



# 2017

ANNUAL REPORT



# Message from the Chairman

Dear Fellow Shareholders,

While I have served on our board of directors since December of 2013, I am pleased to provide this first report to you as Chairman of the Board after my appointment to this post on August 23, 2017.

Over the past few years our board and management have worked hard on the development of strategy and the transformative steps that we should make to build the value of our company for all stakeholders—shareholders, customers, and employees alike. In short, our view is that our company will grow in value if it can become a leading contender in the business segments in which we compete. We think that we will become a stronger competitor if we can focus our time and resources on fewer businesses where we can have a bigger impact. In a very real sense, these beliefs led us to support transformative steps to narrow our focus on fewer businesses in which we have a deeper interest.

Our “narrow” and “deepen” philosophy guided our management team through several transactions in 2017. To improve our focus, we divested the two businesses that comprised our Power division. Both, while valuable in their own right, were not a fit with our other businesses. Neither provided technological or operational leverage and it was hard to see how we could grow these businesses to become dominant competitors in their markets. The divestitures simplified our operations and liquidated a significant amount of capital.

We also acquired two businesses in 2017. Sabik Marine, our wholly owned subsidiary, added operating clout through the acquisition of Vega Industries of New Zealand and EKTA from Cybernetica in Estonia. These companies added significant products and distribution to Sabik’s industry-leading marine aids-to-navigation space. While our management teams still have much work to do to fully integrate these acquisitions, we expect to ultimately widen our margin of leadership in the marine aids-to-navigation space.

There were other notable events affecting our company in 2017 including a change in the composition of our shareholders, a change in your Board of Directors, and a significant buyback and cancellation of our shares. My appointment as Chairman resulted from the resignation of

***Our staff teams worked hard in 2017 and made great progress in balancing sustaining profitability, investments in growth, and transformations to improve value in the years to come. On behalf of the board, I thank all for their efforts.***

Michael W. Sonnenfeldt from our board at the same time that he, for personal reasons, reduced his shareholdings. Prior to this change Michael was Carmanah’s largest shareholder and had been instrumental during the term of his office in helping us to chart a course for the growth and development of our company. Michael remains an important shareholder and our board is grateful for his contribution. In conjunction with these changes, our share buyback improved the efficiency of our balance sheet, leaving more than enough resources to fuel expansion while improving the prospects for shareholders to leverage growth.

Our staff teams worked hard in 2017 and made great progress in balancing sustaining profitability, investments in growth, and transformations to improve value in the years to come. On behalf of the board, I thank all for their efforts. I also thank my fellow shareholders for their continuing support.

Jim Meekison  
Chairman





# Message from the CEO

To Our Shareholders,

I am pleased to report to you after what has been a very successful year for Carmanah. During the year we completed several significant changes in our company and did so while simultaneously generating near-record high profitability. I am happy to recap these changes and to tell you about our plans, but first I want to thank my colleagues in each of our operating entities for their commitment to our businesses. Certainly, without their hard work and dedication, we would not be as healthy and capable of the exciting growth we expect to accomplish over the years to come.

Evidence of the hard work and skill of our Victoria-based staff was demonstrated with the divestiture of our Power division businesses, which were complicated exercises. These businesses were fully integrated into Carmanah's technical and operating infrastructure, and the carve-outs were complex processes requiring highly detailed project planning and skilled execution. This work was well implemented, and we are pleased that we could effect the transfer of ownership seamlessly.

Similarly, our Sabik Marine colleagues demonstrated their abilities in working to integrate two acquisitions in far corners of the globe into their operating activities. Sabik Marine has an aggressive integration plan that will maximize distribution and rationalize product lines while keeping costs in check. While there is still work to be done, integrations are staying on track and, despite the distractions, service to customers is being maintained, as are revenues and profitability.

In the fall of 2017, we completed a significant reorganization when we segregated our head office group from North American operations. Our new head office group is composed of two small teams—a finance group headed by our CFO and a corporate development group under my direction. More importantly, our North American operations now has its own management team, which operates with the same autonomy as our European-based subsidiaries. We think that this new symmetrical structure will help add focus and ultimately improve operating efficiencies.

As we move forward, efficiency and operating leverage will become our primary focus. While we are prepared to acquire businesses that can help us add value, our concentration will be on organic growth. Here we will seek to broaden our sales reach while striving to bring new innovations and technical solutions for our customers. We will do so mindful of our commitment to a triple bottom line that focuses equally on “people, planet, and profit.”

Sincerely,

John Simmons  
CEO

***Here we will seek to broaden our sales reach while striving to bring new innovations and technical solutions for our customers. We will do so mindful of our commitment to a triple bottom line that focuses equally on “people, planet, and profit.”***





2017

# Carmanah Technologies Corporation

## Corporate Social Responsibility Report



**People. Planet. Profit.**  
Carmanah Technologies



# Our Triple Bottom Line Strategy

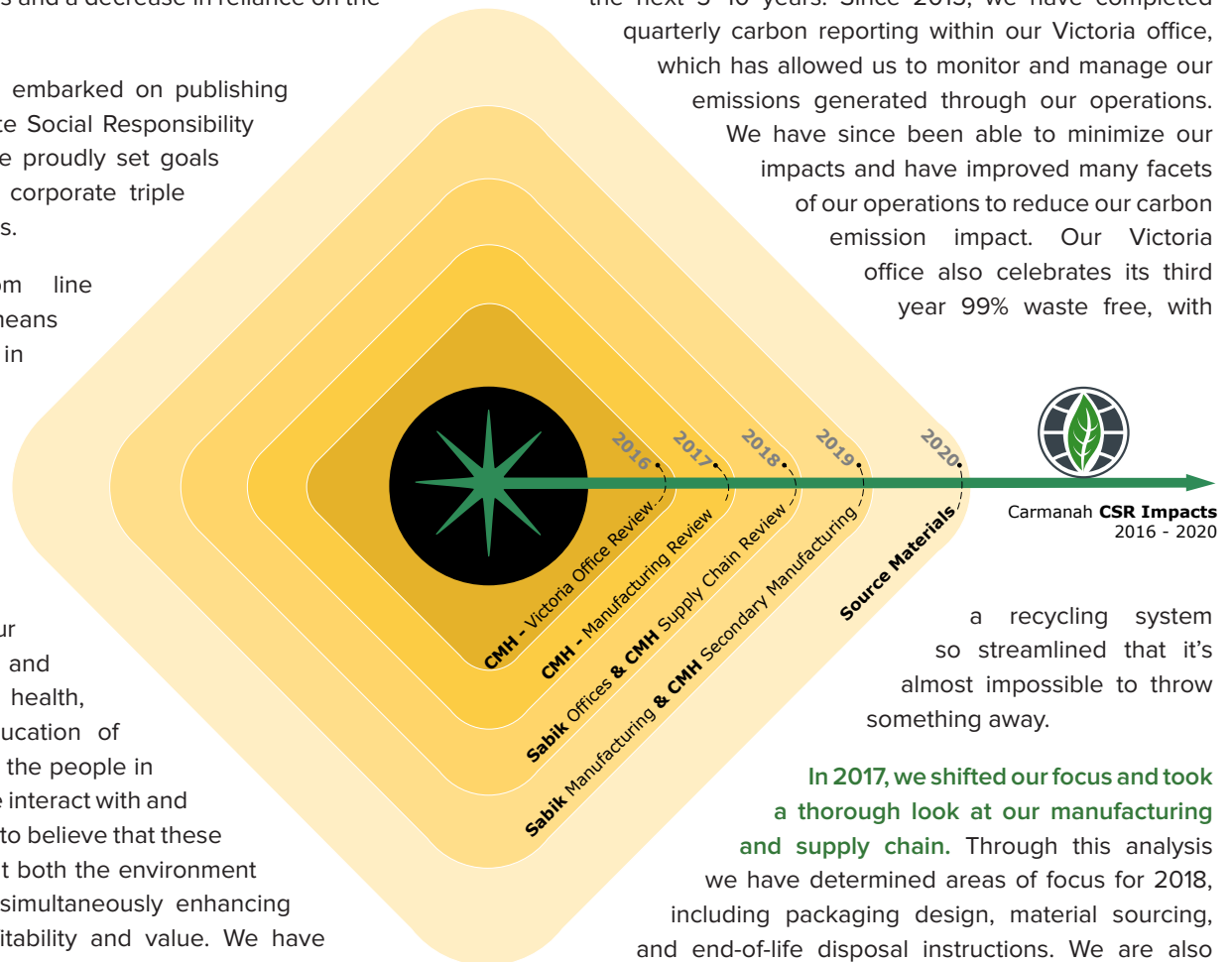
Carmanah designs, develops, and distributes renewable and energy-efficient technologies, with installations in over 110 countries worldwide. The positive environmental impacts of Carmanah's products include a reduction in greenhouse gas (GHG) emissions and a decrease in reliance on the electrical grid.

In 2015, Carmanah embarked on publishing an annual Corporate Social Responsibility Report, in which we proudly set goals and report on our corporate triple bottom line activities.

Our triple bottom line commitment means doing business in a manner that supports people, planet, and profit. We are committed to minimizing the environmental impact of our operations and supporting the health, wellbeing, and education of our employees and the people in the communities we interact with and serve. We continue to believe that these activities will benefit both the environment and society while simultaneously enhancing our corporate profitability and value. We have seen progress within many of our initiatives.

**The first step in our strategy was focusing on reducing the impact of our Victoria, Canada, headquarters, as strong leadership in these initiatives must start at the core of the company.** Leadership at our corporate headquarters is a precursor for engaging our other offices and setting up our manufacturers and suppliers to comply with our future sustainable practices.

When we started this journey, we reflected that most of our impact occurs outside of the four walls surrounding our headquarters. Therefore, we have outlined our overall "circle of influence" as an action plan aiming to reach all layers over the next 5–10 years. Since 2015, we have completed quarterly carbon reporting within our Victoria office, which has allowed us to monitor and manage our emissions generated through our operations. We have since been able to minimize our impacts and have improved many facets of our operations to reduce our carbon emission impact. Our Victoria office also celebrates its third year 99% waste free, with



**In 2017, we shifted our focus and took a thorough look at our manufacturing and supply chain.** Through this analysis we have determined areas of focus for 2018, including packaging design, material sourcing, and end-of-life disposal instructions. We are also committed to discussions regarding a Supplier Code of Conduct with our manufacturing and supply chain, which will be published externally during 2018.

Our goal remains to continue to work towards the very outer rings of the circle of influence. **We will continue to develop initiatives within our areas of influence that will reduce the environmental impact of our company and increase the social and community wellbeing of our stakeholders.**

# 2017 Planet Highlights

- Completed greenhouse gas (GHG) emission analysis for 2017 fiscal year.
- **1% overall increase of annual GHG emissions while increasing annual revenues by 8.8%.**
- **99% of office waste diverted from landfill with an 8% reduction of total waste (includes recycling and organics).**
- 16% decrease in emissions generated from staff commuting.
- 31% of employee commuting is done by low-emissions transportation methods (e.g., bike, bus, walk, etc.).
- Introduced product disposal and recycling instructions for new products. Also updating existing product manuals to include disposal and recycling instructions.

## CARBON FOOTPRINT SUMMARY

Measuring our carbon footprint allows us to understand our greatest areas of impact and best opportunities for reduction. Scope 3 activities drive 72.9% of emissions, with travel and staff commuting the two largest contributors to the overall carbon footprint. Due to increased employee awareness of the effects of water, waste, travel, shipping, and commuting, emissions in our Headquarters have been reduced from 2016 levels.

	Total Emissions (tCO <sub>2</sub> e)	Total Emissions per FTE	Total Emissions per Million Revenue
<b>2014</b>	235.8	4.53	14.04
<b>2015</b>	267.2	4.86	13.59
<b>2016</b>	226.7	3.78	8.79
<b>2017</b>	228.2	4.15	9.68



# 2017 People Highlights

## INITIATIVES

- Corporate donation matching programs exist for most fundraising initiatives.
- **Over \$33,000 donated to charity organizations since January 2016.**
- **Camosun award:** In 2016, Carmanah introduced the Carmanah Technologies Electronics and Computer Engineering Technology First Year Award. The award goes to a full-time, first-year student in the department of Electronics and Computer Engineering who has a high academic standing, demonstrates an aptitude for a career as an Engineering Technologist, and is supportive of his or her peers. We continued this award in 2017.
- **Science Fair award:** In 2016, Carmanah introduced the Carmanah Technologies Clean Technology Award at the 2016 Vancouver Island Regional Science Fair. This award is presented to an intermediate or senior exhibitor whose project is related to clean technology and shows a passion for renewable technology. The 2017 winner's project generated electricity through pedaling his bike.



## AWARDS

- 2016 VIATEC Employer of the Year award.
- VIATEC (Victoria Innovation, Advanced Technology & Entrepreneurship Council) awarded Carmanah the Employer of the Year, based on a nomination, staff survey, and observation of work environment. This is an award we are more than honoured to accept.

*"These are the companies who never forget to pause and take the time to think about their staff and provide a positive work environment. This award is based on a company survey of staff and is the tech company most respected and appreciated by their staff."*



**Learn more about our 2017 highlights by reading our Corporate Sustainability Report at <https://carmanah.com/files/images/CSR/2017-CSR-report.pdf>**



# Management's Discussion and Analysis

FOR THE THREE AND TWELVE MONTHS  
ENDED DECEMBER 31, 2017







## 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](http://www.carmanah.com) and [www.sedar.com](http://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.

SECTION	CONTENTS
1 Financial Highlights	A summary of our consolidated results for the quarter and year ended December 31, 2017
2 Overview, Vision, Strategy, & Tactics	Overview of our business, including our vision, strategy, and tactics
3 Performance Scorecard	Key financial performance measures
4 Non-IFRS Financial Measures	Reconciliation of EBITDA and Adjusted EBITDA and Core operating expenditures
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 changing client preferences and requirements;
- our ability to complete, manage and integrate acquisitions;
- 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).

