 30, 2018
Total sales	\$	171,586	\$	190,584
Segment profit	\$	48,004	\$	52,489
Segment profit as a % of 3D Manufacturing segment sales		28.0 %		27.5 %

Sales. Total sales in our 3D Manufacturing segment decreased by \$19.0 million, or 10.0%, to \$171.6 million for the nine months ended September 30, 2019 from \$190.6 million in the prior year period. This decrease was primarily due to the \$3.3 million reduction in sales related to the GSA incremental sales adjustment recorded in the second quarter of 2019, a decrease in product units sold driven by the impact of our sales portfolio realignment in the first quarter of 2019 and the decline in product sales in our Asia-Pacific region and broader automotive industry, partially offset by continued growth in service revenue.

Segment profit. Segment profit in our 3D Manufacturing segment decreased by \$4.5 million, or 8.5%, to \$48.0 million for the nine months ended September 30, 2019 from \$52.5 million in the prior year period. This decrease was primarily due to the decrease in product sales, the \$3.3 million reduction in sales related to the GSA incremental sales adjustment recorded in the second quarter of 2019, and higher compensation expense associated with higher selling headcount, partially offset by the charge increasing the reserve for excess and obsolete inventory recorded in the nine months ended September 30, 2018, which did not recur in the nine months ended September 30, 2019.

Construction BIM

(dollars in thousands)		Nine Months Ended		
	Septer	mber 30, 2019	S	September 30, 2018
Total sales	\$	73,485	\$	69,994
Segment profit	\$	20,113	\$	16,999
Segment profit as a % of Construction BIM segment sales		27.4 %		24.3 %

Sales. Total sales in our Construction BIM segment increased by \$3.5 million, or 5.0%, to \$73.5 million for the nine months ended September 30, 2019 from \$70.0 million in the prior year period, primarily due to increases in product unit sales and service revenue, partially offset by the \$0.5 million reduction in sales related to the GSA incremental sales adjustment recorded in the second quarter of 2019.

Segment profit. Segment profit in our Construction BIM segment increased by \$3.1 million, or 18.3%, to \$20.1 million for the nine months ended September 30, 2019 from \$17.0 million in the prior year period, primarily driven by the increase in product unit sales and an increase in product gross margin, reflecting improved manufacturing efficiencies, as well as by the charge increasing the reserve for excess and obsolete inventory recorded in the nine months ended September 30, 2018, which did not recur in the nine months ended September 30, 2019, partially offset by the \$0.5 million reduction in sales related to the GSA incremental sales adjustment recorded in the second quarter of 2019.

Emerging Verticals

(dollars in thousands)		Nine Months Ended		
	Sept	ember 30, 2019		September 30, 2018
Total sales	\$	32,553	\$	30,205
Segment (loss) profit	\$	(1,024)	\$	1,347
Segment (loss) profit as a % of Emerging Verticals segment sales		(3.1)%		4.5 %

Sales. Total sales in our Emerging Verticals segment increased by \$2.4 million, or 7.8%, to \$32.6 million for the nine months ended September 30, 2019 from \$30.2 million in the prior year period, primarily due to higher sales in our Photonics vertical, partially offset by the \$2.0 million reduction in sales related to the GSA incremental sales adjustment recorded in the second quarter of 2019.

Segment (loss) profit. Segment loss in our Emerging Verticals segment was \$1.0 million for the nine months ended September 30, 2019 compared to segment profit of \$1.3 million in the prior year period. This change of \$2.3 million was primarily due to the \$2.0 million reduction in sales related to the GSA incremental sales adjustment recorded in the second quarter of 2019.

Liquidity and Capital Resources

Cash and cash equivalents increased by \$10.3 million to \$119.1 million at September 30, 2019 from \$108.8 million at December 31, 2018. The increase was primarily driven by net cash provided by operating activities, partially offset by net cash used in investing and financing activities. Cash provided by operating activities was \$23.5 million during the nine months ended September 30, 2019, compared to \$4.9 million of cash provided by operations during the nine months ended September 30, 2018. The increase was mainly due to changes in working capital accounts, primarily a decrease in accounts receivable and an increase in GSA liability, partially offset by an increase in inventory and a decrease in accounts payable and accrued liabilities.

