ACCELEWARE LTD. MANAGEMENT'S DISCUSSION AND ANALYSIS FOR THE THREE AND TWELVE MONTHS ENDED DECEMBER 31, 2019

This management's discussion and analysis of financial condition and results of operations ("MD&A") should be read together with Acceleware Ltd.'s ("Acceleware" or the "Company") audited annual financial statements and the accompanying notes for the year ended December 31, 2019 (the "Financial Statements"), which were prepared in accordance with International Financial Reporting Standards ("IFRS"). Additional information relating to the Company is available on SEDAR at <u>www.sedar.com</u>.

This MD&A is presented as of April 21, 2020. All financial information contained herein is expressed in Canadian dollars unless otherwise indicated.

Forward Looking Statements

Certain statements contained in this MD&A constitute forward-looking statements. These statements relate to future events or the Company's future performance. All statements other than statements of historical fact may be forward-looking statements. Forward-looking statements are often, but not always, identified by the use of words such as "seek", "anticipate", "plan", "continue", "estimate", "expect", "may", "will", "project", "predict", "potential", "targeting", "intend", "could", "might", "should", "believes" and similar expressions. These statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking statements. The Company believes that the expectations reflected in these forward-looking statements are reasonable, but no assurance can be given that these expectations will prove to be correct and such forward-looking statements included in this MD&A should not be unduly relied upon by investors. These statements speak only as of the date of this MD&A and are expressly qualified, in their entirety, by this cautionary statement.

In particular, this MD&A may contain forward-looking statements, pertaining to the following:

- the expectation of Acceleware's ability to continue operating as a going concern, fund its operations through the sale of its products and services, and access external financing when required;
- the expectation of software revenue growth in the oil and gas sector through innovative licensing arrangements;
- potential benefits of the Company's software to customers, including cost savings and increases to cash flow and productivity;
- the impact on local and global markets of epidemic or pandemic disease, including the novel coronavirus disease known as COVID-19;
- oil and natural gas production levels of both Organization of Petroleum Exporting Countries ("OPEC") and non-OPEC countries;
- the future growth prospects for radio frequency ("RF") heating technology for heavy oil and oil sands based on technical and economic feasibility analyses and testing performed to date;
- the patentability of concepts developed through RF Heating research and development ("R&D") efforts;
- the expectation that the positive economic and technical analyses and testing to date will be reinforced by future results of subsequent testing of the RF technology;
- advantages to using Acceleware's products and technology;
- the demand for new products currently under development at the Company;
- ease and efficiency of implementing Acceleware's products; and
- supply and demand for Acceleware's primary software products.

With respect to forward-looking statements contained in this MD&A, the Company has assumed, among other things:

- that the future revenue and resulting cash flow expected by the Company's management ("Management") and ability to attract new financing will be sufficient to fund future operations this assumption being subject to the risk and uncertainty that the Company may not generate enough cash flow from operating activities to meet its capital requirements and that the Company may not be able to secure additional capital resources from external sources to fund any shortfall. Operating cash flow may be negatively affected by general economic conditions, increased competition, increased equipment or labour costs, and adverse movements in foreign currencies. Should the Company experience a cash flow shortfall from operating activities, Management's contingency plan may not be sufficient to reverse the shortfall;
- that industry and government interest in reducing greenhouse gas emissions ("GHG") remains constant or increases;
- that the long-term impact of the COVID-19 pandemic on the Company's products and services and R&D efforts will be manageable;
- that the long-term effect of any agreement or non-agreement among both Organization of Petroleum Exporting Countries ("OPEC") and non-OPEC countries regarding production levels on the Company's products, services, and R&D efforts will be manageable;
- that the preliminary analyses coupled with lab and field testing that the Company has performed to date regarding the technical and economic feasibility of RF Heating technology for heavy oil and oil sands will be confirmed in future commercial-scale testing and in commercial products;
- that the Company will receive all regulatory approvals required to carry out the commercial-scale testing of its RF Heating technology;
- that the RF Heating concepts developed by the Company are unique, novel and non-infringing of intellectual property owned by others;
- that the Company will be able to maintain sales of its software products and services by focusing on innovative licensing arrangements and continuously improving its products – which is subject to the risks that sales in core vertical markets may be negatively affected by general economic conditions, that the Company's R&D efforts may be unable to develop continuous improvements; and
- that it will be able to withstand the impact of increasing competition.

The Company's actual results could differ materially from those anticipated in these forward-looking statements as a result of the risk factors set forth below and elsewhere in this MD&A.

Investors should not place undue reliance on forward-looking statements as the plans, intentions or expectations upon which they are based might not occur. Forward-looking statements include statements with respect to the timing and amount of estimated future revenue and sales and the Company's ability to protect and commercially exploit its intellectual property. Readers are cautioned that the foregoing lists of factors are not exhaustive. The forward-looking statements contained in this MD&A are expressly qualified by this cautionary statement. The Company does not undertake any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, unless required by law.

BUSINESS OVERVIEW

Acceleware is an innovator of transformational technology leading to a new era of responsible and cost-effective energy development focused within two business segments: radio frequency heating ("RF Heating") for enhanced oil recovery and high-performance computing ("HPC") scientific software.

RF XL is Acceleware's patented and patent-pending RF Heating technology, designed to improve the extraction of heavy oil and bitumen, with the possibility of saving significant production costs. When applied, RF XL has the potential to **reduce both capital and operating costs**, while offering significant environmental benefits, including:

- immediate GHG emission reductions;
- a substantial decrease in land use;
- the elimination of external water use;
- no requirement for solvents; and
- no need for water treatment facilities or tailings ponds

The Company believes that RF XL Heating technology, as an electrically-driven process, can provide a clear pathway to zero-GHG production of heavy oil and oil sands and provide optimal alignment with industry and government goals to recognize innovation as a meaningful solution in the oil and gas industry's overall emission reduction plans.^{*}

Acceleware's HPC segment helps customers meet their oil and gas exploration needs with seismic imaging software that provides the most accurate and advanced imaging available for oil exploration in complex geological zones and formations, and their electronic and medical product development needs with state-of-the-art electro-magnetic ("EM") simulation software.

RF Heating for Enhanced Oil Recovery

Acceleware's RF Heating technology broadly falls into two versions:

- 1. Modular RF is a technology primarily aimed at deeper, vertical wells where efficiencies can be gained due to the innovative approach offered by downhole RF power generation.
- 2. RF XL Heating targets long horizontal wells most often associated with in-situ oil sands production.



Multiple Vertical – RF flood

Single Vertical – Cyclic RF flood

Horizontal – RF injector

RF Heating can be used in a variety of vertical and horizontal well arrangements.

^{*}This paragraph contains forward looking information. Please refer to "Forward Looking Statements" and "Risk Factors and Uncertainties" for a discussion of the risks and uncertainties related to such information.

In 2010, Acceleware began investigating technology that would use RF energy for in-situ heating of heavy oil and bitumen. Over the ensuing nine years, Acceleware has vigorously developed RF Heating technology with two patents granted, 16 patent applications pending, a further six patent applications under development, and has conducted significant laboratory and field testing.

Through the Company's RF Heating development and services business, Acceleware developed sophisticated simulation software tools based on its proprietary AxFDTD solution coupled with third party reservoir simulation software. In late 2013, Acceleware commercialized and introduced these simulation tools as AxHEATTM, a product aimed at oil and gas companies investigating the effectiveness of RF Heating to increase the efficiency of heavy oil and oil sands production.^{*}

RF Heating for oil production is not a new concept, as known trials have been conducted in several locations across Russia and North America. However, these previous trials showed limited success. Acceleware believes that these limitations can be overcome with new technology. The Company's RF Heating R&D efforts have focused on reducing the capital cost of the technology, making it more flexible for use in a variety of resource plays, and improving its scalability to be conducive for very long horizontal wells commonly used in Alberta's oil sands, as well as in Latin America, Asia, the Middle East and elsewhere. Acceleware's unique expertise with RF Heating technology has also resulted in the generation of service revenue both locally and abroad.