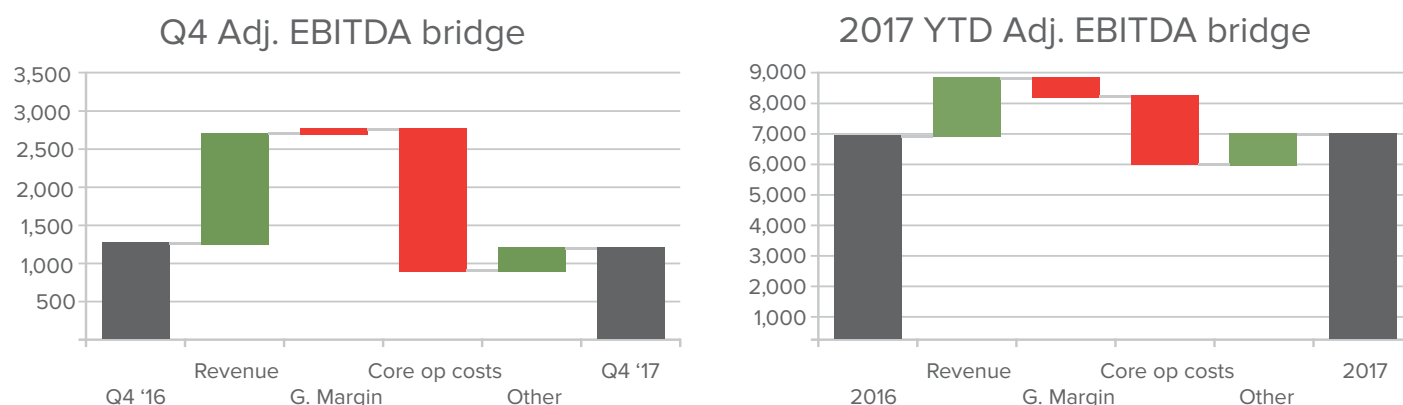
# 1. Financial Highlights

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

US\$ thousands	Three months ended December 31,			Year ended December 31,		
	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
<b>Total</b>	<b>7,745</b>	<b>15,303</b>	<b>14,103</b>	<b>8,945</b>

### 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, 2015
Signals	5,821	49,799	48,000	7,620
Illumination	615	4,649	3,939	1,325
<b>Total</b>	<b>6,436</b>	<b>54,448</b>	<b>51,939</b>	<b>8,945</b>

## 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

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 focuses on the design and manufacture of energy-efficient and/or solar-power connected (i.e. 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 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).



## Signals

### Telematics

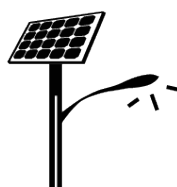


Our Telematics business is currently focused on designing and manufacturing devices to enable remote monitoring of assets. This new vertical was created as we see an opportunity to utilize our knowledge and expertise in solar and energy management systems to build and/or design solar-powered engines 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.

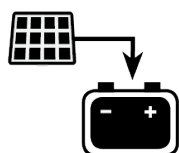
## Power\*

### 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 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

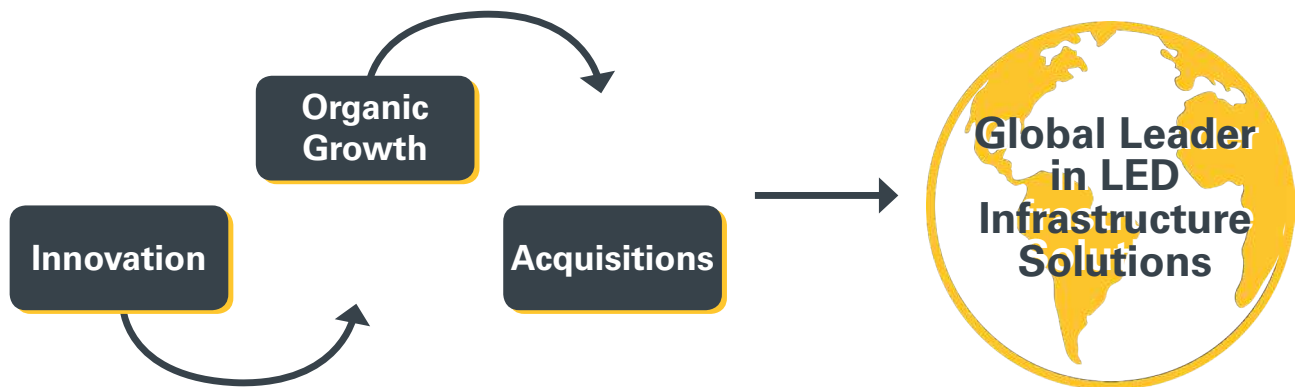
We aspire to be the global leader of signaling and solar lighting solutions for infrastructure through unique product and system solutions that allow us to attain and maintain high gross margins and great growth prospects.

### 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 totalled \$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.



## COMPLETE M2M\* CONNECTIVITY IN THE NEXT 3 YEARS

\*Machine to machine.

## 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.





### 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 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
<b>Net income from continuing operations</b>	<b>(44)</b>	<b>80</b>	<b>1,392</b>	<b>2,917</b>
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
<b>EBITDA*</b>	<b>727</b>	<b>942</b>	<b>4,494</b>	<b>6,561</b>
Merger and acquisition costs	155	294	485	666
Extraordinary legal costs/(recovery)	51	37	372	(161)
Restructuring	530	-	530	-
Other non-recurring	(141)	-	1,293	-
Foreign exchange (gain)/loss	(100)	43	(90)	(46)
<b>Adjusted EBITDA*</b>	<b>1,222</b>	<b>1,316</b>	<b>7,084</b>	<b>7,020</b>

\*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.

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 totalled €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 total \$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.

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.

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
<b>Balance at December 31, 2017</b>	<b>366</b>	<b>164</b>	<b>530</b>



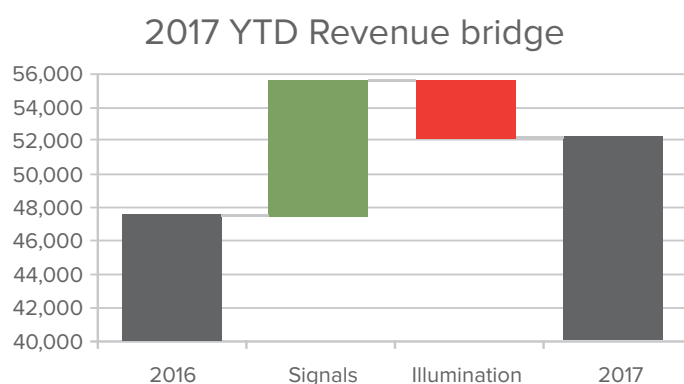
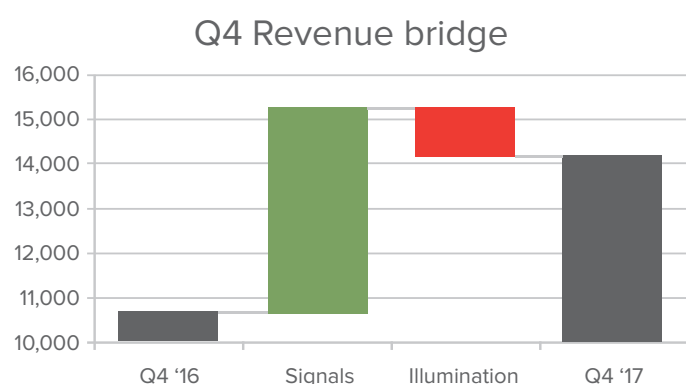
## 6. Financial Results

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

US\$ thousands	Three months ended December 31,			Year ended December 31,		
	2017	2016	Change	2017	2016	Change
<b>Revenues</b>						
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%)
<b>Total revenues</b>	<b>14,103</b>	<b>10,714</b>	<b>31.6%</b>	<b>51,939</b>	<b>47,742</b>	<b>8.8%</b>



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.

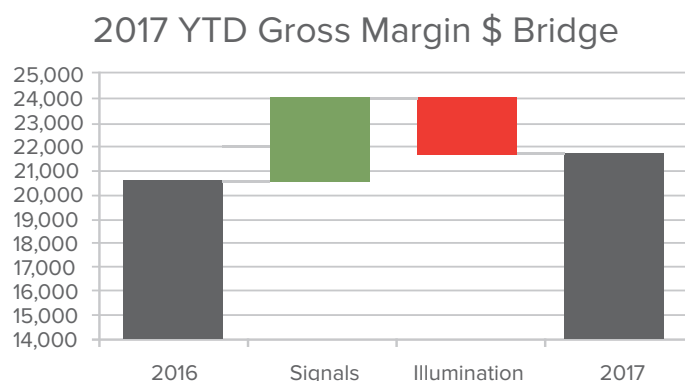
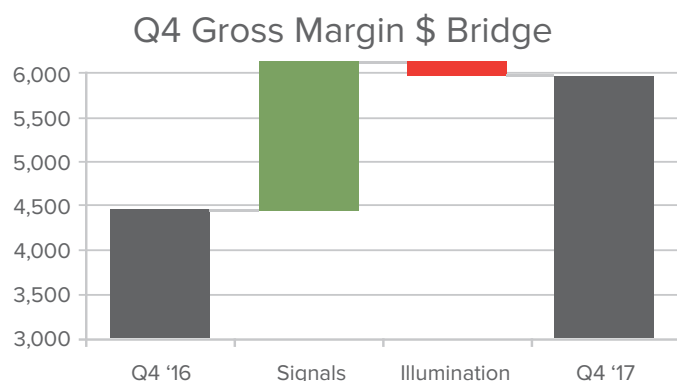
- **Illumination** - The decrease in the Illumination vertical for the three months ended December 31, 2017 and throughout the year was due to the transition from our legacy products to the new EverGen product. During the launch, several unexpected component shortages substantively restricted our ability 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 were a main contributor to this growth.

## GROSS MARGINS

US\$ thousands	Three months ended December 31,			Year ended December 31		
	2017	2016	Change	2017	2016	Change
<b>Gross margin %</b>						
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%)
<b>Total gross margin %</b>	<b>42.3%</b>	<b>41.6%</b>	<b>0.7%</b>	<b>41.6%</b>	<b>43.0%</b>	<b>(1.4%)</b>



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		
<b>Total operating expenditures</b>	<b>6,283</b>	<b>3,802</b>	<b>65.3%</b>	<b>19,173</b>	<b>16,531</b>	<b>16.0%</b>		
<i>Non-cash items:</i>								
<i>Amortization</i>	<i>805</i>	<i>426</i>	<i>89.0%</i>	<i>2,044</i>	<i>1,623</i>	<i>25.9%</i>		
<i>Stock-based payments</i>	<i>112</i>	<i>151</i>	<i>(25.8%)</i>	<i>609</i>	<i>700</i>	<i>(13.0%)</i>		
	<b>Q1 '16</b>	<b>Q2 '16</b>	<b>Q3 '16</b>	<b>Q4 '16</b>	<b>Q1 '17</b>	<b>Q2 '17</b>	<b>Q3 '17</b>	<b>Q4 '17</b>
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%
<b>Total core operating expenditures*</b>	<b>34.6%</b>	<b>31.0%</b>	<b>38.3%</b>	<b>35.5%</b>	<b>36.6%</b>	<b>34.7%</b>	<b>31.5%</b>	<b>40.8%</b>

\*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

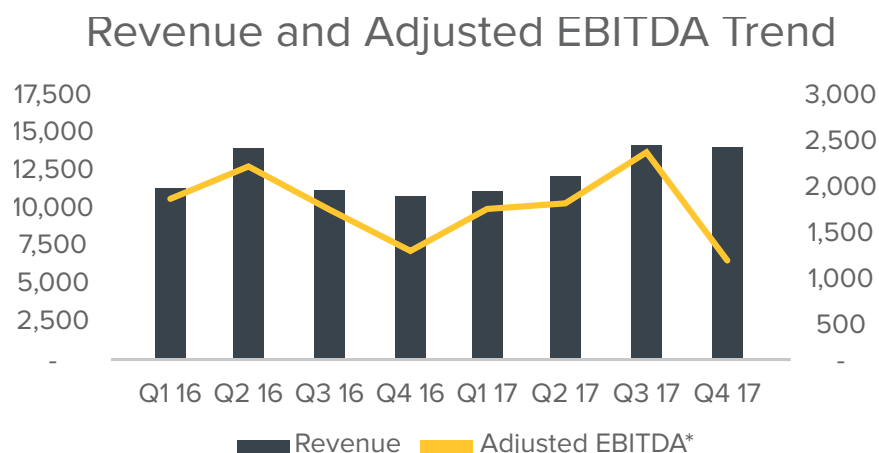
Income tax expense for the year was \$1.8 million, compared to \$1.5 million in the same period in 2016. Income tax from continuing operations was \$ 0.4 million compared to \$1.0 million in the same period in 2016. Income tax from discontinued operations was \$1.4 million, of which the majority related 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 EBITDA 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 <sup>(1)</sup>	1,870	2,171	1,668	1,316	1,645	1,777	2,440	1,222

(1) EBITDA and Adjusted EBITDA 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 is 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 – The decrease in revenue of \$0.4 million is 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

US\$ thousands	Year ended December 31,		
	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
<b>Total (decrease)/increase in cash from continuing operations</b>	<b>(8,743)</b>	<b>3,002</b>	<b>N/A</b>

#### 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 BY 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 the 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 has 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 to 3 years	990	-	28	4	116	1,138
Greater than 3 years	176	-	7	-	14	197
<b>Total</b>	<b>1,804</b>	<b>79</b>	<b>80</b>	<b>42</b>	<b>220</b>	<b>2,225</b>

## 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 RRF 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 totalling \$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 CAD \$1.85 million at any time during 2018 at guaranteed rates in exchange of USD \$1.46 million. These contracts were entered into for the purpose of meeting 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
<b>Outstanding</b>					
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 behaviour. 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 income approach applied 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.

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") has 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 overseeing 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 December 31, 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](http://www.sedar.com).

AREA OF RISK	DESCRIPTION
Competitive Environment	<p>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.</p> <p>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.</p>
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.

