MANAGEMENT'S DISCUSSION AND ANALYSIS

FOR THE THREE AND TWELVE MONTHS ENDED DECEMBER 31, 2017

MARCH 23, 2018

ABOUT THIS MD&A

This Management Discussion and Analysis ("MD&A") discusses the consolidated financial condition and operating performance for Carmanah Technologies Corporation (the "Company") and should be read together with our audited consolidated financial statements for the year ended December 31, 2017. References to the "Company", "Carmanah", "we", "us" or "our" are to be taken as references to Carmanah Technologies Corporation. These documents, along with additional information about our Company, including this annual MD&A Report and Annual Information Form are available at www.carmanah.com and www.sedar.com. This document contains forward-looking information qualified by the forward-looking statements in the next section.

Unless otherwise indicated, all financial information presented in this MD&A is in our functional and presentation currency, United States of America ("US") dollars, and has been prepared in accordance with International Financial Reporting Standards ("IFRS"). Section 8 outlines any relevant recent or pending accounting policy developments that may impact our financials.

Our consolidated financial statements include our accounts and those of our wholly-owned subsidiaries, Carmanah Solar Power Corporation, Carmanah Technologies (US) Corporation, Sol, Inc. ("Sol"), Sabik Oy, Sabik Offshore GmbH, Sabik Pte Ltd, Sabik Limited, Sabik Offshore Limited, Sabik Oü, (collectively, "Sabik Group"), Vega Industries Limited and Vega Navigations Americas Inc. (collectively, "Vega").

Our disclosure controls and procedures are designed to provide reasonable assurance that all relevant information is gathered and reported to our senior management on a timely basis so that appropriate decisions can be made regarding public disclosure. Our management determines if information is material based on whether they believe a reasonable investor's decision to buy, sell or hold securities in our Company would likely be influenced or changed if the information were omitted or misstated. The MD&A and the consolidated financial statements were reviewed by our Audit Committee and approved by our Board of Directors. This MD&A is prepared as of March 23, 2018.

Our management reports on certain non-IFRS measures which are used to evaluate financial performance. As non-IFRS measures generally do not have a standardized meaning and therefore may not be comparable to similar measures presented by other issuers, securities regulations require non-IFRS measures to be clearly defined, qualified and reconciled with their nearest IFRS measure. See Section 4 for the definition, calculation and reconciliation of these figures.

On October 11, 2016, we announced our intention to divest our Power business segment. For the purposes of discussing our operating results in this MD&A, we have presented our financial information based on our continuing operations unless otherwise noted. As described in section 5, the On-Grid solar power EPC portion of this business ("Solar EPC") was divested on April 3, 2017 and the Off-Grid portion of this business was divested on August 1, 2017. The discontinued operations do not impact our continuing operations and therefore have not been discussed in this MD&A. As required under IFRS 5 – *Non Current Assets Held for Sale and Discontinued Operations*, the operations of this segment have been classified as discontinued operations for the years ended December 31, 2017 and 2016 and as non-trade receivables and non-trade payables as at December 31, 2017.

5	Operational and Business Highlights	A discussion regarding key operating activities during the period
6	Financial Results	A discussion of our financial performance for the period
7	Liquidity, Capital Resources and Other Disclosures	A discussion of our operating cash flows, investments and financing activities, as well as liquidity, credit facilities and other disclosures
8	Critical Accounting Estimates and Accounting Policy Developments	Accounting estimates that are critical to determining financial results, and changes to accounting policies
9	Risks and Risk Management	A discussion on certain risks and uncertainties facing us

CAUTION REGARDING FORWARD-LOOKING STATEMENTS

Certain statements in this MD&A are forward-looking statements that involve risks and uncertainties. Forward statements are often, but not always, identified by words such as "may", "would", "could", "will", "intend", "should", "expect", "plan", "anticipate", "believe", "estimate", "predict", "potential", "continue" and similar expressions. Forward-looking statements in this MD&A include, but are not limited to:

- statements relating to the expected growth opportunities and commercial acceptance and demand for our products;
- the successful development of new and innovative products to help penetrate new geographic markets;
- the future success of our recent restructuring initiative and our ability to produce positive net income;
- the outcome of claims and lawsuits;
- our intention to be a leader or top contender in each of our market segments;
- our belief that the signals industry is ready for consolidation;
- our plan to explore synergy opportunities that may exist in overlapping product lines, commercial efficiencies, research and development ("R&D") projects and potential manufacturing competencies;
- our belief that "connected" devices are likely to be data gateways that provide a variety of sensor data that will increase safety and further reduce operating costs;
- our expectation that the current installed base of signaling products will become obsolete and result in increases in growth rates for the signals industry;
- the amount and sufficiency of R&D spending;
- the goal that all strategic products have machine-to-machine capability by the end of 2020;
- the expansion of the number of top-tier partners over the next five years
- our expectation of growth in solar light emitting diode ("LED") illumination;
- the expected results of the acquisition the EKTA brand from Cybernetica AS ("Cybernetica"), now under entity Sabik Oü; and
- the successful completion of the Vega Restructuring (as defined below).

By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific, and many factors could cause actual results or events to differ materially from those anticipated in such forward looking statements. Although the forward-looking statements contained in this MD&A are based upon what we believe to be reasonable assumptions, prospective investors cannot be assured that actual results will be consistent with these forward-looking statements. Such assumptions include, but are not limited to: our assumptions regarding opportunities and availability of potential new projects; our assumption that we will be able to comply with current and future regulatory requirements; and our assumption that we will be able to compete and keep pace with the industry. In evaluating these statements, readers should specifically consider various factors, including, but not limited to, the risks discussed under the heading "Risk Factors" in our Annual Information Form dated March 23, 2018, or included in section 9 of this MD&A. Additionally, factors that could cause or contribute to such differences include, but are not limited to, the following:

- actions of competitors, including competitors with greater name recognition and financial resources;
- our ability to develop products and technologies that keep pace with the continuing changes in technology, evolving industry standards, new product introductions by competitors and change client preferences and requirements;
- our ability to complete, manage and integrate acquisitions;
- our ability to develop products and technologies that keep pace with the continuing changes in technology, evolving industry standards, new product introductions by competitors and change client preferences and requirements;
- our ability to collect outstanding accounts and notes receivable in connection with the retained responsibility in Solar EPC;
- slower than anticipated adoption of solar LED lighting technology;
- our ability to manage expansion effectively;
- fluctuation in foreign currency exchange rates;
- our reliance on third party manufacturers;
- our ability to purchase components for our products at competitive prices;
- our reliance on sales agents and third parties with whom we have developed strategic relationships to sell our products;
- our reliance on key employees;
- our ability to protect our intellectual property rights;
- environmental and regulatory compliance;
- our reliance on government contracts and subsidies;
- problems with product quality or reliability;
- downturns in general economic and market conditions;
- our ability to maintain adequate liquidity or raise sufficient debt or equity financing when needed;
- risk that we may become involved in disputes, litigation or arbitration proceedings;
- geopolitical or other global or local events; and
- our ability to sell certain products as a result of changes to policy and/or regulation in jurisdictions where we sell products.

Except as otherwise indicated, forward-looking statements do not reflect the potential impact of any non-recurring or other unusual items or of any dispositions, mergers, acquisitions, other business combinations or other transactions that may be announced or that may occur after the date hereof. The financial impact of these transactions and non-recurring and other unusual items can be complex and depends on the facts particular to each of them. We therefore, cannot describe the expected impact in a meaningful way or in the same way the Company presents known risks affecting its business.

Readers should not place undue reliance on forward-looking statements. The forward-looking statements in this MD&A are made as of the date hereof. We do not assume any obligation to update the forward-looking information contained in this MD&A other than as required by applicable laws (including without limitation Section 5.8(2) of National Instrument 51-102 Continuous Disclosure Obligations).

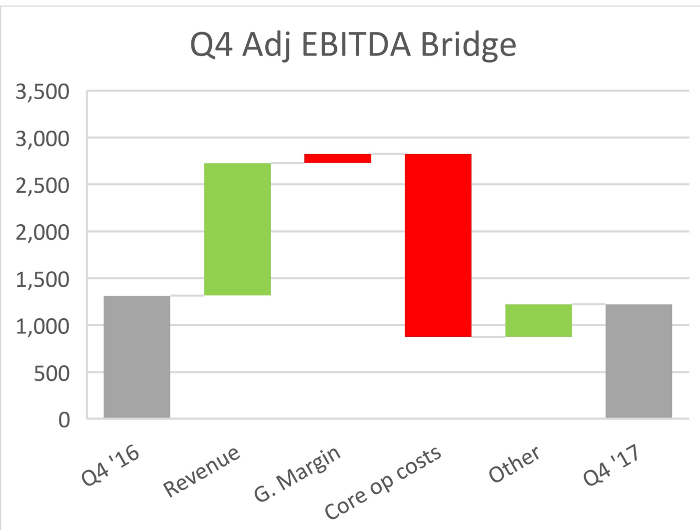
1. Financial Highlights

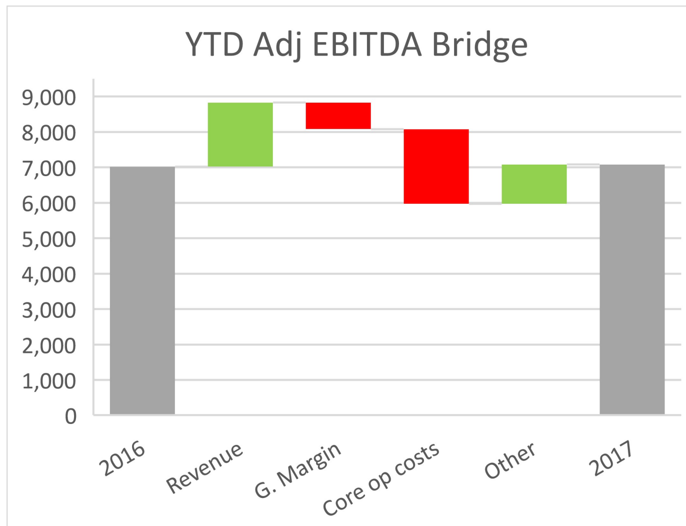
FINANCIAL HIGHLIGHTS FOR THE THREE AND TWELVE MONTHS ENDED DECEMBER 31, 2017 AND 2016

	Three months ended December 31,			Year ended December 31,		
US$ thousands	2017	2016	Change	2017	2016	Change
Revenue	14,103	10,714	31.6%	51,939	47,742	8.8%
Gross margin %	42.3%	41.6%	0.7%	41.6%	43.0%	(1.4%)
Core operating expenditures *	(5,753)	(3,802)	51.3%	(18,643)	(16,531)	12.8%
Net income	(44)	80	(155.0%)	1,392	2,917	(52.3%)
Adjusted EBITDA *	1,222	1,316	(7.1)%	7,084	7,020	0.9%

**Adjusted EBITDA and Core operating expenditures are non-IFRS measures which are discussed in section 4*

ADJUSTED EBITDA BRIDGES





BACKLOG RECONCILIATION

US$ thousands	Q3 closing	Bookings	Revenue	Q4 closing
Signals	7,429	13,526	13,335	7,620
Illumination	316	1,777	768	1,325
Total	**7,745**	**15,303**	**14,103**	**8,945**

FOURTH QUARTER

In the fourth quarter of 2017, we generated revenues of $14.1 million, up $3.4 million or 31.6% over the fourth quarter of 2016 revenues of $10.7 million. The increase in revenues was attributed to exceptionally strong performance from most of our Signals verticals, which generated revenues of $13.3 million, up $4.5 million or 51.1% over the fourth quarter of 2016 revenues of $8.8 million. The Marine vertical now includes revenues of Vega. Excluding the Vega and EKTA revenue contribution, the Signals vertical's organic growth was $2.9 million, up 32.3% over the fourth quarter of 2016. Conversely, the Illumination segment generated revenues of $0.8 million, down $1.1 million or 57.9% over the fourth quarter of 2016 revenues of $1.9 million, as we continued the transition to our next generation EverGen product.

