Management's Discussion and Analysis

For the three and nine months ended September 30, 2018

November 14, 2018

carmanah®

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 ("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 November 14, 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. Assets and liabilities of the Power business segment that was not divested as part of the sale have been classified as non-trade receivables and non-trade payables as at September 30, 2018 and for the comparative prior period as at December 31, 2017.

CAUTION REGARDING FORWARD-LOOKING STATEMENTS

Certain statements in this MD&A are forward-looking statements that involve risks and uncertainties. Forward-looking 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;
- the successful completion of the Vega Restructuring (as defined below) and
- the expected results of the acquisition of Information Display Company ("IDC").

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 changes in client preferences and requirements;
- our ability to complete, manage and integrate acquisitions;
- our ability to manage the outstanding warranty obligations 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).

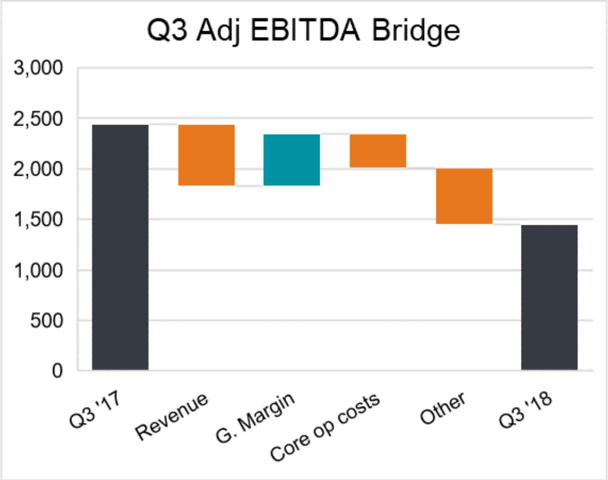
1. Financial Highlights

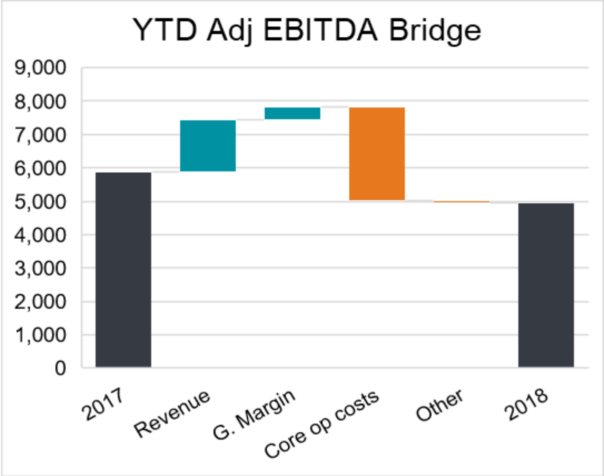
FINANCIAL HIGHLIGHTS FOR THE THREE AND NINE MONTHS ENDED SEPTEMBER 30, 2018 AND 2017

	Three months ended September 30,			Nine months ended September 30		
US$ thousands	**2018**	**2017**	**Change**	**2018**	**2017**	**Change**
Revenue	12,862	14,508	(11.3%)	41,607	37,836	10.0%
Gross margin %	41.4%	37.4%	4.0%	42.3%	41.3%	1.0%
Core operating expenditures *	4,907	4,572	7.3%	15,694	12,890	21.8%
Net income/(loss)	(625)	318	n.a.	(167)	1,436	n.a.
Adjusted EBITDA *	1,448	2,440	(40.7%)	4,960	5,862	(15.4%)

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

ADJUSTED EBITDA BRIDGES





BACKLOG RECONCILIATION

US$ thousands	Q2 closing	Bookings	Revenue	Q3 closing
Signals	9,378	13,378	11,753	11,003
Illumination	832	684	1,109	407
Total	**10,210**	**14,062**	**12,862**	**11,410**

THIRD QUARTER

In the third quarter of 2018, we generated revenues of $12.9 million, down $1.6 million or 11.3% over the third quarter of 2017 revenues of $14.5 million. Of the overall revenues, our Signals segment declined $2.1 million or 15.1% in the quarter while our Illumination segment increased by $0.5 million or 68.3% on a comparative basis. The Signals decline was due to lower revenues in our Marine and Offshore Wind verticals, offset by stronger performance in our Telematics vertical, while our Airfield Lighting, Aviation Obstruction and Traffic verticals remained consistent with prior year.