High-Performance Computing Software

Acceleware's traditional HPC market has been centered around EM simulation software, and the Company continues to provide products to this industry. Its first software commercialized was an accelerated finite difference time domain ("FDTD") solution for the EM simulation industry. AxFDTD[™] has been used by many Fortune 500 companies such as GE, Apple, Samsung, LG, Blackberry, Foxconn, Nikon, Renault, Mitsubishi, Merck, Boeing and Lockheed Martin, many of which continue to use the software today. With AxFDTD, Acceleware was a pioneer in the graphics processing unit ("GPU") computing revolution as most of the major mobile telephone manufacturers in the world are using Acceleware's EM design solutions which facilitates more rapid design of their products. Acceleware's fourth-generation software acceleration solutions, which support multi-board GPU systems, can accelerate entire industrial simulation and processing applications by more than 35 times.



The EM solutions developed by Acceleware can be easily integrated by software developers, saving them the expense and time of migrating applications to high performance multi-core platforms. Acceleware improves the overall experience for end users of these applications by providing greater computing speed without the need for end users to learn new skills or change their work processes.

In the EM market, software developers choose to partner with Acceleware to increase the speed of their software. Such partners currently include SPEAG, ZMT Zurich MedTech and Keysight Technologies. Acceleware reaches the EM market through a combination of partner channels and direct sales. Investment in AxFDTD continues for traditional markets because it is an enabling technology for AxHEAT.

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Acceleware recognized the similarity between EM FDTD and certain seismic imaging algorithms, which led the Company to enter the seismic imaging market in 2008. The Company's first product was a GPU accelerated Kirchhoff Time Migration solution, followed closely by AxRTM[™] in 2009, a central processing unit ("CPU") and GPU enabled Reverse Time Migration ("RTM") library.

In 2013, Acceleware introduced AxWave[™], a forward modelling variant of AxRTM which allows customers to accurately model seismic acquisition and perform data characterization.

In late 2014, Acceleware added AxFWI[™] a revolutionary modular full waveform inversion ("FWI") application to its seismic imaging suite. AxFWI allows geophysicists to create high quality subsurface velocity models in dramatically less time than before. Acceleware accesses the oil and gas geoscience software market with innovative licensing structures through a direct sales model that targets oil and gas exploration companies and seismic service providers.



Seismic forward modelling in complex subsurface geology using AxWave

In February 2004, Acceleware was founded by a group of graduate students and professors from the University of Calgary's Electrical Engineering department for the purpose of building software solutions that targeted the GPU as a compute platform. Since 2006, Acceleware has been publicly-traded on the TSX Venture Exchange (symbol: AXE) and is headquartered in Calgary, Alberta.

On December 31, 2019, Acceleware had 18 employees and long-term contractors, including: three in administration; four in sales, marketing and product management; and 11 in R&D and engineering.

For further information about the Company, please visit <u>www.acceleware.com.</u>

OPERATING SUMMARY

Acceleware achieved several key milestones in 2019 throughout the organization which advanced the development of its patented and patent-pending RF XL Heating technology, while also taking steps to enhance the Company's position ahead of the planned commercialization of the transformative RF XL technology.

The commercial-scale test of RF XL has been announced as drill-ready following the Company's gross investment of approximately \$2.1 million in R&D during the year ended December 31, 2019 (December 31, 2018 – approximately \$4.0 million), which led to several successful outcomes, including:

- Industry Partner Peer Review: A strong collaboration with a major oil sands operator including QC/QA on all data and testing results, and the ability to leverage the operator's expertise in areas of drilling and completions, production, material design, electrical engineering, facility design and project management.
- Well Design Evaluation and Testing: Completion of a robust engineering de-risking program related to critical well design components including thermal, electrical and mechanical strength.
- Third Party Engineering, Design and Testing: Developed multiple working partnerships with industry leaders, who provide drilling and completions well design and execution support, including service companies and technical experts interested in working with clean technology. As a result, Acceleware is poised to benefit from years of experience within the energy industry.
- **Positive Field/Lab Experiment:** Realized successful test metrics from the field test completed in the fourth quarter which assessed the magnitude of power levels injected, converter efficiency, load adaptability and confirmed the ability to perform under a variety of environmental operating conditions.



RFXL HEATING Schematic of Commercial-Scale test of RF XL

Six new patent applications were filed in 2019 protecting various proprietary technologies related to the RF Heating R&D, including for the use of RF XL in shipping bitumen by rail. Progress was made on eight patent applications being readied for filing covering areas related to key technologies in RF Heating, and the Company continues to work closely with the patent offices and its intellectual property advisors.

During 2019, Acceleware conducted a successful field test of a prototype RF converter developed in partnership with GE Research ("GE"). The test produced record results and achieves another important milestone in the process of bringing the Company's transformational RF XL technology to commercial reality and facilitating a low-cost, low-carbon method of heavy oil production. Acceleware's partnership with GE includes initiatives and technologies to

integrate GE's proprietary high-efficiency Silicon Carbide critical power electronics technology with RF XL and complete a multi-stage pilot test to advance development and ultimately realize commercialization.

In addition to the key operational advancements outlined above, Acceleware took steps through the year to position and prepare the Company for commercialization and longer-term growth. Acceleware bolstered the strength of its executive team with the addition of two key members; Laura McIntyre as Vice President, Engineering, appointed in February; and Tracy Grierson, Chief Financial Officer, appointed in September.

The Company also realized meaningful impact in its efforts to drive external awareness and position its RF Heating technology more prominently in the clean-tech field across several avenues. Acceleware was invited by Clean Resource Innovation Network ("CRIN") to present at an event in Ottawa in May and also co-hosted a follow-up event in Calgary with CRIN and Petroleum Technology Alliance Canada in June. These events have created momentum for Acceleware to establish working groups for clean technology and increase the depth and breadth of its advisory board. Acceleware's involvement with CRIN also led to a series of six articles published by JuneWarren-Nickle's Energy Group ("JWN") focused on the Company's RF Heating technology and its impact on Canada's evolving energy landscape. The relationship with JWN also created the opportunity for Acceleware to be nominated across several different categories as a potential recipient of the Energy Excellence Awards in 2020. During the latter half of 2019, the Company launched a new corporate website and implemented targeted outreach programs designed to further build Acceleware's potential customer base, attract new investors and optimally engage with other stakeholders.

FINANCIAL SUMMARY

Revenue of approximately \$1.5 million generated in 2019 from the Company's software, maintenance and services sales exceeded expectations as the Company successfully signed contracts with international customers under its new HPC software revenue model, which features direct sales of seismic software to oil and gas companies using new licencing models. Revenue in 2018 was \$4.3 million and included approximately \$3.3 million earned from a single contract with a Canadian affiliate of Advanced Micro Devices, Inc. ("AMD") under a consulting services agreement. Were this one-time contract payment to be excluded from 2018, the run-rate revenue generated in 2019 would be the highest of the past three years.

Total comprehensive loss for the year ended December 31, 2019 was approximately \$1.6 million (December 31, 2018 – approximately \$0.1 million) as the majority of spending focused on R&D initiatives that (1) have a longerterm payback and (2) are directed at increasing the Company's profile and presence in the clean technology segment of the energy industry. Federal and provincial government assistance of approximately \$1.2 million was recognized in 2019 (December 31, 2018 - \$1.8 million), which offset research and development costs incurred. During the last quarter of 2018, Acceleware completed contribution agreements for the commercial-scale RF XL pilot test with Sustainable Development Technology Canada ("SDTC") and Emissions Reduction Alberta ("ERA") as well as a Calgarybased oil sands producer. The government assistance funding is recorded as an offset to R&D expenses as the spending is incurred.

At year end 2019, Acceleware had working capital of approximately \$1.0 million (December 31, 2018 – approximately \$2.0 million) including cash and cash equivalents of approximately \$4.4 million (December 31, 2018 – approximately \$3.2 million). The increase in cash is attributable to the receipt of government assistance milestone funding for the RF XL field test.

