novra TECHNOLOGIES INC.

MANAGEMENT'S DISCUSSION & ANALYSIS

Years ended December 31, 2020 and 2019
(Expressed in Canadian dollars)

The following Management's Discussion and Analysis ("MD&A") of Novra Technologies Inc.("Novra") should be read in conjunction with the Consolidated Financial Statements for the years ended December 31, 2020 and 2019, and related notes included therein (the "Consolidated Financial Statements"). These Consolidated Financial Statements have been prepared in accordance with International Financial Reporting Standards ("IFRS"). All information in this MD&A is presented in Canadian dollars, unless otherwise indicated. Tabular dollars are in thousands, except per share amounts. Amounts in tables may not reconcile due to rounding differences.

Throughout this MD&A, "we", "us", "our", "Novra", and "Company" refer to Novra Technologies Inc. and its subsidiaries.

This MD&A is dated as of April 30, 2021 and is current to this date. The MD&A and the Consolidated Financial Statements were approved and authorized for issuance by the Board of Directors on April 30. 2021.

Financial statements, MD&A and other information relating to Novra are available on SEDAR at www.sedar.com.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This MD&A contains "forward-looking statements" within the meaning of applicable Canadian securities laws, concerning but not limited to: our outlook, the expected cost savings from integrating Wegener operations with the Novra Group, proposed acquisition of remaining 48.4% of Wegener, anticipated developments in our operations in future periods, the adequacy of Novra's financial resources and other events and conditions that may occur in the future. Forward-looking statements are generally identifiable by words such as "expect", "anticipates", "believes", "intends", "estimates", "predicts", "potential", "targeted", "plans" "possible", "position for", "prepare for" and similar expressions, or statements that events, conditions or results "will", "may", "could" or "should" occur or be achieved. As such, forward-looking statements are not historical facts but reflect our current assumptions and expectations regarding future events. These are subject to a number of risks and uncertainties that could cause actual results or events to differ materially from current expectations and assumptions. Some of these risks and uncertainties are described herein under the "Risks and Uncertainties" section of this MD&A.

For the above reasons, readers are cautioned not to place undue reliance on forward-looking statements.

Table of Contents

BUSINESS OVERVIEW

Novra Technologies Inc. (headquartered in Winnipeg, Canada) is a public company on the TSX Venture Exchange ("TSX-V"), which trades under the stock symbol "NVI" and is a Class 1 reporting issuer. We have been in the satellite data distribution business since 2000. In 2016, we significantly expanded our product portfolio and global footprint with the acquisition of International Datacasting Corporation ("IDC"), a long-time leader in the same sector (based in Ottawa, Canada). At the end of 2017, Novra acquired a 51.6% controlling interest of Wegener Corporation ("Wegener") to further expand its footprint in digital media management and distribution technologies for applications including digital signage, radio and television. The companies joined together to form the Novra group of companies ("Novra Group") – see our group website at www.novragroup.com.

Today, the Novra Group is a global business with customers on every continent. We are a technology provider that offers a comprehensive product portfolio including hardware, software, and services. In addition, our areas of expertise and added value include: encryption, next-generation hybrid networks (satellite/terrestrial/cloud), and efficient bandwidth utilization.

In these times of accelerating change and global uncertainty, our business agility and drive for innovation are more important than ever. Our competitive advantage is our people and their 30 years of knowledge and experience in developing innovative products along with the deep relationships that we have established with our clients. These close customer relationships and our extensive engineering experience provide the perspective and foundation for our continuing development of advanced products and flexible solutions.

Our core product lines are:

- *Video distribution:* products and systems for providing end-to-end solutions for traditional and non-traditional video networks. This is a key focus area for our innovation activities, including on-going projects in augmented reality, remote collaboration and emerging technologies. Our video products target the following key market niches:
    - Broadcast video networks of all sizes
    - Digital program insertion (for targeted advertising, regionalization, and blackout management)
    - Live and file-based video content distribution
    - Digital signage
    - IPTV
    - Professional-quality streaming video

- *Broadcast Radio:* We are a leading provider of end-to-end infrastructure solutions to broadcast radio networks small, medium, and large. We have a reputation for reliable, cost-effective delivery of high-quality audio via satellite, terrestrial, or hybrid networks. The radio product line includes uplink and receive-site equipment as well as network management, encryption, and targeted regionalization/ad insertion options. We have both long-established and respected product lines and innovative new products recently released for this market.

- *Data distribution:* Our broadband multimedia distribution technology is ideally suited for networks requiring fast, ultra-reliable, secure delivery of data via satellite and via Internet or private IP network. In addition to providing the hardware infrastructure (transmit and receive), we offer an advanced content distribution network (CDN) software solution (Datacast XD) for ultra-reliable and secure file broadcasting.

- *Digital Cinema:* We provide leading digital cinema networks with their core distribution infrastructure (uplink equipment, content management, and network management) and high-end appliances for cinemas as well as decoders for live events and alternative content (entertainment and sports) in 2D and 3D. Additionally, we offer a digital cinema distribution software solution for integration onto commercially available servers and third-party equipment. Recent advances in this product line have enabled our solutions to provide secure file delivery speeds that are unparalleled in the market.