Gross margin percentage in the third quarter of 2018 was 41.4%, up from 37.4%, over the same period in 2017.

Core operating expenditures in the third quarter of 2018 were up by $0.3 million or 7.3% over 2017 mainly due to increased amortization relating to acquired assets as well as increased research and development costs. Net loss in the third quarter of 2018 was $0.6 million, down from net income of $0.3 million in the third quarter of 2017, primarily due to the increase in core operating expenses and decreased revenues.

Our management relies on Adjusted EBITDA (a non-IFRS measure) to gauge financial performance. In the third quarter of 2018, our Adjusted EBITDA was $1.5 million or 11.3% of revenue, down from $2.4 million, or 16.8% of revenue in the same period in 2017. 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	
Airfields	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 Aviation 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, 24-hr roadway beacons and radar speed check signs. 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.

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

Illumination

Illumination

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, Urban Solar 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 sold the Power segment. Due to this transaction, the operating results of this segment has been classified as discontinued operations in the current and comparative period as required under IFRS 5 – Non Current Assets Held for Sale and Discontinued Operations. Discontinued operations in the current period comprises of residual recoveries and expenditures related to

assets and liabilities that were not divested as part of the sale. 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

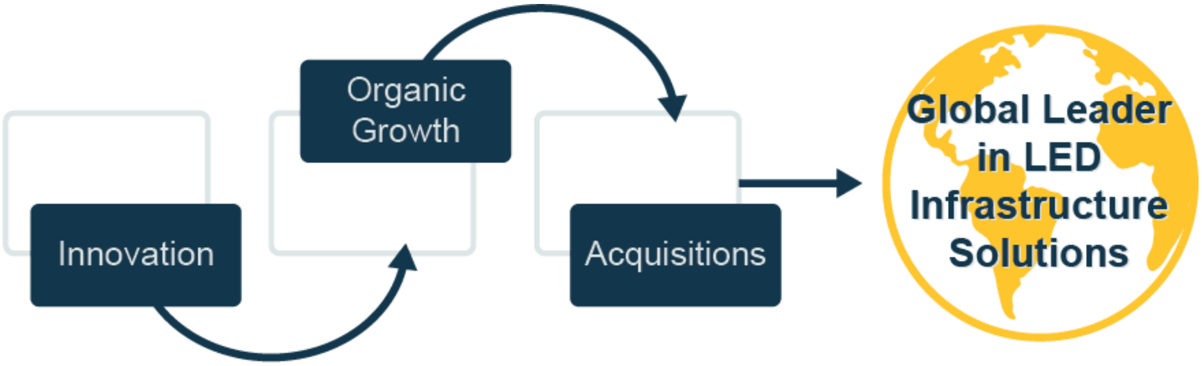
We aspire to be the global leader of signaling and solar lighting solutions for infrastructure through unique product and system solutions that allow us to attain and maintain high gross margins and great growth prospects.

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 Q3 2018, our R&D expense was focused on product development and refinement and totaled $0.8 million, or about 6% of revenues, compared to 4% 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.