In the interests of matching cash requirements with a combination of cash generated from operations, external funding, and capital raising activities, the Company actively manages its cash flow and investments in new products. Acceleware intends to maximize cash generated from operations through several initiatives which include continuing to focus on higher gross margin software products that are marketed through a combination of direct and reseller models; minimizing operating expenses where possible; and limiting capital expenditures. As the Company continues to develop its RF Heating technology, new R&D investments will be financed through a combination of internal cash

flow from the HPC business, project funding agreements, government assistance and external financing, when available. Management believes that successful execution of its business plan will result in sufficient cash flow and new financing to fund projected operational and investment requirements. However, no assurances can be given that the Company will be able to achieve all or part of the objectives discussed above, or that sufficient financing from outside sources will be available.*

Subsequent to December 31, 2019, oil and natural gas prices fell precipitously due to a drop in global demand triggered by the global COVID-19 pandemic. In March and April 2020, oil and natural gas prices plummeted further due to a breakdown in negotiations between OPEC and non-OPEC countries regarding production quotas. The volatility in market prices for oil and natural gas could adversely affect the market for the Company's products and services. *

STRATEGIC UPDATE

Acceleware will continue to focus on the energy markets, with RF Heating, AxRTM, AxWave, AxFWI, and AxHEAT as the primary strategic revenue-generating and investment technologies. Innovations and improvements to AxFDTD will continue for the EM markets and be an enabling technology for AxHEAT in the energy market. Acceleware has a proven track record for successful development and commercialization of revolutionary technologies.

Historically low oil prices combined with the unprecedented impact of COVID-19 and measures taken by governments and companies to contain its spread may affect the Company's ability to raise additional funding for the final stages of the commercial scale pilot test of RF XL. A delay in the testing program may result in additional costs and a delay in technology commercialization. To mitigate this risk, the Company prudently plans to prioritize the RF XL segment by concentrating capital allocation and resource deployment to it.

<u>RF Heating</u>

Acceleware began investigating technology in 2010 that would use RF energy for in-situ heating of heavy oil and bitumen. In each of the four years up to 2017, the Company received funding from NRC-IRAP to partially finance its RF Heating technology development. In 2018, the Company began preparation for a commercial-scale field test of its RF XL technology, which will use two megawatts of electricity with an 800m -1000m horizontal well.

In 2018, Acceleware was awarded a \$10 million non-repayable contribution funded 50/50 by the federal government of Canada and the provincial government of Alberta in accordance with their mandates to bring clean technologies to market that are economically viable and reduce GHG emissions. Acceleware raised a further \$2 million in funding for the test from a major Canadian oil sands producer. The Company continues to pursue partnerships with oil sands producers to provide additional financial and technical support for this commercial-scale field test in an oil sands reservoir.

In 2019, Acceleware, with partner GE, completed the design, manufacturing, and factory testing of the prototype RF generator that will be used in the test and has determined the commercial-scale test as drill ready. In late 2019, the prototype RF generator was field tested at the Company's simulated "ditch" reservoir in Alberta and produced record results. Acceleware has also finalized design concepts for drilling and completing RF XL wells, and has completed front-end engineering and design of the surface facilities that will be used during the test.

Acceleware's application and all supplemental requested information for its planned commercial-scale test pilot of RF XL at the Rigel oil sands property in northeast Alberta was submitted to the Alberta Energy Regulator ("AER") in early 2019. Timing of receipt of regulatory approval, however, remains uncertain. During the latter half of 2019, in the interests of accelerating the timeline for the test, Acceleware advanced discussions with several interested

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producers regarding potential alternative test sites and partnerships. In early 2020, the Company had narrowed the number of producers it was in discussions with and is continuing efforts to secure a new test site location. Should a new test site be confirmed, a new application to the AER will be submitted upon approval from the Company's funding partners.^{*}

<u>HPC</u>

In 2019, the Company focused on selling seismic imaging software to the oil and gas exploration market and continued the development of its suite of seismic products, as well as adding features, functionality and performance to AxRTM, AxWave and AxFWI. Going forward, the Company will access the oil and gas geoscience software market with innovative licensing structures through a direct sales model.

The Company continues to develop AxRTM, AxWave and AxFWI, which are GPU-accelerated and CPU-optimized seismic solutions, providing a multi-fold performance increase over alternative solutions, resulting in reduced processing times and enabling expedited drilling decisions for the oil and gas industry.

While the Company is focusing on energy markets, it continues to develop and sell its EM FDTD solution to end users primarily through independent software vendors ("ISV") that have integrated Acceleware's solution into their software packages. Acceleware currently works with some of the world's largest companies in the electronics market, which consists of mobile phone manufacturers, industrial electronics firms, and government organizations. Acceleware's key ISV partners include SPEAG, ZMT Zurich MedTech AG, Keysight Technologies, Synopsis, Inc., and Crosslight Software Inc.

SELECTED ANNUAL INFORMATION

The audited financial statements and the accompanying notes for the year ended December 31, 2019 (the "Financial Statements") are incorporated by reference herein and form an integral part of this MD&A. The Financial Statements can be found on <u>www.sedar.com</u> and on the Company's website at https://acceleware.com/. All financial information is reported in Canadian dollars unless otherwise noted.

The following table shows selected financial information from Acceleware's audited annual financial statements for the years ended December 31, 2019, December 31, 2018, and December 31, 2017.

	Year Ended Dec 31, 2019	Year Ended Dec 31, 2018	Year Ended Dec 31, 2017
	(Audited)	(Audited)	(Audited)
Total revenue	\$1,453,924	\$4,317,361	\$1,320,067
Total comprehensive loss	(\$1,558,810)	(\$98,622)	(\$2,749,731)
Loss per share (basic and diluted)	(\$0.015)	(\$0.001)	(\$0.030)
Total assets	\$6,514,914	\$6,167,689	\$1,455,449
Long-term debt (in the form of finance leases) ¹	\$155,335	\$189,012	\$183,373
Dividends	Nil	Nil	Nil

¹ Includes current portion of finance leases

Acceleware's recognized revenues in 2019 were lower than 2018 but higher than 2017 as a result of significant revenue recognized in 2018 from the AMD agreement. Total comprehensive loss was also significantly lower in 2018 compared to both 2019 and 2017 due to the increase in revenue. Excluding the impact of the AMD contract, total revenue for the year ended December 31, 2019 is higher than that reported in each of 2018 and 2017 and total comprehensive loss is lower. Total assets increased as at December 31, 2019 due to increased cash and cash equivalents, contract assets, and trade and other receivables stemming from increased government assistance for R&D.

RESULTS OF OPERATIONS – YEAR TO DATE

<u>Revenue</u>

Revenue	Year Ended		Year Ended		
		December		December	% change
		31, 2019		31, 2018	Year over Year
Software	\$	773,727	\$	111,156	596%
Maintenance		643,405		618,778	4%
Services		36,792		3,587,427	-99%
	\$	1,453,924	\$	4,317,361	-66%

During the year ended December 31, 2019, the Company reported total revenue of \$1,453,924, compared to \$4,317,361 for the year ended December 31, 2018, which includes \$3,276,848 of non-recurring revenue associated with work completed under the consulting services agreement with AMD. Excluding this, revenue recorded in 2019 is \$413,411 higher due solely to new contracts under the revised HPC software licensing model.

RF Heating Revenue		Year Ended		Year Ended	
	December			December	% change
		31, 2019		31, 2018	Year over Year
Software	\$	14,350	\$	41,000	-65%
Maintenance		8,390		1,484	465%
Services		-		-	N/A
	\$	22,740	\$	42,484	-46%

RF Heating revenue in 2019 decreased 46% compared to the year ended December 31, 2018 due to a shift in sales focus to securing R&D partners rather than sales of the Company's AxHEAT RF Heating simulation software.

HPC Revenue	Year Ended			Year Ended	
		December		December	% change
		31, 2019		31, 2018	Year over Year
Software	\$	759,377	\$	70,156	982%
Maintenance		635,015		617,294	3%
Consulting		36,792		3,587,427	-99%
	\$	1,431,184	\$	4,274,877	-67%

HPC revenue in the year ended December 31, 2019 decreased 67% compared to the prior year due to the one-time nature of the aforementioned contract with AMD. HPC product sales increased significantly due to selling seismic software directly to oil and gas customers using new licencing models. HPC consulting services revenue was 99% lower due to the strategic decision to discontinue most HPC service offerings at the end of 2018.

<u>Expenses</u>

Expenses		Year Ended		Year Ended	
	December 31,			December 31,	% change
		2019		2018	Year over Year
Cost of revenue	\$	2,853	\$	67,669	-96%
General & administrative		2,271,641		2,393,999	-5%
Research & development		687,519		2,019,879	-66%
	\$	2,962,013	\$	4,481,547	-34%

Expenses decreased 34% in 2019 compared to the year ended December 31, 2018, supported by lower expenses across the organization. Cost of revenue decreased 96% due to fewer technical staff engaged in custom software development. General and administrative ("G&A") expenses decreased 5% primarily due to decreased payroll and payroll related expenses. R&D expenses fell 66% as a result of decreased payroll spending and consulting costs as the Company's resources and activities were focused on executing a successful field test of the RF XL Heating technology.