- *Satellite and terrestrial broadband receivers:* We offer a line of cost-effective, reliable DVB and ATSC compliant receivers for the expanding broadband communications network market. These provide standalone communication gateways to local networks or have been integrated into a wide range of purpose-built appliances.

OVERALL PERFORMANCE

The effect of the extended global impact of COVID-19 is evident in Novra's financial performance for 2020. Revenue was down significantly, and this materially impacted our financial results. Major delays occurred in customer projects across markets and geographies, resulting in bookings for the year running substantially lower than prior years. Supply chain challenges pushed delivery of some orders that were expected to ship in Q4 into 2021. This combined with stronger bookings in the second half of 2020 resulted in a healthy backlog of orders of about $2.5 million as we entered 2021, most of which have since shipped.

In response to the evolving market dynamics, management has taken targeted actions, including implementing additional cost saving measures, through the end of 2020 and into 2021. At the same time, we have continued to invest in focused innovation initiatives and building customer relationships to address current customer needs and position Novra for future growth.

The financial highlights below are derived from our audited Consolidated Financial Statements for the past three years and include consolidation of Novra's subsidiaries; International Datacasting Corporation (acquired in 2016) and Wegener Corporation (51.6% controlling interest acquired in 2017).

	2020	2019	2018
Revenue	$ 4,979	$ 9,756	$ 10,630
Gross Profit	$ 2,398	$ 4,824	$ 5,579
Operating expenses	$ 5,147	$ 6,056	$ 6,411
Depreciation and amortization	$ 1,238	$ 1,431	$ 1,125
Foreign exchange gain (loss)	$ (51)	$ (259)	$ 349
Net income (loss) (1)	$ (1,827)	$ (1,719)	$ (375)
Basic earnings per share ("EPS")	$ (0.05)	$ (0.05)	$ (0.02)
Diluted EPS	$ (0.05)	$ (0.05)	$ (0.02)
Total assets	$ 10,249	$ 10,264	$ 10,874
Total non-current liabilities	$ 4,942	$ 5,354	$ 3,663

(1) Net income (loss) attributed to shareholders of Novra, excludes Wegener non-controlling interest.

Year 2020 vs. 2019:

- Total revenue was $5.0 million, compared to $9.8 million, a reduction of 49%.
- Gross profit at $2.4 million was 48.2% of total revenue, compared to $4.8 million or 49.4%.
- Operating expenses were $5.1 million, compared to $6.1 million, a reduction of 15%.
- Net Income loss attributable to Novra shareholders was $1.8 million in 2020, compared to a loss of $1.7 million in 2019.

- Cash balance at the end of the current period was $3.9 million versus $3.2 million at December 31, 2019 This is an increase of $682 thousand.
- Our consolidated net income loss was $2.4 million, compared to a loss of $1.7 million in 2019. Reducing net income in 2020 is approximately $614 thousand of amortization expenses for intangible assets associated with the prior purchase of 51.6% of Wegener. For the same period in 2019 the amortization expense for intangible assets was $751 thousand.
- Adjusted EBITDA* loss of $921 thousand, compared to Adjusted EBITDA* gain of $213 thousand.
- Novra recorded $584 thousand in Other Income in 2020 related to funding under the Canada Emergency Wage Subsidy; refer to Note 21(a) in the Consolidated Financial Statements
- Wegener received $536 thousand of government financing and expect a substantial portion of this debt to be forgiven; refer to Note 11(e) in the Consolidated Financial Statements.

2019 vs. 2018:

- A strengthening Canadian dollar in 2019 lead to a significant foreign exchange loss, compared to a foreign exchange gain in 2018. This alone accounts for $608 thousand of the increase in net income loss.
- The combination of reduced revenue in 2019 with certain fixed production-related costs led to a decrease in gross profit and gross margin compared to 2018.
- Assets, liabilities and depreciation were all affected by adoption of IFRS 16 in 2019 (see Note 2 to the Consolidated Financial Statements for information on the accounting policy for leases).

Q4 2020 vs. Q4 2019:

- Revenue was $1.7 million, compared to $1.8 million in Q4 2019, a reduction of 8%.
- Gross profit at $631 thousand was 37.7% of total revenue, compared to $747 thousand or 41.1%.
- Operating expenses were $1.2 million, compared to $1.4 million in Q4 2019, a reduction of 17%.
- Net Income loss was $749 thousand, compared to a loss of $860 thousand in Q4 2019.
- Adjusted EBITDA* was a loss of $116 thousand compared to Adjusted EBITDA* loss of $358 thousand in Q4 2019.

*Adjusted EBITDA is a non-IFRS financial measure. Adjusted EBITDA provides an important financial measure of Novra's operating performance, allowing comparison of core operating results from period to period. Refer to the "EBITDA and Adjusted EBITDA" section below for details regarding calculation of this non-IFRS measure and the "Discussion of Operations" section for a reconciliation to IFRS.