Cash used in investing activities during the nine months ended September 30, 2019 was \$8.5 million compared to \$47.0 million during the nine months ended September 30, 2018. The decrease was primarily due to \$27.6 million in cash paid for acquisitions during the nine months ended September 30, 2018 compared to no such activity during the same period in 2019.

Cash used in financing activities was \$2.4 million during the nine months ended September 30, 2019 compared to cash provided by financing activities of \$20.2 million for the nine months ended September 30, 2018. The change was primarily due to \$20.9 million in cash received from the exercise of employee stock options during the nine months ended September 30, 2018 compared to \$2.3 million during the nine months ended September 30, 2019 and payments for taxes related to the net share settlement of equity awards of \$1.4 million during the nine months ended September 30, 2019 compared to no such payments during the nine months ended June 30, 2018.

Of our cash and cash equivalents, \$83.1 million was held by foreign subsidiaries as of September 30, 2019. On December 22, 2017, the United States enacted the U.S. Tax Cuts and Jobs Act, resulting in significant modifications to existing tax law, which included a transition tax on the mandatory deemed repatriation of foreign earnings. Despite the changes in U.S. tax law, our current intent is to indefinitely reinvest these funds in our foreign operations, as the cash is needed to fund ongoing operations.

On November 24, 2008, our Board of Directors approved a \$30.0 million share repurchase program. Acquisitions for the share repurchase program may be made from time to time at prevailing prices, as permitted by securities laws and other legal requirements, and subject to market conditions and other factors. The share repurchase program may be discontinued at any time. There is no expiration date or other restriction governing the period over which we can repurchase shares under the program. In October 2015, our Board of Directors authorized an increase to the existing share repurchase program from \$30.0 million to \$50.0 million. We made no stock repurchases during the nine month period ended September 30, 2019 under this program. As of September 30, 2019, we had authorization to repurchase \$18.3 million remaining under the repurchase program.

We believe that our working capital and anticipated cash flow from operations will be sufficient to fund our long-term liquidity operating requirements for at least the next 12 months.

We have no off-balance sheet arrangements.

Contractual Obligations and Commercial Commitments

We enter into purchase commitments for products and services in the ordinary course of business. These purchases generally cover production requirements for 60 to 120 days as well as materials necessary to service customer units through the product lifecycle and for warranty commitments. As of September 30, 2019, we had \$54.0 million in purchase commitments that are expected to be delivered within the next 12 months. Other than as described in the preceding sentences, there have been no material changes to the contractual obligations and commercial commitments table included in Part II, Item 7 of our Annual Report on Form 10-K for the year ended December 31, 2018.

Critical Accounting Policies

The preparation of our condensed consolidated financial statements requires our management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, and expenses, as well as disclosure of contingent assets and liabilities. We base our estimates on historical experience, along with various other factors believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Some of these judgments can be subjective and complex and, consequently, actual results may differ from these estimates under different assumptions or conditions. A discussion of our critical accounting policies is included in Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the Securities and Exchange Commission on February 21, 2019. As of September 30, 2019, our critical accounting policies have not changed from those described in our Annual Report on Form 10-K for the year ended December 31, 2018.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Foreign Exchange Exposure