AREA OF RISK	DESCRIPTION
Foreign Exchange	<p>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 CAD \$1.85 million at any time during 2018 at guaranteed rates in exchange for USD \$1.46 million. These contracts were entered into for the purpose of meeting operational needs and not used as speculative investments.</p> <p>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.</p>
Reliance on Third Party Manufacturers	<p>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, and 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.</p> <p>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.</p>
Reliance on Suppliers	<p>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.</p> <p>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.</p>
Reliance on Outside Agents and Distributors	<p>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.</p> <p>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.</p>
Reliance on Key Employees	<p>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.</p>



AREA OF RISK	DESCRIPTION
Intellectual Property Risks	<p data-bbox="310 338 1528 636">Many of 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.</p> <p data-bbox="310 667 1528 867">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.</p> <p data-bbox="310 898 1528 1234">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.</p>
Environmental and Regulatory Compliance	<p data-bbox="310 1255 1528 1413">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.</p>
Government Contracts and Subsidies	<p data-bbox="310 1434 1528 1493">A significant portion of our revenues is derived from government and military agencies. Consequently, any disruption in government funding or in the relationship with those agencies could adversely affect our business.</p> <p data-bbox="310 1524 1528 1724">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.</p>



AREA OF RISK	DESCRIPTION
Product Quality and Reliability and Warranty Liability Risk	<p data-bbox="310 338 1533 537">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.</p> <p data-bbox="310 569 1533 695">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.</p> <p data-bbox="310 726 1503 894">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.</p> <p data-bbox="310 926 1533 989">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.</p>
Downturn in Economic and Market Conditions	<p data-bbox="310 999 1503 1094">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.</p> <p data-bbox="310 1125 1520 1356">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.</p> <p data-bbox="310 1388 1503 1482">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.</p>
Liquidity and Capital Requirements	<p data-bbox="310 1503 1533 1629">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.</p> <p data-bbox="310 1661 1533 1755">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.</p>
Litigation Risk	<p data-bbox="310 1776 1503 1871">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 favourably, it may have an adverse impact on our business, financial condition and results of operations.</p>



AREA OF RISK	DESCRIPTION
Cybersecurity Risk	<p>We rely on information technology systems and network infrastructure in all areas of operations and are therefore exposed to an increased number of sophisticated cybersecurity threats. A cybersecurity breach of sensitive and confidential information of the Company could disrupt systems and services and could have the potential to compromise the Company's financial positions or brands, and/or otherwise adversely affect the ability to achieve our strategic goals.</p> <p>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.</p>
Acquisitions or other Business Transactions	<p>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&amp;D costs, all of which could materially adversely affect our financial condition, results of operations and cash flows.</p>
Potential Reorganization of Operations or Product Offerings	<p>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, they 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.</p>
Geopolitical and other Global or Local Events	<p>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 in our normal operations and may disrupt the domestic and international travel of our distributors and sales agents.</p> <p>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.</p>
Legislative and Regulatory Change Risk	<p>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.</p> <p>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.</p>





# Consolidated Financial Statements

FOR THE YEARS ENDED DECEMBER 31, 2017 AND 2016

*(Amounts in thousands of U.S. dollars unless otherwise stated)*





# Independent Auditor's Report

To the Shareholders of Carmanah Technologies Corporation

We have audited the accompanying consolidated financial statements of Carmanah Technologies Corporation, which comprise the consolidated statements of financial position as at December 31, 2017 and December 31, 2016, the consolidated statements of income and total comprehensive income, changes in equity and cash flows for the years then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

## Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

## Auditor's Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a basis for our audit opinion.

## Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of Carmanah Technologies Corporation as at December 31, 2017 and December 31, 2016, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards.

March 23, 2018  
Vancouver, Canada





## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(Unless otherwise noted, expressed in thousands of U.S. dollars,  
except number of share and per share amounts)  
For the years ended December 31, 2017 and 2016

### CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

(EXPRESSED IN THOUSANDS OF U.S. DOLLARS)

	NOTES	DECEMBER 31, 2017	DECEMBER 31, 2016
<b>ASSETS</b>			
Cash and cash equivalents	5.1	11,823	21,921
Trade and other receivables	5.2	9,458	6,560
Inventories	6	8,504	6,215
Prepaid and other current assets		1,576	405
Income taxes receivable		416	148
Non-trade receivables	14.3, 21	5,410	-
<b>Total current assets</b>		<b>37,187</b>	<b>35,249</b>
Property and equipment	7	3,640	1,218
Intangible assets	8	10,070	7,531
Goodwill	9	18,654	16,838
Deferred income tax asset	19	6,661	7,165
Investment tax credits	19	945	2,512
Assets held for sale	21	-	16,394
<b>Total assets</b>		<b>77,157</b>	<b>86,907</b>
<b>LIABILITIES AND EQUITY</b>			
<b>Liabilities</b>			
Trade and other payables		6,265	4,612
Bank debt	11	7,383	7,414
Provisions	10	1,125	780
Income taxes payable		230	95
Deferred revenue		741	719
Non-trade payables	21	277	-
<b>Total current liabilities</b>		<b>16,021</b>	<b>13,620</b>
Deferred income tax liability	19	966	1,714
Liabilities held for sale	21	-	2,782
<b>Total liabilities</b>		<b>16,987</b>	<b>18,116</b>
<b>Equity</b>			
Share capital	12	66,242	86,376
Equity reserve	13	2,326	5,065
Accumulated other comprehensive gain/(loss)		1,181	(1,720)
Deficit		(9,579)	(20,930)
<b>Total equity</b>		<b>60,170</b>	<b>68,791</b>
<b>Total liabilities and equity</b>		<b>77,157</b>	<b>86,907</b>



Commitments and contingencies – Note 14

Subsequent events – Note 23

Approved and authorized for issue by the Board of Directors on March 20, 2018

*"John Simmons"*

John Simmons,  
Chief Executive Officer

*"James Meekison"*

James Meekison,  
Chair of the Board





## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(Unless otherwise noted, expressed in thousands of U.S. dollars,  
except number of share and per share amounts)  
For the years ended December 31, 2017 and 2016

### CONSOLIDATED STATEMENTS OF INCOME AND TOTAL COMPREHENSIVE INCOME

(Expressed in thousands of U.S. dollars, except number of share and per share amounts)

Years ended December 31,

	NOTES	2017	2016
Revenues		51,939	47,742
Cost of sales		30,342	27,201
<b>Gross profit</b>	<b>17</b>	<b>21,597</b>	<b>20,541</b>
Operating expenditures			
Sales and marketing		4,872	4,658
Research and development		3,125	2,388
General and administrative		10,646	9,485
Restructuring expenses		530	-
Total operating expenditures	16	19,173	16,531
<b>Operating income</b>		<b>2,424</b>	<b>4,010</b>
Other expenses/(income)			
Loss on disposal of assets		20	17
Other expense	20	744	85
Foreign exchange gain		(90)	(46)
Total other expenditures		674	56
<b>Income before taxes</b>		<b>1,750</b>	<b>3,954</b>
Income tax expense	18	358	1,037
<b>Net income from continuing operations</b>		<b>1,392</b>	<b>2,917</b>
Net income from discontinued operations, net of tax	21	9,959	1,311
<b>Net Income attributable to shareholders</b>		<b>11,351</b>	<b>4,228</b>
Other comprehensive loss			
Items that will not be reclassified subsequently to net income:			
Foreign currency translation adjustments		3,036	(949)
Foreign currency translation adjustments – discontinued operations		(135)	43
<b>Total comprehensive income</b>		<b>14,252</b>	<b>3,322</b>
Net Income per share			
<i>Basic - Continuing operations</i>		<i>0.06</i>	<i>0.12</i>
<i>Basic - Discontinued operations</i>		<i>0.42</i>	<i>0.05</i>
<b>Total</b>		<b>0.48</b>	<b>0.17</b>
<i>Diluted - Continuing operations</i>		<i>0.06</i>	<i>0.12</i>
<i>Diluted - Discontinued operations</i>		<i>0.41</i>	<i>0.05</i>
<b>Total</b>		<b>0.47</b>	<b>0.17</b>



	Years ended December 31,	
NOTES	2017	2016
Weighted average number of shares outstanding (Note 12.2)		
Basic	23,823,787	24,756,558
Diluted	24,244,371	25,259,610

## CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(Expressed in thousands of U.S. dollars, except number of share and per share amounts)

	NOTES	SHARE CAPITAL		EQUITY RESERVE	ACCUMULATED OTHER COMPREHENSIVE LOSS		TOTAL EQUITY
		# OF SHARES ('000)	AMOUNT		DEFICIT		
Balance, January 1, 2016		24,616	86,118	4,487	(814)	(25,158)	64,633
Net income		-	-	-	-	4,228	4,228
Share-based payments	13	-	-	767	-	-	767
Shares issued on stock option exercise	13	76	218	(70)	-	-	148
Shares issued from warrant exercise	12	240	1,186	(262)	-	-	924
Shares acquired and cancelled		(330)	(1,146)	143	-	-	(1,003)
Foreign currency translation adjustments		-	-	-	(906)	-	(906)
Balance, December 31, 2016		24,602	86,376	5,065	(1,720)	(20,930)	68,791
Net income		-	-	-	-	11,351	11,351
Share-based payments	13	-	-	589	-	-	589
Shares issued on stock option exercise	13	320	870	(293)	-	-	577
Shares acquired and cancelled	12.1	(6,000)	(21,004)	(3,035)	-	-	(24,039)
Foreign currency translation adjustments		-	-	-	2,901	-	2,901
Balance, December 31, 2017		18,922	66,242	2,326	1,181	(9,579)	60,170

**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

(Unless otherwise noted, expressed in thousands of U.S. dollars,  
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For the years ended December 31, 2017 and 2016

**CONSOLIDATED STATEMENTS OF CASH FLOWS**

(EXPRESSED IN THOUSANDS OF U.S. DOLLARS)

		<b>Years ended December 31,</b>	
	<b>NOTES</b>	<b>2017</b>	<b>2016</b>
<b>OPERATING ACTIVITIES</b>			
Net income		1,392	2,917
Add back (deduct) items not involving cash:			
Amortization		2,044	1,623
Loss on disposal of assets		20	17
Share-based payments	13	609	700
Unrealized foreign exchange loss/(gain)		278	(278)
Recognition of investment tax credits	19	1,567	1,036
Deferred income tax recovery	18	(244)	26
Changes in working capital and other items:			
Trade and other receivables		(576)	3,353
Inventories		21	327
Prepays and other current assets		(1,014)	38
Income tax receivable		(268)	(148)
Trade and other payables		1,030	(2,828)
Provisions		345	(246)
Deferred revenue		(262)	180
Income tax payable		135	(272)
<b>Net cash provided by operating activities from continuing operations</b>		<b>5,077</b>	<b>6,445</b>
<b>INVESTING ACTIVITIES</b>			
Proceeds from sale of On-Grid	21	2,003	-
Initial proceeds from sale of Off-Grid	21	17,693	-
Purchase of property and equipment	7	(271)	(547)
Purchase of intangible assets	8	(187)	(268)
Acquisition of Vega, net of cash	22	(8,672)	-
Acquisition of EKTA	22	(1,412)	-
<b>Net cash provided/(used) in investing activities from continuing operations</b>		<b>9,154</b>	<b>(815)</b>





		Years ended December 31,	
	NOTES	2017	2016
<b>FINANCING ACTIVITIES</b>			
Proceeds from exercised warrants		-	924
Proceeds from exercised stock options	13	577	148
Proceeds from credit facility draw	11	-	420
Debt Financing		7,000	-
Debt repayments		(7,031)	(3,099)
Share repurchase	12.1	(24,039)	(1,003)
<b>Net cash used in financing activities from continuing operations</b>		<b>(23,493)</b>	<b>(2,610)</b>
Foreign exchange effect on cash		519	(18)
<b>(Decrease)/increase in cash from continuing operations</b>		<b>(8,743)</b>	<b>3,002</b>
Cash (used in)/provided by discontinued operations	21	(1,355)	4,039
Cash at beginning of year		21,921	14,880
<b>Cash at end of year</b>		<b>11,823</b>	<b>21,921</b>







# 1. Summary of Business and Basis of Preparation

## 1.1 GENERAL BUSINESS DESCRIPTION

Carmanah Technologies Corporation (the “Company” or “Carmanah”) was incorporated under the provisions of the Business Corporations Act (Alberta) on March 26, 1996 and was continued under the provisions of the Business Corporations Act (British Columbia) on August 24, 2009. The Company is in the business of designing, developing and distributing a portfolio of products focused on energy optimized LED solutions for infrastructure.

Carmanah is a publicly-listed company incorporated in Canada with limited liability under the legislation of the Province of British Columbia. The Company’s shares are listed on the Toronto Stock Exchange (“TSX”) under symbol “CMH”. The Company’s head office is located at 250 Bay Street, Victoria, British Columbia, Canada, V9A 3K5. The Company’s registered and records office is located at Borden Ladner Gervais LLP, 1200 Waterfront Centre, 200 Burrard Street, P.O. Box 48600, Vancouver, British Columbia V7X 1T2.

## 1.2 BASIS OF PREPARATION AND STATEMENT OF COMPLIANCE

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board (“IASB”). These consolidated financial statements have been prepared on a going concern basis, under the historical cost convention, except for certain financial assets and financial liabilities which are measured at fair value.





## 2. Significant Accounting Policies

### 2.1 BASIS OF CONSOLIDATION

Carmanah consolidates subsidiaries controlled by the Company. Control exists when the Company is exposed, or has the rights, to variable returns from its involvement with the subsidiary and has the ability to affect those returns through its power over the subsidiary. The financial results of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases.

Intercompany balances and transactions, including any income and expenses arising from intercompany transactions, are eliminated in preparing the consolidated financial statements.

These consolidated financial statements include the following subsidiaries:

NAME	CURRENT PRINCIPAL ACTIVITY	PLACE OF INCORPORATION AND OPERATION	OWNERSHIP/VOTING INTEREST HELD BY THE COMPANY AT DECEMBER 31, 2017
Carmanah Technologies (U.S.) Corporation	Employed sales representatives who were based in the United States	United States - Nevada	100%
Sol, Inc	Holds a portion of the Company's Illumination segment	United States - Florida	100%
Sabik Oy	Holds a portion of the Company's Signals segment	Finland	100%
Sabik Oü	Holds a portion of the Company's Signals segment	Estonia	100%
Sabik Offshore GmbH (Formerly Sabik GmbH)	Holds a portion of the Company's Signals segment	Germany	100%
Sabik PTE Ltd	Holds a portion of the Company's Signals segment	Singapore	100%
Sabik Ltd	Holds a portion of the Company's Signals segment	United Kingdom	100%
Sabik Offshore Ltd	Holds a portion of the Company's Signals segment	United Kingdom	100%
Vega Industries Limited	Holds a portion of the Company's Signals segment	New Zealand	100%
Vega Navigations Americas Inc	Employed sales representatives who were based in the United States	United States - Texas	100%



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(Unless otherwise noted, expressed in thousands of U.S. dollars,  
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For the years ended December 31, 2017 and 2016

### 2.2 BUSINESS COMBINATIONS AND GOOD WILL

Business combinations are accounted for using the acquisition method. The cost of the business combination is measured as the aggregate of the consideration transferred, measured at the acquisition date at fair value. For each business combination, the acquirer measures the non-controlling interest in the acquiree either at fair value or at the appropriate share of the acquiree's identifiable net assets. The acquiree's identifiable assets, liabilities and contingent liabilities that meet the conditions for recognition under IFRS 3, Business Combinations are recognized at their fair values at the acquisition date. Acquisition costs incurred are expensed in the period in which they are incurred except for costs related to shares issued in conjunction with the business combination.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Company reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period or additional assets or liabilities are recognized to reflect new information obtained about facts and circumstances that existed as of the acquisition date that, if known, would have affected the amounts recognized as of that date.