Gross margin percentage in the fourth quarter of 2017 was 42.3%, up 0.7%, over the same period in 2016.

Core operating expenditures in the fourth quarter of 2017 were up $2.0 million over the fourth quarter of 2016. The increase was due to higher product development activities, the amortization of acquired intangible assets from Vega and EKTA and the overall increase in G&A expenses associated with the acquisition of Vega. Because of higher overall operating expenses, net income in the fourth quarter of 2017 declined compared to the same quarter in 2016.

Our management relies on Adjusted EBITDA (a non-IFRS measure) to gauge financial performance. In the fourth quarter of 2017, our Adjusted EBITDA was $1.2 million or 8.5% of revenue, which is down from $1.3 million, or 12.1% of revenue in the same period in 2016. A table reconciling net income and Adjusted EBITDA is included in section 4.

BACKLOG RECONCILIATION

US$ thousands	December 31, 2016	Bookings	Revenue	December 31, 2017
Signals	5,821	49,799	48,000	7,620
Illumination	615	4,649	3,939	1,325
Total	6,436	54,448	51,939	8,945

FULL YEAR

For the year ended December 31, 2017, we generated revenues of $51.9 million, up $4.2 million or 8.8% over 2016 revenues of $47.7 million. The Signals segment generated revenues of $48.0 million, up $8.1 million or 20.3% over 2016 revenues of $39.9 million. This growth includes $5.1 million or 12.7% from organic growth. The Illumination segment generated revenues of $3.9 million, down $3.9 million or 49.7% over 2016 revenues of $7.8 million.

Gross margin percentage for the year was 41.6%, down 1.4%, over the same period in 2016.

Our total core operating expenses for the year were $18.6 million, up from $16.5 million in 2016. A large part of this increase was due to the inclusion of partial year operating expenditures from Vega. Net income for the year was $1.4 million, down from $2.9 million in fiscal 2016. The decrease is a direct result of the poor performance from the Illumination division combined with restructuring expenses for Vega.

Our management relies on Adjusted EBITDA (a non-IFRS measure) to gauge financial performance. For the year ended December 31, 2017, Adjusted EBITDA was $7.1 million or 13.7% of revenue, roughly comparable to the $7.0 million, or 14.7% of revenue, reported in the same period in 2016. A table reconciling net income and Adjusted EBITDA is included in section 4.

2. Overview - Vision, Strategy & Tactics

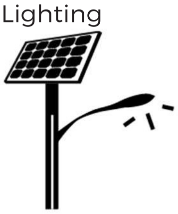
BUSINESS OVERVIEW

We design, develop and distribute a portfolio of products focused on energy optimized LED solutions for infrastructure. Since 1996, we have earned a global reputation for delivering durable, dependable, efficient and cost-effective solutions for industrial applications that perform in some of the world's harshest environments. We manage our business within two reportable segments: Signals and Illumination. The Signals segment serves the Airfield Lighting, Aviation Obstruction, Offshore Wind, Marine, Traffic and Telematics markets. Telematics is a new vertical created in 2016 that will focus on the design and manufacture of energy-efficient and/or solar-power connected (e.g. the Internet of things) devices supporting data capture and transmission for mobile or remote assets. The Illumination segment provides solar powered LED outdoor lights for municipal and commercial customers.

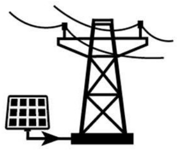
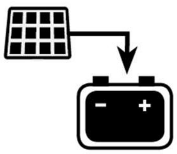
The tables below provide an overview of these segments and the verticals or businesses they serve.

Signals	
Airfield 	Our Airfield Lighting business specializes in solving airfield lighting challenges for clients in off-grid or weak-grid locations. Our self-contained solar airfield lights support daily flight operations at helipads and airstrips in demanding environments around the globe and include both military and civilian airports. Our main competitors for this business include Avlite Systems Pty Ltd and Metalite Aviation Lighting.
Obstruction 	Our Aviation Obstruction business provides practical and cost-effective solutions for aviation hazard marking, barricade lighting, way-finding, railway blue flag protection, equipment marking and more by way of our solar powered self-contained LED lighting products. Our main competitors in our Obstruction sector include Avlite Systems Pty Ltd, Dialight PLC and Flash Technology LLC.
Offshore Wind 	Our Offshore Wind business specializes in the provision of comprehensive safety and marking systems for offshore wind farms. Our main offshore wind competitors include Dialight A/S, Tideland Signals (Xylem Inc), Sealite Pty Ltd and Pharos Marine Automatic Power Ltd.
Marine 	Our Marine business provides total marine aids-to-navigation products and systems for Coast Guards, marine authorities, navies, ports, and aquaculture farms around the globe. Our main competitors in the Marine market include Sealite Pty Ltd, and Tideland Signals Corporation.
Traffic 	We serve the North American traffic safety market through the provision of solar powered and grid-connected flashing beacons for pedestrian crosswalk signals, school zone flashers and 24-hr roadway beacons. Our main competitors in the Traffic vertical include JS Foster Corporation and TAPCO (Traffic & Parking Control Company Inc).
Telematics 	Our Telematics business is currently focused on designing and manufacturing devices to enable remote monitoring of assets. This new vertical was created as we see an opportunity to utilize our knowledge and expertise in solar and energy management systems to build and/or design solar-powered engines to expand the capabilities of new or existing asset tracking devices. While Telematics is currently a vertical within the Signals segment, we anticipate it will become its own segment as it grows.

The product offerings across the verticals within the Signals segment are similar in nature and share common technology, form factor and components.

Illumination	
Outdoor Lighting 	Our Outdoor Lighting business provides advanced solar powered LED illumination products for pathways, parking lots and streets. Our main competitors in the North American market for outdoor lighting are Solar Electric Power Company (SEPCO), Greenshine Solar Lighting, First Light Technologies and Solar One Solutions Inc. Internationally we have a variety of competitors operating in different areas of the world.

Power *

On-Grid 	Our On-Grid power generation business constructs commercial solar grid-connected systems. Most of our customers are solar power developers that develop roof top and ground mount projects within the scope of the Government of Ontario's Feed-in-Tariff program (the "FIT Program"). Our main competitors include Panasonic Eco Solutions Canada Inc., RESCo Energy Inc. and Deltro Electric Ltd.
Off-Grid 	Our Off-Grid power business provides solar kits, solar panels, inverters, chargers, batteries and other power accessories for the RV, utility and fleet vehicles, and marine markets. Our sales are made through an established channel of dealers, distributors and agents throughout the US and Canadian markets, direct to consumer through online retailer Amazon, and on an OEM basis to major new motorhome manufacturers. Some of our Off-Grid competitors are Xantrex Technologies and Samlex America Inc.

* Discontinued Operations. As noted in the "About this MD&A" and further described in section 5, we have made the strategic decision to divest the Power segment. Due to this decision, the operating results of this segment have been classified as a discontinued operation as required under IFRS 5 – *Non Current Assets Held for Sale and Discontinued Operations.* For the purposes of discussing our operating results in this MD&A, we have presented our financial information based on our continuing operations unless otherwise noted.

VISION – Global Leader of Signaling and Solar Lighting for Infrastructure

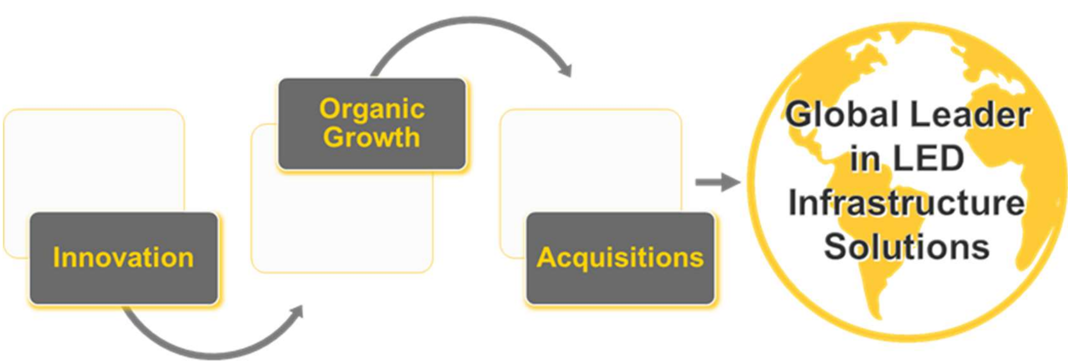
We aspire to be the global leader of signaling and solar lighting solutions for infrastructure through unique product and system solutions that allow us to attain and maintain high gross margins and great growth prospects.

STRATEGY – Provide Solutions that Combine Cost Savings with Environmental Sensitivity

We understand that while our customers are increasingly interested in environmentally sensitive solutions they are also motivated to make purchase decisions that are economically sound. We believe that our customers need not choose one of these important attributes over the other. Accordingly, our strategy is to provide solutions for our customers that combine the greatest cost savings with the highest environmental sensitivity.

TACTICS – Innovation, Organic Growth and Acquisitions

Tactically we plan to realize our strategy through innovation, organic growth and acquisitions.



INNOVATION

In 2017, our R&D expense was focused on product development and refinement and totaled $3.1 million, or about 6% of revenues, compared to 5% for the same period in the prior year. In each of the next three years we expect R&D to remain around 5% to 7% of revenues. We believe this level of spending is sufficient to meet our technology sustainment needs and fund our strategic initiatives. That said, compelling strategic projects may arise from time to time that management chooses to undertake that would temporarily result in a higher level of R&D expense. When these extraordinary projects are undertaken, we will report on these separately.

Our R&D is focused on technology innovation to support our strategy to:

- provide the most environmentally sensitive signaling and lighting products for infrastructure; and equally
- to provide solutions that provide our customers with the greatest economic benefit.

To help us realize on our strategy, our Development Team is constantly improving our products to make them smaller, lighter and more energy efficient without performance compromise. These activities help us to maintain our market competitiveness as well as attractive product margins.

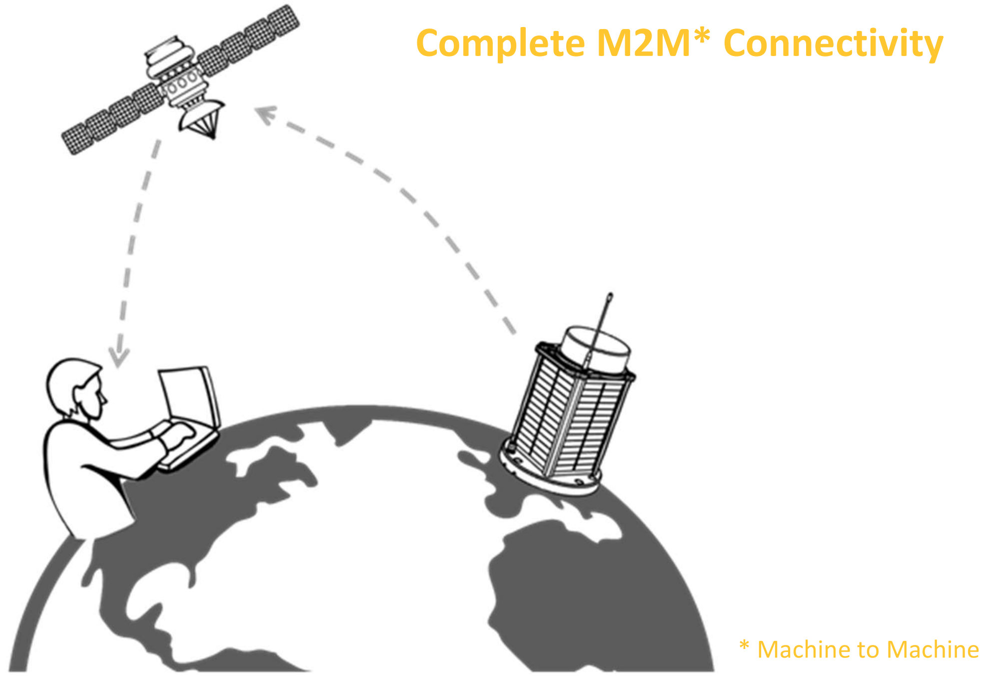
However, our primary innovation goal is to develop solutions for our customers that help them to reduce ancillary costs – including maintenance and operating costs – while maintaining or enhancing efficacy. In this respect, our Development Team is working to achieve these goals.