RF Heating Expenses	Year Ended			Year Ended	
	December 31,			December 31,	% change
		2019		2018	Year over Year
Cost of revenue	\$	-	\$	14,001	-100%
General & administrative		1,608,981		1,653,590	-3%
Research & development	554,688			1,498,071	-63%
	\$	2,163,669	\$	3,165,662	-32%

RF Heating expenses decreased 32% in 2019 compared to the year ended December 31, 2018. This decrease was primarily driven by a 63% reduction in RF Heating R&D investment due to the higher external engineering design activity that occurred in the latter half of 2018 associated with the Company's commercial-scale test of RF XL. In 2019, much of the R&D activity was carried out by in-house staff. RF Heating G&A remained relatively consistent with a 3% decrease year-over-year.

HPC Expenses	Year Ended	Year Ended	
	December 31,	December 31,	% change
	2019	2018	Year over Year
Cost of revenue	\$ 2,853	\$ 53,668	-95%
General & administrative	662,660	740,409	-11%
Research & development	132,831	521,808	-75%
	\$ 798,344	\$ 1,315,885	-39%

HPC expenses decreased 39% during the year ended December 31, 2019. HPC G&A decreased 11% due to reduced personnel costs associated with the cessation of the custom software development business. HPC R&D investment meanwhile decreased 75% as the Company shifted its focus to the RF XL heating technology.

Finance Income and Expenses

In 2019, finance income increased to \$63,215 from \$730 in 2018, as the Company held short-term investments for the purposes of expenditures related to the commercial-scale pilot project. Finance expenses for both 2019 and 2018 are relatively consistent and relate to the interest expense on leases primarily associated with office space and computer equipment.

Foreign Exchange

In 2019, the Company recognized a \$101,842 foreign exchange loss compared to a \$75,153 gain on foreign exchange in 2018. Foreign exchange gains or losses typically occur when (1) the US dollar exchange rate fluctuates between the time revenue is recognized and when the corresponding receivable is collected, and (2) cash and cash equivalent balances are held in US dollars.

Total Comprehensive Loss

The Company had a total comprehensive loss for the year ended December 31, 2019 of \$1,558,810, a significant increase compared to a total comprehensive loss of \$98,622 for the year ended December 31, 2018, due to the above noted decrease in revenue coupled with a more moderate decrease in expenses in 2019.

SUMMARY OF QUARTERLY RESULTS

The following table highlights revenue, cash generated (used) in operating activities, total comprehensive (loss) income and earnings (loss) per share for the eight most recently completed quarters ended December 31, 2019.

		20)19			201	8	
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Revenue	\$154,715	\$197,001	\$213,475	\$888,733	\$3,533,026	\$263,978	\$350,098	\$170,259
Cash generated (used) in operating activities	221,293	(478,372)	339,678	1,211,576	2,807,350	(551,816)	(310,203)	(543,179)
Total comprehensive (loss) income for the period	(621,751)	(551,412)	(453,145)	67,498	2,437,958	(1,051,292)	(645,911)	(839,377)
Loss (earnings) per share basic and diluted	(\$0.006)	(\$0.005)	(\$0.004)	\$0.001	\$0.024	(\$0.010)	(\$0.007)	(\$0.009)

In Q1 2019, Acceleware recorded its second highest quarterly revenue for the past two years, an outcome significantly higher than that achieved in Q1 2018, and second only to that reported in Q4 2018. The increase was due to new sales of software licenses for seismic imaging, which were associated with innovative new licensing models. The Company discontinued its reseller model for seismic software and commenced selling software directly to oil and gas customers. Due to the change in the software revenue model, the Company now expects fewer overall sales transactions with higher overall revenue, which could potentially lead to increased volatility in quarterly revenue. This was evident in the remaining quarters of 2019 as revenue declined relative to Q1 2019. As a result of the decrease in revenue, the Company recorded a total comprehensive loss in each of the last three quarters of 2019 following two consecutive quarters of positive total comprehensive income for the last half of 2018. The collection of receivables on higher revenue generated in Q4 2018, combined with increased government funding for R&D throughout 2019, contributed to three quarters of positive cash flow from operating activities in 2019.

Revenue	Thr De	ee months ended c 31, 2019	Th De	Three months ended Dec 31, 2018		ended ended pt 30, 2019	% change Q4 2019 over Q4	% change Q4 2019 over Q3
							2018	2019
Software	\$	3,443	\$	93,639	\$	18,799	-96%	-82%
Maintenance		151,272		162,539		175,966	-7%	-14%
Services		-		3,276,848		2,236	-100%	-100%
	\$	154,715	\$	3,533,026	\$	197,001	-96%	-21%

RESULTS OF OPERATIONS – FOURTH QUARTER

During Q4 2019, the Company recognized revenue of \$154,715 representing a 96% decrease over Q4 2018, due to the above-mentioned AMD contract in 2018. Revenue decreased 21% compared to Q3 2019 due to a reduction in HPC software and maintenance revenue.

RF Heating Revenue	Three months		Thr	Three months		ree months	% change	% change
	ended			ended		ended	Q4 2019	Q4 2019
	Dec 31, 2019		De	Dec 31, 2018		ot 30, 2019	over Q4	over Q3
							2018	2019
Software	\$	-	\$	41,000	\$	14,350	-100%	-100%
Maintenance		2,340		1,484		1,575	58%	49%
	\$	2,340	\$	42,484	\$	15,925	-94%	-85%

The Company recognized RF Heating revenue of \$2,340 in Q4 2019 compared to \$42,484 of RF Heating revenue in Q4 2018. The decrease is due to lower software license revenue from the Company's AxHEAT RF heating simulation software. RF Heating revenue in Q4 2019 was also lower than the previous quarter for the same reason.

HPC Revenue	Three months		Th	Three months		ree months	% change	% change
	ended			ended		ended	Q4 2019	Q4 2019
	De	Dec 31, 2019		Dec 31, 2018		ept 30, 2019	over Q4	over Q3
							2018	2019
Software	\$	3,443	\$	52 <i>,</i> 639	\$	4,449	-93%	-23%
Maintenance		148,932		161,055		174,391	-8%	-15%
Services		-		3,276,848		2,236	-100%	-100%
	\$	152,375	\$	3,490,542	\$	181,076	-96%	-16%

HPC revenue decreased 96% compared to Q4 2018 due to the above-mentioned AMD contract in 2018. HPC revenue decreased 16% compared to Q3 2019, due to a quarter-over-quarter reduction in direct sales seismic imaging maintenance revenue.

Expenses

Expenses	Three months		Three months		nree months	% change	% change
	ended		ended		ended	Q4 2019	Q4 2019
	Dec 31, 2019		Dec 31, 2018	Sept 30, 2019		over Q4	over Q3
						2018	2019
Cost of revenue	\$-	\$	15,450	\$	-	-100%	N/A
General & administrative	539,560		881,644		562,876	-39%	-4%
Research &							
development	201,807		277,768		237,225	-27%	-15%
	\$ 741,367	\$	1,174,862	\$	800,101	-37%	-7%

Expenses fell 37% during Q4 2019 compared to Q4 2018 due primarily to lower G&A expenses following the strategic decision to discontinue most HPC service offerings at the end of 2018. Expenses also decreased 7% from Q3 2019 due to slightly lower G&A and R&D.

RF Heating expenses	Three months		Three months		ree months	% change	% change
	ended		ended		ended	Q4 2019	Q4 2019
	Dec 31, 2019		Dec 31, 2018 S		ept 30, 2019	over Q4	over Q3
						2018	2019
Cost of revenue	\$-	\$	14,001	\$	-	-100%	N/A
General & administrative	386,700		673,234		353,640	-43%	9%
Research &							
development	157,518		241,673		212,796	-35%	-26%
	\$ 544,218	\$	928,908	\$	566,436	-41%	-4%

Expenses attributed to RF Heating were 41% lower than in Q4 2018 and 4% lower than the previous quarter. Lower salary and contractor expenses contributed to Q4 2019 RF Heating G&A expenses declining 43% over Q4 2018, but increased 9% relative to Q3 2019 due to additional legal costs related to patent filings. RF Heating R&D expenses fell 35% in Q4 2019 compared to Q4 2018 due to lower spending on salary and contractor expenses, while 26% lower RF Heating R&D expenses in Q4 2019 over Q3 2019 is due to higher contractor and materials costs in the prior quarter related to the ramp-up of activity for the commercial-scale test of RF XL technology.