The measurement period is the period from the date of acquisition to the date that the Company obtains complete information about facts and circumstances that existed as of the acquisition date and is subject to a maximum period of one year.

Goodwill is measured at the excess of the fair value of consideration transferred and amount of non-controlling interest in the acquiree and acquisition date fair value of existing equity interest in the acquiree over the acquisition fair value of the net identifiable assets acquired and liabilities assumed. If this amount is lower than the fair value of the net assets of the subsidiary acquired, the difference is recognized immediately in the Consolidated Statements of Income and Total Comprehensive Income.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses.

### 2.3 FOREIGN CURRENCIES

The presentation currency for the consolidated financial statements is the U.S. dollar. The functional currency of Carmanah Technologies Corporation, Sol Inc, Carmanah Technologies (US) Corporation and Sabik PTE Ltd. is the U.S. dollar. The functional currency of Carmanah Solar Power Corporation is the Canadian dollar. The functional currency of Sabik Oy, Sabik Offshore GmbH and Sabik Oü is the Euro. The functional currency of Sabik Ltd. and Sabik Offshore Ltd. is the British Pound. The functional currency of Vega Industries Limited is the New Zealand dollar. The functional currency of Vega Navigations Americas is the U.S. dollar. The assets and liabilities of subsidiary entities that have a different functional currency from that of the Company are translated at the exchange rate prevailing at the balance sheet date. The income statements of such entities are translated at average rates of exchange during the year. All resulting exchange differences are recognized directly in accumulated other comprehensive income (loss).

Transactions in currencies other than the functional currency are recorded at the rates of exchange at the date of the transaction. At each financial position reporting date, monetary assets and liabilities that are denominated in foreign currencies are translated at the rates prevailing at the period end date. Non-monetary items that are measured in terms of historical cost are translated using the historical rates. All gains and losses on translation of those foreign currency transactions are recorded in the Consolidated Statements of Income and Total Comprehensive Income.



## 2.4 DISCONTINUED OPERATION

A discontinued operation is a component of the Company's business, the operations and cashflows of which can be clearly distinguished from the rest of the Company and which:

- represents a separate major line of business or geographic area of operations;
- is part of a single coordinated plan to dispose of a separate major line of business or geographic area of operations; or
- is a subsidiary acquired exclusively with the view to re-sale.

Classification as a discontinued operation occurs at the earlier of disposal or when the operation meets the criteria to be classified as held-for-sale.

When the operation is classified as a discontinued operation, the Consolidated Statements of Income and Total Comprehensive Income is re-presented as if the operation has been discontinued from the start of the comparative year.

## 2.5 FINANCIAL INSTRUMENTS RECOGNITION AND INITIAL MEASUREMENT

Financial instruments are classified into one of the following categories: (1) fair value through profit or loss ("FVTPL"), (2) held-to-maturity ("HTM"), (3) loans and receivables, (4) available-for-sale ("AFS") financial assets or (5) other financial liabilities. The classification determines the accounting treatment of the instrument. Carmanah determines the classification when the financial instrument is initially recorded, based on the underlying purpose of the instrument.

Financial assets at FVTPL are measured at fair value with any changes recognized in profit or loss. Held-to-maturity financial assets and loans and receivables are measured at amortized cost using the effective interest method. Available-for-sale assets are measured at fair value with any changes recognized in other comprehensive income or loss.

Financial liabilities are classified as measured at amortized cost or FVTPL. A financial liability is classified as FVTPL if it is classified as held-for-trading, it is a derivative or it is designated as such on initial recognition. Financial liabilities at FVTPL are measured at fair value with net gains and losses recognized in profit or loss. Other financial liabilities are subsequently measured at amortized cost using the effective interest method.

### FINANCIAL ASSETS

#### **Cash and cash equivalents**

Cash comprises cash on hand and on demand deposits, together with short-term, highly liquid investments that are readily convertible to a known amount of cash and that are subject to an insignificant risk of changes in value.

For the purposes of the Consolidated Statements of Cash Flows, total cash includes cash at banks and on hand.

#### **Trade and other receivables**

Trade receivables do not accrue any interest, are short-term in nature and are measured at their value net of appropriate allowances for estimated amounts that are not expected to be recovered. Such allowances are raised based on an assessment of debtor ageing, past experience or known customer circumstances.



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### **Impairment of financial assets (including receivables)**

A financial asset not measured at fair value through profit or loss is assessed at each reporting date to determine whether there is any objective evidence that it is impaired. A financial asset is impaired if objective evidence indicates that a loss event has occurred after the initial recognition of the asset.

An impairment loss in respect of a financial asset measured at amortized cost is calculated as the difference between its carrying amount and the present value of the estimated cash flows discounted at the asset's original effective interest rate. Losses are recognized in the Consolidated Statements of Income and Total Comprehensive Income. When a subsequent event causes the amount of impairment loss to decrease, the decrease in impairment loss is reversed through the Consolidated Statements of Income and Total Comprehensive Income.

Impairment losses relating to available-for-sale investments are recognized when the decline in fair value is considered significant or prolonged. These impairment losses are recognized by transferring the cumulative loss that has been recognized in accumulated other comprehensive income to net income. The loss recognized in the Consolidated Statements of Income and Total Comprehensive Income is the difference between the acquisition cost and the current fair value.

## **FINANCIAL LIABILITIES AND EQUITY INSTRUMENTS**

Financial liabilities and equity instruments are classified and accounted for as debt or equity according to the substance of the contractual arrangements entered into. An equity instrument is any contract that evidences a residual interest in the assets of the Company after deducting all of its liabilities.

### **Equity instruments**

Equity instruments issued by Carmanah are recorded at the proceeds received, net of direct issue costs.

### **Trade and other payables**

Trade and other payables are not interest bearing and are measured at their face value until settled, which approximates amortized cost.

### **Debt**

Debt is initially measured at fair value and subsequently measured at amortized cost using the effective interest method.

### **Derecognition of financial assets and financial liabilities**

Financial assets are derecognized when the rights to receive cash flows from the asset have expired, the right to receive cash flows has been retained but an obligation to pay them in full without material delay has been assumed or the right to receive cash flows has been transferred together with substantially all the risks and rewards of ownership.

Financial liabilities are derecognized when the associated obligation has been discharged, cancelled or has expired.

### **Offsetting financial assets and liabilities**

Financial assets and liabilities are offset and the net amount is presented in the Consolidated Statements of Financial Position when, and only when, the Company has a legal right to offset the amounts and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously.



## 2.6 INVENTORIES

Inventories are valued at the lower of cost and net realizable value. Cost is determined on a weighted average basis and includes all costs of purchase, costs of conversion (direct costs and an allocation of fixed and variable production overheads) and other costs incurred in bringing the inventory to their present location and condition. Net realizable value is the estimated selling price less estimated costs to complete.

## 2.7 PROPERTY AND EQUIPMENT

Property, equipment and leasehold improvements are carried at cost, less accumulated amortization and accumulated impairment losses. The cost of an item of equipment and leasehold improvements consists of the purchase price, any costs directly attributable to bringing the asset to the location and condition necessary for its intended use, and an initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located.

Depreciation is recognized at rates calculated to write off the cost of equipment and leasehold improvements, less their estimated residual value, using the straight-line method. The periods are outlined below:

ASSET	YEARS
Computer hardware	3-5
Leasehold improvements	lesser of useful life or initial term of lease
Building	50
Building improvements	10
Office equipment	3-8
Production equipment	3-10
Research and trade show equipment	5

Estimated useful lives, amortization methods, rates and residual values are reviewed on an annual basis, with any changes in these estimates accounted for on a prospective basis.

An item of property and equipment is derecognized upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on disposal of the asset, determined as the difference between the net disposal proceeds and the carrying amount of the asset, is recognized in profit or loss in the Consolidated Statements of Income and Total Comprehensive Income. Where an item of equipment comprises major components with different useful lives, the components are accounted for as separate items of equipment. Expenditures incurred to replace a component of an item of equipment and leasehold improvements that are accounted for separately, including major inspection and overhaul expenditures, are capitalized and amortized over their estimated useful life.







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### 2.8 INTANGIBLE ASSETS

Intangible assets consist of computer software, license rights, trademarks, patents, a domain name and product development assets recognized from the acquisition of Sol, Inc and the Sabik Group of Companies. Customer lists, order backlog and brand name have been recognized related to the acquisition of Sabik. Product development assets have been recognized related to the acquisition of EKTA. Customer lists, brand name and product development assets have been recognized related to the acquisition of Vega Industries Limited. Following initial recognition, intangible assets are carried at cost less any accumulated amortization and any accumulated impairment losses. The amortization period and the amortization method for an intangible asset with a finite useful life are reviewed at least each year end.

Computer software relates to expenditures incurred to acquire and implement software used within the business. Software assets are amortized over their estimated useful lives which varies between 3 and 5 years.

Patent and trademark assets consist of professional fees incurred for the filing of patents and the registration of trademarks for product marketing purposes. Patent and trademark registration and maintenance fees paid are amortized on a straight line basis over 4 years.

The domain name recognized from the acquisition of Sol, Inc and brand names recognized from the acquisition of Sabik and Vega have an indefinite life and thus are not amortized but are subject to annual impairment analysis.

The customer list asset recognized from the acquisition of Sabik relates to customer relationships that have useful lives between 3 and 10 years.

The product development assets from the acquisition of EKTA related to technologies that have useful lives of 5 years.

The customer list asset recognized from the acquisition of Vega has a useful life of 10 years and product development assets from the acquisition of Vega Industries Limited have useful lives of 5 years.

### 2.9 IMPAIRMENT OF NON-FINANCIAL ASSETS

At each reporting date, the Company assesses whether there is an indication that an asset may be impaired. If any indication exists, or when annual impairment testing for an asset is required, the Company estimates the asset's recoverable amount.

The recoverable amount is the higher of an asset's or cash-generating unit ("CGU") fair value less costs of disposal and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the CGU to which the asset belongs.

An impairment loss is recognized when the carrying amount of an asset, or its CGU, exceeds its recoverable amount. A CGU is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. Impairment losses are recognized in the Consolidated Statements of Income and Total Comprehensive Income.

An impairment loss is reversed if there is an indication that an impairment loss recognized in prior periods may no longer exist. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized previously. Such reversal is recognized in the Consolidated Statements of Income and Total Comprehensive Income. An impairment loss with respect to goodwill is never reversed.

The following criteria are also applied in assessing impairment of specific assets:

Goodwill is tested for impairment annually and when circumstances indicate that the carrying value may be impaired.



Impairment is determined for goodwill by assessing the recoverable amount of each CGU or group of CGUs to which the goodwill relates. Where the recoverable amount of the CGU is less than its carrying amount an impairment loss is recognized to the extent the carrying amount exceeds the recoverable amount. Impairment losses relating to goodwill are not reversed in future periods.

Intangible assets with indefinite lives are tested for impairment annually either individually or at the CGU level, as appropriate, and when circumstances indicate that the carrying value may be impaired.

## 2.10 PROVISIONS

Provisions are recorded when a present legal or constructive obligation exists as a result of past events where it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate of the amount of the obligation can be made.

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at the statement of financial position date, taking into account the risks and uncertainties surrounding the obligation. When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, the receivable is recognized as an asset if it is virtually certain that reimbursement will be received and the amount receivable can be measured reliably.

## 2.11 SHARE-BASED PAYMENTS

For equity-settled share-based compensation, expense is based on the grant date fair value of the awards expected to vest over the vesting period. The Company maintains several share based compensation plans for certain employees and directors that may be settled in cash and/or equity. At December 31, 2017 there were no awards outstanding which are cash settled. The expense is recognized over the vesting period, which is the period over which all the specified vesting conditions are satisfied. For awards with graded vesting, the fair value of each tranche is recognized over its respective vesting period. At the end of each reporting period, the Company re-assesses its estimates of the number of awards that are expected to vest and recognizes the





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impact of the revisions in the Consolidated Statements of Income and Total Comprehensive Income.

The fair value of the stock options granted is measured using the Black-Scholes option pricing model taking into account the terms and conditions upon which the options were granted. The fair value of the stock units granted is measured using the common share price at the time of the grant.

### 2.12 REVENUE RECOGNITION

Carmanah measures revenue at the fair value of the consideration received or receivable.

#### SALE OF GOODS

Revenue from the sale of products is recognized when all of the following conditions have been met:

- title and risk involving the products are transferred to the buyer;
- the Company's managerial involvement over the goods ceases to exist;
- the amount of revenue can be measured reliably;
- it is probable that the economic benefits associated with the transaction will flow to the Company; and
- the costs incurred in respect of the transaction can be measured reliably.

If there is a requirement for customer acceptance of any products shipped, revenue is recognized only after customer acceptance has been received. Payments received in advance of the satisfaction of the Company's revenue recognition criteria are recorded as deferred revenue.

Provisions are established for estimated product returns and warranty costs at the time revenue is recognized based on historical experience for the product.

### 2.13 RESEARCH AND DEVELOPMENT COSTS

Carmanah is engaged in research and development activities. Research and development costs are expensed as incurred.

### 2.14 INVESTMENT TAX CREDITS

Carmanah is entitled to certain Canadian federal and provincial tax incentives for qualified scientific research and experimental development activities. The associated investment tax credits ("ITCs") are available to the Company to reduce actual income taxes payable and are recorded when it is probable that such credits will be utilized. The utilization is dependent upon the generation of future taxable income. Management assesses the probability of usage based upon forecasted results utilizing a sensitivity analysis on various factors that impact profitability.