Our ongoing drive to realize synergies and efficiencies across the group resulted in consolidated operating expenses continuing to trend down 2020 compared to 2019 and Q4 compared to Q3 of this year. The additional permanent and temporary cost saving measures that have been implemented resulted in considerable reductions in these expenses. We will continue to actively control and adjust operating expenses in response to company performance and current volatile market conditions.

Our expense control and cash management strategies, along with use of government disaster relief programs related to COVID-19 and deposits received from customers resulted in positive cashflows for the year. The maintenance of a significant cash balance positions Novra well for continued operations, on-going investment in innovation and future growth.

RECENT DEVELOPMENTS AND OUTLOOK

2020 Opportunities and challenges:

At the start of the year we were expecting 2020 results would show a marked improvement over 2019, with delayed projects coming to fruition and with the focused work we have been doing to reach new customers, expand the networks of our current customers, cut costs, and provide products needed in our current and new market spaces. The COVID-19 pandemic has caused continued delays in several major projects and created challenges for our customers and partners. We have been able to continue working without interruption in our ability to ship orders, provide exceptional support to our customers and advance R&D innovation initiatives. Various government assistance programs have helped us to keep full staffing in place during this time of severely dampened economic activity.

With COVID-19 having major impacts on both our clients and suppliers, revenue in 2020 was very weak compared to 2019. While clients continue to navigate through challenging circumstances, bookings activity began to recover in Q3 and continues to do so into 2021. This demonstrates the importance our customers, even in times of global uncertainty, place on investment in the critical infrastructure components that Novra provides. While some customers continue to delay or scale back purchases, others are moving ahead - both to keep their networks reliably operational and to enhance their capabilities. We continue to pride ourselves on being a partner to our customers, there to support them in trying times as well as in times of exciting growth.

Through 2020 and into 2021, supply chain challenges have continued to intensify around the world, with distributor inventories dropping and lead-times on certain electronic components stretching to many months. Through strategic inventory purchases, including advance purchasing of certain key components, and nurturing additional procurement channels, Novra has been able to continue to fulfil orders for all our products, although some larger orders are seeing increased lead-times. Several orders that were originally expected to ship late in 2020 slipped in to early 2021, further reducing 2020 revenue. We are very carefully monitoring our supply chains and their impacts on our ability to deliver large orders in future quarters, while taking measured actions to mitigate these effects where possible.

We are preparing for stronger future performance with our on-going sales efforts and R&D activities. These have resulted in a number of new products, which have now been selected for new project rollouts, and we are starting to receive more of those orders. This is particularly good news for Novra as it positively reflects on our corporate goals and our substantial R&D investment over the past three years.

Highlights of 2020:

We continue to push forward on our corporate vision to bring together great companies with complementary technologies to capitalize on both existing and new market opportunities. We have successfully consolidated, integrated, and refocused our engineering efforts to provide world-class leading-edge products and services to our clients.

Through this process Novra has evolved significantly into a strong, scalable, global company oriented to the growing multimedia broadband content distribution business. In parallel we have progressed from being an engineering-centric to a client-centric company. Our clients are looking for flexible, cost-effective solutions. Our product development is centred on reacting to identified client requirements and anticipating next-generation innovations. More and more, our hardware is a becoming a platform for increasingly powerful and sophisticated software—bringing agility, forward compatibility, and longevity to the lifespan of our products.

Even though it brought unprecedented challenges, 2020 also had several bright spots for us:

- We successfully launched and rolled out important refreshes of our core products, the ones that make up the bulk of our ongoing business. These include new versions of the S400 Pro, the MAP Pro Audio, and the new Audiocaster Pro, all of which were developed to meet emerging new requirements from our core markets and customers. This allows us to focus in 2021 on new R&D initiatives, proactive innovation, and new markets.

- We received a $2.2 million order from a major radio network for our new Audiocaster Pro satellite receiver. This marks a significant commitment on the part of a long-term customer to refresh their network of receivers on a multiyear rollout using this product in addition to other upgrades their network will require.

- We received a substantial follow-on order from a major US Christian radio broadcaster for the customizable version of the MAP Pro Audio receiver they are using to retrofit their extensive network. MAP stands for Modular Architecture Platform. The MAP's flexible architecture enables the customer to use their own software, developed by them, on our reliable professional hardware platform. We shipped an initial order for this project earlier in 2020.

- We received a significant new order for MAP Pro Audio receivers from a major international broadcasting customer who is refreshing and expanding their radio network.

- Working with our reseller IGP out of the Netherlands, we received an order for a long-time European radio network customer to build a disaster recovery head end.

- We provided our MISTiQ cloud-based distribution service and new MISTiQ gateways to a California-based specialty video network whose other infrastructure failed in the wake of pandemic-related lockdown. Disaster recovery is one of the MISTiQ service's competitive advantages.

- We are working with resellers on rolling out regional MISTiQ networks. We developed an entry-level version of MISTiQ called On-Ramp, to provide affordable alternatives for churches and other organizations facing COVID-related restrictions. We also launched a MISTiQ platform with a local partner in Australia and New Zealand.

- We expanded and refreshed a long-time radio network customer in Australia to a new network based on our new MAP Pro Audio receivers, which are designed to support modern radio networks with both satellite and IP capabilities as well as other flexible, expandable features.