We are committed to adding connectivity to all our devices so that every deployed device can be monitored, and in some cases controlled, from central locations. This "machine-to-machine" capability and remote monitoring provides a new range of benefits including:

- the ability to determine the need for preventative maintenance before outages occur, thereby reducing outage incidents;
- the ability of our customers to respond to damaged devices more quickly;
- our ability to monitor the functioning of products for performance enhancement and warranty administration; and the potential for new service-based business models.

Currently, 10 of our 31 product platforms have machine-to-machine connection capability, up from eight at the same time a year ago. In 2016 when we initially set these development goals, our goal was for all product platforms to have machine-to-machine communications capability by the end of 2018. During the past two years we have remained focused on integrating connectivity capabilities within our product platforms but have determined that we underestimated the development time and resources needed to update our devices. Therefore, we are revising our goal to include machine-to-machine communications capabilities in all product platforms by the end of 2020.

We will continue to report on this important initiative and other strategic product development activities on a quarterly basis so that shareholders may evaluate our progress.



In early 2016, we started to ramp up R&D spending to help create our new solar LED lighting platform to take advantage of technology trends and lowering cost curves. Our expectation is that our new Illumination platform will become a viable economic competitor to grid connected lighting for new construction in a growing portion of the developed world and as such our addressable market will expand exponentially.

The heart of this new product platform, branded EverGen, is a proprietary energy management system and controller that also includes satellite connectivity for remote monitoring. As part of the product launch, we created a new Illumination website that highlights the features of the EverGen offering and in mid-2017, our EverGen product began shipping in limited quantities.

ORGANIC GROWTH

In all markets, and with few exceptions, we rely on some form of "last mile" partner to be the final interface with the end users of our products. Over the next five years, we expect to markedly improve our global distribution by working to appoint new last mile partners in parts of the world where our products are currently not represented. It is also our plan to work to improve the quality and capability of our last mile partners in all markets. We believe that these two initiatives can double the effectiveness of our distribution over the coming five-year period.

LAST MILE PARTNERS – SIGNALS AND ILLUMINATION

We currently have approximately 460 "last mile" partners with whom we work globally within our Signals and Illumination segments, up from approximately 400 at the same time a year ago. Approximately 14% (up from 10% a year ago) of these "last mile" partners would be considered top-tier, which we define as having most of the following attributes:

- being fully trained as to our products and components;
- being capable of responding to customer needs with the optimal selection of our products and/or systems;
- having the financial capability to conduct business and realize on our sales potential without compromise;
- having an annual business development plan agreed to by us that sets out goals and activity commitments for both the partner and us; and
- the ability to use all our ERP solutions to actively record sales potential, forecast and execute order entry.

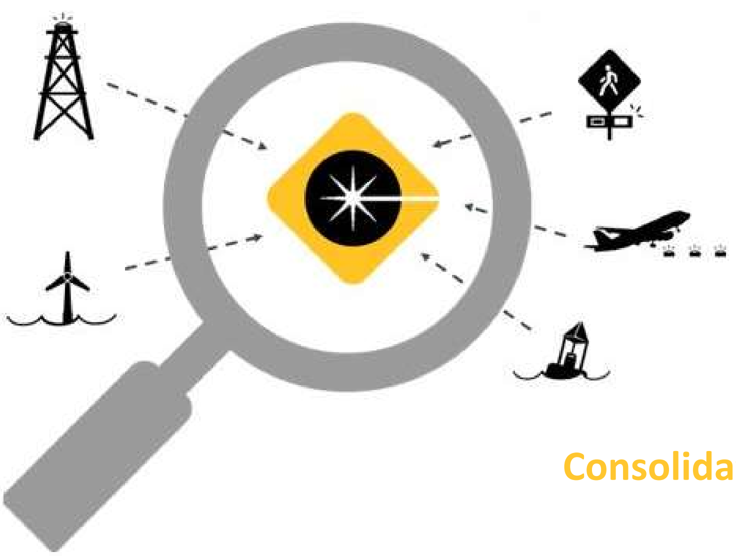
Our goal is to significantly expand the number of "top-tier" partners over the next five years and to ensure we cover all significant regions throughout the world. We began tracking this statistic during the second quarter of 2016. At initial outset, we had 300 recognized partners, of whom approximately 12% were considered top-tier.

ACQUISITIONS

We believe that there are signals competitor candidates that, if acquired prudently, can accelerate our ability to realize our vision of becoming the global industry leader. In this respect, we look for candidates that can deliver the following attributes:

- highly capable management teams that will be retained post-transaction;
- unique products or product line extensions that are complementary to our offering;
- market share or distribution that would enhance our partner network;
- transactions that meet or exceed minimum accretion levels; and
- attractive synergies that can be realized reasonably promptly post-transaction.

We devote resources to identify and build relationships with potential acquisition candidates and, at any given time, we have multiple discussions underway. While we would like to grow our company, at least in part, by way of acquisitions we are committed to being very disciplined. Moreover, we only proceed with transactions that score highly against our attribute criteria and where attractive financing options are available. Proposed transactions, if any, that result from these efforts will be announced on a timely manner by way of news release.



Consolidation of Signals competitors

3. Performance Scorecard

KEY PERFORMANCE MEASURES

The financial performance scorecard highlights the key performance measures that we believe are critical to adding shareholder value. We believe this approach best tracks how efficiently we deploy and manage our assets.

US$ thousands	2017	2016	2015
Average net assets from continuing operations *	31,107	28,099	17,942
Cash cycle **	79 days	68 days	54 days
Revenue	51,939	47,742	43,090
Adjusted EBITDA***	7,084	7,020	6,308
Adjusted EBITDA*** / Revenue	13.6%	14.7%	14.6%
Adjusted EBITDA*** / Average Net Assets	22.8%	25.0%	35.2%
Revenue/ Average Net Assets	1.67	1.70	2.40

* Average Net Assets excludes cash, tax assets/liabilities and bank debt

** Cash cycle = Average days' inventory outstanding plus average days' sales outstanding less average days' payable outstanding

*** Adjusted EBITDA is a non-IFRS measure which is discussed in section 4

In line with our strategic initiatives, we have set targets for profitability, asset efficiency and cash conversion. We believe these targets can be achieved through organic growth, continued focus on high margin product offering, operating leverage and a disciplined approach to cash management.

4. Non-IFRS Financial Measures

Non-IFRS financial measure, like EBITDA, Adjusted EBITDA and core operating expenditures do not have any standardized meaning under IFRS and therefore may not be comparable to similar measures presented by other issuers.

EBITDA AND ADJUSTED EBITDA

For the three and twelve months ended December 31, 2017, we are disclosing EBITDA and Adjusted EBITDA, both of which are non-IFRS financial measures, as supplementary indicators of operating performance. We define EBITDA as net income or loss before interest, income taxes, amortization, and non-cash stock based compensation. Adjusted EBITDA removes unusual or non-operating items from EBITDA, such as merger and acquisition costs, restructuring charges, asset write offs, and foreign exchange gains and losses. We are presenting the non-IFRS financial measures in our filings because we use them internally to make strategic decisions, forecast future results and to evaluate our performance. We are also presenting these measures because we believe that our current and potential investors, and many analysts, use them to assess our current and future operating results and to make investment decisions. EBITDA and Adjusted EBITDA are not intended as a substitute for IFRS measures.

	Three months ended December 31,		Year ended December 31,	
US$ thousands	2017	2016	2017	2016
Net income from continuing operations	(44)	80	1,392	2,917
Add/(deduct):				
Interest	34	57	91	284
Income taxes expense/(recovery)	(180)	228	358	1,037
Amortization	805	426	2,044	1,623
Non-cash stock based compensation	112	151	609	700
EBITDA*	**727**	**942**	**4,494**	**6,561**
Merger and acquisition costs	155	294	485	666
Extraordinary legal costs/(recovery)	51	37	372	(161)
Restructuring	530	-	530	-
Other non-recurring costs/(recovery)	(141)	-	1,293	-
Foreign exchange (gain)/loss	(100)	43	(90)	(46)
Adjusted EBITDA *	**1,222**	**1,316**	**7,084**	**7,020**

**A non-IFRS measure defined above*

CORE OPERATING EXPENDITURES

For the three and twelve months ended December 31, 2017, we are presenting core operating expenditures, a non-IFRS financial measure, as a supplementary indicator of operating performance. We define "core operating expenditures" as operating expenditures excluding anomalies, such as the recognition of previously unrecognized investment tax credits or restructuring charges. We are presenting the non-IFRS financial measures in our filings because we use them internally to make strategic decisions, forecast future results and to evaluate our performance. We are also presenting these measures because we believe that our current and potential investors, and many analysts, use them to assess our current and future operating results and to make investment decisions

5. Operational and Business Highlights

DISCONTINUED OPERATIONS

On October 11, 2016, we announced our intention to divest the Power business segment, which is comprised of our Off-Grid (or Go Power! business) and On-Grid (or Solar EPC business) verticals.

On April 3, 2017, we completed the sale of the On-Grid vertical. The proceeds of the asset sale were $2.0 million. In addition to the proceeds, we retained responsibility for four construction portfolios that were at, or close to final completion. While most of the revenue related to these portfolios has been recognized, CSPC retained more than $6.1 million of accounts and notes receivable, due on final completion, of which $1.0 million has since been collected. The Company also incurred a $1.7 million one-time charge resulting from a mediated settlement agreement over a terminated project. At December 31, 2017, two of these portfolios were remaining, with a net receivable of $3.4 million. Once the requirements of the remaining portfolios are complete, CSPC will permanently cease its Solar EPC business. Alexander Capital Group Inc. advised on the divestiture.

On August 1, 2017, we completed the sale of assets of the Off-Grid Power business to Valterra Products, LLC, a portfolio company of G. Scott Capital Partners, LLC. The proceeds of the asset sale were $19.5 million subject to adjustments and holdbacks. A positive working capital adjustment of $1.1 million was received during the fourth quarter in 2017 based on certain working capital targets as set out in the sale agreement. Beyond the customary final adjustments and holdbacks, $1.0 million of the $19.5 million proceeds to be received by the Company was held back and excluded from the cash proceeds, as there is a high probability of this amount not ultimately being collected by the Company due to a tariff obligation that will likely need to be satisfied by the purchaser using these funds. If there is no tariff implemented by January 31, 2019, the Company will recognize this $1.0 million as additional proceeds from this transaction. At December 31, 2017, an escrow receivable of $2.0 million has been recorded under non-trade receivables. Canaccord Genuity Corp. served as financial advisor and Borden Ladner Gervais LLP acted as legal counsel to Carmanah, respectively.

The decision to divest these businesses was made to allow the Company to focus on its stated strategic vision, which is to become the global leader in signals and solar LED illumination for infrastructure.

SUBSTANTIAL ISSUER BID

On October 5, 2017, the Company completed a substantial issuer bid (the "Offer"). The Company has taken up and paid for 6,000,000 Shares (as defined below) at a price of Canadian dollar $5.00 per Share under the Offer for a total cost of $30.0 million. The Shares purchased represented 24.09% of the Shares outstanding immediately prior to the purchase. After giving effect to the purchase, the Company had 18,908,019 Shares issued and outstanding.

In total, 14,862,667 Shares were tendered to the Offer. The Shares were taken up on a prorated basis in accordance with the terms of the Offer. Payment for the purchased Shares was completed by Computershare Investor Services Inc. in accordance with the Offer.