HPC expenses	Three months		Three months		Three months		% change	% change
	ended		ended		ended		Q4 2019	Q4 2019
	Dec 31, 2019			Dec 31, 2018	Sept 30, 2019		over Q4	over Q3
							2018	2019
Cost of revenue	\$	-	\$	1,449	\$	-	-100%	-
General & administrative		152,860		208,410		209,236	-27%	-27%
Research &								
development		44,289		36,095		24,429	23%	81%
	\$	197,149	\$	245,954	\$	233,665	-20%	-16%

HPC expenses in Q4 2019 fell 20% compared to Q4 2018 and 16% compared to Q3 2019, due to the strategic decision to cease most HPC service offerings at the end of 2018.

LIQUIDITY AND CAPITAL RESOURCES

At December 31, 2019, Acceleware had working capital of \$1,022,395 (December 31, 2018 – \$2,051,577), \$4,381,194 (December 31, 2018 - \$3,225,126) in cash and cash equivalents, and \$155,335 (December 31, 2018 - \$189,012) in combined short-term and long-term debt in the form of leases. The increase in cash is a result of increased collection of trade receivables and receipt of government assistance milestone funding for the RF XL field test.

In the interests of matching cash requirements with a combination of cash generated from operations, external funding, and capital raising activities, the Company actively manages its cash flow and investments in new products. Acceleware intends to maximize cash generated from operations through several initiatives which include continuing to focus on higher gross margin software products that are marketed through a combination of direct and reseller models; minimizing operating expenses where possible; and limiting capital expenditures. As the Company continues to develop its RF Heating technology, new R&D investments will be financed through a combination of internal cash flow from the HPC business, project funding agreements, government assistance and external financing, when available. Management believes that successful execution of its business plan will result in sufficient cash flow and new financing to fund projected operational and investment requirements. However, no assurances can be given that the Company will be able to achieve all or part of the objectives discussed above, or that sufficient financing from outside sources will be available. Further, if the Company's operations are unable to generate cash flow levels at or above current projections, the Company may not have sufficient funds to meet its obligations over the next twelve months. Should such events occur, Management is committed to implementing all or a portion of its contingency plan. This plan has been developed and designed to provide additional cash flow, and includes, but is

not limited to: deferring certain additional product development initiatives; reducing sales, marketing and G&A expenses; and seeking outside financing. The failure of the Company to achieve one or all the above items may have a material adverse impact on the Company's financial position, results of financial performance and cash flows.^{*}

Cash flow provided by operations totaled \$1,294,175 for the year ended December 31, 2019, compared to \$1,402,152 for the year ended December 31, 2018. Cash used in operations before changes in non-cash working capital was \$868,859 for the year ended December 31, 2019 compared to cash provided by operations before changes in non-cash working capital of \$625,560 in 2018, due to payments received in that year under the AMD contract.

Trade and Other Receivables

Trade and other receivables as at December 31, 2019 increased to \$1,612,892, compared to \$1,397,786 as at December 31, 2018. The Company maintains close contact with its customers to mitigate risk in the collection of receivables and a large portion of the receivables is due from provincial and federal government bodies related to a contract for government assistance, and therefore is deemed lower-risk.

Alberta SR&ED Tax Credits

The Company has recorded \$173,097 (December 31, 2018 - \$227,311) in SR&ED tax credit receivables as at December 31, 2019. The decrease is a result of lower expenditures on R&D in 2019. As of December 5, 2019, Bill 20 of the Fiscal Measures and Taxation Act, 2019 eliminated the Alberta SR&ED tax credit effective January 1, 2020.

Current Liabilities

As at December 31, 2019, the Company had current liabilities of \$5,328,404 compared to current liabilities of \$3,918,182 as at December 31, 2018. The increase in current liabilities is due to higher deferred government assistance for R&D.

Investing Activities

For the year ended December 31, 2019, \$34,696 was invested in property and equipment compared to \$nil for the year ended December 31, 2018. The equipment purchased in 2019 is related to the commercial-scale pilot project for RF XL Heating technology.

Financing Activities

During the year ended December 31, 2019, 1,484,000 stock options (December 31, 2018 – 1,084,283 stock options and 4,651,396 warrants) were exercised for cash proceeds of \$74,200 (December 31, 2018 - \$1,121,953).

Income Tax

The Company follows the liability method with respect to accounting for income taxes. Deferred tax assets and liabilities are determined based on differences between the carrying amount and the tax basis of assets and liabilities (temporary differences). Deferred tax assets and liabilities are measured using the substantively enacted tax rates that will be in effect when these differences are expected to reverse. Deferred tax assets, if any, are recognized only to the extent that, in the opinion of Management, it is probable that the assets will be realized.

^{*} this paragraph contains forward looking information. Please refer to "Forward Looking Statements" and "Risk Factors and Uncertainties" for a discussion of the risks and uncertainties related to such information

Except for the refundable Alberta SR&ED tax credits, as at December 31, 2019, the potential tax benefits of Acceleware's available tax pools have not been recognized in the Company's account due to uncertainty surrounding the realization of such benefits.

RISKS FACTORS AND UNCERTAINTIES

Management defines risk as the probability of a future event that could negatively affect the financial condition and/or results of operations of the Company. The following section describes specific and general risks that could affect the Company. As it is difficult to predict whether any risk will be realized or its related consequences will occur, the actual effect of any risk on the business could be materially different from that anticipated. The following descriptions of risk do not include all possible risks as there may be other risks of which Management is currently unaware.

Recent Economic Developments

In December 2019, a novel strain of coronavirus known as COVID-19 surfaced in China. By March 11, 2020, COVID-19 had spread to over 100 countries and was declared a worldwide pandemic by the World Health Organization. Measures taken by governments and companies to reduce the spread of COVID-19 have caused extensive disruptions in business operations. The speed and extent of the spread of COVID-19, the duration and intensity of the resulting business disruption, and the magnitude of the financial and social impacts are uncertain and difficult to predict. Further, global commodity prices, including oil and natural gas prices, have recently experienced massive volatility due to a breakdown in negotiations between OPEC and non-OPEC countries regarding production quotas. The resulting oversupply, in combination with reduced demand from the effects of the COVID-19 pandemic, have caused a precipitous decline in oil and natural gas prices.

Low oil and natural gas prices combined with COVID-19 and the measures taken by governments and companies to reduce its spread may have an adverse impact on many aspects of the Company's business. Increased capital market and interest rate volatility may negatively affect the Company's ability to access external financing. The overall market for the Company's products and services may undergo stagnant or negative growth due to reduced capital expenditures by the Company's current and potential customers. Supply-chain shortages or disruptions, the full or partial closure of transportation infrastructure, temporary suspension of some or all business operations, and labour disruptions (including those affecting key employees and directors of the Company's growth and operating results. Whether and to what extent the recent market volatility and COVID-19 outbreak will impact the Company's business and operations will depend on future developments which, at this time, remain uncertain and difficult to predict.

Liquidity Risk

The Company actively manages cash flow and investment in new products in order to match its cash requirements to its cash generated from operations, external funding, and capital raising activities. In order to maximize cash generated from operations, the Company plans to continue to focus on higher gross margin software products; to minimize operating expenses where possible; and to limit capital expenditures. As the Company continues to develop its RF Heating technology, new R&D investments will be financed through a combination of internal cash flow from the HPC business, project funding agreements, and external financing. Management believes that successful execution of its business plan will result in sufficient cash flow and new financing to fund projected operational and investment requirements. However, no assurances can be given that the Company will be able to achieve all or part of the objectives discussed above, or that sufficient financing from outside sources will be available. Further, if the Company's operations are unable to generate cash flow levels at or above current projections, the Company may not have sufficient funds to meet its obligations over the next twelve months. Should such events occur, Management is committed to implementing all or a portion of its contingency plan. This plan has been developed and designed to provide additional cash flow, and includes, but is not limited to, deferring certain additional product development initiatives, reducing sales, marketing and G&A expenses, and seeking outside

financing. The failure of the Company to achieve one or all of the above items may have a material adverse impact on the Company's financial position, results of financial performance and cash flows.*

Dependence on Market Growth

The overall market for oil and gas HPC software has experienced three years of stagnant or negative growth, preceded by several years of positive growth. There can be no assurance that the market for the Company's existing software products will resume growth in the near future nor that the Company will be successful in establishing new markets for its software products and services. The Company's RF Heating commercialization strategy is wholly dependent on the ability of the Company to take market share from existing in-situ heavy oil production techniques, or to grow the existing market by increasing the amount of reserves that become economic to produce. If the various markets in which the Company's software products and services compete fail to grow, or grow more slowly than the Company currently anticipates, or if the Company is unable to establish new markets for its products and services or the Company's products and services do not gain market acceptance, the Company's business, operating results and financial condition could be materially adversely affected.