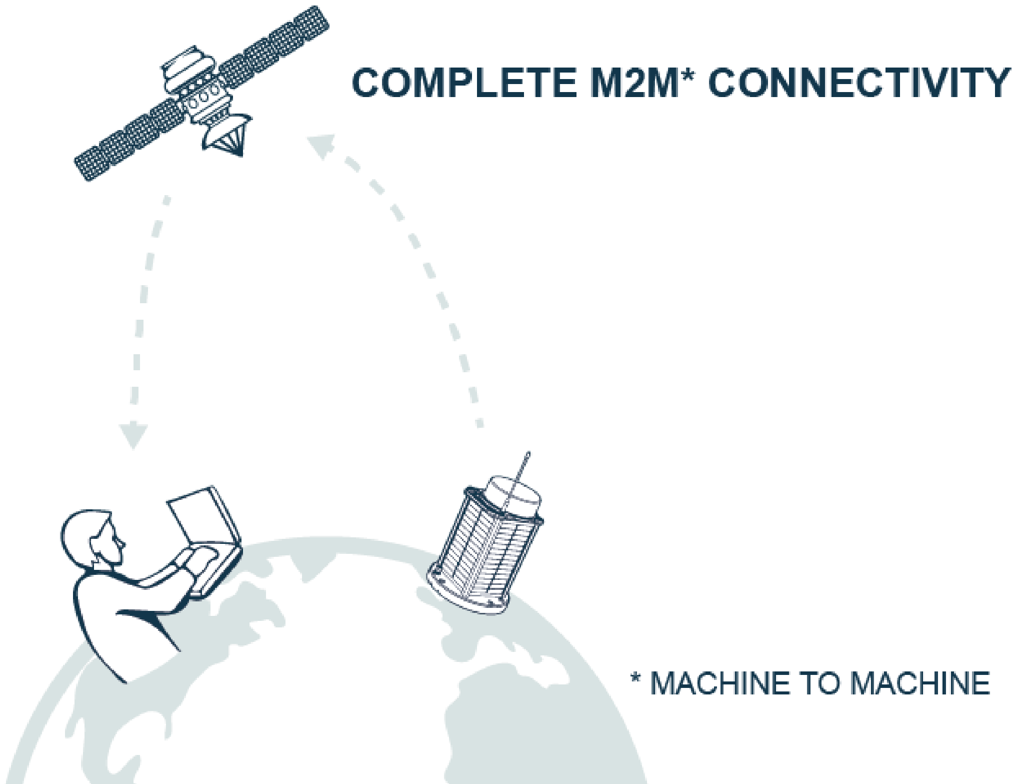
However, our primary innovation goal is to develop solutions for our customers that help them to reduce ancillary costs – including maintenance and operating costs – while maintaining or enhancing efficacy. In this respect, our Development Team is working to achieve these goals.

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, 11 of our 31 product platforms have machine-to-machine connection capability, compared to 10 out of 31 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 previously revised 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 began product shipments in the second half of 2017.

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 463 “last mile” partners with whom we work globally within our Signals and Illumination segments, up from approximately 450 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.

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	TTM*	2017	2016
Average net assets from continuing operations **	31,369	31,107	28,099
Cash cycle ***	80 days	79 days	68 days
Revenue	55,710	51,939	47,742
Adjusted EBITDA****	6,181	7,084	7,020
Adjusted EBITDA**** / Revenue	11.1%	13.6%	14.7%
Adjusted EBITDA**** / Average Net Assets	19.7%	22.8%	25.0%
Revenue/ Average Net Assets	1.78	1.67	1.70

* TTM = Trailing twelve months
** 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 nine months ended September 30, 2018, 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 September 30,		Nine months ended September 30,	
US$ thousands	**2018**	**2017**	**2018**	**2017**
Net income/(loss) from continuing operations	(625)	318	(167)	1,436
Add/(deduct):				
Interest expense/(income)	14	(24)	116	57
Income taxes expense	102	139	665	538
Amortization	777	447	2,399	1,239
Non-cash stock-based compensation	81	158	302	497
EBITDA *	**349**	**1,038**	**3,315**	**3,767**
Merger and acquisition costs **	1,067	207	1,500	330
Restructuring recoveries	(12)	-	(85)	-
Extraordinary legal costs	2	304	66	321
Asset write-down	-	832	-	832
Other non-recurring expenses/(income)	40	84	(14)	574
Foreign exchange (gain)/loss	2	(25)	178	38
Adjusted EBITDA *	**1,448**	**2,440**	**4,960**	**5,862**

** A Non-IFRS measure defined above*

*** Included in our merger and acquisition costs add back are expenes related to the integration of our Vega products from New Zealand into our Marine division in Finland, which primarily include retention bonuses and product migration costs. These costs amounted to $0.94 million for the three months ended September 30, 2018 and $1.15 million for the nine months ended September 30, 2018.*

CORE OPERATING EXPENDITURES

For the three and nine months ended September 30, 2018, 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. For the nine months ended September 30, 2018, Core Operating expenditures is calculated as the total of Sales and marketing, Research and development and General and administrative expenses. 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. The Company incurred a $1.7 million one-time charge resulting from a mediated settlement agreement over a terminated project. At September 30, 2018, we have collected all receivables under these portfolios. 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 September 30, 2018, an escrow receivable of $0.5 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.

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. 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.

GLOBALSTAR STRATEGIC AGREEMENT

On August 30, 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 began shipping in the first quarter of 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 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 was held in escrow and is contingent on Vega meeting certain revenues targets for its fiscal year ended March 31, 2018. Vega did not meet those targets and we received the full amount held in escrow in the second quarter of 2018.