GLOBALSTAR STRATEGIC AGREEMENT

On August 30th, 2016, we announced the signing of a strategic agreement (the "Globalstar Agreement") with Globalstar Inc. ("Globalstar"). Under the terms of the Globalstar Agreement we will collaborate on the design and manufacturing of a new solar powered M2M (Machine to Machine) satellite solution for Globalstar. In addition, we will be selecting the Globalstar low earth orbiting satellite constellation for remote connectivity of all our strategic products. The Globalstar Agreement includes a multi-year supply agreement whereby we will design, develop, and supply the next generation of Globalstar devices incorporating solar power charging capabilities. The introduction of solar technology will support longer battery life which would support a significant increase in data transmission capability on a device by device basis. The first Globalstar products are expected to be ready for shipment in Q1 2018.

The Globalstar Agreement is also the next step in our advanced Internet of Things strategy utilizing the Globalstar low orbit satellite network to provide remote monitoring to each Carmanah LED infrastructure product. We intend to equip all strategic products with this capability over the next three years.

ACQUISITION OF EKTA ASSETS

On January 2, 2017, the Company acquired the intellectual rights to a marine aids-to-navigation product line marketed under the EKTA brand ("EKTA") from Cybernetica, an Estonian company, which includes assignments to a number of sales and employment contracts, and some manufacturing assets. The purchase price totaled €1.35 million (USD $1.42 million), with €1.0 million paid on closing and a further €0.35 million to be paid on the first anniversary of the closing date. The €0.35 million payment was executed in January 2018.

A new legal entity, Sabik Oü, was incorporated in Estonia to complete the acquisition.

The acquisition was accounted for using the acquisition method in accordance with IFRS 3 – Business Combinations, with the results of operations consolidated with ours effective January 2, 2017 and has contributed incremental revenue of approximately $0.8 million and net losses of $0.4 million. The results have been reported within our Signals segment under our Marine vertical. The rationale for the acquisition was to strengthen our worldwide product portfolio and allow us to provide more comprehensive single-source solutions to our marine customers while increasing our market presence in Europe. The total acquisition related costs were approximately $0.2 million.

ACQUISITION OF VEGA INDUSTRIES LTD.

On August 1, 2017, we acquired the shares of Vega. Vega is a manufacturer in the worldwide marine aids-to-navigation market. The purchase price was NZD $12.0 million (USD $9.0 million) subject to adjustments and holdbacks. As part of the transaction NZD $2.0 million of the purchase price is contingent on Vega meeting certain revenue targets for its fiscal year ending March 31, 2018. If those targets are not met, Carmanah would be receiving a refund of this NZD $2.0 million. In accordance with IFRS, the Company has estimated the fair value of this contingent consideration on the date of the acquisition, and as a result, has recorded a receivable of NZD $2.0 million.

The acquisition was accounted for using the acquisition method in accordance with IFRS 3 – Business Combinations, with the results of operations consolidated with those of the Company effective August 1, 2017 and has contributed incremental revenues of $2.2 million and a net loss of $0.8 million. The results have been reported within our Signals segment under our Marine vertical. The rationale for the acquisition was to strengthen our worldwide product portfolio and allow us to provide more comprehensive single-source solutions to our marine customers. Total restructuring costs related to this acquisition totals $0.5 million (see section "Vega Restructuring Charges" below for further details). Total year-to-date costs related to this acquisition were approximately $0.5 million, with the expenses included under the caption "Other expenses".

VEGA RESTRUCTURING CHARGES

With the acquisition of Vega, as described above, a restructuring plan was developed in the latter half of 2017 to complete the integration of Vega into the rest of our Marine division. Under this plan, the Company will eliminate Vega's administrative, back office, and manufacturing functions and will migrate its manufacturing facility to Finland, Estonia and our contract manufacturer in the United States. Certain costs associated with this plan meet the definition of restructuring costs in accordance with IFRS – IAS 37, while other anticipated costs, yet to be incurred, do not meet this definition and thus will be recorded when incurred in 2018. The following table summarizes the costs incurred and balances outstanding with respect to restructuring over 2017 and 2018.

US$ thousands (unless noted)	Severance and related benefits	Other exit costs	Total
Balance at January 1, 2017	-	-	-
Charges	171	159	330
Cash payments	195	5	200
Balance at December 31, 2017	**366**	**164**	**530**

A total of 46 employees are to be terminated under this plan, with 9 employees terminated prior to December 31, 2017. A further 37 employees will be terminated in 2018.

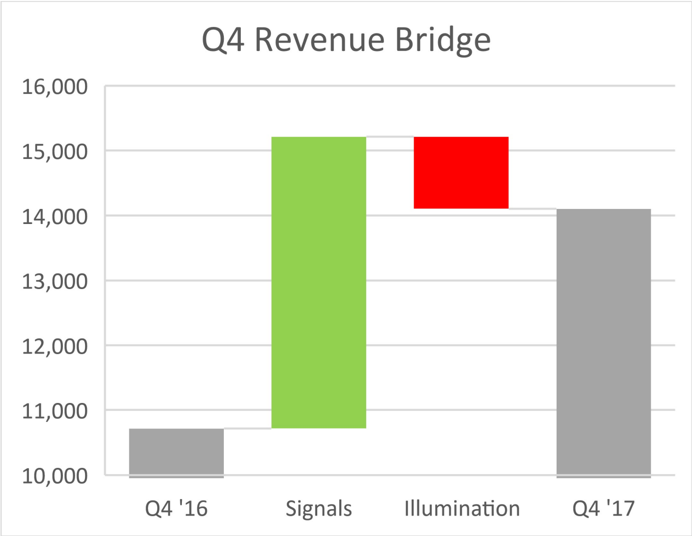
6. Financial Results

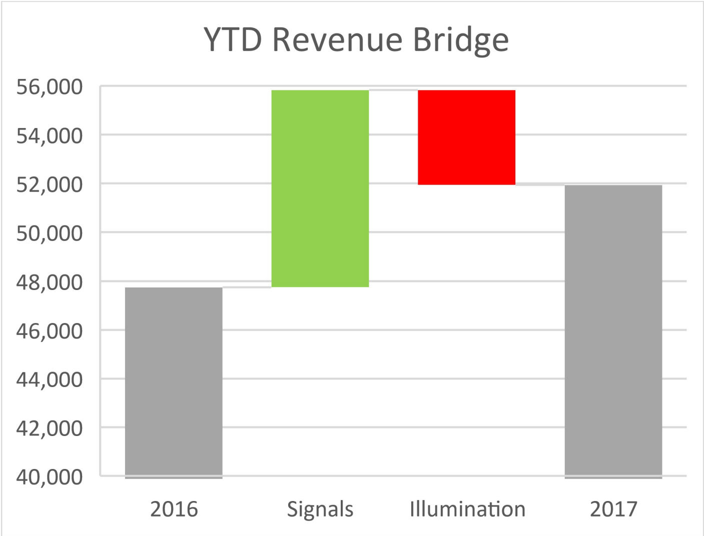
As previously noted, the information presented in the sections below has been derived from and should be read in conjunction with our consolidated financial statements for the three and twelve months ended December 31, 2017.

6.1 THREE AND TWELVE MONTHS ENDING DECEMBER 31, 2017 AND 2016

REVENUE

	Three months ended December 31,			Year ended December 31,		
US$ thousands	2017	2016	Change	2017	2016	Change
Revenues						
Signals	13,335	8,837	50.9%	48,000	39,915	20.3%
Illumination	768	1,877	(59.1%)	3,939	7,827	(49.7%)
Total revenues	14,103	10,714	31.6%	51,939	47,742	8.8%





Revenues for the three months ended December 31, 2017 were up by $3.4 million, or 31.6%, over the same period in 2016. Full year revenues for the year ended December 31, 2017 were up by $4.2 million, or 8.8%, over the same period in 2016. Comparative increase/decline by segment are attributable as follows:

- Signals - The increase in revenue for the three months and twelve months ended December 31, 2017 in our Signals segment was primarily due to increased revenue from our Marine, Offshore Wind, Traffic and Telematics verticals offset by declines in our Illumination and Aviation Obstruction verticals. Marine product sales were primarily higher due to the inclusion of a partial year of Vega. Offshore Wind had a strong backlog entering 2017 and maintained a strong momentum through the fourth quarter, which included expected completion of delayed projects. The Signals segment continued to recognize revenue under the Telematics vertical relating to the design of a remote monitoring product. Our Traffic vertical had an increase in sales in both the quarter and year-to-date as a result of the new Canadian distributor increasing adoption of our products in the Canadian market and an overall increase in sales across all markets. Our Aviation Obstruction vertical experienced a slowdown in domestic onshore wind projects leading to decreased revenues.

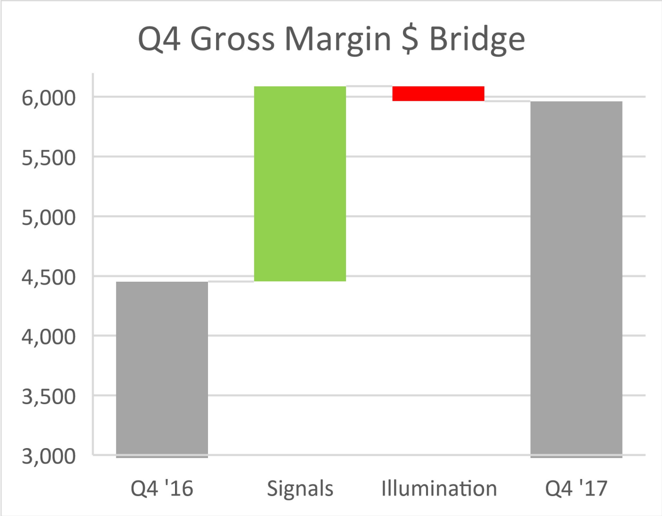
- Illumination – The decrease in the Illumination vertical for the three months ended December 31, 2017 and throughout the year was due to the transition from our legacy products to the new EverGen product. During the launch, several unexpected component shortages substantively restricted our ability to produce and ship. The Company anticipates normal production and delivery lead times to resume in the first quarter of 2018.

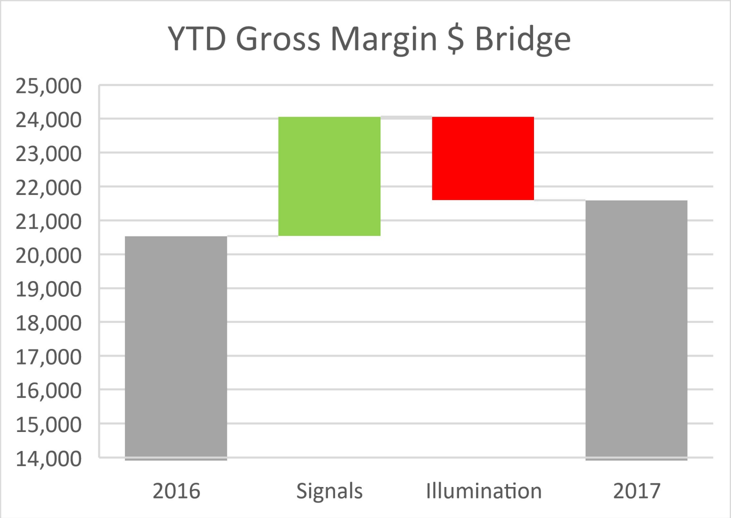
SALES BY GEOGRAPHIC REGION

Approximately 57.5% of our revenues for 2017 were from outside North America, indicating an upward trend compared to the same period in 2016 with 52.9 % of revenue earned internationally. Sales from Vega was a main contributor to this growth.