Requirement for Additional Financing

Management of Acceleware may seek additional funding to support ongoing losses, particularly losses associated with the development and commercialization of its RF Heating technology, until Acceleware reaches a level of revenue which will sustain its operations on an internal basis. The rate of growth in the market for Acceleware's products and services and the Company's success in gaining market share, have been lower than Acceleware anticipated. Acceleware cannot be assured that additional funding will be available, or if available, that it will be available on acceptable terms. If adequate funds are not available, Acceleware may have to reduce substantially or eliminate expenditures for research and development, testing, production and marketing of its products and services. There can be no assurance that the Company will be able to raise additional capital if its capital resources are exhausted. The ability to arrange additional financing in the future will depend, in part, upon the prevailing capital market conditions as well as the business and performance of Acceleware. There can be no assurance that Acceleware of Acceleware. There can be no assurance that such additional financing will be available on assurance that Acceleware will be successful in arranging additional financing or that such additional financing will be available on satisfactory terms.

Reliance on Limited Number of Customers

The Company derives a significant component of its revenues from three major customers. In aggregate, these three customers generated approximately 79% of total revenues for the year ended December 31, 2019. The Company is actively seeking other customers to mitigate the Company's revenue reliance on these existing major customers. Should these customers not continue to purchase and resell the Company's products and the Company is unable to attract new channel partners, revenue and the sustainability of the Company would be materially affected in future periods.

Competition

The market for oil and gas seismic and other HPC is competitive. Acceleware also has competition in the emerging RF Heating market. Acceleware has experienced and will continue to experience intense competition from other organizations with more established sales and marketing presence, superior technical support services and greater financial resources. The Company's competitors may announce new products, services or enhancements that better meet the needs of customers or changing industry standards. As the market for the Company's products and services continues to develop, additional competitors may enter the market and competition may intensify. Increased

^{*} this paragraph contains forward looking information. Please refer to "Forward Looking Statements" and "Risk Factors and Uncertainties" for a discussion of the risks and uncertainties related to such information

competition may cause price reductions, reduced profitability and loss of market share, any of which could have an adverse effect on the Company's business, results of operations and financial condition.

Failure to Manage Growth Successfully

In the event that Acceleware's business grows rapidly, the growth may place a strain on managerial and financial resources. Such expansion may result in substantial growth in the number of its employees, the scope of its operating and financial systems and the geographic area of its operations, resulting in increased responsibility for both existing and new management personnel. The Company's future growth will depend upon a number of factors, including the ability to:

- Acquire and train sales and marketing staff to expand Acceleware's presence in the evolving marketplace for the Company's products and services, and keep staff informed regarding the technical features, issues and key selling points of the Company's products and services;
- Attract and retain qualified technical personnel to continue to develop reliable and scalable solutions and services that respond to evolving customer needs and technological developments;
- Maintain high quality customer service and support as sales increase; and
- Expand the Company's internal management while maintaining appropriate financial controls over operations and providing support to other functional areas within the Company.

The Company's inability to achieve any of these objectives could harm the Company's business, financial condition and operating results and prospects.

Lengthy Sales Cycle – Channel Partner Distributors

The Company's channel partner (distributors) integration/sales cycle, beginning with an interested channel partner that technically integrates with the Company, and culminating in a commercial agreement with the channel partner, is expected to range from six to twelve months and may be significantly longer. Once the integration period with the channel partner is completed, the actual "sales" cycle to the channel partner's customers is relatively short - a matter of weeks or a few months. The lengthy integration cycle with the channel partner and the limited access to the channel partner's customers (arising from how the channel partner distributes products and services) limits the Company's ability to forecast the timing and amount of specific sales in a particular quarter and will likely continue to cause significant fluctuations in its quarterly operating results. Because of these fluctuations, Management believes that neither the Company's past performance nor period-to-period comparisons of its operating results are, or may be, a good indication of its future performance. If the Company's operating results for a particular period fail to meet investor expectations that are based on the Company's past performance or on period-to-period comparisons of the Company's operating results, the Company's share price could decline. This cycle is also subject to a number of significant delays over which Company will have little or no control. The Company augments its channel partner strategy with direct sales activities to partially mitigate the channel partner risk.

Failure to Adapt to Technological Change and New Product Development

The hardware development industry is characterized by rapid technological change and the frequent introduction of new products. Accordingly, Management believes that the future success of the Company depends upon its ability to enhance current products and services or develop and introduce new products and services. The Company's inability, for technological or other reasons, to develop and introduce products or services in a timely manner in response to changing market conditions or customer requirements could have a material adverse effect on the Company's business, results of operations and financial condition. The ability of the Company to compete successfully will depend in large measure on its ability to maintain a technically competent research and development staff and to adapt to technological changes and advances in the industry, including providing for the continued compatibility of its products and services with evolving computer hardware and software platforms and operating environments. There can be no assurance that the Company will be successful in these efforts.

Risk Associated with International Operations

Management of Acceleware believes that its continued growth and profitability will require additional expansion of its sales in foreign markets. This expansion has required, and will continue to require, significant Management

attention and financial resources and could adversely affect the Company's operating margins. In order to increase international sales in subsequent periods, the Company may establish additional foreign operations, hire additional personnel and recruit international resellers. To the extent that the Company is unable to expand international sales in a timely and cost-effective manner, the Company's business, results of operations and financial condition could be materially adversely affected. In addition, even with the possible recruitment of additional personnel and international resellers, there can be no assurance that the Company will be successful in maintaining or increasing international market demand for the Company's products and services.

Risk Associated with Currency Fluctuations

Most of the Company's revenue is realized in foreign currencies as a result of international sales. Fluctuations in the exchange rate between the Canadian dollar and other currencies, particularly the US dollar, may have a material adverse effect on the Company's results of operations, financial condition and any business prospects. The Company currently has no hedges in place on its foreign currency exposure.

Risk Associated with a Change in the Company's Pricing Model

The competitive market in which the Company conducts business may require Acceleware to change its pricing model. If the Company's competitors offer deep discounts on certain products or services in an effort to recapture or gain market share or to sell other products, the Company may be required to lower prices or offer other favourable terms to compete successfully. Any such changes would likely result in a reduction in profitability and could adversely affect the Company's operating results.

Dependence on Key Personnel

The success of Acceleware is largely dependent on the performance of its key employees and directors. Failure to retain key employees and directors and to attract and retain additional key employees with necessary skills could have a material adverse impact upon the Company's growth and profitability. Competition for highly skilled management, technical and other employees is intense. There can be no assurance that the Company will be successful in attracting and retaining such personnel and the departure or death of any of the members of the Company's executive team and key directors could have a material adverse effect on the Company's business, results of operations and financial condition.

Risks of Acquisitions Negatively Affecting the Company

In the future, the Company may engage in selective acquisitions of products or businesses that Management of the Company believes would be complementary to its existing products. There is a risk that the Company will not be able to identify suitable acquisition candidates available for sale at reasonable prices, complete any acquisition, or successfully integrate any acquired product or business into the Company's operations. Acquisitions may involve a number of other risks, including: diversion of Management's attention; disruption to the Company's ongoing business; failure to retain key acquired personnel; difficulties in integrating acquired operations, technologies, products or personnel; unanticipated expenses, events or circumstances; assumption of disclosed and undisclosed liabilities; and inappropriate valuation of the acquired in-process research and development, or the entire acquired business.

If the Company does not successfully address these risks or any other problems encountered in connection with an acquisition, the acquisition could have a material adverse effect on the Company's business, results of operations and financial condition. In addition, if the Company proceeds with an acquisition paid by cash, it may diminish the Company's liquidity and capital resources, or shares may be issued which could cause significant dilution to existing shareholders.