The Company's policy is to net ITCs against the associated expense, which are usually captured within the Research and development caption under operating costs in the Consolidated Statements of Income and Comprehensive Income. Any impairments or initial recognition of the ITCs are recognized under a separate caption within Operating expenditures, as was the case in 2016. This separate presentation is to highlight the unusual nature of these types of adjustments.

### 2.15 INCOME TAXES

Income tax on profit or loss for the periods presented comprises current and deferred tax. Income tax is recognized in profit or loss except to the extent that it relates to items recognized directly in equity, in which case it is recognized in equity.



Current tax expense is the expected tax payable on the taxable income for the year, using tax rates substantively enacted at period end, adjusted for amendments to tax payable with regards to previous years.

Deferred tax is recognized, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the Statements of Financial Position. Deferred tax is calculated using tax rates and laws that have been substantively enacted at the end of the reporting period, and which are expected to apply when the related deferred income tax asset is realized or the deferred income tax liability is settled.

#### Deferred tax liabilities

- are generally recognized for all taxable temporary differences;
- are recognized for taxable temporary differences arising on investments in subsidiaries, associates and joint ventures, except where the reversal of the temporary difference can be controlled and it is probable that the difference will not reverse in the foreseeable future; and
- are not recognized on temporary differences that arise from goodwill which is not deductible for tax purposes.

#### Deferred tax assets:

- are recognized to the extent it is probable that taxable profits will be available against which the deductible temporary differences can be utilized; and
- are reviewed at the end of the reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax assets and liabilities are not recognized in respect of temporary differences that arise on initial recognition of assets and liabilities acquired other than in a business combination. Current and deferred tax assets and liabilities are offset when there is a legally enforceable right to offset tax assets against tax liabilities and when they relate to income taxes levied by the same taxation authority and the Company intends to settle its tax assets and liabilities on a net basis.

## 2.16 EARNINGS PER SHARE

The Company presents basic and diluted per share data for its common shares, calculated by dividing the income attributable to common shareholders of Carmanah by the weighted average number of common shares outstanding during the period. Diluted earnings per share is determined by adjusting the profit attributable to common shareholders and the weighted average number of common shares outstanding for the effects of all dilutive potential common shares, which are comprised of restricted shares and share options granted to employees and directors of the Company and warrants.

## 2.17 SEGMENT REPORTING

Carmanah's operating segments are organized around the markets it serves and are reported in a manner consistent with the internal reporting provided to the Chief Executive Officer ("CEO"). The CEO is considered the chief operating decision-maker ("CODM") and has the authority for resource allocation and is responsible for assessing the Company's performance.

## 2.18 ASSETS HELD FOR SALE

Non-current assets, or disposal groups comprising assets and liabilities, are classified as held-for-sale if it is highly probable that they will be recovered primarily through sale rather than through continuing use. Such assets, or disposal groups, are generally measured at the lower of their carrying amount and fair value less costs to sell. Any impairment loss on a disposal group is allocated first to goodwill, and then to the remaining assets and liabilities on a pro rata basis, except that no loss is allocated to inventories, financial assets, deferred tax assets, employee benefit assets, investment property or biological assets, which continue to be measured in accordance with the Company's other accounting policies. Impairment losses on initial classification as held-for-sale and subsequent gains and losses on remeasurement are recognized in profit or loss.

Once classified as held-for-sale, intangible assets and property, plant and equipment are no longer amortized or depreciated.



## 3. Significant Judgments and Estimates

The preparation of financial statements requires management to make estimates and judgments about the future.

Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Accounting estimates will, by definition, seldom equal the actual results. The following discussion sets forth management's most critical estimates and assumptions in determining the value of assets and liabilities, and most critical judgments in applying accounting policies.

### 3.1 CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

#### SHARE-BASED PAYMENTS

In determining share-based payments expense, Carmanah makes 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 behaviour. 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.

#### INCOME TAXES

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.

#### VALUATION OF 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 future net cash flows and appropriate discount rates. 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.





## 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 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.







## 4. 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 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 this change will be effective for annual periods beginning on or after January 1, 2018.
- 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.

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.





## 5. Financial Instruments

### CLASSIFICATION AND CARRYING VALUE

The following table summarizes information regarding the classification and carrying values of Carmanah's financial instruments:

	LOANS AND RECEIVABLES	OTHER FINANCIAL LIABILITIES	FAIR VALUE THROUGH PROFIT OR LOSS	DECEMBER 31, 2017
<b>Financial Assets</b>				
Cash and cash equivalents	11,805	-	18	11,823
Trade and other receivables	9,458	-	-	9,458
Non-trade receivables	5,410	-	-	5,410
<b>Financial Liabilities</b>				
Trade and other payables	-	(6,265)	-	(6,265)
Bank Debt	-	(7,383)	-	(7,383)
Non-trade payables	-	(277)	-	(277)

	LOANS AND RECEIVABLES	OTHER FINANCIAL LIABILITIES	FAIR VALUE THROUGH PROFIT OR LOSS	DECEMBER 31, 2017
<b>Financial Assets</b>				
Cash and cash equivalents	21,921	-	-	21,921
Trade and other receivables	6,560	-	-	6,560
<b>Financial Liabilities</b>				
Trade and other payables	-	(4,612)	-	(4,612)
Bank Debt	-	(7,414)	-	(7,414)

### FAIR VALUE

The following fair value measurement hierarchy is used for financial instruments that are measured in the Consolidated Statements of Financial Position at fair value:

- Level 1 – quoted prices (unadjusted) in active markets for identical assets and liabilities;
- Level 2 – inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices); and
- Level 3 – inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs).

The carrying value of cash and cash equivalents, trade and other receivables, and trade and other payables approximates their fair value due to the relatively short-term maturity of these financial instruments. The carrying value of bank debt is initially recognized at fair value and subsequently measured at amortized cost using the effective interest method.

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**FOREIGN CURRENCY RISK MANAGEMENT**

Carmanah transacts business in multiple currencies, which gives rise to market risks exposure associated with fluctuating foreign currency values. Most significantly, the Company has potential exposure to currency fluctuations between the U.S. dollar and Canadian dollar, the U.S. dollar and Euro, and the U.S. dollar and New Zealand dollar. As of December 31, 2017, Carmanah entered into foreign currency forward contracts to purchase a total amount of CAD \$1.85 million at any time during 2018 at guaranteed rates in exchange for USD \$1.46 million. These contracts were entered into for the purpose of meeting operational needs and not used as speculative investments. These foreign currency forward contracts were recorded at fair value and 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.

A breakdown of Carmanah's financial instruments by currency, presented in U.S. dollars, is provided below:

	US DOLLAR	CANADIAN DOLLAR	EURO	NEW ZEALAND DOLLAR	OTHER	TOTAL
<b>Balance at December 31, 2017</b>						
Cash	6,922	226	4,686	(63)	52	11,823
Trade and other receivables	4,275	-	4,283	690	210	9,458
Non-trade receivables	1,950	3,460	-	-	-	5,410
Trade and other payables	(2,738)	-	(2,644)	(631)	(252)	(6,265)
Bank debt	(7,000)	-	(383)	-	-	(7,383)
Non-trade payables	-	(277)	-	-	-	(277)
<b>Balance at December 31, 2016</b>						
Cash	16,358	1,592	3,935	-	36	21,921
Trade and other receivables	2,956	-	3,390	-	214	6,560
Trade and other payables	(2,489)	-	(1,885)	-	(238)	(4,612)
Bank debt	(6,994)	-	(420)	-	-	(7,414)

Carmanah estimates a five percent increase or decrease in the Canadian dollar relative to the U.S. dollar would result in a \$0.3 million loss or gain to operating income given the currency mix of the Company's financial instruments. The Euro amounts are held at the Company's subsidiaries, which have a Euro functional currency so there would be no impact to net income. The New Zealand dollar amounts are held at the Company's subsidiary, which has a New Zealand dollar functional currency so there would be no impact to net income.

The Company attempts to manage the exposure to foreign currency fluctuations by managing the amount of foreign denominated working capital held. The success of these efforts is often limited due to the uncertainty surrounding the timing and magnitude of foreign currency sales and associated cash flows.

**INTEREST RATE RISK MANAGEMENT**

Carmanah is exposed to interest rate risk on the debt held with financial institutions based on the floating interest rates. Carmanah estimates that a 1% increase or decrease in interest rates would result in a \$0.1 million loss or gain to net income before tax.

**CREDIT RISK MANAGEMENT**

The carrying amount of financial assets represents the maximum credit exposure.

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the Company. This risk is mainly associated with trade and other receivables and is discussed in detail within note 5.2.



## LIQUIDITY RISK MANAGEMENT

Liquidity refers to the risk that the Company will encounter difficulty in satisfying financial obligations as they become due. The Company's approach to managing liquidity risk is to provide reasonable assurance that it will have sufficient funds to meet liabilities when due. The Company manages its liquidity risk by forecasting cash flows required for operations and anticipated investing and financing activities.

### 5.1 CASH AND CASH EQUIVALENTS

Cash represents cash in banks, cash on hand and cash in foreign currency forward contracts. At December 31, 2017, there was \$0.02 million of foreign currency forward contracts included in cash equivalents (December 31, 2016 - \$Nil).

### 5.2 TRADE AND OTHER RECEIVABLES

Trade and other receivables are composed of the following:

	DECEMBER 31, 2017	DECEMBER 31, 2016
Trade receivables	7,568	6,447
Allowance for doubtful accounts	(119)	(225)
Other receivables	2,009	338
<b>Total trade and other receivables</b>	<b>9,458</b>	<b>6,560</b>

#### 5.2.1 NET TRADE RECEIVABLES

##### TRADE RECEIVABLES

Trade receivables generally carry 30-day terms, although this can vary for certain customers. Generally, no interest is charged on trade receivables. At December 31, 2017, \$2.1 million (December 31, 2016 - \$1.7 million) was due from the five largest accounts.

##### ALLOWANCE FOR DOUBTFUL ACCOUNTS/CREDIT RISK MANAGEMENT

Before extending credit terms to a new customer, Carmanah assesses the potential customer's credit quality by performing external credit checks and references. Credit limits and terms for existing customers are reviewed on an as needed basis based on order and payment history.

At each period end, Carmanah reviews the collectability of outstanding receivables. In general, the Company provides an allowance of (1) 100% on accounts that have been transferred to a collection agency or for which there have been no recent communication, and (2) a variable percentage (from 10%-50%) on accounts that have had irregular communications, originate from a higher risk country, or have slow payment history. The percentage provided is based on reference to historical experience on defaults and an analysis of the counterparty's current financial situation. The specific accounts are only written off once all collections avenues have been explored or when legal bankruptcy has occurred. The following is a reconciliation of the allowance account:

RECONCILIATION OF THE ALLOWANCE FOR DOUBTFUL ACCOUNTS	DECEMBER 31, 2017	DECEMBER 31, 2016
Balance, beginning of year	225	146
Write-offs of specific accounts	(14)	(78)
Reclassification of discontinued operations	(5)	(1)
Change in provision	(87)	158
<b>Balance, end of year</b>	<b>119</b>	<b>225</b>



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At December 31, 2017, approximately 99% (December 31, 2016 - 97%) of the trade receivables were either current or are past due but were not impaired.

Total trade receivables disclosed include amounts that are past due at the end of the reporting period for which the Company has not recognized an allowance because there has not been a significant decrease in credit quality and are still considered fully recoverable. The following table outlines the relative age of these receivables that are past due but not impaired:

ACCOUNTS OVERDUE BUT NOT IMPAIRED	DECEMBER 31, 2017	DECEMBER 31, 2016
1-30 days	1,718	1,035
31-90	1,190	534
90+	132	215
<b>Total</b>	<b>3,040</b>	<b>1,784</b>

### 5.2.2 OTHER RECEIVABLES

As of December 31, 2017, other receivables primarily relate to amounts held in escrow related to the Vega acquisition of \$1.4 million (note 22) as contingent consideration receivable.

### 5.3 CAPITAL MANAGEMENT

Carmanah defines capital that it manages as the aggregate of short-term and long-term debt and total equity. Changes are made to the capital structure upon approval from the Company's Board of Directors or shareholders as required. Carmanah has outstanding debt as described in note 11. The Company's overall strategy with respect to management of capital is to use debt for the purpose of acquisition and ongoing operations. The Company is required to meet certain covenants as a result of the outstanding debt. As of December 31, 2017, the Company was in compliance with all covenants.