GROSS MARGINS

	Three months ended December 31,			Year ended December 31,		
US$ thousands	2017	2016	Change	2017	2016	Change
Gross margin%						
Signals	43.6%	47.3%	(3.7%)	45.0%	45.3%	(0.3%)
Illumination	19.0%	14.5%	4.5%	(0.2%)	31.3%	(31.5%)
Total gross margin%	**42.3%**	**41.6%**	**0.7%**	**41.6%**	**43.0%**	**(1.4%)**





Gross margin percentage for the three months ended December 31, 2017 was 42.3%, up 0.7%, over the same period in 2016. Gross margin percentage for the year ended December 31, 2017 was 41.6% down 1.4%, over the same period in 2016. On a segmented basis, our Signals segment gross margin percentage decrease was primarily due to a shift in sales mix. The decrease in gross margin in the Illumination segment was due to a $0.8 million write down of obsolete inventory caused by the development of the new EverGen product offering. The year-to-date decrease is also due to $0.3 million related to a product sizing correction. Excluding the inventory obsolescence write-down and product resizing costs, Illumination gross margin for the year would have been 27.8%.

OPERATING EXPENSES

	Three months ended December 31,			Year ended December 31,		
US$ thousands	2017	2016	Change	2017	2016	Change
Sales and marketing	1,236	1,194	3.5%	4,872	4,658	4.6%
Research and development	1,228	529	132.1%	3,125	2,388	30.9%
General and administration	3,289	2,079	58.2%	10,646	9,485	12.2%
Restructuring costs	530	-	n.a.	530	-	n.a.
Total operating expenditures	**6,283**	**3,802**	**65.3%**	**19,173**	**16,531**	**16.0%**
Non-cash items:						
Amortization	805	426	89.0%	2,044	1,623	25.9%
Stock-based payments	112	151	(25.8%)	609	700	(13.0%)

	Q1 '16	Q2 '16	Q3 '16	Q4 '16	Q1 '17	Q2 '17	Q3 '17	Q4 '17
Sales and marketing	9.4%	9.3%	9.3%	11.1%	9.9%	9.7%	9.3%	8.8%
Research and development	5.4%	4.6%	5.2%	4.9%	5.7%	6.1%	3.5%	8.7%
General and administration	19.8%	17.1%	23.8%	19.4%	21.0%	18.9%	18.7%	23.3%
Total core operating expenditures *	**34.6%**	**31.0%**	**38.3%**	**35.5%**	**36.6%**	**34.7%**	**31.5%**	**40.8%**

* Core operating expenditures is a non-IFRS measure which is discussed in section 4.

Our total operating expenses for the year ended December 31, 2017 were $19.2 million, up 16.0% from $16.5 million in 2016. This increase is due to higher product development activities, the amortization of acquired intangible assets, restructuring costs and the overall increase of G&A expense with the acquisition of Vega. Our operating expenditures for the fourth quarter of 2017 were $6.3 million, up from $3.8 million over the same period in 2016. The increase was mostly attributable to increased product development activities and the restructuring costs and overall increase in G&A expense with the acquisition of Vega.

SALES AND MARKETING
Our sales and marketing expenses for the year were $4.9 million, up from $4.7 million over the prior year. The increase is due to the inclusion of five months of related costs from Vega. In the fourth quarter of 2017, sales and marketing related expenses were in line with expectations.

RESEARCH AND DEVELOPMENT
Our research and development expenses for the year were $3.1 million, up from $2.4 million in the prior year. The increase is due to the higher product development activities during the year. In the fourth quarter of 2017, these expenses were $1.2 million, up from $0.5 million in the same period in 2016 due to increase of salaries and related expenses.

GENERAL AND ADMINISTRATION
Our general and administration ("G&A") expenses for 2017 were $10.6 million, up from $9.5 million over the prior year. The increase was mainly attributable to five months of general and administration expenses from Vega. In the fourth quarter of 2017, these expenses were $3.3 million, up from $2.1 million in the same period of 2016, the increase was due to the increases salaries and related expenses, increased amortization costs, as well as an unusual bad debt recovery during the fourth quarter in 2016.

OTHER INCOME (EXPENSE)
Other income or expenses include various non-operating expenditures, including merger and acquisition costs, foreign exchange, and restructuring charges. For the year ended December 31, 2017, we had other expenses of about $0.7 million, compared to other expenses of $0.1 million in the same period in 2016. The increase is mainly due to

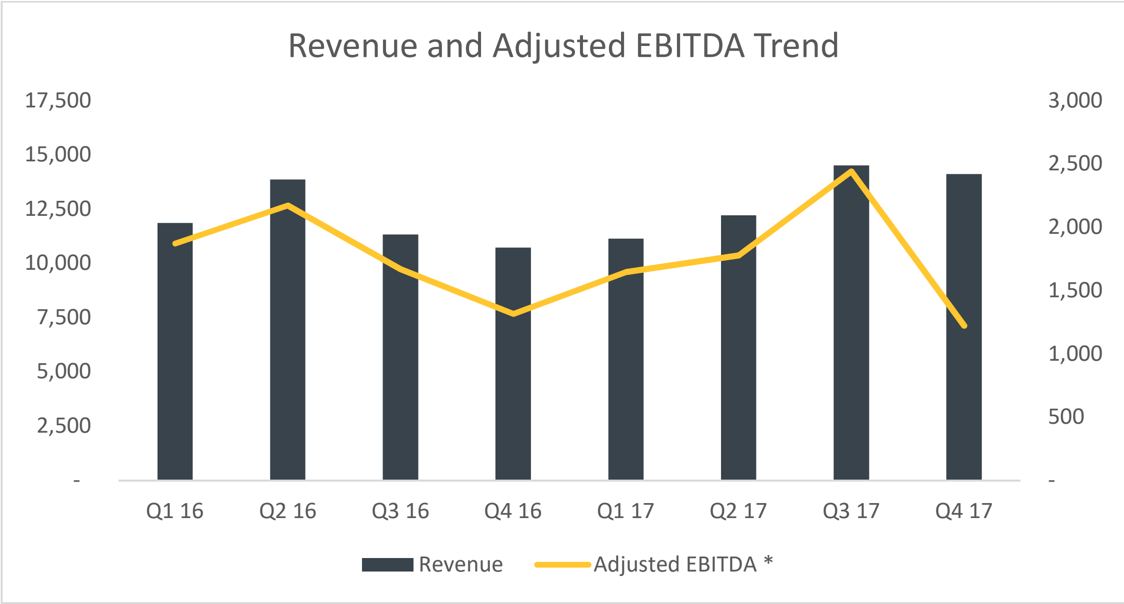
acquisition costs related to purchasing Vega in August 2017.

INCOME TAXES

Income tax expense for the year was $1.8 million, compared to $1.5 million in the same period in 2016. Income tax from continuing operations was $ 0.4 million compared to $1.0 million in the same period in 2016. Income tax from discontinued operations was $1.4 million, of which the majority related to the disposal of the discontinued operations, compared to $0.5 million for 2016.

6.2 QUARTERLY TRENDS

REVENUE AND ADJUSTED EBITDA TREND



** EBITDA and Adjusted EBTIDA are non-IFRS measures see section 4 for discussion.*

US$ thousands (unless noted)	Q1 '16	Q2 '16	Q3 '16	Q4 '16	Q1 '17	Q2 '17	Q3 '17	Q4 '17
Revenue	11,860	13,852	11,316	10,714	11,127	12,201	14,508	14,103
Gross margin %	44.4%	41.1%	45.3%	41.6%	44.9%	42.7%	37.4%	42.3%
Net income/(loss), cont ops	781	934	1,122	80	609	509	318	(44)
Net income/(loss), total ops	1,702	1,292	967	267	1,102	1,025	10,408	(1,184)
EPS – Basic, cont ops	0.03	0.04	0.05	0.00	0.02	0.02	0.01	(0.00)
EPS – Diluted, cont ops	0.03	0.04	0.05	0.00	0.02	0.02	0.01	(0.00)
EPS – Basic, total ops	0.07	0.05	0.04	0.01	0.04	0.04	0.42	0.06
EPS – Diluted, total ops	0.07	0.05	0.04	0.01	0.04	0.04	0.41	0.06
Adjusted EBITDA(1)	1,870	2,171	1,668	1,316	1,645	1,777	2,440	1,222

(1) EBITDA and Adjusted EBTIDA are non-IFRS measures see section 4 for discussion.

Our quarterly revenues fluctuate within our business segments primarily due to product mix and the nature of our sales within our market segments. A large portion of our revenues are derived from infrastructure projects that often have long tender processes and fluctuating timelines. This is most pronounced within our Airfield Lighting, Offshore Wind, and Illumination businesses and to a lesser extent within our Marine and Traffic verticals. Following are comments on quarter to quarter changes:

- Q4 2015 to Q1 2016 – The decrease in revenue was attributable to lower Signals and Illumination sales, both of which were primarily due to large project shipments in the quarter.

- Q1 2016 to Q2 2016 – Although overall revenue was up from Q1 to Q2 2016, we saw a substantial increase in our Illumination segment which rebounded from a soft first quarter.
- Q2 2016 to Q3 2016 – The decrease in revenue of $2.6 million was primarily due to the project nature of the Illumination segment. Although revenue was down, our net income increased by $0.2 million primarily relating to the recovery of legal expenses as described in note 7.5.
- Q3 2016 to Q4 2016 – The decrease in revenue of $0.6 million was primarily due to lower comparative Signals business revenues. There was no change in market or competitive activity in this period. Rather, we regard this change as a normal fluctuation due to the project nature of these businesses. The reduction in net income resulted from lower sales and gross margins.
- Q4 2016 to Q1 2017 – The increase in net income in Q1 2017 of $0.5 million is attributable to lower revenue and the provision for obsolete inventory in Q4 2016.
- Q1 2017 to Q2 2017 – The decrease in net income in Q2 2017 of $0.1 million is attributable to lower revenues and an increase in non-recurring expenditures in other expenses as described in section 6.
- Q2 2017 to Q3 2017 – The decrease in net income from continuing operations in Q3 2017 of $0.2 million is primarily attributable to lower gross margins resulting from the $0.8 million inventory write-down by the Illumination segment.
- Q3 2017 to Q4 2017 – Decrease in revenue of $0.4 million attributable to the decrease in Illumination revenue offset by the strong performance from most Signals verticals. Net income decreased due to the recognition of restructuring expenses for Vega combined with poor performance from our Illumination business.

6.3 SELECT ANNUAL INFORMATION

US$ thousands (unless noted)	2017	2016	2015
Revenue	51,939	47,742	43,090
Gross Margin	21,597	20,541	17,759
Net Income/(Loss) from continuing operations	1,392	2,917	9,694
Net Income/(Loss) per share (Basic / continuing operations)	0.06	0.12	0.44
Net Income/(Loss) per share (Diluted / continuing operations)	0.06	0.12	0.43
Net Income/(Loss)	11,351	4,228	10,433
Net Income/(Loss) per share (Basic)	0.48	0.17	0.48
Net Income/(Loss) per share (Diluted)	0.47	0.17	0.46
Total assets	77,157	86,907	89,976
Adjusted EBITDA	7,084	7,020	6,308

The revenue growth of $4.7 million from 2015 to 2016 was due to a combination of acquired businesses (non-organic) and organic growth. The non-organic growth was associated with the acquisition of the Sabik Group, which was acquired on July 2, 2015. The organic growth was spread amongst various verticals within our Signals segment. The growth in the Signals segment was offset by a $1.6 million decline in our Illumination segment.

During 2017, the Company maintained the strategy of growing revenue organically and through acquisition. As a result of this strategy, revenue increased as a result of the EKTA and Vega acquisitions as well as organic growth in multiple Signals verticals – specifically Offshore Wind, Traffic, Telematics and through further synergies in our Marine product portfolio. Although there was a significant decline in Illumination revenue of $3.9 million, the Company still achieved overall revenue growth of 8.8%. The net income decrease from 2016 to 2017 was the result of poor performance from our Illumination division, acquisition of Vega and restructuring costs associated with Vega.