We conduct a significant portion of our business outside the United States. As of and for the nine months ended September 30, 2019, 61% of our revenue was invoiced, and a significant portion of our operating expenses were paid, in foreign currencies, and 45% of our assets were denominated in foreign currencies. Fluctuations in exchange rates between the U.S. dollar and such foreign currencies may have a material effect on our results of operations and financial condition and could specifically result in foreign exchange gains and losses. The impact of future exchange rate fluctuations on the results of our operations cannot be accurately predicted due to our constantly changing exposure to various currencies, and the fact that all foreign currencies do not react in the same manner in relation to the U.S. dollar. Our most significant exposures are to the Euro, Swiss Franc, Japanese Yen, Chinese Yuan and Brazilian Real. To the extent that the percentage of our non-U.S. dollar revenues derived from international sales increases in the future, our exposure to risks associated with fluctuations in foreign exchange rates may increase. We are aware of the availability of off-balance sheet financial instruments to hedge exposure to foreign currency exchange rates, including cross-currency swaps, forward contracts and foreign currency options. However, we have not used such instruments in the past, and none were utilized in 2018 or the nine months ended September 30, 2019.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We are responsible for establishing and maintaining disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), that are designed to provide reasonable assurance that information required to be disclosed in our reports filed under the Exchange Act, such as this Quarterly Report on Form 10-Q, is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's ("SEC's") rules and forms. Disclosure controls and procedures also include, without limitation, controls and procedures that are designed to provide reasonable assurance that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Under the supervision and with the participation of our management, including our Chief Executive Officer and our Chief Financial Officer, we evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act) as of September 30, 2019. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of September 30, 2019 to provide reasonable assurance that information required to be disclosed in this Quarterly Report on Form 10-Q was recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and was accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting

During the quarter ended September 30, 2019, there was no change in our internal control over financial reporting (as such term is defined in Rule 13a-15(f) under the Exchange Act) that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

We are not involved in any legal proceedings, including routine litigation arising in the normal course of business, that we believe will have a material adverse effect on our business, financial condition or results of operations.

Item 1A. Risk Factors

In addition to the other information set forth in this Quarterly Report on Form 10-Q, you should carefully consider the factors discussed under "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the SEC, and in this Item 1A before deciding to invest in, or retain, shares of our common stock. These risks could materially and adversely affect our business, financial condition, and results of operations. The risks described in our Annual Report on Form 10-K for the year ended December 31, 2018 are not the only risks we face. Our operations could also be affected by additional factors that are not presently known by us or by factors that we currently consider to be immaterial to our business. Except as set forth below, as of September 30, 2019, there have been no material changes in our risk factors from those set forth in our Annual Report on Form 10-K for the year ended December 31, 2018:

The risk factor entitled "Our failure to successfully execute our Chief Executive Officer transition or to attract and retain qualified personnel could lead to a loss of sales or decreased profitability." has been updated to read as follows:

We have experienced a significant transition in our executive management team in the last year. Any delay in the integration of our management team or our failure to successfully attract and retain qualified personnel could have an adverse effect on our business and results of operations.

Our executive management team has gone through a significant transition in the last year, including the hiring of a new president and chief executive officer and the hiring of a new chief financial officer. Any delay in the integration of our management team could affect our ability to develop, implement and execute our business strategies and plans, which could have an adverse effect on our business and results of operations.

In addition, if we fail to successfully attract qualified personnel or to retain our executive management team and other key personnel, our sales, profitability and growth and our ability to execute our business strategies and plans could be adversely impacted. Turnover of management could also adversely impact our stock price and our client relationships and could make recruiting for future management positions more difficult. We face competition for qualified personnel, which could result in increased salaries and other compensation expenses and could negatively affect our profitability.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Purchases of Equity Securities by the Issuer Under the Share Repurchase Plan

On November 24, 2008, our Board of Directors approved a \$30.0 million share repurchase program. Acquisitions for the share repurchase program may be made from time to time at prevailing prices, as permitted by securities laws and other legal requirements, and subject to market conditions and other factors. The share repurchase program may be discontinued at any time. There is no expiration date or other restriction governing the period over which we can repurchase shares under the program. In October 2015, our Board of Directors authorized an increase to the existing share repurchase program from \$30.0 million to \$50.0 million. We made no stock repurchases during the nine month period ended September 30, 2019 under this program. As of September 30, 2019, we had authorization to repurchase \$18.3 million remaining under the repurchase program.