Intellectual Property Risks

Because much of the Company's potential success and value lies in its ownership and use of intellectual property, its failure to protect its intellectual property may negatively affect its business and value. Acceleware's ability to compete effectively is largely dependent upon the maintenance and protection of its intellectual property. The Company relies primarily on trade secret, trademark and copyright law, and when appropriate patent protection, as well as confidentiality procedures and licensing arrangements, to establish and protect its rights to its technology.

The Company typically enters into confidentiality or license agreements with its employees, consultants, customers, strategic partners and vendors in an effort to control access to and distribution of its products, documentation and other proprietary information. Despite these precautions, it may be possible for a third party to copy or otherwise obtain and use the Company's proprietary technology without authorization.

Policing unauthorized use of the Company's intellectual property is difficult. The steps that the Company takes may not prevent misappropriation of its intellectual property, and the agreements the Company enters into may be difficult to enforce. In addition, effective intellectual property protection may be unavailable or limited in some jurisdictions outside Canada and the United States. Litigation may be necessary in the future in order to enforce or protect the Company's intellectual property rights or to determine the validity and scope of the proprietary rights of others. That litigation could cause the Company to incur substantial costs and divert resources away from the Company's daily business, which in turn could materially hinder its business. The Company may be subject to damaging and disruptive intellectual property litigation.

The Company may be subject to intellectual property litigation that could:

- Be time-consuming and expensive;
- Divert attention and resources away from the Company's daily business;
- Impede or prevent delivery of the Company's products and services; and
- Require the Company to pay significant royalties, licensing fees and damages.

Although the Company is not aware that its products or services infringe or violate the intellectual property rights of third parties and although the Company has not been served notice of any potential infringement or violation, the Company may be subject to infringement claims in the future. Since patent applications are kept confidential for a period of time after filing, applications may have been filed that, if issued as patents, could relate to the Company's products or services.

Parties making claims of infringement may be able to obtain injunctive or other equitable relief that could effectively block the Company's ability to provide its products and services in Canada, the US and other jurisdictions and could cause the Company to pay substantial damages. In the event of a successful claim of infringement, the Company and its customers may need to obtain one or more licenses from third parties, which may not be available at a reasonable cost, if at all. The defense of any lawsuit could result in time-consuming and expensive litigation, regardless of the merits of such claims, as well as resulting damages, license fees, royalty payments and restrictions on the Company's ability to provide its products or services, any of which could harm its business.

The Company is not aware that any of its products infringe the proprietary rights of third parties. There can be no assurance, however, that third parties will not claim such infringement by the Company or its licensees with respect to current or future products. The Company expects that software product developers will increasingly be subject to such claims as the number of products and competitors in the Company's industry segment grows and the functionality of products in different industry segments overlaps. Any such claims, with or without merit, could be time-consuming, result in costly litigation, cause product shipment delays or require the Company. Any of the foregoing could have a material adverse effect on the Company's business, results of operations and financial condition.

Risk of Defects in the Company's Products

Products as complex as those offered by the Company frequently contain errors or defects, especially when first introduced or when new versions or updates are released. Despite product testing, Acceleware has in the past released products with defects, discovered software errors in certain of its new versions after introduction, and experienced delays or lost revenue during the period required to correct these errors. Acceleware regularly introduces new releases and periodically introduces new versions of its software. Known errors which the Company considers minor may be considered serious by its customers. There can be no assurance that, despite testing by the

Company and by its customers, defects and errors will not be found in existing products or in new products, releases, versions or enhancements after the commencement of commercial shipments. Undetected errors and performance problems may be discovered in the future. Any such defects and errors could result in litigation, adverse customer reactions, negative publicity regarding the Company and its products, harm to the Company's reputation, loss of or delay in market acceptance or required product changes, any of which could have a material adverse effect upon the Company's business, results of operations and financial condition.

Risks of Security Breaches to the Company's Network (Cyber Security)

An experienced programmer may attempt on occasion to penetrate the Company's network security and could misappropriate the Company's or its customers' proprietary information or cause interruptions in the Company's operations. Acceleware's operations as proprietary software developers, and developers of leading-edge RF Heating technology could increase the risk of a cyber-attack from industrial competitors, cyber criminals and government actors. Acceleware has implemented various means to limit such an occurrence but may be required to expend significant capital and resources to protect against or to alleviate problems caused by such hackers in the future. Additionally, the Company may not have a timely remedy for any attack on the Company's network security. Such purposeful security breaches could have a material adverse effect on the Company's business, results of operations and financial condition. Risks include the untimely disclosure of proprietary data prior to its adequate protection through patent, trade secret or copyright. Should the Company's customer data be compromised, it could expose the Company to a material risk of loss or litigation, reputational damage and possible liability. In addition to deliberate security breaches, the inadvertent transmission of computer viruses could expose the Company to a material risk of loss or litigation, reputational damage and possible liability.

In offering certain payment services for some products and services, the Company could become increasingly reliant on encryption and authentication technology licensed from third parties to provide the security and authentication necessary to effect secure transmission of confidential information, such as customer credit card numbers. Advances in computer capabilities, discoveries in the field of cryptography and other discoveries, events, or developments could lead to a compromise or breach of the algorithms or licensed encryption authentication technology that the Company uses to protect such confidential information. If such a compromise or breach of the Company's licensed encryption authentication technology occurs, it could have a material adverse effect on the Company's business, its reputation, results of operations and financial condition. The Company may be required to expend significant capital and resources to protect against the threat of such security, encryption and authentication technology breaches or to alleviate problems caused by such breaches.

Acceleware's Management is responsible for assessing and overseeing risks associated with cyber security and determining, with its IT staff, what measures are appropriate to protect against these risks. The Company holds insurance against cyber security incidents. However, the coverage may be inadequate to fully cover every cyber security risk.

Reliance on Third Party Licenses

The Company anticipates relying on certain software that Acceleware licenses from third parties, including a software program that is integrated with internally developed software and used in Acceleware's products to perform key functions. There can be no assurance that these third-party licenses will continue to be available to the Company on commercially reasonable terms. The loss of, or inability to maintain, any of these licenses, could result in delays or reductions in product and service deployment until equivalent software can be developed, identified, licensed and integrated, which could materially adversely affect the Company's business, results of operations and financial condition.

Technological Change, New Products and Standards

To remain competitive, Acceleware must continue to enhance and improve the current line of products. The technology industry is characterized by rapid technological change, changes in user and customer requirements and preferences, frequent new product and service introductions embodying new technologies and the emergence of new industry standards and practices that could render Acceleware's existing products and systems obsolete. Acceleware's products embody complex technology and may not always be compatible with current and evolving

technical standards and products developed by others. Failure or delays by Acceleware to meet or comply with the requisite and evolving industry or user standards could have a material adverse effect on Acceleware's business, results of operations and financial condition. Acceleware's ability to anticipate changes in technology, technical standards and products will be a significant factor in its ability to compete. There can be no assurance that Acceleware will be successful in identifying, developing, manufacturing and marketing products that will respond to technological change or evolving standards. Acceleware's business may be adversely affected if it incurs delays in developing new products or enhancements or if such products or enhancements do not gain market acceptance. In addition, there can be no assurance that products or technologies developed by others will not render Acceleware's products or technologies non-competitive or obsolete.

Reliance on One Primary Hardware Technology

The Company's current collaboration with NVIDIA Corp. ("NVIDIA") is viewed as an important contributor to the timely execution of Acceleware's business plan. NVIDIA hardware is the primary platform for the Company's software solutions. If Management is unable to maintain a positive relationship with NVIDIA, the Company will make appropriate adjustments in the execution of its business plan. The Company continues to evaluate other hardware alternatives. However, should NVIDIA fail to supply these components to the Company's customers in a manner that meets those customers' quality, quantity, cost or time requirements, and if the Company were unable to modify its solutions to run on hardware from alternate suppliers of these components in a timely manner or on acceptable terms, this could adversely affect the Company's ability to sell products.

Conflicts of Interest

Certain of the directors and officers of the Company are or may become directors or officers of, or have significant shareholdings in, other companies and, to the extent that such other companies may participate in ventures in which the Company may participate, the directors and officers of the Company may have a conflict of interest in negotiating and concluding terms respecting the extent of such participation. In the event that any such conflict of interest arises, a director who has such a conflict will disclose the conflict to a meeting of the directors of the Company and will abstain from voting for or against the approval of such participation or such terms. In accordance with applicable laws, the directors of the Company are required to act honestly, in good faith and in the best interests of the Company. In determining whether or not the Company will participate in a particular program and the interest therein to be acquired by it, the directors will primarily consider the potential benefits to the Company, the degree of risk to which the Company may be exposed and its financial position at that time.