7. Liquidity, Capital Resources and Other Disclosures

7.1. SUMMARY OF CONSOLIDATED STATEMENT OF CASH FLOWS

	Year ended December 31,		
US$ thousands	2017	2016	Change %
Net cash provided by operating activities	5,077	6,445	(21.2%)
Net cash provided/(used) in investing activities	9,154	(815)	n.a.
Net cash used in financing activities	(23,493)	(2,610)	800.1%
Net effect of exchange rate changes on cash	519	(18)	n.a.
Total (decrease)/increase in cash from continuing operations	**(8,743)**	**3,002**	n.a.

CASH PROVIDED BY OPERATING ACTIVITIES

During the year ended December 31, 2017, cash provided by our operating activities, excluding changes in non-cash working capital, was $5.7 million, down from $6.0 million in the same period in 2016. The decrease was mainly due to a lower net income for 2017 offset by higher amortization expenses recognized during 2017 from intangible assets acquired throughout the year. We actively manage our working capital by monitoring inventory turnover data, collection of accounts receivable, and taking advantage of trade discounts and/or extended payment terms granted by suppliers.

CASH PROVIDED / USED IN INVESTING ACTIVITIES

During the year ended December 31, 2017, cash provided by our investing activities was $9.2 million, up from $(0.8) million in the same period in 2016. The increase was largely due to the sale of our Off-Grid and On-Grid businesses. The 2016 amounts primarily relate to investments in ERP, CRM and other supporting systems, as well as production assets.

CASH USED IN FINANCING ACTIVITIES

During the year ended December 31, 2017, cash used in financing activities was $23.5 million, compared to cash used of $2.6 million in the same period of 2016. The increase in the usage of cash for financing activities was mainly due to Substantial Issuer Bid in Q4 2017.

7.2 LIQUIDITY AND CAPITAL RESOURCE MEASURES

On December 31, 2017, our overall working capital was $21.2 million, down from $21.6 million at December 31, 2016.

In the past, our primary source of liquidity has been from equity issuances and, to a lesser extent, our credit facility, which is discussed in the section below. We believe we have ample capital resources and liquidity for our current business for the foreseeable future. However, depending on the size of future acquisitions and investments we may be required to raise additional equity or debt.

7.3 CREDIT FACILITIES

In early 2015, we signed a new credit facility (the "Facility") with Canadian Imperial Bank of Commerce ("CIBC"). The multifaceted Facility provides credit up to $25.75 million through (1) a $10 million 364-Day Revolving Credit, (2) a $10 million Term Acquisition Credit Facility, (3) $3.75 million for Letters of Credit, and (4) $2.0 million for trading room and other liabilities. Our ability to draw on the 364-Day revolver, the credit for the letters of credit, and credit for trading room contingent liabilities is subject to certain covenants. Access to the Term Acquisition Credit Facility requires CIBC's review and approval of the specific acquisition transaction.

On July 24, 2017, the Company amended the credit facility with Canadian Imperial Bank of Commerce (the "CIBC Facility"). The CIBC Facility provided up to $25.5 million through: a) a $10.0 million 364-Day Revolving Credit Facility, expiring June 15, 2018; b) a $15.0 million revolving Term Acquisition Credit Facility; and c) $0.5 million for trading room on contingent liabilities. The Company's ability to draw on the 364-Day Committed Revolving Credit, Revolving Term Acquisition Credit, and Credit for Trading Room Contingent Liabilities is subject to borrowing covenants and conditions typical to these credits. Each of the credits have separately applicable interest rates. On July 31, 2017, the Company repaid in full the balance of term acquisition loan with cash on hand. At December 31, 2017, $7.0 million was drawn on the 364-Day Revolving Credit Facility. At December 31, 2017, there was a) $3.0 million available under the 364-Day Revolving Credit Facility; b) $15.0 million available under the revolving Term Acquisition Credit Facility; and c) $0.5 million available for trading room on contingent liabilities.

The Sabik Group has access to an operating line and loan with Nordea Bank Finland, a Finnish financial institution. This debt is secured by us through a letter of credit drawn from the CIBC credit facility noted above. In March 2016, our German subsidiary, Sabik Offshore GmbH, secured a new credit facility with the Deutsche Bank (the "Deutsche Facility"). The Deutsche Facility provides credit up to $3.6 million (€3.0 million) through $2.4 million (€2.0 million) of revolving credit and $1.2 million (€1.0 million) for guarantees and was secured to support ongoing working capital needs. Interest on the revolving credit facility is variable and is based on EURIBOR plus 1.5%. The Deutsche Facility has been guaranteed through a $2.4 million (€2.0 million) Letter of Credit issued on the CIBC Facility and a security over inventory within Sabik Offshore GmbH. At December 31, 2017 and 2016, no amounts were drawn on the revolving credit facility, but $0.5 million (€0.4 million) was drawn on the Nordea operating line.

7.4 CONTRACTUAL OBLIGATIONS AND COMMITMENTS

We utilize several contract manufacturers who build and supply our manufactured products. Our agreements with these contract manufacturers generally require us to be liable for inventory and outstanding committed purchase orders required to support our business. If one of these agreements is terminated, we would be required to purchase the associated underlying inventory or arrange for a new contract manufacturer to acquire and hold it in a similar capacity. At present, we have relationships with two significant contract manufacturers. Under the terms of the contract manufacturing agreements, we are required to purchase excess raw inventory in situations where our demand forecasts for individual products is less than actual purchases. At December 31, 2017, our contract manufacturers held approximately $1.5 million (December 31, 2016 - $2.4 million) in inventory and $1.2 million (December 31, 2016 - $0.7 million) in outstanding committed purchase orders.

We have several operating leases that cover facilities and equipment as well as committed contracts covering various IT services. The following table outlines the minimum amounts due under these agreements in future years as at December 31, 2017:

US$ thousands	Facility leases	Insurance	IT services	Vehicle leases	IT and other contracts	Total
Not later than 1 year	638	79	45	38	90	890
2 year to 3 years	990	-	28	4	116	1,138
Greater than 3 years	176	-	7	-	14	197
Total	1,804	79	80	42	220	2,225

7.5 CLAIMS AND LAWSUITS

On July 18, 2013, we were named in a United States District Court lawsuit filed by R.D. Jones, Stop Experts, Inc., and RRFB Global, Inc. (collectively the "Plaintiffs") alleging patent infringement with respect to a specific flash pattern used in our solar powered flashing beacons for the traffic safety market and other claims relating to advertising and business practices. Various actions were taken in regards to this matter, including a successful application to have the underlying patents reexamined by the U.S Patent Office which resulted in many aspects of the patents being rejected. The Plaintiffs appealed this judgment. Pending that action, the original court proceedings were stayed.

In early March 2015, we filed a civil lawsuit in the Supreme Court of British Columbia against Royal & Sun Alliance Insurance Company of Canada ("RSA") and Integro (Canada) Ltd. ("Integro") operating as Integro Insurance Brokers. The lawsuit has been filed against RSA to obtain coverage of the claims brought in the US and indemnity of defence costs incurred in the US litigation. The lawsuit against Integro alleged negligence for failing to notify RSA of the above-noted US claims in a timely manner. The lawsuit sought a declaration of coverage and to recover legal defence costs with respect to the US litigation. In late April 2016, we reached a settlement with the defendants during mediation as described in section 3. Under the settlement, we received CAD $0.5 million for past defense costs and damages. These funds were received in late July 2016. Within the settlement agreement, RSA has agreed to cover 70% of future defense costs incurred on a go forward basis. However, if the underlying action proceeds to trial and a verdict is rendered, a reallocation of the go forward defense costs may occur.

In June 2016, we were named in another lawsuit filed in a United States District Court filed by the Plaintiffs alleging additional patent infringement of a patent which was granted in September 2015. In early 2017, this case was stayed pending a Reissue Patent Application associated with the new patent involved in the second case. On March 20, 2018, the Company agreed to purchase the patents in question from R.D. Jones for a total price of $2.4 million to be paid over a 4-year period. As a result of this purchase, this matter is considered closed with no further obligations by either party.

The Company's wholly owned subsidiary, Carmanah Solar Power Corp. ("CSPC"), whose assets were sold along with the On-Grid vertical as described in note 13 of the audited consolidated financial statements for the year ended December 31, 2017, contracted with Hydro Ottawa Holding Inc. ("Hydro Ottawa") for the design and build of eight solar power projects totaling $4.8 million. These contracts were largely completed and invoiced when on January 3, 2017 Hydro Ottawa served notice to terminate the contract citing project delays. Subsequently, on June 21, 2017, Hydro Ottawa provided notice that it would incur costs of between $0.9 million and $1.0 million to fully complete the contracts. CSPC is disputing these amounts. CSPC believes that the work required to complete and test the projects is inconsequential. Hydro Ottawa is also seeking an additional amount for liquidated damages in the amount of $0.9 million and an additional amount for lost revenue in the amount of $0.7 million. This receivable, along with several others was not sold along with the rest of the assets of CSPC and has been retained by the Company. On March 14, 2018, CSPC entered into a settlement with Hydro Ottawa. As a result of the resolution, Carmanah will incur a one-time charge of $1.7 million, negatively impacting the net income from discontinued operations in the fourth quarter of 2017. This matter is considered closed with no further obligations by either party.

In June 2017, the Company was named in an Ontario Supreme Court claim filed by Ameico Enterprise under the Construction Lien Act stating a breach of trust for failure to pay contracts for change orders in the amount of $0.7 million. The lawsuit seeks to recover legal expenses, interest on amounts owing and damages. As at December 31, 2017, the Company has recorded a provision of $0.2 million as this represents the Company's best estimate as to the likely amount that will be paid in order to settle this claim, including legal costs.

7.6 CONTINGENT LIABILITY

We have entered into agreements with third parties that include indemnification provisions that are customary in the industry. These indemnification provisions generally require us to compensate the other party for certain damages and costs incurred as a result of third party claims or damages arising from these transactions. The maximum amount of potential future indemnification is unlimited; however, we currently hold commercial and product liability insurance. This insurance limits our exposure and may enable us to recover a portion of any future amounts paid. Historically, we have not made any indemnification payments under such agreements and we believe that the fair value of these indemnification obligations is minimal. Accordingly, we have not recognized any liabilities relating to these obligations for any period presented.

7.7 OFF BALANCE SHEET ARRANGEMENTS

We have not entered into any off balance sheet arrangements other than standard office/facility lease agreements and vendor managed inventory as noted under section 7.4, "Contractual Obligations and Commitments".

7.8 FINANCIAL INSTRUMENTS AND OTHER INSTRUMENTS

The fair value of our accounts receivable, accounts payable and accrued liabilities approximates their carrying value due to the immediate or short-term maturity of these financial instruments.

We are exposed to foreign exchange risks as we transact business and have working capital denominated in multiple currencies. We attempt to minimize our exposure through managing our working capital and entering foreign exchange products or contracts when and where appropriate. As of December 31, 2017, the Company entered into contracts to purchase a total amount of $1.85 million Canadian dollars at any time during 2018 at guaranteed rates in exchange of $1.46 million U.S. dollars. These contracts were entered into for the purpose to meet operational needs and not used as speculative investments. The mark-to-market gain of $0.02 million as of December 31, 2017 has been included as cash equivalents on the Statement of Financial Position.

7.9 RELATED PARTY TRANSACTIONS

During the first quarter the company settled an outstanding receivable of $0.08 million from a director of the company which originally arose from a warranty indemnity related to the acquisition of Sol Inc. The settlement resulted in the write-off in the amount of $0.04 million of the receivable balance, with the remaining $0.04 million collected on April 24, 2017.

In relation to the change of Carmanah's board of directors, the Company has agreed to pay $0.1 million of the associated legal costs incurred by a former director.

The Company purchased $1.0 million (December 31, 2016 - $0.9 million) of inventory from a vendor in which the previous Chairman of the Board has significant influence. The relationship with this vendor existed prior to the Chairman's appointment and there are no special terms because of this relationship. At year ended December 31, 2017, the associated amounts owing in trade and other payables was nil (December 31, 2016 - $0.03 million).