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 our Company. 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.

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 planned to eliminate Vega's administrative, back office, and manufacturing functions and migrate its manufacturing facility to Finland and Estonia. Certain costs associated with this plan met the definition of restructuring costs in accordance with IFRS – IAS 37, while other anticipated costs did not meet this definition and thus would be recorded as and when incurred. During the third quarter of 2018, all assets held by Vega previously disclosed as held for sale at June 30, 2018 were sold. The following table summarizes the costs incurred and true-up of our previous provision with respect to restructuring for the nine months ended September 30, 2018.

A total of 46 employees were to be terminated under this plan, with 9 employees terminated in 2017, 29 employees terminated during the first nine months in 2018 and a further 2 employees will be terminated in the remaining three months in 2018.

US$ thousands (unless noted)	Severance and related benefits	Other exit costs	Total
Balance at January 1, 2018	171	159	330
Charges/(Recoveries)	-	(85)	(85)
Cash payments	(160)	(54)	(214)
Balance at September 30, 2018	**11**	**20**	**31**

ACQUISITION OF INFORMATION DISPLAY COMPANY

On October 2, 2018, the Company acquired the shares of Information Display Company ("IDC"). IDC is a U.S manufacturer of radar speed signs and other speed displays. The purchase price totaled $1.5 million paid on closing and will be included within the Traffic vertical.

We are currently in the process of evaluating the assets acquired and their fair value. We currently do not anticipate a reduction in the purchase price

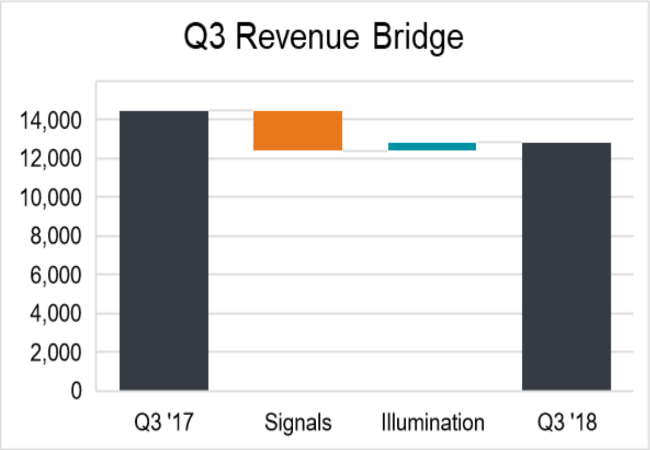
6. Financial Results

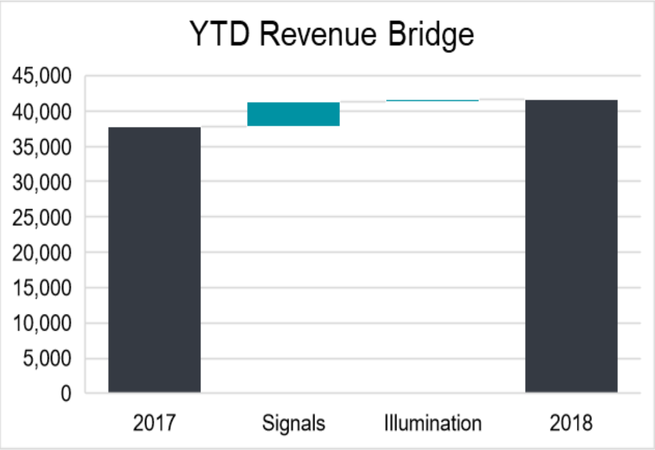
As previously noted, the information presented in the sections below have been derived from and should be read in conjunction with our consolidated financial statements for the three and nine months ended September 30, 2018.

6.1 THREE AND NINE MONTHS ENDING SEPTEMBER 30, 2018 AND 2017

REVENUE

	Three months ended September 30,			Nine months ended September 30,		
US$ thousands	**2018**	**2017**	**Change**	**2018**	**2017**	**Change**
Revenues						
Signals	11,753	13,849	(15.1%)	38,154	34,665	10.1%
Illumination	1,109	659	68.3%	3,453	3,171	8.9%
Total revenue	**12,862**	**14,508**	**(11.3%)**	**41,607**	**37,836**	**10.0%**





Revenues for the three months ended September 30, 2018 were down $1.6 million, or 11.3%, over the same period in 2017. Comparative changes by segment are as follows:

- Signals – The third quarter decrease in our Signals segment is attributable to a decrease in revenues from our Marine and Offshore Wind verticals offset by a stronger performance in our Telematics vertical due to the addition of product sales as well as service revenues in 2018 (prior period included only service revenues). Our Airfield Lighting, Aviation Obstruction and Traffic verticals remained consistent with prior year. The YTD increase in our Signals segment was due to increased sales over multiple verticals including Telematics, Marine, Airfield Lighting and Aviation Obstruction. We continue to see a strong increase from the Telematics vertical attributable to our successful launch of SmartOne Solar remote monitoring devices. The Marine vertical's increase was due to revenues contributed by Vega that we acquired in the third quarter of 2017. Offsetting these increases was a decline in Offshore revenue during the nine month period in 2018 relative to the prior year due to project delays that are expected to shift revenues into future periods.

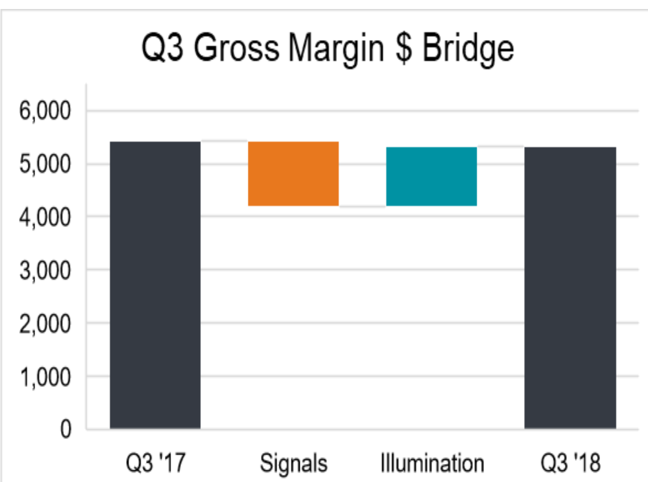
- Illumination – Sales in our Illumination segment increased by 68.3% compared to the third quarter in 2017 and 8.9% compared to the nine month period in 2017. We have transitioned from our legacy products to the new EverGen product. During the launch in 2017, several unexpected component shortages substantially restricted our ability to produce and ship. As anticipated, we resumed normal production and delivery lead times in the first quarter of 2018.

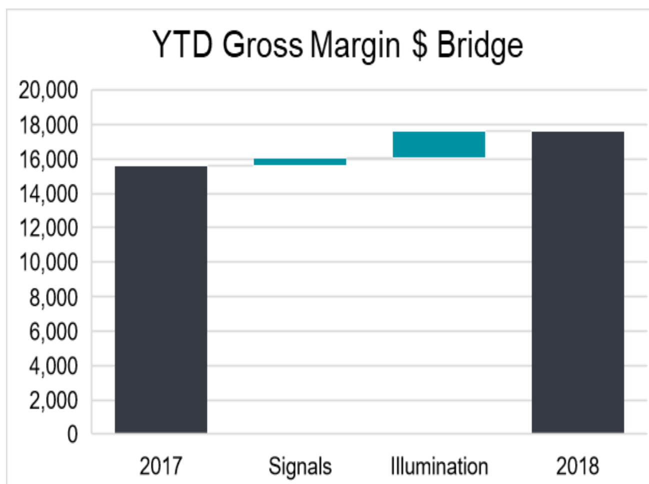
SALES BY GEOGRAPHIC REGION

Approximately 55.1% of our revenues for the first three quarters of 2018 were from outside North America, down from 58.1% during the same period in 2017.

GROSS MARGINS

	Three months ended September 30,			Nine months ended September 30,		
US$ thousands	**2018**	**2017**	**Change**	**2018**	**2017**	**Change**
Gross margin %						
Signals	41.5%	44.2%	(2.7%)	42.4%	45.5%	(3.1%)
Illumination	40.6%	(105.5%)	n/a	40.7%	(4.8%)	n/a
Total Gross margin %	**41.4%**	**37.4%**	**4.0%**	**42.3%**	**41.3%**	**1.0%**





Gross margin percentage for the three months ended September 30, 2018 was 41.4%, up from 37.4%, over the same period in 2017. On a segmented basis, our Signals segment gross margin percentage decrease was primarily due to a shift in sales mix among the verticals. Our Illumination segment gross margin percentage increase was primarily due to a $0.8 million inventory write-down in the 2017 period. The write down consisted of legacy products made obsolete by the development of the new EverGen product offering.