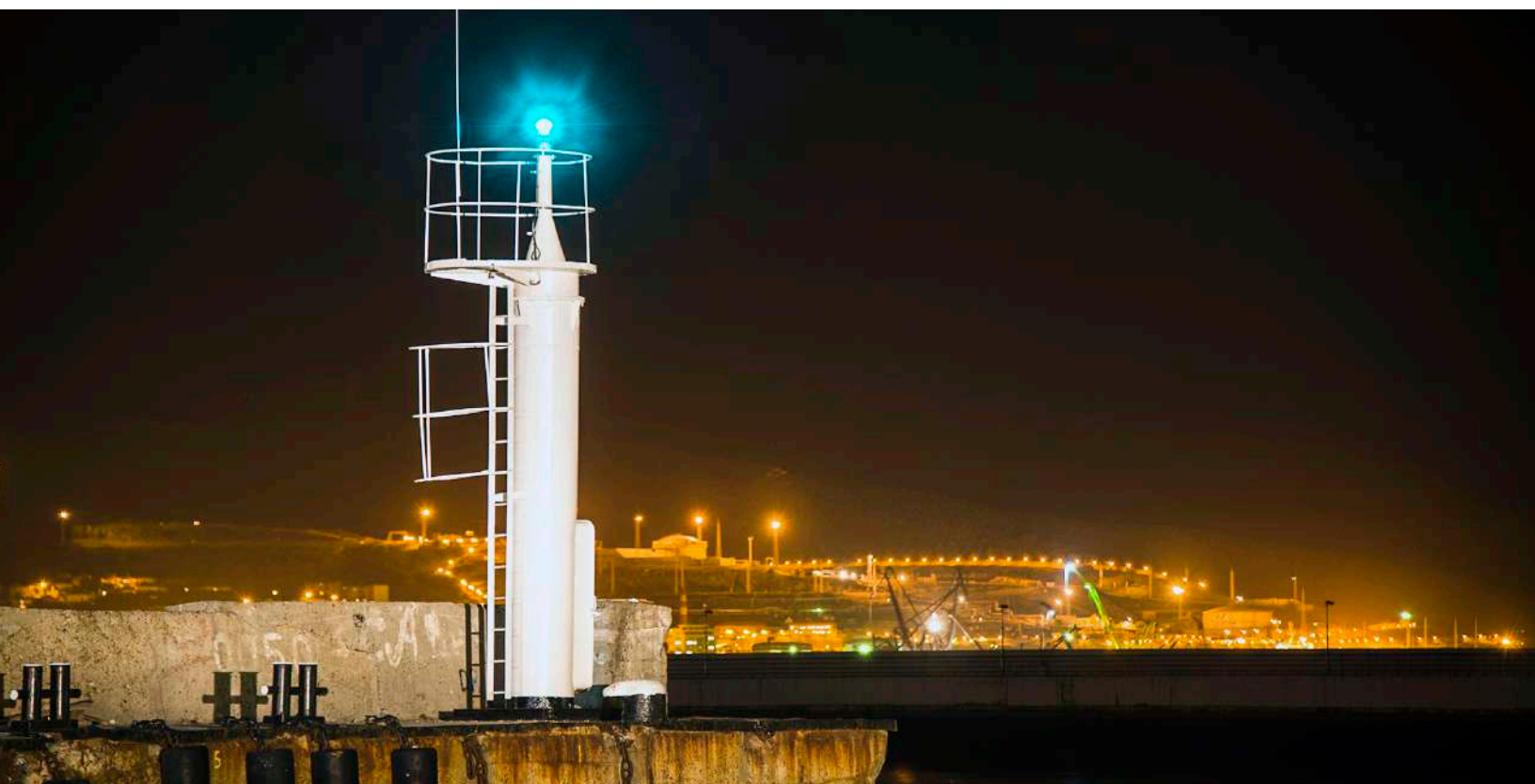


## 6. Inventories

	DECEMBER 31, 2017	DECEMBER 31, 2016
Finished goods	4,709	1,548
Work in progress	837	668
Raw materials	3,975	4,370
Provision for obsolescence	(1,017)	(371)
<b>Net inventories</b>	<b>8,504</b>	<b>6,215</b>

For the year ended December 31, 2017, inventory recognized as an expense in cost of sales amounted to \$24.2 million (2016 - \$23.6 million). Included in the above amounts were inventory write downs of \$1.1 million (2016 - \$0.4 million). There were no reversals of previously recorded inventory write downs. As at December 31, 2017, the Company anticipates the net inventory will be realized within one year.

Carmanah has agreements with contract manufacturers to build and supply its manufactured products. Under these agreements, the Company will be liable for inventory and outstanding committed purchase orders. At present, Carmanah is dealing with two significant contract manufacturers. Under the terms of the contract manufacturing agreements, Carmanah is required to purchase excess raw material inventory which arises in situations where the Company's demand forecasts for a product are less than actual use or sales in each period. At December 31, 2017, the 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.





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# 7. Property and Equipment

The Company's property and equipment are broken down as follows:

	COMPUTER HARDWARE	LAND AND BUILDING*	LEASEHOLD IMPROVEMENTS	OFFICE EQUIPMENT	PRODUCTION EQUIPMENT	RESEARCH AND TRADESHOW EQUIPMENT	VEHICLE	TOTAL
<b>Cost</b>								
<b>Balance January 1, 2016</b>	<b>335</b>	<b>-</b>	<b>799</b>	<b>227</b>	<b>1,068</b>	<b>427</b>	<b>-</b>	<b>2,856</b>
Additions	103	-	167	8	246	23	-	547
Disposals	(42)	-	-	(4)	(70)	(15)	-	(131)
Reclassification held for sale	(35)	-	(78)	(19)	(60)	(14)	-	(206)
Foreign exchange adjustments	-	-	(2)	(5)	(19)	-	-	(26)
<b>Balance December 31, 2016</b>	<b>361</b>	<b>-</b>	<b>886</b>	<b>207</b>	<b>1,165</b>	<b>421</b>	<b>-</b>	<b>3,040</b>
Additions	85	-	-	18	153	15	-	271
Disposals	(33)	-	(36)	(7)	-	(4)	-	(80)
Acquisition	46	2,398	-	85	204	-	8	2,741
Reclassification held for sale	-	-	-	-	-	-	-	-
Foreign exchange adjustments	(2)	(123)	27	9	99	-	-	10
<b>Balance at December 31, 2017</b>	<b>457</b>	<b>2,275</b>	<b>877</b>	<b>312</b>	<b>1,621</b>	<b>432</b>	<b>8</b>	<b>5,982</b>
<b>Accumulated amortization</b>								
<b>Balance January 1, 2016</b>	<b>172</b>	<b>-</b>	<b>564</b>	<b>54</b>	<b>324</b>	<b>405</b>	<b>-</b>	<b>1,519</b>
Amortization for the period	83	-	129	27	225	9	-	473
Disposals	(30)	-	-	(1)	(50)	(15)	-	(96)
Reclassification held for sale	(10)	-	(19)	(4)	(10)	(6)	-	(49)
Foreign exchange adjustments	(9)	-	(1)	(2)	(11)	(2)	-	(25)
<b>Balance December 31, 2016</b>	<b>206</b>	<b>-</b>	<b>673</b>	<b>74</b>	<b>478</b>	<b>391</b>	<b>-</b>	<b>1,822</b>
Amortization for the period	84	24	65	43	264	7	1	488
Disposals	(11)	-	(7)	(2)	(6)	(2)	-	(28)
Reclassification held for sale	-	-	-	-	-	-	-	-
Foreign exchange adjustments	-	1	10	4	45	-	-	60
<b>Balance December 31, 2017</b>	<b>279</b>	<b>25</b>	<b>741</b>	<b>119</b>	<b>781</b>	<b>396</b>	<b>1</b>	<b>2,342</b>
<b>Carrying amounts</b>								
At December 31, 2016	155	-	213	133	687	30	-	1,218
At December 31, 2017	178	2,250	136	193	840	36	7	3,640

\*At December 31, 2017, land and building with a carrying value of \$2.3 million (December 31, 2016 – nil) have been pledged as security for the CIBC credit facility (see Note 11 Bank Debt).



## 8. Intangible Assets

The Company's intangible assets are broken down as follows:

	PATENTS AND TRADEMARKS	SOFTWARE	CUSTOMER LISTS	PRODUCT DEVELOPMENT	BRAND AND DOMAIN NAME	BACKLOG	TOTAL
<b>Cost</b>							
Balance January 1, 2016	739	2,529	4,728	1,826	2,020	886	12,728
Additions	-	268	-	-	-	-	268
Disposals	-	(1,539)	-	-	-	-	(1,539)
Reclassification held for sale	-	(32)	-	-	-	-	(32)
Foreign exchange adjustments	-	-	(169)	(56)	(71)	(32)	(328)
<b>Balance December 31, 2016</b>	<b>739</b>	<b>1,226</b>	<b>4,559</b>	<b>1,770</b>	<b>1,949</b>	<b>854</b>	<b>11,097</b>
Additions	-	187	-	-	-	-	187
Disposals	(3)	(54)	-	-	-	-	(57)
Acquisition	-	-	638	2,215	123	-	2,976
Foreign exchange adjustments	-	14	602	366	255	119	1,356
<b>Balance December 31, 2017</b>	<b>736</b>	<b>1,373</b>	<b>5,799</b>	<b>4,351</b>	<b>2,327</b>	<b>973</b>	<b>15,559</b>
<b>Accumulated amortization</b>							
Balance January 1, 2016	681	1,834	281	346	-	886	4,028
Amortization for the period	29	196	542	368	-	-	1,135
Disposals	-	(1,539)	-	-	-	-	(1,539)
Reclassification held for sale	-	(9)	-	-	-	-	(9)
Foreign exchange adjustments	-	-	(11)	(6)	-	(32)	(49)
<b>Balance December 31, 2016</b>	<b>710</b>	<b>482</b>	<b>812</b>	<b>708</b>	<b>-</b>	<b>854</b>	<b>3,566</b>
Amortization for the period	18	269	606	663	-	-	1,556
Disposals	(2)	-	-	-	-	-	(2)
Foreign exchange adjustments	-	5	148	97	-	119	369
<b>Balance December 31, 2017</b>	<b>726</b>	<b>756</b>	<b>1,566</b>	<b>1,468</b>	<b>-</b>	<b>973</b>	<b>5,489</b>
<b>Carrying amounts</b>							
At December 31, 2016	29	744	3,747	1,062	1,949	-	7,531
At December 31, 2017	10	617	4,233	2,883	2,327	-	10,070

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## 9. Goodwill

	ILLUMINATION	SIGNALS	TOTAL
Balance, January 1, 2016	5,746	11,503	17,249
Foreign exchange adjustment	-	(411)	(411)
Balance, December 31, 2016	5,746	11,092	16,838
Vega acquisition (note 22)	-	288	288
Foreign exchange adjustment		1,528	1,528
Balance, December 31, 2017	5,746	12,908	18,654

The Company performs an impairment test annually on December 31 each year or if there is an indication of impairment. No impairment of goodwill was identified as a result of the Company's most recent impairment test as December 31, 2017, nor at December 31, 2016. The goodwill impairment testing is based on a value in use approach and is completed for two cash generating units, one within the Signals reportable operating segment and the other being the Illumination segment as a whole.

The key assumptions used in performing the impairment tests were as follows:

SEGMENT	5-YEAR REVENUE GROWTH RATE		DISCOUNT RATE		TERMINAL GROWTH RATE	
	2017	2016	2017	2016	2017	2016
Signals	5.0%	2.4-17.6%	13.3%	14.5%	2.0%	2.0%
Illumination	7.1-16.7%	12.5-28.1%	12.3%	15.5%	2.0%	2.0%

The recoverable amount is determined by management's past experience and future expectations of the business performance are used to make a best estimate of the expected revenue, earnings before interest, taxes, amortization and operating cash flows for a five-year period. The revenue growth rate in that period is based upon management's current and long term forecasts for each business is a key driver within the test.

Other key assumptions in the analysis, include the discount and terminal growth rate. The discount rate applied in the model is a pre-tax rate that reflects the time value of money and risk associated with the business. The terminal growth rate is based on the long-term growth prospect of the businesses beyond a 5-year term. The December 31, 2017 impairment assessments showed an excess over carrying value of \$1.9 million for Illumination, and \$5.0 million for Signals. A sensitivity analysis was also completed on both models and it was determined reasonable changes to key assumptions would not result in an impairment loss.



## 10. Provisions

	DECEMBER 31, 2017	DECEMBER 31, 2016
Warranty provisions	1,082	737
Provision relating to Sol, Inc. acquisition	43	43
<b>Total</b>	<b>1,125</b>	<b>780</b>

### OUTSTANDING PROVISIONS

Carmanah provides its customers with a limited right of return for defective products. All warranty returns must be authorized by the Company prior to acceptance. The warranty term varies between 1 and 5 years depending on the product and the customer. The estimates surrounding the warranty provision are reviewed on a regular basis and updated for recent experience and known product issues.

In the acquisition of Sol, it was determined that there could be additional liabilities on historical sales. A provision remains until we can obtain resolutions for these liabilities.

The following is a reconciliation of the provisions during the year:

	DECEMBER 31, 2017	DECEMBER 31, 2016
Opening provision	780	1,221
Warranty costs incurred	(477)	(354)
Warranty provision additions/changes	779	188
Reclassification of discontinued operations	-	(258)
Foreign exchange adjustment	43	(17)
<b>Closing provision</b>	<b>1,125</b>	<b>780</b>

Due to the uncertainty surrounding the timing of warranty returns, the entire provision has been classified as current.





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# 11. Bank Debt

	DECEMBER 31, 2017	DECEMBER 31, 2016
CIBC facility	7,000	6,994
Nordea facility	383	420
<b>Total</b>	<b>7,383</b>	<b>7,414</b>

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.

Sabik has access to an operating line and loan with Nordea Bank Finland, a Finnish financial institution. This debt is secured by Carmanah through a letter of credit drawn from the CIBC Facility noted above and is repayable on demand. In March 2016, the Company’s 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 \$0.4 million (€0.3 million) was drawn on the Nordea operating line.





## 12. Share Capital

The Company is authorized to issue an unlimited number of common shares without par value. All shares are fully paid common shares which have no par value.

### 12.1 SUBSTANTIAL ISSUER BID

On October 5, 2017, the Company completed a Substantial Issuer Bid (the “Offer”) that the Company has taken up and paid for 6,000,000 common shares (“Shares”) at a price of Canadian dollar \$5.00 per Share under the Offer for a total cost of Canadian dollar \$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.

Approximately 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.

### 12.2 DILUTED SHARE RECONCILIATION

The following is a reconciliation between basic and diluted weighted average shares for the periods:

	DECEMBER 31, 2017	DECEMBER 31, 2016
Basic weighted average shares outstanding	23,823,787	24,756,558
Effect of dilutive securities:		
Stock options and warrants	420,584	503,052
<b>Diluted weighted average shares outstanding</b>	<b>24,244,371</b>	<b>25,259,610</b>

For the year ended December 31, 2017, 851,350 stock options were not included because the exercise price of those options were higher than the estimated average market price of the common shares during the periods.



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## 13. Share-Based Payments

The Company's current share-based payments plan allows a maximum number of issuable shares for share-based payments up to the maximum of 10% of the aggregate issued and outstanding shares as approved by the Board of Directors. The Plan allows for the issuance of stock options, stock appreciation rights ("SARs"), restricted share units ("RSUs"), performance share units ("PSUs"), and deferred share units ("DSUs"). The vesting terms and conditions of stock options, SARs, RSUs, PSUs and DSUs are determined by the Board of Directors at the time of grant. The following table summarizes the valuation methods used to measure the fair value of each type of award and the vesting periods.