Item 6. Exhibits

INDEX TO EXHIBITS

<u>3.1</u>	Amended and Restated Articles of Incorporation, as amended (Filed as Exhibit 3.1 to our Registration Statement on Form S-1/A filed September 10, 1997, and incorporated herein by reference)
<u>3.2</u>	Amended and Restated Bylaws (Filed as Exhibit 3.1 to our Current Report on Form 8-K, filed February 3, 2010 and incorporated herein by reference)
<u>4.1</u>	Specimen Stock Certificate (Filed as Exhibit 4.1 to our Registration Statement on Form S-1/A filed September 10, 1997, and incorporated herein by reference)
<u>10.1</u>	Offer Letter between FARO Technologies, Inc. and Allen Muhich, dated July 15, 2019 (Filed as Exhibit 10.1 to our Current Report on Form 8-K, filed July 16, 2019 and incorporated herein by reference)
<u>10.2</u>	<u>Transition and Separation Agreement by and between FARO Technologies, Inc. and Robert E. Seidel, dated July 31, 2019 (Filed as Exhibit 10.1 to our Current Report on Form 8-K, filed August 2, 2019 and incorporated herein by reference)</u>
<u>10.3</u>	Confidential Separation Agreement and General Release by and between FARO Technologies, Inc. and Kathleen J. Hall, dated August 26, 2019 (Filed as Exhibit 10.1 to our Current Report on Form 8-K, filed August 27, 2019 and incorporated herein by reference)
<u>31-A</u>	Certification of the President and Chief Executive Officer Pursuant to Rule 13a-14(a)/15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
<u>31-B</u>	Certification of the Chief Financial Officer Pursuant to Rule 13a-14(a)/15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
<u>32-A</u>	<u>Certification of the President and Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</u>
<u>32-B</u>	Certification of the Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101	The following information from our Quarterly Report on Form 10-Q for the quarter ended September 30, 2019, formatted in Inline XBRL: (i) Condensed Consolidated Balance Sheets; (ii) Condensed Consolidated Statements of Operations; (iii) Condensed Consolidated Statements of Comprehensive Loss; (iv) Condensed Consolidated Statements of Cash Flows; (v) Condensed Consolidated Statements of Shareholders' Equity; and (vi) Notes to Condensed Consolidated Financial Statements
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

SIGNATURE

Pursuant to the requirements 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.

FARO Technologies, Inc.

(Registrant)

Date: October 30, 2019 By: /s/ Allen Muhich

Name: Allen Muhich Title: Chief Financial Officer

(Duly Authorized Officer and Principal Financial Officer)

FARO Technologies, Inc. Certification Pursuant to Rule 13a-14(a)/15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

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

Date: October 30, 2019

/s/ Michael Burger

Name: Michael Burger

Title: President and Chief Executive Officer

(Principal Executive Officer)

FARO Technologies, Inc. Certification Pursuant to Rule 13a-14(a)/15d-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

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

Date: October 30, 2019

/s/ Allen Muhich

Name: Allen Muhich Title: Chief Financial Officer (Principal Financial Officer)

FARO Technologies, Inc. Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Solely for the purposes of complying with 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, I, the undersigned President and Chief Executive Officer of FARO Technologies, Inc. (the Company), hereby certify that the Quarterly Report on Form 10-Q for the quarter ended September 30, 2019 (the Report) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: October 30, 2019

/s/ Michael Burger

Name: Michael Burger

Title: President and Chief Executive Officer

(Principal Executive Officer)

FARO Technologies, Inc. Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Solely for the purposes of complying with 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, I, the undersigned Chief Financial Officer of FARO Technologies, Inc. (the Company), hereby certify that the Quarterly Report on Form 10-Q for the quarter ended September 30, 2019 (the Report) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: October 30, 2019

/s/ Allen Muhich

Name: Allen Muhich Title: Chief Financial Officer (Principal Financial Officer)