7.10 PROPOSED TRANSACTION

None.

7.11 SUBSEQUENT EVENTS

See section 7.4, "Claims and Lawsuits".

OUTSTANDING SHARE DATA

The common shares of the Company (the "Shares") trade on the Toronto Stock Exchange ("TSX") (TSX: CMH), and as at December 31, 2017 we had 18,922,210 fully issued and outstanding Shares. The following table summarizes the outstanding shares, options and other outstanding stock units stated in CAD.

	MARCH 23, 2018	DECEMBER 31, 2017	SEPTEMBER 30, 2017	JUNE 30, 2017	MARCH 31, 2017
Share price – closing (CAD$)	4.20	4.65	4.69	4.14	3.92
Market capitalization (CAD$, in thousands)	79.473	87,988	116,817	101,985	96,442
Outstanding					
Shares	18,922,210	18,922,210	24,907,656	24,633,950	24,602,504
Options	1,671,555	1,686,129	1,595,544	1,946,792	1,928,710

8. Critical Accounting Estimates and Accounting Policy Developments

8.1 CRITICAL ACCOUNTING ESTIMATES

Our financial statements are prepared in accordance with IFRS. The application of IFRS requires that we make estimates that affect our reported amounts of assets and liabilities and the disclosure of contingencies at the date of the financial statements and the reported amounts of revenues and expenses during the period. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. We evaluate our estimates and assumptions on an ongoing basis. Our actual results may differ significantly from these estimates. Unless otherwise noted the estimates are inclusive of all our reportable market segments described in section 2.

The significant accounting policies and estimates are discussed below:

Accounting	Estimates
Forfeiture rates associated with share-based payments	In determining share-based payments expense, we make estimates related to forfeiture rates, volatility and expected term for each specific grant. Forfeiture rates are used to estimate the number of awards that are expected to vest considering employee turnover rates. Expected volatility has been based on an evaluation of the historical volatility of the Company's share price, particularly over the historical period that commensurate with the expected term. The expected term of the instruments is estimated based on historical experience and general option holder behavior. The changes in estimates are recognized in the Consolidated Statements of Income and Total Comprehensive Income in the year that they occur. Current forfeiture rates applied to grants range from 14% to 26% and vary depending upon the employee make-up of the associated grants.
Impairment of assets	Each year the Company makes significant judgments in assessing if goodwill, tangible or intangible assets have suffered an impairment loss. The Company's impairment analysis involves the determination of identification of cash generating unit (CGU). The use of an income approach is applied that relies on estimating the future net cash flows and applying the appropriate discount rate to those future cash flows. Significant management judgment is necessary to evaluate the impact of operating and economic changes on each CGU or underlying asset. Critical assumptions include projected sales growth and market opportunities, future profitability of system sales, operating and administrative expense, capital expenditures, an appropriate discount rate, and in some situations, the cost of disposal. Non-current assets classified as held to sale are recorded at the lower of its carrying value or fair value less costs to sell. Management judgment is necessary to evaluate the fair value less costs to sell and critical assumptions include market opportunities and costs to sell. During the fiscal years ended December 31, 2017 and 2016, there were no impairment losses. Our impairment analysis at December 31, 2017 involved the use of income approach that relied on estimating the future net cash flows and applying an appropriate discount rate to those future cash flows. This approach employed the following key assumptions: anticipated sales growth in key markets, changes in gross margins due to pricing changes for materials and the cost of manufacturing, changes in operating and administrative expenses, anticipated capital expenditures, and an appropriate discount rate. The forecast period utilized in the analysis covered 2018 through 2022. For the assessment of the Goodwill and intangibles acquired in the Sabik acquisition and Vega acquisition, key drivers included anticipated sales growth of 5% for the next five years, a terminal growth rate of 2% and a weighted average cost of capital of 13.3%. The results of the analysis indicated an excess over carrying value of $5.0 million. For the assessment of the Goodwill and intangibles acquired in the Sol acquisition, key drivers included anticipated sales growth estimated between 7.1% and 16.7% for the next five years, a terminal growth rate of 2% and a weighted average cost of capital of 12.3%. The results of the analysis indicated an excess over carrying value of $1.9 million.

Accounting	Estimates
Income Tax	Carmanah calculates income tax provisions in each of the jurisdictions in which it operates. Actual amounts of income tax expense only become final upon filing and acceptance of the tax return by the relevant authorities, which occurs subsequent to the issuance of the financial statements. Additionally, estimation of income taxes includes evaluating the recoverability of deferred tax assets based on an assessment of the ability to use the underlying tax deductions before they expire against future taxable income. The assessment is based upon existing tax laws and estimates of future taxable income. To the extent estimates differ from the final tax returns, earnings would be affected in a subsequent period.
Assets and liabilities acquired in business combinations	In a business combination, Carmanah may acquire the assets and assume certain liabilities of an acquired entity. The estimate of fair values for these transactions involves judgment in determining the fair values assigned to the tangible and intangible assets (e.g. technology, brand, order backlog, etc.) acquired and the liabilities assumed on the acquisition. The determination of these fair values involves a variety of assumptions, including estimates surrounding costs to acquire or reproduce a similar asset, expected cash flows, discount rates, etc. Contingent consideration resulting from business combinations is recorded at fair value at the acquisition date as part of the business combination based on expected discounted cash flows, and is subsequently remeasured to fair value at each reporting date with any subsequent change in fair value recognized in the Consolidated Statements of Income and Total Comprehensive Income.

8.2 FUTURE CHANGES IN ACCOUNTING POLICIES

Certain pronouncements have been issued by the International Accounting Standards Board ("IASB") or the International Financial Reporting Interpretations Committee ("IFRIC") that will become effective in future accounting periods. The following is a summary of significant standards that may have an impact on our future financial statements.

- IFRS 9, Financial Instruments ("IFRS 9") – replaces IAS 39, Financial Instruments: Recognition and Measurement ("IAS 39"). IFRS 9 simplifies the classification and measurement requirements for financial instruments, which replaces the multiple classification and measurement models in IAS 39. It is anticipated that these changes would be effective for annual periods beginning on or after January 1, 2018, with earlier adoption permitted.
- IFRS 15, Revenue from Contracts with Customers ("IFRS 15"). IFRS 15 clarifies the principles for recognizing revenue and cash flows arising from contracts with customers. It is anticipated these changes will be effective for annual periods beginning on or after January 1, 2017, although this was tentatively pushed back to January 1, 2018 at the IASB's meeting on April 28, 2015.
- IFRS 16, Leases ("IFRS 16"). IFRS 16 replaces IAS 17. Under IFRS 16, a lease will exist when a customer controls the right to use an identified asset as demonstrated by the customer having exclusive use of the asset for a period of time. IFRS 16 introduces a single accounting model for lessees and all leases will require an asset and liability to be recognized on the Statement of Financial Position at inception. The accounting treatment for lessors will remain largely the same as under IAS 17. The standard is effective for annual periods beginning on or after January 1, 2019 with early adoption permitted, but only if the entity is also applying IFRS 15.
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With respect to IFRS 9 and IFRS 15, the Company has undertaken a project to assess the impact of these two new standards on each of its subsidiaries. Although the work under this project continues, at this time, the Company has determined that neither of these standards is expected to have a material impact on the Company's statement of financial position or statement of income. The Company does not intend to adopt IFRS 16 early and will be completing an analysis of this standard during 2018.

8.3 DISCLOSURE CONTROLS AND INTERNAL CONTROLS OVER FINANCIAL REPORTING

Disclosure controls and procedures ("DC&P") have been designed to provide reasonable assurance that information required to be disclosed is accumulated and communicated to management as appropriate to allow timely decisions regarding required disclosure. Internal control over financial reporting ("ICFR") have been designed to provide reasonable assurance regarding the reliability of financial reporting. Pursuant to Multilateral Instrument 52-109, the Chief Executive Officer and Chief Financial Officer, collectively referred to as Officers, are responsible for over- seeing the establishment and maintenance of disclosure controls and procedures as well as internal controls over financial reporting.

DISCLOSURE CONTROLS

Our Officers and management have evaluated the effectiveness of our DC&P as at December 31, 2017 as required by Canadian securities laws. The evaluation approach involved looking at the size, nature and state of development of the business and thus used a top down risk-based approach to focus evaluation on areas that were deemed to provide the greatest risk to a material misstatement. Our evaluation also considered our corporate disclosure procedures and the functioning of our Officers, other executive officers, management, Board of Directors, and Audit Committee. Based on this evaluation, our Officers concluded that the Company's DC&P were effective, at a reasonable assurance level, to ensure that material information relating to the Company and its consolidated subsidiaries would be made known to them by others within those entities, particularly during the period in which the MD&A and the consolidated financial statements contained in this report were being prepared.

INTERNAL CONTROL OVER FINANCIAL REPORTING

Management is responsible for establishing and maintaining adequate ICFR. ICFR is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. Due to its inherent limitations, ICFR may not prevent or detect misstatements. Management has assessed the effectiveness of the Company's ICFR using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control – Integrated Framework (2013). Based on this assessment, management has determined that the Company's ICFR was effective as of December 31, 2017.

LIMITATION ON SCOPE OF DESIGN

For the twelve months ended of 2017, the scope of DC&P and ICFR was limited to exclude controls, policies and procedures associated with the acquisition of the EKTA assets and the associated processes which we completed on January 2, 2017, and the acquisition of Vega which we completed on August 1, 2017, both described in section 5.

9. Risks and Risk Management

In the course of our operations, we are exposed to various business risks and uncertainties that can affect our financial condition. While some financial exposures are reduced through insurance, hedging and other risk management measures we have in place, there are certain cases where the market and operating risks are driven by external factors beyond our influence and control. A discussion of certain risks that may affect us is included in our MD&A and annual information form for the year ended December 31, 2017 filed on SEDAR at www.sedar.com.

Area of Risk	Description
Competitive Environment	The competitive environment varies between our different business segments and thus includes companies who (1) manufacture, sell and install off-grid lighting devices and signals, and (2) provide off-grid power solutions. We compete based on product performance, product features, price, quality and post-installation product support. Our ability to compete successfully depends on factors within and beyond our control, including successful and timely development of new products, product performance and quality, product availability, intellectual property protection obtained by us and our competitors, customer service, pricing, industry trends and general economic trends. We anticipate that certain competitors may transition to solar lighting in the future. If and/or when this transition occurs, the greater name recognition and financial resources of these competitors may make it difficult for us to compete. To be successful, we will need to keep pace with rapid changes in lighting technology, changing customer requirements, new product introductions by competitors and evolving industry standards, any of which could render our existing products obsolete if we fail to respond in a timely manner. Development of new products incorporating advanced technology is a complex process subject to numerous uncertainties. We have in the past experienced, and could in the future experience, delays in introduction of new products. If others develop superior innovative proprietary lighting technology our competitive position may be harmed and it may not achieve sufficient growth in revenue to attain, or sustain, profitability.
Competition with Other Energy Sources	Off-grid LED lighting products compete with products powered by conventional energy and other sources of renewable energy. There is a risk that similar products with alternative power sources will enjoy greater policy support or provide a more cost-effective alternative to conventional lighting than our products.
Technological Changes	Our products rely on us keeping pace with technological changes. Failure to keep pace with state-of-the-art technologies and methodologies may have a materially adverse effect

on our results. Evolving industry standards and/or customer needs may influence demand for our products. Our products may be rendered obsolete or less marketable due to technological advances made by competitors. To maintain our current market share, we may have to make substantial investments in product innovation and development.