TYPE OF AWARD	TERM AND VESTING PERIOD	FAIR VALUE MEASUREMENT	EQUITY SETTLED	CASH SETTLED
			COMPENSATION EXPENSE BASED ON	
Stock options	Expiry is typically 10 years. Vesting is typically 4 years	Black-Scholes option pricing model	Fair value on next business day after grant date	Fair value at reporting date
Stock units (RSU, PSU, DSU) (none outstanding)	Typical vesting period is between 0 and 3 years. Maximum term for RSUs is 3 years.	Closing share price	Fair value on next business day after grant date	Fair value at reporting date
SARs (none outstanding)	Maximum term is 10 years	Closing share price	Fair value at reporting date	Fair value at reporting date

At present, the Company only has stock options outstanding. The total compensation expense for continuing operations for these share-based payment plans are outlined in the table below:

YEARS ENDED DECEMBER 31,	2017	2016
Stock options	609	700

Currently, all outstanding awards issued under these plans are equity settled, although the plans do allow for cash settlement if elected by the Board of Directors. The following table provides a reconciliation of the maximum shares issuable under stock-based compensation plans as at December 31, 2017:

Available shares (10% of outstanding shares at December 31, 2017)	1,892,221
Less:	
Stock options outstanding at December 31, 2017	(1,686,129)
Number of shares issuable under stock-based compensation plans	206,092

The details on how these compensation costs were calculated are outlined in the respective sections below.



### 13.1 STOCK OPTIONS

The following is a summary of the status of the stock options outstanding and exercisable at December 31, 2017 and 2016. The weighted average exercise price is stated in Canadian dollars.

	NUMBER OF OPTIONS	WEIGHTED AVERAGE EXERCISE PRICE
Balance, January 1, 2016	2,052,620	\$3.76
Granted	200,000	\$3.93
Exercised	(76,201)	\$2.58
Expired	(6,000)	\$5.30
Cancelled/Forfeited	(227,434)	\$4.67
Balance, December 31, 2016	1,942,985	\$3.72
Granted	218,000	\$4.46
Exercised	(319,704)	\$2.23
Expired	-	-
Cancelled/Forfeited	(155,152)	\$3.76
Balance, December 31, 2017	1,686,129	\$4.09



The following table summarizes the stock options outstanding and exercisable at December 31, 2016 and 2017. The weighted average exercise price is stated in Canadian dollars:

RANGE (EXERCISE PRICE)	OPTIONS OUTSTANDING			OPTIONS EXERCISABLE		
	NUMBER	WA <sup>1</sup> REMAINING LIFE <sup>2</sup>	WA <sup>1</sup> EXERCISE PRICE	NUMBER	WA <sup>1</sup> REMAINING LIFE <sup>2</sup>	WA <sup>1</sup> EXERCISE PRICE
At December 31, 2016						-
\$1.45 to \$1.45	300,000	3.9	\$1.45	225,000	3.9	\$1.45
\$1.46 to \$2.50	502,807	7.3	\$2.50	233,113	7.3	\$2.50
\$2.51 to \$2.90	281,965	7.2	\$2.72	156,675	6.6	\$2.74
\$2.91 to \$6.39	858,213	8.7	\$5.55	167,977	8.5	\$5.98
	1,942,985	7.4	\$3.72	782,765	6.4	\$2.99
At December 31, 2017						
\$1.45 to \$1.45	200,000	2.9	\$1.45	200,000	2.9	\$1.45
\$1.46 to \$2.50	269,710	6.3	\$2.50	187,644	6.3	\$2.50
\$2.51 to \$2.90	237,569	6.7	\$2.71	179,535	6.6	\$2.71
\$2.91 to \$6.39	978,850	8.1	\$5.40	394,676	7.6	\$5.91
\$5.91	1,686,129	7.0	\$4.09	961,855	6.2	\$3.72

<sup>1</sup> - WA – weighted average <sup>2</sup> - Life in years



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Using the Black-Scholes option pricing model, the weighted average fair value of the options granted during the year ended December 31, 2017 is \$2.27 CAD per share and \$2.04 CAD per share for the year ended December 31, 2016. The option valuations were determined using the following weighted average assumptions:

	YEAR ENDED DECEMBER 31,	
	2017	2016
Risk-free interest rate	1.48%	0.91%
Expected dividend yield	0%	0%
Forfeiture rate	16.9%	16.6%
Stock price volatility	52%	55%
Expected life of options	6.3 years	6.2 years
Term of options	10 years	10 years

Stock price volatility was determined solely using the historical volatility of the Company's share price using the same period as the expected life of the options.







## 14. Commitments and Contingencies

### 14.1 OPERATING LEASE AND COMMITTED SERVICE ARRANGEMENTS

Carmanah has a number of 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:

	FACILITY LEASES	INSURANCE	IT SERVICES	VEHICLE LEASES	EQUIPMENT LEASES	TOTAL
Not later than 1 year	638	79	45	38	90	890
2 years to 3 years	990	-	28	4	116	1,138
Greater than 3 years	176	-	7	-	14	197
<b>Total</b>	<b>1,804</b>	<b>79</b>	<b>80</b>	<b>42</b>	<b>220</b>	<b>2,225</b>

Lease payments recognized as expenses in 2017 amounted to \$0.8 million (2016 - \$0.8 million).

### 14.2 OTHER COMMITMENTS

See note 6 Inventories.

### 14.3 CONTINGENT LIABILITIES

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 have appealed this judgment. Pending that action, the original court proceedings have been 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 alleges negligence for failing to notify RSA of the above-noted US claims in a timely manner. The lawsuit seeks 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 has 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.



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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 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 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 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.

### 14.4 CREDIT FACILITIES

See note 11 Bank Debt above.

### 14.4 INDEMNIFICATIONS IN CONTRACTS

The Company has entered into agreements with third parties that include indemnification provisions that are customary in the industry. These indemnification provisions generally require the Company 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, the Company currently holds commercial and product liability insurance. This insurance limits the Company's exposure and may enable it to recover a portion of any future amounts paid. Historically, the Company has not made any indemnification payments under such agreements and the Company believes that the fair value of these indemnification obligations is minimal. Accordingly, the Company has not recognized any liabilities relating to these obligations for any period presented.



## 15. 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.

### COMPENSATION OF KEY MANAGEMENT PERSONNEL

The Company's key management personnel have authority and responsibility for overseeing, planning, directing and controlling the activities of the Company and consist of the Company's Board of Directors and the Company's Executive Leadership Team. The Executive Leadership Team consists of the Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO").

Total compensation expense for key management personnel, and the composition thereof, is as follows:

<i>(in thousands of Canadian dollars)</i>	YEARS ENDED DECEMBER 31,	
	2017	2016
Short-term benefits	1,086	776
Share-based compensations	614	719
<b>Total</b>	<b>1,700</b>	<b>1,495</b>

The values noted above are in Canadian dollars. They also exclude the value of certain health benefits which the Company is not able to attribute to individual employees due to privacy standards preventing us from obtaining this information. Employment agreements with the members of the Executive Leadership Team provide for severance payments if the executive's employment is terminated, either without cause or due to a change in control of the Company. Under a termination without cause (1) the CEO is entitled to 12 months base salary plus applicable cash-based incentives, and (2) the CFO is entitled to 12 months base salary plus applicable cash-based incentives.

### INVENTORY PURCHASES

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).



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# 16. Operating Expenditures

The components of operating expenditures by nature are outlined below:

	YEARS ENDED DECEMBER 31,	
	2017	2016
Salaries, commissions, and other direct compensation	10,437	8,672
Professional fees, insurance and public company costs	1,596	1,509
Amortization	1,985	1,489
Telecom and IT expenses	803	826
Travel and related expenses	738	744
Occupancy costs	1,067	918
Bank charges	155	150
Marketing, advertising and other related expenses	820	665
Development expenses	411	327
Other expenses	134	487
Share-based payments	609	700
Bad debts (recovery)/expense	(112)	104
Development credits	-	(60)
Restructuring costs	530	-
<b>Total operating expenditures</b>	<b>19,173</b>	<b>16,531</b>

The amortization expense as noted in the statement of cash flows includes amortization classified under cost of sales.





## 17. Segmented Information

The Company's reportable segments are broken into "Signals" and "Illumination". The following table provides an overview of these segments and underlying verticals.

REPORTING SEGMENT AND UNDERLYING PRODUCTS/VERTICALS	PRODUCTS OFFERED/MARKETS SERVED
<b>Signals</b>	
Traffic	Solar LED flashing beacons for various roadway applications, mainly focused on the North American market.
Marine	A complete range of marine lighting solutions sold worldwide, including a variety of products manufactured by Sabik and Vega which are subsidiaries of Carmanah.
Aviation	LED aviation lighting sold worldwide: the Company offers total airfield solutions, from approach lighting to apron lighting, and both solar and hybrid power systems.
Obstruction	LED obstruction lighting sold worldwide. The Company offers self-contained obstruction marking lights which provide a range of solutions for marking towers and other obstructions to aerial and ground navigation.
Offshore	Aid-to-navigation solutions on Offshore wind farms for temporary and permanent marking. These products are sold under Sabik Offshore GmbH, which is a wholly owned subsidiary of Carmanah. Sales are mainly focused on the European market.
Telematics	Telematics is currently focused on designing and manufacturing devices to enable remote monitoring of assets.
<b>Illumination</b>	
Outdoor Lighting	LED lighting systems for off-grid lighting applications, including street, parking lot, perimeter, and pathway applications. Products are sold worldwide using a variety of distribution models.
<b>Power*</b>	
Off-Grid	Mobile power solutions for the North American market sold under the Go Power! brand. Built for the hard demands of RV, utility, and fleet vehicles, as well as marine applications, Go Power!'s complete line of solar chargers, inverters, regulators and power accessories deliver electricity where grid-power is inaccessible or unavailable.
On-Grid	The design, procurement and construction of grid-connected solar power systems in the Canadian industrial market. Previously referred to as Solar EPC Services.

\*Discontinued operations.

Management evaluates each segment's performance based on gross margin, which factors in directly attributable segment revenues, cost of goods sold, and gross margins. Segment profit represents profits without allocation of operating expenses as these costs are not included in the measures that the chief operating decision maker uses to evaluate and assess segment performance. Operating expenditures such as sales and marketing, research, engineering and development as well as general and administrative expenses, which cannot accurately be attributed between various segments, have not been allocated between segments.



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	SIGNALS	ILLUMINATION	TOTAL
<b>For the year ended December 31, 2017</b>			
Revenue	48,000	3,939	51,939
Gross margin	21,603	(6)	21,597
Gross margin %	45.0%	(0.2)%	41.6%
Total operating expenses (including restructuring)	-	-	(19,173)
Other expenses	-	-	(674)
<b>Income before taxes</b>	<b>-</b>	<b>-</b>	<b>1,750</b>
<b>For the year ended December 31, 2016</b>			
Revenue	39,915	7,827	47,742
Gross margin	18,090	2,451	20,541
Gross margin %	45.3%	31.3%	43.0%
Total operating expenses (including restructuring)	-	-	(16,531)
Other expenses	-	-	(56)
<b>Income before taxes</b>	<b>-</b>	<b>-</b>	<b>3,954</b>

**GEOGRAPHIC**

For geographical reporting, revenues are attributed to the geographic location in which the customer is located:

	<b>YEARS ENDED DECEMBER 31,</b>	
	<b>2017</b>	<b>2016</b>
North America	22,080	22,504
Europe	25,381	21,923
South America	1,423	420
Middle East and Africa	1,103	862
Asia Pacific	1,952	2,033
<b>Total revenues</b>	<b>51,939</b>	<b>47,742</b>

For geographical reporting, property and equipment and inventory balances for the geographic locations are located at:

	<b>DECEMBER 31,</b>	<b>DECEMBER</b>
	<b>2017</b>	<b>31, 2016</b>
North America	3,124	3,633
Europe	4,652	3,800
Asia Pacific	4,368	-
<b>Total equipment and inventories</b>	<b>12,144</b>	<b>7,433</b>



## 18. Income Taxes

Income tax expense / (recovery) is comprised of the following:

	YEARS ENDED DECEMBER 31,	
	2017	2016
Current tax expense/(recovery):		
Current year	1,085	1,491
Adjustments for prior periods	(22)	(98)
	1,063	1,393
Deferred tax expense/(recovery)		
Origination and reversal of temporary differences	(588)	(286)
Adjustments for prior periods	(147)	(70)
	(705)	(356)
<b>Total income tax expense / (recovery)</b>	<b>358</b>	<b>1,037</b>

The following is a reconciliation of income taxes calculated at the Canadian statutory corporate tax rate to tax expense/(recovery):

	YEARS ENDED DECEMBER 31,	
	2017	2016
Income before taxes	1,750	3,954
Computed tax expense at 26% (2016 – 26%)	457	1,028
Adjusted for the effects of:		
Expenses not deductible for tax purposes	250	281
Non-taxable portion of capital gains	(1,087)	-
Change in unrecognized deferred tax assets	229	-
Adjustments for prior periods	(170)	(196)
Foreign rate differences	476	(98)
Effects of tax rate changes	(95)	-
Other	298	22
<b>Income tax expense / (recovery)</b>	<b>358</b>	<b>1,037</b>

Non-deductible expenses consist primarily of share-based compensation expenses, certain expenditures made in relation to the acquisitions, and meals and entertainment costs. The valuation adjustments associated with the unused tax losses are described in financial statement note 19.



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# 19. Investment Tax Credits and Deferred Taxes

The tables below outline the movement in temporary tax differences attributable to deferred assets and liabilities. The Company has recorded deferred income tax assets available as it is probable that the benefits of these assets will be realized.