- We received a follow-on order for 700 additional receivers for an existing IPTV network in Japan and the phased shipment of this order was completed. This long-term business—providing video content to multi-dwelling residential properties—has yielded consistent orders for the past 15 years and is expected to continue.

- The new S400 Pro was successfully qualified for the NOAA GOES rebroadcast network (GRB). The S400 Pro has dual DVB-S2 tuners and can receive data simultaneously from two different satellites or carriers; this feature (along with its competitive price) makes it a game-changer. Novra's data receivers are used extensively by major global weather services including: NOAAPORT, EUMETSAT, Japanese Meteorological Agency for Himawari service, as well as the Chinese Meteorological Agency.

- We were selected as the satellite receiver for Blockstream—a new customer now using our S400 Pro Data receiver to distribute blockchain data via satellite. This is an important high-growth application and an exciting new vertical market for us. Multiple orders were received for this project in 2020 and a further follow-on order has already been received in 2021.

- We continue to book strong follow-on orders from longstanding US government customers for multiple ongoing projects. Our record for reliability and competitive pricing, as well as specialized features, are critically important to this customer.

- It is worth noting that we continue to generate important revenue via our Professional Services group, which provides customer support, training, and expert consultation. We continue to enjoy a high renewal rate for customer support contracts and a high level of customer satisfaction.

For our company like so many others, 2020 was challenging on many fronts. We focused on filling the sales pipeline, advancing projects where possible, and launching new products to meet our customers' evolving needs and address new market sectors.

We offer more than products - we provide complete solutions. Many of our key customers consider Novra their technology partner, one they can depend on to help them solve both engineering and business challenges. We take this role very seriously and everyone at the Novra Group of companies is part of this commitment.

A number of our major projects projected for Q4 slipped into 2021 and they, along with a general uptick in business, are contributing to a strong first half of the new year.

DISCUSSION OF OPERATIONS

The following table shows selected information from our Consolidated Financial Statements, including a reconciliation of IFRS to non-IFRS measures, for the period indicated:

(In Thousands)	Three Months Ended December 31,			Year ended December 31,		
	2020	2019	% Chg	**2020**	2019	% Chg
Revenue by type:						
Products	**$ 1,116**	$ 1,210	-8%	**$ 2,690**	$ 7,183	-63%
Services	**558**	608	-8%	**2289**	2,574	-11%
Total revenue	**1,674**	1,818	-8%	**4,979**	9,757	-49%
Gross profit	**631**	747	-16%	**2398**	4,824	-50%
Gross margin	***37.7%***	*41.1%*		***48.2%***	*49.4%*	
Operating expenses	**1,201**	1,439	-17%	**5,147**	6,056	-15%
Operating income (loss)	**(570)**	(692)	-18%	**(2,749)**	(1,232)	123%
Other income (expenses)	**(179)**	(168)	7%	**323**	(470)	NM
Net income loss as reported under IFRS	**(749)**	$ (860)	-13%	**(2,426)**	$ (1,702)	43%
Adjustments:						
Finance costs	**64**	27	137%	**210**	212	-1%
Depreciation and amortization	**307**	339	-9%	**1,238**	1,432	-14%
EBITDA - non-IFRS measure	**(378)**	(494)	-23%	**(978)**	(58)	1586%
Loss (gain) on foreign exchange	**260**	133	95%	**51**	259	-80%
Share-based compensation	**2**	3	-33%	**6**	12	-50%
Adjusted EBITDA - non-IFRS measure	**(116)**	$ (358)	-68%	**(921)**	$ 213	NM

NM – Not meaningful

*EBITDA and Adjusted EBITDA are non-IFRS financial measures. EBITDA and Adjusted EBITDA provide an important financial measure of Novra's operating performance, allowing comparison of core operating results from period to period. Refer to the "EBITDA and Adjusted EBITDA" section below for details regarding calculation of this non-IFRS measure.

Revenue and Gross Margin

Total revenue for the year decreased 49% to $5.0 million (2019 - $9.8 million). Gross margin was 48.2% for the year, 1.2% lower than for the comparable period in 2019. The decrease in gross margin was driven by certain fixed costs being spread over lower total revenue and a change in product/service mix.

In 2020, our top 10 customers accounted 44.0% of total revenue with the first and second largest accounting for 10% and 9% respectively or $972 thousand in aggregate. For the same period last year Novra's Top 10 customers accounted for 48.6% of total revenue with the largest accounting for 24% or $2.6M. No other customer accounted for more than 10% of total revenue.

While our revenue may be concentrated with a few customers quarterly, with approximately 2,000 customers in over 100 countries, including over 200,000 installations since inception, we have a well-established customer base to provide diversification in our revenue base. The following table summarizes the geographic distribution of our revenues for the period.