OPERATING EXPENSES

	Three months ended September 30,			Nine months ended September 30,		
US$ thousands	**2018**	**2017**	**Change**	**2018**	**2017**	**Change**
Sales and marketing	1,168	1,345	(13.2%)	3,814	3,636	4.9%
Research and development	790	515	53.4%	2,290	1,897	20.7%
General and administration	2,949	2,712	8.7%	9,590	7,357	30.4%
Total core operating expenditures*	**4,907**	**4,572**	**7.3%**	**15,694**	**12,890**	**21.8%**
Non-cash items:						
Amortization	*777*	*447*	73.8%	*2,399*	*1,239*	93.6%
Stock-based payments	*81*	*174*	(53.4%)	*302*	*497*	(39.2%)

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

	Q4 '16	Q1 '17	Q2 '17	Q3 '17	Q4 '17	Q1 '18	Q2 '18	Q3 '18
Sales and marketing	11.1%	9.9%	9.7%	9.3%	8.8%	8.6%	9.9%	9.1%
Research and development	4.9%	5.7%	6.1%	3.5%	8.7%	4.9%	5.5%	6.1%
General and administration	19.4%	21.0%	18.9%	18.7%	23.3%	21.9%	24.5%	22.9%
Total core operating expenditures *	**35.5%**	**36.6%**	**34.7%**	**31.5%**	**40.8%**	**35.4%**	**39.9%**	**38.1%**

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

Our total core operating expenses for the three months ended September 30, 2018 were $4.9 million, up 7.3% from the same period in 2017.

SALES AND MARKETING

Our sales and marketing expenses for the three months ended September 30, 2018 were $1.2 million, down $0.2 million over the same period in 2017. The decrease was primarily salary related due to a decrease in sales staff headcount in our Illumination vertical compared to prior year.

RESEARCH AND DEVELOPMENT

Our research and development expenses for the three months ended September 30, 2018 were $0.8 million, up $0.3 million from the same period in the prior year. The increase was due to the development of the new Solar Buoy Tracker in the 2018 period.

GENERAL AND ADMINISTRATION

Our general and administration ("G&A") expenses for the three months ended September 30, 2018 were $2.9 million, up $0.2 million over the same period in 2017. The increase related to additional amortization related due to the acquisition of Vega assets in August 2017.

OTHER INCOME (EXPENSE)

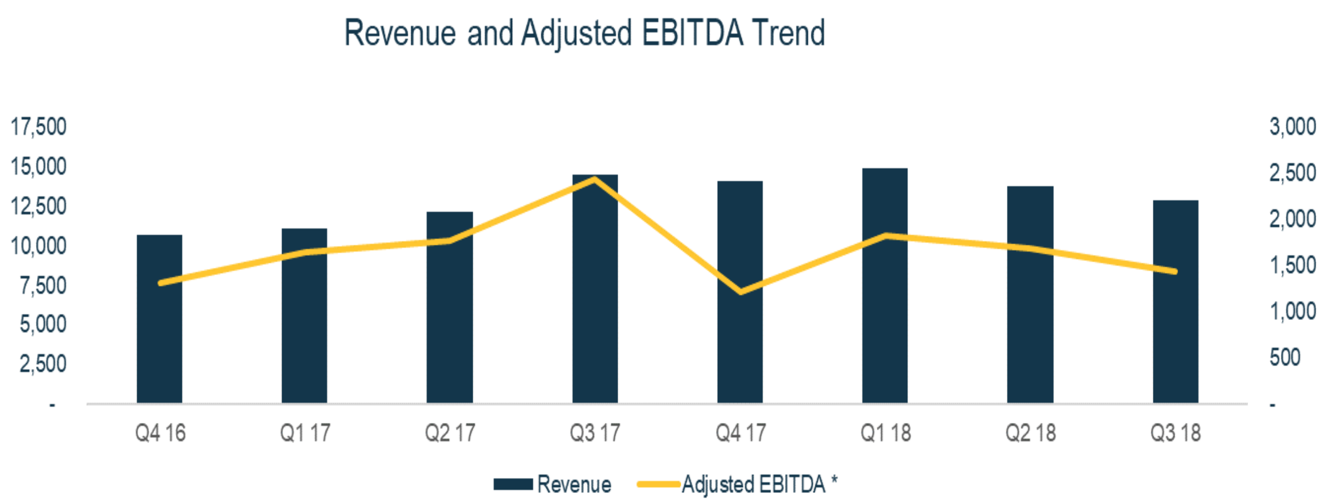
Other income or expenses include various non-operating expenditures, including merger and acquisition costs, restructuring charges and impairment of assets. On a year-to-date basis, other expenses were $1.2 million compared to $0.7 million in the same period in 2017 due to Vega related restructuring charges incurred in Q3 2018. For the three months ended September 30, 2018, we had other expenses of $0.8 million, compared to $0.4 million other expenses in the same period in 2017.