DECEMBER 31, 2017	OPENING BALANCE	RECOGNIZED IN INCOME TAX EXPENSE	RECOGNIZED IN DISCONTINUED OPERATIONS	RECOGNIZED IN FOREIGN EXCHANGE GAIN (LOSS)	ENDING BALANCE
<b>Deferred Income tax assets</b>					
Scientific research & experimental development expenditures	2,430	(6)	-	-	2,424
Losses available for future periods	2,783	(456)	(509)	64	1,882
Tangible assets	1,303	(154)	-	-	1,149
Warranty and other provisions	154	113	-	(19)	248
Intangible assets	-	1,059	-	3	1,062
Inventory	-	275	-	-	275
Share issuance costs	318	(114)	-	-	204
Other	45	(38)	-	-	7
	<b>7,033</b>	<b>679</b>	<b>(509)</b>	<b>48</b>	<b>7,251</b>
<b>Deferred income tax liabilities</b>					
Intangible assets	(936)	296	-	-	(640)
Inventory	(16)	16	-	-	-
Warranty and other provisions	-	(139)	-	-	(139)
Undistributed earnings	-	(312)	-	-	(312)
Investment tax credits	(630)	165	-	-	(465)
	<b>(1,582)</b>	<b>26</b>	<b>-</b>	<b>-</b>	<b>(1,556)</b>



DECEMBER 31, 2016	OPENING BALANCE	RECOGNIZED IN INCOME TAX EXPENSE	ACQUIRED IN A BUSINESS COMBINATION	RECOGNIZED IN FOREIGN EXCHANGE GAIN (LOSS)	ENDING BALANCE
<b>Deferred Income tax assets</b>					
Scientific research & experimental development expenditures	2,508	(78)	-	-	2,430
Losses available for future periods	2,461	322	-	-	2,783
Tangible assets	1,345	(42)	-	-	1,303
Warranty and other provisions	431	(204)	(65)	(8)	154
Share issuance costs	441	(123)	-	-	318
Other	19	26	-	-	45
	<b>7,205</b>	<b>(99)</b>	<b>(65)</b>	<b>(8)</b>	<b>7,033</b>
<b>Deferred income tax liabilities</b>					
Intangible assets	(964)	(18)	-	45	(936)
Inventory	(16)	-	-	-	(16)
Investment tax credits	(748)	118	-	-	(630)
	<b>(1,728)</b>	<b>100</b>	<b>-</b>	<b>45</b>	<b>(1,582)</b>

In the Consolidated Statements of Financial Position, deferred income tax assets have been presented as \$6,661 (2016 - \$7,165) and deferred income tax liabilities have been presented as \$966 (2016 - \$1,714).

The following table is a summary of the unrecognized deductible temporary differences, unused tax losses, and unused tax credits:

	DECEMBER 31, 2017	DECEMBER 31, 2016
<b>Temporary differences and unused tax losses available to reduce taxable income</b>		
Unrealized foreign exchange loss	-	414
Losses available for future periods	985	-
<b>Total</b>	<b>985</b>	<b>414</b>

The Company has approximately \$1.0 million of tax losses in various jurisdictions that can be applied to reduce future taxable income in the respective jurisdictions but no deferred tax asset has been recognized in respect of them. Capital losses of \$0.5 million relate to Canada and begin to expire in 2023. Tax losses of \$0.5 million relate to a foreign subsidiary and have an unlimited carry forward period.

During the December 31, 2017 fiscal year, the Company recognized \$nil (2016 - \$60) of investment tax credits as a reduction to operating expenditures. The investment tax credits are available to reduce Canadian federal and provincial taxes otherwise payable.



## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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## 20. Other Expenses

Other expenses primarily relate to merger and acquisition activities, and include legal, due diligence costs, and other related expenditures. During the year ended December 31, 2017, the majority of these costs were related to the Vega acquisition as described in note 22.

## 21. Discontinued Operations

During the third quarter of 2016, management committed to a plan to sell its Power segment to focus on the Company's Signals and Illumination segments. Sales efforts began in September 2016 and the Company completed the sale of the On-Grid division of the Power Segment on April 3, 2017 and the Off-Grid division on August 1, 2017. The comparative Consolidated Statement of Income and Total Comprehensive Income has been reclassified to present the discontinued operations separately from continuing operations.

### RESULTS OF DISCONTINUED OPERATIONS

	YEARS ENDED DECEMBER 31,	
	2017	2016
Revenues	12,967	26,879
Cost of sales	9,150	21,705
<b>Gross profit</b>	<b>3,817</b>	<b>5,174</b>
Operating expenditures	(4,168)	(3,483)
Other income	597	90
<b>Income before taxes</b>	<b>246</b>	<b>1,781</b>
Tax expense	(31)	(470)
<b>Net income from discontinued operations, before gain/(loss) on disposal</b>	<b>215</b>	<b>1,311</b>
Net loss on disposal of discontinued operations, On-Grid	(300)	-
Net income from gain on disposal of discontinued operations, Off-Grid	10,044	-
<b>Net income from discontinued operations, net of tax</b>	<b>9,959</b>	<b>1,311</b>
Other comprehensive income (loss)	(135)	43
<b>Total comprehensive income</b>	<b>9,824</b>	<b>1,354</b>





## ASSETS AND LIABILITIES HELD FOR SALE

As part of the disposal of the Company's Off-Grid and On-Grid divisions, assets and liabilities associated with these divisions have been presented as held for sale. The following are the associated details:

	DECEMBER 31, 2017	DECEMBER 31, 2016
Trade and other receivables	-	6,172
Unbilled receivables	-	4,472
Inventories	-	4,917
Prepaid and other current assets	-	588
Capital and intangible assets	-	178
Deferred tax assets	-	67
Assets classified as held for sale	-	16,394
Deferred revenue	-	9
Trade and other payables	-	2,455
Cost of uncompleted contracts	-	60
Provisions	-	258
Liabilities classified as held for sale	-	2,782

## EFFECT OF THE DISPOSAL OF THE ON-GRID DIVISION

On April 3, 2017, Carmanah completed the sale of the assets of Carmanah Solar Power Corp. ("CSPC") which held the Company's solar power engineering, procurement and construction business. The proceeds of the asset sale were \$2.0 million.

In addition to these proceeds, CSPC will retain responsibility for four solar power construction portfolios that are at, or close to, substantial completion. While most of the revenue related to these portfolios has been recognized, CSPC retained approximately \$6.1 million of accounts and notes receivable, of which \$1.0 million has since been collected, due on final completion. The Company also incurred a \$1.7 million one-time charge resulting from a mediated settlement agreement over a terminated project. On December 31, 2017 the net receivable is \$3.4 million and presented as non-trade receivables. The Company also retained \$0.3 million in liabilities relating to these outstanding projects, which have been classed as non-trade payables. Once the requirements of the remaining portfolios are complete, CSPC will permanently cease its solar power EPC business.

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The loss on the disposal of On-Grid on April 3, 2017 on the financial position of the Company is as follows:

	DECEMBER 31, 2017
Cash Proceeds	2,008
Accounts receivable	(1,462)
Inventories	(481)
Deposits and prepaid expenses	(286)
Property and equipment	(142)
Accounts payable and accrued liabilities	176
<b>Net assets disposed</b>	<b>(2,195)</b>
Professional fees and other	(177)
Working capital adjustment	5
<b>Loss on disposal of discontinued operations, On-Grid, before tax</b>	<b>(369)</b>
Tax recovery	69
<b>Net loss on disposal of discontinued operations, On-Grid</b>	<b>(300)</b>

**EFFECT OF THE DISPOSAL OF THE ON-GRID DIVISION**

On August 1, 2017, Carmanah completed the sale of the Power segment of the Company, selling the Off-Grid Power division. The proceeds of the asset sale were negotiated to be \$19.5 million subject to adjustments and holdbacks. 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 below, 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.

	DECEMBER 31, 2017
Cash Proceeds	16,550
Amounts held in Escrow	1,950
<b>Total Proceeds</b>	<b>18,500</b>
Accounts receivable	(3,093)
Inventories	(4,894)
Deposits and prepaid expenses	(442)
Property and equipment	(67)
Accounts payable and accrued liabilities	867
Provisions	173
Deferred revenue	22
<b>Net assets disposed</b>	<b>(7,434)</b>



	DECEMBER 31, 2017
Professional fees and other	(609)
Working capital adjustment	1,075
<b>Gain on disposal of discontinued operations, Off-Grid, before taxes</b>	<b>11,532</b>
Tax expense	(1,488)
<b>Net income from gain on disposal of discontinued operations, Off-Grid</b>	<b>10,044</b>

## CASH FLOW PROVIDED BY DISCONTINUED OPERATIONS

	DECEMBER 31, 2017	DECEMBER 31, 2016
Cash (used in)/provided by operating activities	(1,355)	4,039
Net cash flow from discontinued operations	(1,355)	4,039

# 22. Acquisitions

## EKTA PURCHASE

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

A new legal entity, Sabik Oü, was incorporated in Estonia to complete the acquisition. The rationale for the acquisition was (1) to strengthen our worldwide product portfolio and to allow us to provide more comprehensive single-source solutions to our marine customers, and (2) to increase our market presence in Europe through the acquired/assigned sales contracts.

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 January 2, 2017 and has contributed incremental revenues of \$0.8 million and a net loss of \$0.4 million throughout 2017. The total cost related to this acquisition was approximately \$0.2 million, with the expenses included under the caption "Other expenses".

Below is the final purchase price allocation:

	ALLOCATION
Cash consideration	1,420
<b>Identifiable assets acquired and liabilities assumed</b>	
Inventories	203
Equipment and other similar assets	21
Trade and other payables	(7)
Intangibles	1,203
<b>Total</b>	<b>1,420</b>

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**VEGA INDUSTRIES ACQUISITION**

On August 1, 2017, the Company acquired the shares of Vega Industries Limited (“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. The purchase price is reduced by NZD \$2.0 million (USD \$1.5 million) if the acquiree does not meet certain operating revenue targets for its fiscal year ending March 31, 2018. This is considered contingent consideration receivable and is recorded at its fair value at the date of acquisition, based on the likelihood the revenue target will not be met, and is included as an identifiable asset acquired.

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 since acquisition in 2017. If the acquisition had occurred on January 1, 2017, Vega would have contributed revenue of \$5.3 million and a net loss of \$1.2 million. Total restructuring costs related to this acquisition total \$0.5 million. Total year-to-date costs related to this acquisition were approximately \$0.5 million, with the expenses included under the caption “Other expenses”.

The below purchase price allocation for the transaction at December 31, 2017 is final except for the working capital adjustment and the resulting change to goodwill.

	<b>PRELIMINARY ALLOCATION</b>
Cash consideration	8,982
Contingent consideration receivable	(1,497)
Working capital adjustment	(247)
<b>Total consideration</b>	<b>7,238</b>
<b>Identifiable assets acquired and liabilities assumed</b>	
Trade and other receivables	902
Inventories	2,310
Other assets	156
Property, plant, and equipment	2,720
Bank indebtedness	(4)
Trade and other payables	(623)
Deferred revenue	(284)
Intangibles	1,773
Goodwill	288
<b>Total</b>	<b>7,238</b>

**VEGA RESTRUCTURING**

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 the 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 and Estonia. We have identified restructuring related costs in accordance with IFRS - IAS 37. The following table summarizes the costs incurred and balances outstanding and therefore accrued for with respects to restructuring for the year ending December 31, 2017. 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.

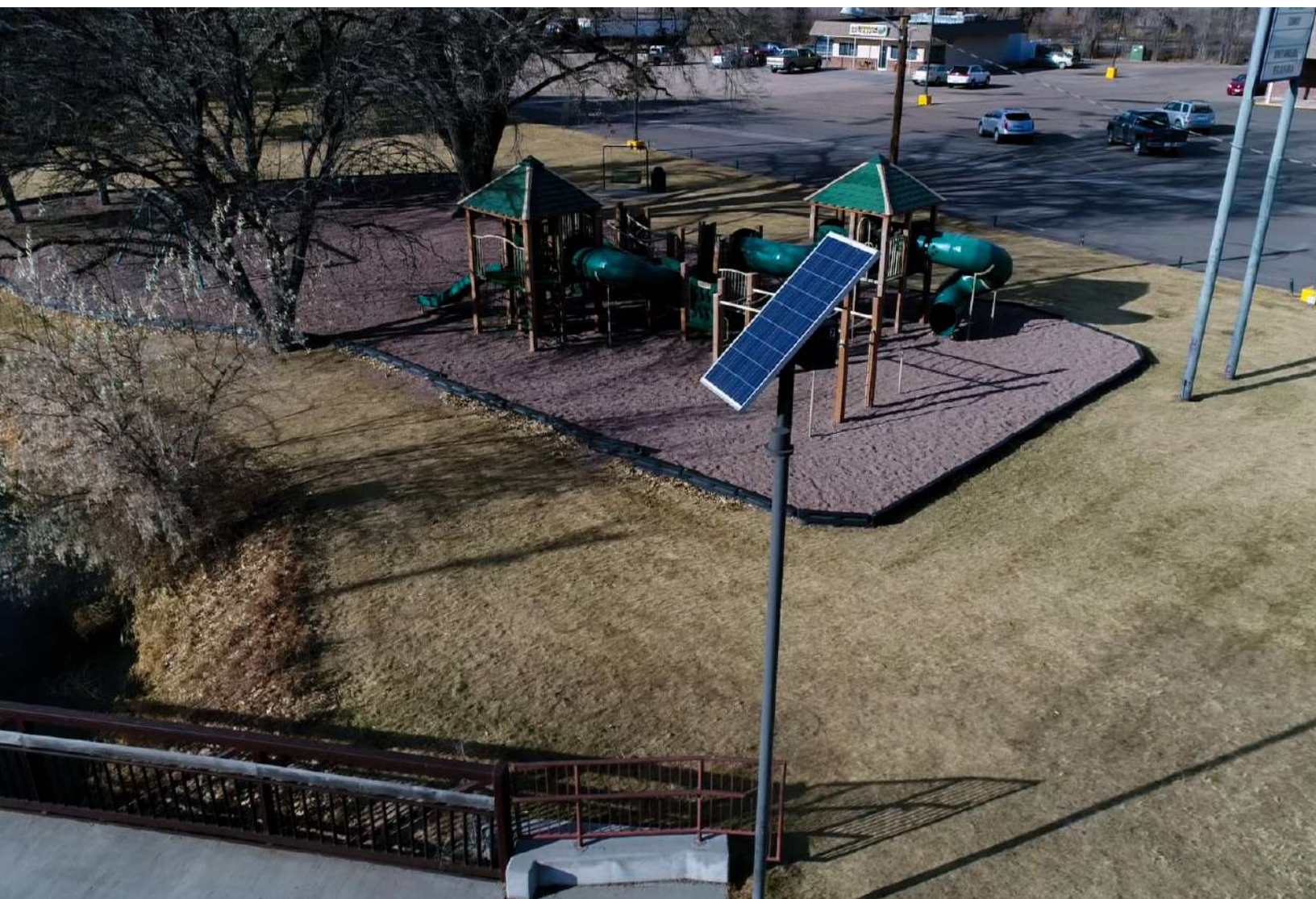




	SEVERANCE AND RELATED BENEFITS	OTHER EXIT COSTS	TOTAL
Balance at January 1, 2017	-	-	-
Charges	171	159	330
Cash payments	195	5	200
<b>Balance at December 31, 2017</b>	<b>366</b>	<b>164</b>	<b>530</b>

## 23. Subsequent Events

See note 14.3 Contingent Liabilities.







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