Geographic Market	2020	2019
Americas ex-Canada	$ 3,068	$ 7,139
Canada	431	684
EMEA	713	1,257
APAC	767	676
	$ 4,979	$ 9,756

Operating Expenses

(In thousands)	Three Month Ended December 31,			Year Ended December 31,		
	2020	2019	% Chg	2020	2019	% Chg
General and administrative ("G&A")	342	367	-7%	1263	1,472	-14%
Sales and marketing ("S&M")	209	279	-25%	908	1,247	-27%
Research and development ("R&D")	650	793	-18%	2976	3,337	-11%
Total operating expenses	1201	1,439	-17%	5147	6,056	-15%

Total OPEX in 2020 has decreased by 15% from 2019. For financial reporting purposes, we allocate facility costs to OPEX (G&S, S&M, R&D) and cost of revenue.

General and administrative ("G&A") expenses consist primarily of compensation paid to the corporate, IT, and finance staff as well as professional fees and public company related costs. Our G&A costs decreased by 14% to $1.3 million (2019 - $1.5 million), a reduction of $209 thousand.

Our Sales and Marketing ("S&M") costs consist of compensation, including sales commissions, paid to our sales team, as well as tradeshow, promotion and travel and entertainment costs. We decreased our marketing expense by 27% to $908 thousand (2019 - $1.2 million), a decrease of $339 thousand. Travel and event restrictions related to COVID-19 have affected these expenses in 2020.

Research and Development ("R&D") costs will continue to be a significant component of our total operating expenses as we continue to develop innovative products and solutions to remain competitive in our industry. R&D costs include primarily compensation paid to engineering personnel and prototype costs. Notably, expenses related to amortization of intangible assets from acquisitions of IDC (for 2019 only) and (controlling interest in) Wegener are also included in R&D costs. This amortization of $614 thousand in

2020 ($751 thousand in 2019) distorts our R&D expenditures as a percentage of revenue and it has an impact on our net operating results.

R&D product development costs are expensed as incurred; we have not capitalized development costs. Because of this, no capital asset related to our investments in developing products and technologies is currently included in our statement of financial position. Capitalizing some development costs could result in increased assets and reduced operating expenses, improving net income. With significant development being invested in new products and technologies that have extended useful lives, Novra may move to capitalize development costs in the future, in order to appropriately present our technology assets and R&D expenses. Novra continues to invest strategically in this area to position the company for future success.

Foreign Exchange Gain (Loss)

Although we generate a significant portion of our revenue outside of Canada, denominated in USD and Euro currencies, we have determined Novra's functional currency to be Canadian dollars. Additionally, most sales in Canada are also denominated in USD currency. Further, the procurement for most of our raw materials is denominated in USD currency; however, our domestic operating costs are denominated in CAD currency. Accordingly, Novra's financial position and operating results are significantly exposed to foreign currency movements. We actively manage our foreign currency risk and may also enter speculative currency positions based on management's best judgement.

Additional earnings volatility arises from the translation of monetary assets and liabilities denominated in foreign currencies at the rate of exchange on each date of the Consolidated Financial Position; the impact of which is reported as a foreign exchange gain or loss.

For 2020 we recorded a foreign exchange loss of $51 thousand, compared to a loss of $259 thousand in 2019.

At December 31, 2020, the foreign currency denominated assets and liabilities, subject to remeasurement, are as follows:

(in thousands)	**USD**	**Euro**
Assets	3386	12
Liabilities	(3,244)	-71
Net assets before hedging	142	-59
Currency derivative contracts	-	-
Net assets - unhedged	142	-59
Impact on Novra's earnings if 5% change in foreign exchange rates	**7**	**-3**

At December 31, 2020, if the Canadian dollar had weakened/strengthened by 5% against the U.S. dollar and Euro with all other variables held constant, the resulting change to Novra's consolidated net loss would have been $7 thousand. The above excludes Wegener's assets and liabilities which are denominated in USD.

Other Income and Finance Costs

The Company qualified for the Canada Emergency Wage Subsidy (CEWS) for the months of March-December 2020 and recorded $584 thousand in Other Income. The CEWS is a federal government program created to provide financial support to businesses affected by COVID-19.

Finance costs were $210 thousand for the current period, a slight decrease over the same period last year (2019 – $212 thousand). There were no bank borrowings on our RBC credit facilities in 2020.

Depreciation and Amortization

The decrease in depreciation and amortization costs to $1.2 million for 2020 (2019 - $1.4 million) was primarily the result of the intangible asset amortization related to the IDC acquisition completing in June 2019. For 2020, intangible asset amortization was $614 thousand (2019 - $751 thousand).

Tax Expense

Due to the net operating loss in 2020, there was no current tax provision to recognize.

Despite the significant non-capital loss carry forwards and available investment tax credits (see Note 15 of the Consolidated Financial Statements) to shelter future taxable income from income taxes, we have not recognized deferred tax asset at December 31, 2020 and 2019 because management concluded it was not probable to realize this benefit in the foreseeable future. In making this determination, management considered the uncertainties in projecting future taxable income, the uncertainties related to the technology industry and competition in which we operate, and the lack of available income tax planning strategies.

EBITDA and Adjusted EBITDA

EBITDA and Adjusted EBITDA are non-IFRS measures. EBITDA is defined as earnings before income tax expense, financing costs(interest), depreciation and amortization. Adjusted EBITDA is defined as EBITDA adjusted for foreign exchange gain or loss, any acquisition-related costs, share-based compensation, any restructuring charges, any material write-down of inventories, and any other material impairment charges.