INCOME TAXES

Income tax expense for the nine months ended September 30, 2018 was $0.7 million, compared to $0.5 million in the same period in 2017.

6.2 QUARTERLY TRENDS

REVENUE AND ADJUSTED EBITDA TREND



US$ thousands (unless noted)	Q4 '16	Q1 '17	Q2 '17	Q3 '17	Q4 '17	Q1 '18	Q2 '18	Q3 '18
Revenue	10,714	11,127	12,201	14,508	14,103	14,942	13,803	12,862
Gross margin %	41.6%	44.9%	42.7%	37.4%	42.3%	42.4%	42.9%	41.4%
Net income/(loss), cont ops	80	609	509	318	(44)	594	(136)	(625)
Net income/(loss), total ops	267	1,102	1,025	10,408	(1,184)	474	(278)	(581)
EPS – Basic, cont ops	0.00	0.02	0.02	0.01	(0.00)	0.03	(0.01)	(0.03)
EPS – Diluted, cont ops	0.00	0.02	0.02	0.01	(0.00)	0.03	(0.01)	(0.03)
EPS – Basic, total ops	0.01	0.04	0.04	0.42	0.06	0.02	(0.02)	(0.03)
EPS – Diluted, total ops	0.01	0.04	0.04	0.41	0.06	0.02	(0.02)	(0.03)
Adjusted EBITDA[1]	1,316	1,645	1,777	2,440	1,222	1,826	1,685	1,448

[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, Traffic and Telematics verticals. Following are comments on quarter to quarter changes:

- 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.
- 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.
- Q4 2017 to Q1 2018 – Increase in net income in Q1 2018 of $0.6 million attributable to a quarter with strong revenue growth and no unexpected costs.
- Q1 2018 to Q2 2018 – The decrease in net income in Q2 2018 of $0.7 million is mainly attributable to lower revenue compared to Q1 2018.
- Q2 2018 to Q3 2018 – The decrease in net income in Q3 2018 of $0.3 million is mainly attributable to lower revenue compared to Q2 2018; partially offset by lower operating expenses.

7. Liquidity, Capital Resources and Other Disclosures

7.1. SUMMARY OF CONSOLIDATED STATEMENT OF CASH FLOWS

	Nine months ended September 30,		
US$ thousands	2018	2017	CHANGE
Net cash provided in operating activities	358	3,667	(42.8%)
Net cash provided in investing activities	4,096	7,830	(69.9%)
Net cash provided/(used) in financing activities	(6,804)	551	n.a.
Net effect of exchange rate changes on cash	(243)	490	n.a.
Total (decrease)/increase in cash from continuing operations	**(2,593)**	**12,538**	n.a.

CASH PROVIDED/USED IN OPERATING ACTIVITIES

During the nine months ended September 30, 2018, cash provided by our operating activities, excluding changes in non-cash working capital, was $2.8 million, down from $5.8 million in the same period in 2017. This is largely due to weaker earnings before taxes and investment tax credits in 2017 partially offset by increased amortization due to the purchase of intangible assets. During the nine months ended September 30, 2018, total cash generated from our operating activities was $0.4 million, down from cash generated from operating activities of $3.7 million in the same period in 2017. This decrease is predominantly due to the purchase of a patent with payment payable in 2018. 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 nine months ended September 30, 2018, cash provided from investing activities was $4.1 million, down from cash provided of $7.8 million in the same period in 2017. The decrease in 2018 is due to the receipt of proceeds for the sale of Off-Grid in the 2017 period partially offset by cash flows relating to the acquisition of Vega. There were no acquisition activities during the first nine months in 2018.