Anticipated Adoption Rates for Solar LED Lighting	While we have invested heavily in the development of solar LED lighting products, this technology is still in its early stages. If the rate of solar LED lighting adoption is slower than the anticipated commercial trends and we are unable to meet the forecasted sales volumes, we may not generate sufficient revenues to sustain profitability. In addition, demand for solar LED lighting products in our targeted markets may not develop or may develop to a lesser extent than anticipated.
Ability to Manage Expansion Effectively	We expect to expand our business in the future to meet the anticipated growth in demand for solar LED lighting products. If we are unable to manage growth effectively, we may not be able to take advantage of market opportunities, execute our business strategy or respond to competitive pressures. To manage the potential growth of our operations, we may be required to improve operational systems and procedures and expand our relationships with suppliers, manufacturers, distributors and customers. There can be no assurance that the current and planned operations, personnel, systems and internal procedures will be adequate to support future growth.
Foreign Exchange	We have exposures to foreign currency fluctuations, most significantly between the US and Canadian dollar and the US dollar and the Euro. At present our functional and reporting currency is the US dollar, as a significant portion of our sales and cost of sales is denominated in US dollars. However, a significant portion of our operating costs are denominated in Canadian dollars and we generally finance in Canadian dollars as well. As a result, we are exposed to US/Canadian dollar fluctuations which may negatively impact our results. At present a lower Canadian dollar positively impacts our results. As of December 31, 2017, Carmanah entered into contracts to purchase a total amount of $1.85 million Canadian dollars at any time during 2018 at guaranteed rates in exchange of $1.46 million U.S. dollars. These contracts were entered into for the purpose to meet operational needs and not used as speculative investments. We are also exposed to fluctuations in the Euro relative to the US dollar as a large portion of our wholly owned subsidiaries business is transacted in Euro.
Reliance on Third Party Manufacturers	We rely upon third party manufacturers and suppliers to provide certain underlying components and finished goods. While we try to maintain good relationships with suppliers and contractors, economic, political or other outside factors or changes in our demand may lead to an inability for the providers to fulfill our needs. This may include products not meeting specifications, a failure to meet demand could harm our operations and profitability. Should a manufacturer or supplier suffer financial difficulties or any other disruption in manufacturing capacity, we may not be able to secure adequate substitute manufacturing sources for our products in a timely manner. While we believe we have sufficient access to manufacturing capacity to meet current and expected future requirements, it is possible that future capacity needs will not be available. Additionally, as we rely on third party manufacturers, we are subject to risks associated with limited control over delivery schedules, reductions in capacity, the possibility of defects, the possibility of increased products costs and variable product quality. Additional risks in this area also occur when we transition between manufacturers or when we close any manufacturing facility we may acquire through an acquisition.
Reliance on Suppliers	Some of the components required to produce our products are custom-made or are manufactured by a small number of suppliers. We may experience interruption in supply of certain components or be unable to re-source the supply from another supplier or re-design products to preclude the need for such components when and if needed. Some of the companies which we purchase components from directly or indirectly compete with us. Our ability to compete may be adversely affected if some or all of its

suppliers were to restrict the supply or increase the cost of the components sold to us, develop products in competition with us, be acquired by a competitor, or form collaborative efforts with other competitors.

Reliance on Outside Agents and Distributors

Market penetration of our products heavily depends on the success levels of our distributors and sales agents. There can be no assurances that we will successfully develop and maintain such alliances or that the sales efforts of our distributors and sales agents will be successful.

To increase sales and margins, we are in the process of developing additional and more direct routes to market. These plans may result in channel conflict which could negatively impact our sales.

Reliance on Key Employees

Our success depends on our continued ability to identify, attract, hire, train, retain and motivate highly skilled technical, managerial, manufacturing, administrative and sales and marketing personnel. To a significant extent, our success will depend on our senior management team. Competition for these individuals is intense and we may not be able to successfully recruit, assimilate or retain sufficiently qualified personnel. We may encounter difficulties in recruiting and retaining enough qualified technical personnel, which could harm our ability to develop new products and adversely impact our relationships with existing and future customers and affect our future growth and profitability.

Intellectual Property Risks

Many our products employ new and innovative technologies. Although we are careful to ensure we have the right to the technology utilized in our products we face the risk of infringing on the patents of others. We pursue a strategy of protecting the technology we develop through a combination of patent, copyright, trademark and trade secret laws, employee and third party nondisclosure agreements and similar means. Despite our efforts, other parties may attempt to disclose, obtain or use our technologies. Competitors may also be able to independently develop products that are substantially equivalent or superior to our products or design around our patents. In addition, the laws of some foreign countries do not protect proprietary rights as fully as do the laws of Canada. As a result, we may not be able to protect our proprietary rights adequately in Canada or abroad.

Because our patent position involves complex legal, scientific, and factual questions, the issuance, scope, validity and enforceability of our patents cannot be predicted with certainty. Our issued patents may be invalidated or their enforceability challenged, they may be designed around, and they may not provide us with competitive advantages against others with similar products and technology. Furthermore, others may independently develop similar products or technology or duplicate or design around any technologies that we have developed.

We may receive notices that claim we have infringed upon the intellectual property of others. Even if these claims are not valid, they could subject us to significant costs and could materially harm our business. Litigation may be necessary in the future to enforce our intellectual property rights or to determine the validity and scope of the proprietary rights of others. Litigation may also be necessary to defend against claims of infringement or invalidity by others. An adverse outcome in litigation or any similar proceedings could subject us to significant liabilities to third parties, require us to license disputed rights from others or require us to cease marketing or using certain products or technologies. We may not be able to obtain any licenses on acceptable terms, if at all. We also may have to indemnify certain customers if it is determined that we have infringed upon or misappropriated another party's intellectual property. Any of these results could adversely affect our business, financial condition and results of operations.

Environmental and Regulatory Compliance	We are subject to a variety of environmental laws, rules and regulations in each of the jurisdictions in which we conduct our business, with which we believe we comply. In certain cases, the cost of compliance with regulations can be substantial. Failure to comply with present or future regulations could result in legal claims, fines, operation suspensions or cessation of operations. Compliance often requires incurring costs and capital expenditures. We face few, if any, of these issues directly as we rely on third party manufacturers.
Government Contracts and Subsidies	A significant portion of our revenues are derived from government and military agencies. Consequently, any disruption in government funding or in the relationship with those agencies could adversely affect our business. Additionally, there are many government subsidies and economic incentives for solar energy related businesses. There is no guarantee that these incentives and subsidies will remain in place or that other countries, states, provinces or municipalities will adopt similar programs. The elimination of such subsidies and incentives, or the failure of additional countries, states, provinces or municipalities to adopt similar programs, may have an adverse impact on the solar market, and may result in rapid changes in demand and pricing. Such changes may have an adverse impact on our business and financial condition.
Product Quality and Reliability and Warranty Liability Risk	Problems with product quality and/or performance, including defects in products could damage our reputation, or result in a decrease in customers and revenue, unexpected expenses and loss of market share. We cannot test for all defects, and occasionally defects may be detected after products have been shipped or installed. These defects could cause us to incur significant costs, including product replacement, and may adversely affect our customer relations and business reputation. Additionally, because we source many of our components from third party manufacturers, our ability to control product quality is limited. We operate in a market where product reliability is essential as our products are often used as safety devices. A significant product failure could expose us to liability claims. While we maintain insurance to cover these risks, the adequacy of this coverage may be insufficient and litigation may extend beyond coverage held by the Company. The grid-tie business, which was discontinued during the year had a strategy to focus on securing EPC contracts. By their nature, these contracts include construction industry agreement terms including, amongst others, liquidated damages and indemnification obligations. We try to use our commercial best efforts to minimize our liability on such exposure. Although the business was divested during 2017, potential liabilities related to warranty may still arise. If negative factors occur that are beyond our control or if disputes arise and are not settled favorably, they may have an adverse impact on our business, financial condition and results of operations.
Downturn in Economic and Market Conditions	The lighting industry is susceptible to downturns related to declines in general economic conditions. Demand for solar lighting products and components are adversely impacted by the global financial crisis and corresponding decreases in or postponement of infrastructure spending budgets.

	We may be adversely impacted by downturns in general economic and market conditions, both nationally and internationally. Economic downturns generally, or in our markets specifically, could have a material adverse effect on our, cash flows, financial condition and results of operations. Our future results of operations may experience substantial fluctuations from period to period because of these factors, and such conditions and other factors affecting capital spending may affect the timing of orders. As we sell to governments who continue to suffer from deficit spending and may need to cut spending further, we may experience a softening demand for our products. Economic adversity coupled with a decline in our revenue could adversely affect our ability to meet capital requirements, support working capital requirements and growth objectives, or otherwise adversely affect our business, financial condition and results of operations.
Liquidity and Capital Requirements	Although we have had some recent success in growing our sales in a profitable manner, we face a variety of challenges to maintain this in the coming periods. To do so, we must be prudent in adding operating costs and ensure we have sufficient liquidity as our working capital needs grow. There can be no assurance that we will be able to maintain adequate liquidity without additional capital. Our future growth may also come from mergers and acquisitions, which may require us to raise additional capital. There is no guarantee we will be able to raise the necessary capital, and we may be forced to do so on terms that significantly dilute existing holders of Shares.
Litigation Risk	We may in the future become involved in disputes, litigation or arbitration proceedings. The results of these proceedings cannot be predicted with certainty. If we are unable to resolve these disputes favorably, it may have an adverse impact on our business, financial condition and results of operations.
Cybersecurity Risk	We rely on information technology systems and network infrastructure in all areas of operations and are therefore exposed to an increase number of sophisticated cybersecurity threats. A cybersecurity breach of sensitive and confidential information of the Company could disrupt systems and services and could the potential of compromising the Company's financial positions or brands, and/or otherwise adversely affect the ability to achieve our strategic goals. We maintain policies, processes and procedures to address capabilities, performance security and availability including resiliency and disaster recovery for systems, infrastructure and data. We actively monitor, manage and continue to assess and enhance our ability to mitigate cybersecurity risks and protect confidential information within our organization.
Acquisitions or other Business Transactions	We may, when and if the opportunity arises, acquire other products, technologies or businesses with activities or product lines that are complementary to our business. Acquisitions involve numerous risks, including difficulties in the assimilation of the operations, technologies and products of the acquired companies the diversion of management's attention from other business concerns, risks associated with entering new markets or conducting operations in industry segments in which we have no or limited experience and the potential loss of key employees of the acquired company. There can be no assurances that any anticipated benefits of an acquisition will be realized. Future acquisitions could result in potentially dilutive issuances of equity securities, the use of cash, the incurrence of debt and contingent liabilities, and write-off of acquired R&D costs, all of which could materially adversely affect our financial condition, results of operations and cash flows.
Potential Reorganization of Operations or Product Offerings	We routinely review our operations for additional efficiency opportunities or to reduce costs. That analysis may lead to the determination to close, eliminate, rationalize or reduce operations and divisions and/or alter the sales, manufacturing or distribution structure. Should we decide to pursue any such changes it may incur additional charges and losses which may be material. In addition, we could experience difficulties, disruptions or delays

	in the implementation of any such changes and there can be no assurance that we will be able to implement these programs successfully or on a timely basis.
Geopolitical and other Global or Local Events	Geopolitical and other global or local events may have a significant effect on our operations as we operate in numerous foreign countries. Various events, including natural disasters, extreme weather conditions, labour disputes, civil unrest, war, political instability, terrorism, and contagious illness outbreaks, or the perceived threat of these events, may cause a disruption of our normal operations and may disrupt the domestic and international travel of our distributors and sales agents. The new U.S. administration has called for changes to domestic and foreign policy and laws. At this time, we cannot predict the negative or positive impact, if any, that such policies and laws will have on our business. We will continue to monitor these developments in the U.S.
Legislative and Regulatory Change Risk	Carmanah's products have to comply with a broad range of legislation, regulation and government policies in jurisdictions where our products are sold. Changes to existing legislation, regulation or government policies could negatively impact operations. Political changes in the U.S. may have an impact on duties charged for goods sold to the U.S. At this point, Carmanah is unable to determine any risks based on how trade negotiations between Canada and the U.S. will impact business operations. We will continue to monitor such trade negotiations, and any other developments in other jurisdictions, to determine the exposure on business.