Management believes that EBITDA and Adjusted EBITDA provide important financial measures of Novra's operating performance because they allow management, investors, and other stakeholders to evaluate and compare Novra's core operating results from period to period by removing the impact of its capital structure (interest expense), asset base (depreciation and amortization), and tax consequences. Because EBITDA and Adjusted EBITDA do not have any standardized meanings prescribed by IFRS, other companies may calculate these non-IFRS measures differently, and therefore our EBITDA and Adjusted EBITDA may not be comparable to similar titled measures of other companies. Accordingly, *readers are cautioned to not place undue reliance on these financial measures and encouraged to read all IFRS accounting disclosures presented in the audited Consolidated Financial Statements.*

EBITDA was a loss of $978 thousand for the year ended December 31, 2020 compared to a loss of $58 thousand for 2019. Adjusted EBITDA for 2020 was a loss of $921 thousand, while adjusted EBITDA for 2019 was a gain of $213 thousand. The decrease in full year EBITDA and Adjusted EBITDA was driven by a decrease in revenue and gross profit.

SELECTED QUARTERLY FINANCIAL INFORMATION

(dollars in thousands, except per share data)

The following table sets out selected financial information for our current and eight most recently completed quarters.

(In thousands of dollars, except with respect to earnings (loss per share)	**Dec 31, 2020**	Sep 30, 2020	Jun 30, 2020	Mar 31, 2020	**Dec 31, 2019**	Sep 30, 2019	Jun 30, 2019	Mar 31, 2019	**Dec 31, 2018**
Revenue	**$ 1,674**	$ 1,092	$ 1,092	$ 1,092	**$ 1,817**	$ 3,018	$ 2,423	$ 2,500	**$ 3,406**
Gross profit	**631**	517	761	488	**747**	1849	1319	909	**1854**
Operating expenses	**1201**	1229	1271	1446	**1439**	1374	1639	1604	**1603**
Foreign exchange gain (loss)	**260**	(36)	(187)	(433)	**(133)**	68	(108)	(86)	**188**
Net income (loss) as reported under IFRS	**(749)**	(715)	(447)	(515)	**(860)**	493	(491)	(844)	**535**
Adjusted EBITDA Income (loss)	**(116)**	(325)	103	(582)	**(358)**	796	73	(299)	**647**
Earnings (loss) per share - diluted	**$ (0.022)**	$ (0.021)	$ (0.013)	$ (0.023)	**$ (0.026)**	$ 0.015	$ (0.015)	$ (0.025)	**$ 0.016**
Weighted average shares outstanding	**33,396**	33,396	33,396	33,393	**33,372**	33,372	33,372	33,360	**33,467**

We occasionally receive large orders from customers and partners that can provide revenue visibility for future quarters. However, a large portion of Novra's quarterly revenues are generated from orders received in the quarter rather than from order backlog going into the quarter. As a result, Novra's revenue, profitability and cash flows are difficult to predict and may fluctuate significantly from quarter to quarter. Novra had considerable backlog of orders received, but not shipped, and deferred revenue at year end. These total approximately $3.8 million and provide some visibility into future revenue for 2021 and beyond.

We continue to expect significant volatility in revenue from quarter to quarter due to particular timing of orders from existing customers, continued economic and supply chain instability and significant unpredictability in the length of sales cycles with new and existing customers in the sales pipeline. The result of limited order visibility is that revenue and, accordingly, profitability and cash flows, will be difficult to predict and will fluctuate. We also expect COVID-19 to continue to impact markets and economies and therefore our business (see Risks and Uncertainties).

LIQUIDITY

Quick Ratio

Our principal liquidity requirements are for working capital, capital expenditures and for pending acquisitions as previously announced. Management measures liquidity based on Novra's unrestricted cash and accounts receivable. The following table shows our total liquid assets at the following reporting dates.

	December 31, 2020	December 31, 2019
Cash	**$ 3,859**	$ 3,176
Accounts receivable	**883**	808
Total liquid assets	**$ 4,742**	$ 3,984
Quick ratio (1)	**0.99:1**	1.69:1

(1) Total liquid assets over total current liabilities, excluding amounts due to related parties and deferred revenue

The quick ratio as defined above is a non-IFRS financial measure. We believe this an important financial metric to investors and other stakeholders to assess Novra's ability to meet its third-party short-term obligations with its most liquid assets. The related parties have expressed no intent to call on their debt in the near term until such time that Novra is in a stronger capital position. We also excluded deferred revenue in the quick ratio calculation as it does not represent a contractual financial obligation i.e. it is a liability that will reverse once revenue recognition has been met.

At December 31, 2020, Novra's quick ratio was 0.99:1 or $0.99 of liquid assets available to cover each $1.00 of third-party current liabilities, a decrease from 1.69:1 at December 31, 2019. Note that a significant portion ($2.5 million) of current liabilities included in the calculation of the quick ratio in 2020 are customer deposits. This is a liability that will reverse once customers have been invoiced for the related orders.