CASH PROVIDED/USED IN FINANCING ACTIVITIES

During the nine months ended September 30, 2018, cash used in financing activities was $6.8 million, compared to cash provided of $0.5 million in the same period in 2017. The increase in cash usage relates to repayment of our term loan as described in section 7.3.

7.2 LIQUIDITY AND CAPITAL RESOURCE MEASURES

On September 30, 2018, our overall working capital was $22.9 million, up from $21.2 million at December 31, 2017. The increase is mainly due to the receipt of non-trade receivables offset by the repayment of our term loan in 2018.

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. During the first six months of 2018, we have repaid all outstanding loan under the 364-Day Revolving Credit Facility. At September 30, 2018 no amount was drawn on the 364-Day Revolving Credit Facility. At September 30, 2018, there was a) $6.3 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 September 30, 2018, no amounts were drawn on the revolving credit facility, but $0.3 million (€0.3 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 September 30, 2018, our contract manufacturers held approximately $2.3 million (December 31, 2017 - $1.5 million) in inventory and $2.2 million (December 31, 2017 - $1.2 million) in outstanding committed purchase orders.

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 purchased 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 21 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 disputed these amounts as it believed that the work required to complete and test the projects was inconsequential. Hydro Ottawa was 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 incurred 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 September 30, 2018, the Company has recorded a provision of $0.3 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.

In August 2018, the Company was served with a legal claim in which it was named as a defendant in a case filed in the Circuit Court of Cook County, Illinois by the administrator of the estate of an individual who was killed in a boating accident in 2016. The plaintiff alleges, among other things, that the Company was negligent in the design, manufacture or sale of a marine lantern that was installed near the site of the accident. The Company denies any liability and is defending the case in cooperation with its insurers. The Company has concluded no provision is required as at September 30, 2018.

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 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 September 30, 2018, the Company has 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 loss of $0.03 million as of September 30, 2018 has been included as other current liabilities on the Consolidated Statement of Financial Position.

OUTSTANDING SHARE DATA

Our common shares trade on the Toronto Stock Exchange ("TSX") (TSX: CMH), and as at September 30, 2018 we had 19,024,765 fully issued and outstanding common shares. The following table summarizes the outstanding shares, options and other outstanding stock units stated in CAD.

	November 14, 2018	September 30, 2018	June 30, 2018	March 31, 2018	December 31, 2017
Share price – closing (CAD$)	3.86	4.22	4.90	4.40	4.65
Market capitalization (CAD$ in thousands)	73,436	80,285	93,122	83,258	87,988
Outstanding					
Shares	19,024,765	19,024,765	19,004,528	18,922,210	18,922,210
Options	1,562,206	1,562,206	1,588,443	1,680,053	1,686,129

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

Accounting	Estimates
	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.
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 SIGNIFICANT ACCOUNTING POLICIES

The significant accounting policies that have been applied, on a consistent basis, in the preparation of these condensed consolidated interim financial statements are included in the Company's audited consolidated financial statements for the year ended December 31, 2017. Those accounting policies have been used throughout all periods presented in the condensed consolidated interim financial statements, except as noted below.

IFRS 15 – REVENUE FROM CONTRACTS WITH CUSTOMERS

IFRS 15, Revenue from Contracts with Customers ("IFRS 15") – replaces IAS 18, Revenue. IFRS 15 clarifies the principles for recognizing revenue and cash flows arising from contracts with customers. The standard became effective for annual periods beginning on or after January 1, 2018, which is the date the Company adopted IFRS 15. The Company has adopted IFRS 15 using the cumulative effect method (without practical expedients), with the effect of initially applying this standard recognized at the date of initial application. The adoption of the new standard does not have a material impact on the comparative information presented however disclosures have been updated toreflect the requirements of the standard.

IFRS 9 – FINANCIAL INSTRUMENTS

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. The standard became effective for annual periods beginning on or after January 1, 2018, which is the date the Company adopted IFRS 9.

The adoption of this standard did not have a material impact on the measurement of the Company's financial instruments in the condensed consolidated interim financial statements, however additional disclosures have been provided in the condensed consolidated interim financial statements.

ACCOUNTING STANDARDS ISSUED BUT NOT YET EFFECTIVE

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 the Company's future financial statements.

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. The Company is assessing the impact of adopting this standard on its consolidated financial statements.

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 September 30, 2018 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 September 30, 2018.

LIMITATION ON SCOPE OF DESIGN

During the first nine months of 2018, 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

During 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.