Price Volatility of Publicly Traded Securities

In recent years, the securities markets in the US and Canada have experienced a high level of price and volume volatility, and the market prices of securities of many companies have experienced wide fluctuations which have not necessarily been related to the operating performance, underlying asset values or prospects of such companies. There can be no assurance that continual fluctuations in price will not occur. It may be anticipated that any quoted market price for the Common Shares will be subject to market trends generally, notwithstanding any potential success of the Company in creating revenues, cash flows or earnings. The value of the Company's securities will be affected by such volatility.

Earnings and Dividend Record

The Company has no earnings or dividend record. To date, the Company has paid no dividends on its Common Shares and does not anticipate doing so in the foreseeable future.

TRANSACTIONS WITH RELATED PARTIES

For the year ended December 31, 2019, Acceleware incurred expenses in the amount of \$209,417 (December 31, 2018 - \$249,500) with a company controlled by an officer of the Company as fees for duties performed in managing operations. and these expenses are included in research and development. Of the total, \$50,082 was included in accounts payable and accrued liabilities as at December 31, 2019 (December 31, 2018 - \$172,719). These fees were

incurred in the normal course of operations and in the opinion of Management represent fair value for services rendered.

For the year ended December 31, 2019, the Company incurred expenses in the amount of \$25,532 (December 31, 2018 - \$119,279) with a company controlled by a director of the Company for legal fees and these expenses are included in G&A. Of the total, \$158 was included in accounts payable and accrued liabilities as at December 31, 2019 (December 31, 2018 - \$2,179). These fees were incurred in the normal course of operations and in the opinion of Management represent fair value for services rendered.

For the year ended December 31, 2019, the Company incurred expenses in the amount of \$81,000 (December 31, 2018 - \$16,550) with a company controlled by the spouse of an officer of the Company for writing services and these expenses are included in G&A. Of the total, \$5,880 was included in accounts payable and accrued liabilities as at December 31, 2019 (December 31, 2018 - \$2,415). These fees were incurred in the normal course of operations and in the opinion of Management represent fair value for services rendered.

Key management includes the Company's directors and members of the executive Management team. Compensation awarded to key management included:

	2019	2018
Salaries and short-term employee benefits	\$ 1,145,826	\$ 961,527
Share-based payments	320,828	309,894
	\$ 1,466,654	\$ 1,271,421

CRITICAL ACCOUNTING ESTIMATES

General

The preparation of the Financial Statements requires Management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingent assets and liabilities. The estimates are based on historical experience and on various other assumptions that are believed to be reasonable under the circumstances. The ongoing evaluation of these estimates forms the basis for making judgements about the carrying values of assets and liabilities and the reported amount of revenues and expenses in cases where they are not readily ascertainable from other sources. Actual amounts may differ from these estimates under different assumptions or conditions.

The Company's significant accounting policies are fully described in Note 4 to the Financial Statements. Certain accounting policies are particularly important to the reporting of financial position and results of operations and require the application of judgement by Management. An accounting policy is deemed to be critical if it requires an accounting estimate to be made based on assumptions about matters that are highly uncertain at the time the estimate is made. Different Management estimates that reasonably could have been used, or changes in the accounting estimates that are reasonably likely to occur periodically, could have a material impact on the Financial Statements. Management believes the following critical accounting policies reflect the more significant estimates and assumptions used in the preparation of Financial Statements.

New standards and interpretations adopted

IFRS 16, Leases ("IFRS 16"). The Company adopted IFRS 16 using the modified retrospective approach and accordingly the information presented for 2018 has not been restated. It remains as previously reported under IAS 17 and related interpretations. On initial application, the Company has elected to record right-of-use assets based on the corresponding lease liability, adjusted by the amount of any prepaid or accrued lease payments. IFRS 16 specifies how leases will be recognized, measured, presented and disclosed and it provides a single lessee model, requiring lessees to recognize right-of-use assets and lease liabilities for all major leases.

The impact of the transition to IFRS 16 is shown in Notes 8, 10 and 20 of the Company's financial statements for the year ended December 31, 2019.

The Company's accounting policy under IFRS 16 is as follows: At inception of a contract, Acceleware assesses whether a contract is, or contains, a lease based on whether the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. For contracts that contain a lease component, Acceleware then recognizes a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured based on the initial amount of the lease liability adjusted for:

- Initial direct costs incurred by Acceleware;
- Lease payments made prior to inception;
- Estimated costs to dismantle, remove or restore the asset(s); less
- Any lease incentives received.

Lease assets are depreciated to the earlier of the end of the useful life of the right-of-use asset or the lease term using the straight-line method as this most closely reflects the expected pattern of consumption of the future economic benefits. The lease term includes periods covered by an option to extend if Acceleware is reasonably certain to exercise that option. In addition, the right-of-use asset can be periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Company's incremental borrowing rate. Generally, Acceleware uses its incremental borrowing rate as the discount rate for leases for the right to use office space and uses the interest rate implicit in the lease for leases of the right to use computer equipment.

The lease liability is measured at amortized cost using the effective interest method. Acceleware will remeasure the lease liability when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Acceleware's estimate of the amount expected to be payable under a residual value guarantee, or if Acceleware changes its assessment of whether it will exercise a purchase, extension or termination option. When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero. Acceleware has elected to apply the practical expedient not to recognize right-of-use assets and lease liabilities for short-term (12 months or less) leases of all asset classes. Acceleware will elect to apply the practical expedient not to recognize right-of-use assets on a case-by-case basis. The lease payments associated with either short-term leases or leases of low-value underlying assets are recognized as an expense on a straight-line basis over the lease term.

Going Concern Assumption

The Financial Statements have been prepared on a going concern basis, which assumes that the Company will be able to realize its assets and discharge its liabilities in the normal course of business. The Company's ability to continue as a going concern is dependent upon its ability to generate sufficient cash flow to meet its obligations as they come due, to obtain additional financing as may be required, and ultimately to achieve successful operations. However, no assurance can be given at this time as to whether the Company will achieve any of these conditions. If

the Company were to change its assumption regarding the ability to continue as a going concern for a reasonable period of time, adjustments relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities would likely be necessary and potentially material.

Revenue Recognition

The Company's revenue recognition requirements pertaining to determining performance obligations and transaction prices for all types of contracts with customers are very complex and are affected by interpretations of those contracts and the applicable standards and certain judgements. One of the critical judgements made is the assessment of the probability of collecting the related accounts receivable balance on a customer-by-customer basis. As a result, the timing or amount of revenue recognition may have been different if different assessments of the probability of collection had been made at the time that the transactions were recorded in revenue.

Financial Instruments and Other Instruments

The Company's only financial instruments are the monetary assets and liabilities appearing on its statement of financial position.

DISCLOSURE OF OUTSTANDING SHARE DATA

As of the date of this MD&A, Acceleware had the following common shares, options and warrants outstanding:

Common Shares	105,506,670	
Stock Options	10,225,868	
Warrants	Nil	

Additional Disclosure for Venture Issuers Without Significant Revenue

Additional disclosure concerning the Company's research and development expenses and general and administrative expenses is provided in the unaudited financial statements for December 31, 2019 that are available on <u>www.sedar.com</u> and as noted below.

Research and Development	2019	2018
Salaries	\$ 574,692	\$ 1,281,289
Consulting	956,177	2,317,186
R&D lab supplies	267,718	79,475
Share-based payments	157,010	191,302
Rent and overhead allocations	41,880	87,765
Amortization	100,177	47,796
Government assistance	(1,246,649)	(1,774,902)
Alberta SR&ED Tax Credits	(163,486)	(210,032)
Total	\$ 687,519	\$ 2,019,879

Sales, General and Administration	2019	2018
Salaries	\$ 954,764	\$ 1,002,020
Marketing	167,609	154,087
Travel	11,962	45,628
Share-based payments	320,495	433,057
Rent, supplies and public company fees	314,306	302,184
Amortization	100,177	47,796
Professional fees	402,328	404,995
Bad debt expense	-	4,232
Total	\$ 2,271,641	\$ 2,393,999