The following is a summary of cash flows by activities for the full year 2020 vs. the same period in 2019. Overall, cash increased by $682 thousand in 2020.

Operating activities

We had positive cash flows of $735 thousand from operating activities in 2020, compared to negative cash flows from operating activities of $340 thousand for the same period in 2019. This was mostly due to the net change in non-cash working capital.

Investing activities

We had no cash flows driven by investing activities during 2020 or 2019.

Financing activities

We have positive $17 thousand net cash from financing activities in 2020, compared to negative net cash from financing activities of $779 thousand in the comparable prior period. Over the same current period we made repayments on our IMT promissory notes and made lease payments of $491 thousand toward our lease liabilities. We also received $563 thousand of government disaster assistance program debt financing related to COVID-19. Management expects up to $345 thousand of this to be forgiven, however, the interpretation of legislated forgiveness rules continues to evolve and we are not able to confidently predict the amount of forgiveness that will be granted. The entire proceeds of the loans have been recorded in long term borrowings until the forgiveness amount is confirmed.

As of the date of this MD&A we continue to have access to the RBC Credit Facilities. There are no amounts outstanding.

Working Capital Ratio

Novra's working capital ratio was as follows:

	December 31, 2020	December 31, 2019
Working Capital:		
Current assets	**$ 7,108**	$ 5,950
Current liabilities	**7,687**	5,001
Working Capital:	**$ (579)**	$ 949
Working capital, excluding related party and deferred revenue balances	**$ 2,320**	$ 3,599
Working capital ratio[(1)]	**1.48:1**	2.53:1
(1) Total current assets over total current liabilities, excluding amounts due to related parties and deferred revenue		

"Working capital, excluding related party and deferred revenue balances" and "Working capital ratio" as defined above are both non-IFRS financial measures. Management believes these are useful, relevant financial measures to investors and other stakeholders in order to assess the available working capital to fund Novra's day-to-day operations.

Working capital decreased to negative $579 thousand at December 31, 2020, from $949 thousand at December 31, 2019. Excluding related party and deferred revenue balances, Novra's working capital decreased to $2.3 million at December 31, 2020 from $3.6 million at December 31, 2019. Our working capital ratio (as defined above) remained healthy at 1.48:1 or $1.48 of current assets per $1.00 of current liabilities, excluding amounts due to related parties and deferred revenue at December 31, 2020.

Contractual obligations and commitments

At December 31, 2020, Novra's contractual obligations and commitments were as follows:

Payment due:	Total	Within 1 year	1 to 5 years	5 to 10 years	10+ years
Borrowings (Note 11)	**$ -**	$ -	$ -	$ -	$ -
Operating leases (Note 20)	**2,162**	482	772	908	
Purchase commitments (Note 20)	**70**	70	-	-	-
Trade payables and other payables	**732**	732	-	-	-
Total third party contractual obligations	**2,964**	1,284	772	908	-
Promissory notes from related party (Note 18)	**905**	802	103	-	-
Advances from related parties (Note 18)	**1,055**	1,055	-	-	-
Total contractual obligations	**$ 4,924**	**$ 3,141**	**$ 875**	**$ 908**	**$ -**

See Consolidated Financial Statements notes for further details.

Based on the December 31, 2020 liquid assets (as defined above) and working capital, we have sufficient liquid resources to fund all third-party contractual obligations coming due within one year.

CAPITAL RESOURCES

Our key objectives and policies for managing capital are to maintain a strong capital base in order to:

- maintain investor, creditor and market confidence;
- advance Novra's corporate strategies to generate attractive risk-adjusted return over the long-term for our shareholders;
- sustain Novra's operations and growth through all cycles; and
- ensure compliance with the covenants of any applicable credit facility and other financing facilities.

As at December 31, 2020, the Company had cash and cash equivalents of $3.9 million and access to an undrawn revolving facility (the RBC Credit Facilities as described in Note 11 of the Consolidated Financial Statements), subject to the terms and conditions of the credit facilities. At the date of this MD&A we continue to have access to these facilities and no amounts are outstanding.

At December 31, 2020, Novra's total outstanding voting common shares were 33,396,293, excluding the 2,000,000 common shares held by our subsidiary, Wegener (December 31, 2019 - 33,372,307). Our debt and equity positions were as follows:

	December 31, 2020	December 31, 2019
Borrowings (drawn)	**$ 2,956**	$ 2,443
Promissory notes from related party	**906**	920
Shareholders' equity	**$ (1,622)**	70
Total capital resources	**$ 2,240**	$ 3,433

The change in capital resources was primarily due to net losses for the period.

Management believes the Company's current cash, access to the undrawn portion of debt facilities and its access to additional financing in the form of debt or equity will be sufficient to meet its working capital and capital expenditure requirements for the foreseeable future, including its contractual obligations and the commitments noted above.

OFF BALANCE SHEET ARRANGEMENTS

At December 31, 2020, we had no off-balance sheet arrangements.

TRANSACTIONS WITH RELATED PARTIES

In addition to key management personnel compensation, we have material unsecured promissory notes with IMT (IMT is a shareholder and our President & CEO has a controlling interest in IMT) as disclosed in the "Liquidity" and "Capital Resources" sections of this MD&A. Refer to Note 18 of the Consolidated Financial Statements for a complete disclosure of all related party transactions, including amounts due on demand.

ACCOUNTING MATTERS

Critical Accounting Estimates

The Consolidated Financial Statements include certain amounts that are inherently uncertain and judgmental in nature. As a result, management is required to make assumptions and best estimates in order to determine the reported values. We consider an accounting estimate to be critical if: (1) it requires that significant assumptions be made in order to deal with uncertainties; and (2) changes in the estimate could have a material impact on our results of operations, financial condition or liquidity.

We believe that the material items requiring such subjective and complex estimates are as follows:

- Revenue recognition
- Inventory obsolescence
- Business combinations
- Impairment of non-financial assets

Refer to Note 3 of the audited Consolidated Financial Statements for further details.

We believe that the amounts included in these financial statements reflect management's best judgment. However, factors including, without limitation, those noted under "Risks and Uncertainties" below could cause actual events or results to differ materially from our underlying assumptions and estimates. Accordingly, this could lead to a material adverse impact on our results of operations, financial condition and/or liquidity.

FINANCIAL INSTRUMENTS AND OTHER INSTRUMENTS

As previously indicated, we received loans totalling $563 thousand through various government programs created for COVID-19 disaster assistance funding. For additional information, see Note 11 of the audited Consolidated Financial Statements for 2020. Refer to Note 5 of the audited Consolidated Financial Statements for disclosure relating to Novra's financial instruments and financial risk management objectives and policies.

RISKS AND UNCERTAINTIES

The risks and uncertainties below are not the only ones facing Novra. Additional risk and uncertainties not presently known to us or that we currently consider immaterial may also impair Novra's business operations and cause the price of Novra's common shares to decline. If any of the following risks occur, Novra's business may be harmed and its financial condition and results of operations may suffer significantly. In that event, the trading price of Novra's common shares could decline, and an investor may lose all or part of his, her or its investment. Accordingly, potential investors are strongly recommended to consult an independent financial advisor before deciding to invest in Novra.

COVID-19 Advisory: The outbreak of the novel strain of coronavirus, specifically identified as "COVID-19", has resulted in a widespread health crisis that has affected economies and financial markets around the world resulting in an economic downturn. This outbreak may also cause staff shortages, reduced customer demand, a rise in customer delinquency, delayed or inadequate performance by supply chains, and increased government regulations or interventions, all of which may negatively impact the business, financial condition or results of operations of the Company. The duration and impact of the COVID-19 outbreak is unknown at this time and it is not possible to reliably estimate the length and severity of these developments.

- We rely on a small number of customers for a large percentage of our revenue. Accordingly, our quarterly revenue and operating results can be difficult to predict and can fluctuate materially, which may negatively impact Novra's results of operations.
- We may not timely identify emerging technology and market trends, enhance our existing technologies or develop new technologies to effectively compete in the multimedia broadband content distribution business.
- We face significant competition from several competitors and if we do not compete effectively with these competitors, our revenue may not grow and could decline.
- Our RBC credit facilities agreement is subject to annual review. There is no assurance RBC will renew the existing credit facilities in 2021.
- Historically, we have relied significantly on a related party (IMT) for new capital. There is no assurance that IMT will participate in future capital funding activities.
- We may engage in future acquisitions that could disrupt our business, cause dilution to our shareholders and/or negatively impact Novra's financial condition and operating results.
- Failure to manage Novra's growth successfully, including integration of acquired companies, may adversely impact Novra's operating results.
- The industry in which we operate is subject to rapid technological changes, and our continued success will depend upon our ability to react to such changes and having the financial resources to continue developing innovative products. Additionally, rapid technological changes may lead to material inventory obsolescence if we fail to manage effectively our inventory holdings.
- We have limited intellectual property protection for our product solutions.
- Discontinued third party components and defects in components or design of Novra's product solutions could result in significant costs to Novra and could impair our ability to sell existing product solutions.
- Severe lead-time or availability issues with key components used in Novra's products could delay our ability to build products and/or increase costs.
- We rely on limited contract manufacturers for our product solutions. This could result in increases to costs or lead-times outside of our control.
- Our ability to recruit and retain key personnel is crucial to our ability to develop, market, sell and support our products and services.
- A substantial portion of Novra's revenues and expenses is denominated in U.S. dollar and Euro currencies and therefore we are exposed to significant currency risk. Failing to actively manage currency risk may negatively impact Novra's operating results.
- We are exposed to significant customer credit risk, particularly as the majority of our business is with foreign customers, which could lead to significant impairment charges.
- We may have unintentionally infringed on the intellectual property rights of others without appropriate licensing arrangement in place, which could lead to litigation and significant costs to Novra.
- We rely on resellers and distributors to complement our small sales team to drive future sales growth.
- Economic and geopolitical uncertainty may negatively affect our ability to grow sales.
- Depending on Wegener's financial performance, we may further delay or abandon the acquisition of the remaining 48.4% of Wegener. Also, there can be no guarantee that Wegener shareholders will approve eventual acquisition of the remaining 48.4%.