novra
TECHNOLOGIES INC.

MANAGEMENT'S DISCUSSION & ANALYSIS

Three months ended March 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 unaudited Condensed Consolidated Financial Statements for the three months ended March 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"). They do not include all of the information required in annual financial statements and therefore these should be read in conjunction with Novra's audited Consolidated Financial Statements for the years ended December 31, 2019 and 2018, and related notes included therein.

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 July 14, 2020 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 July 14, 2020.

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 49% 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 "expects", "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.

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BUSINESS OVERVIEW

Novra Technologies Inc. (headquartered in Winnipeg, Canada) is a public company on the TSX Venture Exchange ("TSX-V") and 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 and cybersecurity, 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, with 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

Not surprisingly, given the global impact of COVID-19, Novra's first quarter revenue was down from the same period last year. Starting even earlier, in Q3 of 2019, we noticed delays in projects across markets and geographies, which we believe was an indication of an economic slowdown in most G20 economies that began before the emergence of the COVID-19 pandemic. As a result, revenue for Q1 was down significantly this year and this materially impacted our financial results. In response to the evolving market dynamics, management continued to take targeted actions, including implementing additional cost saving measures. At the same time, we have continued to invest in focused innovation initiatives and building customer relationships to position Novra for future growth.

The financial highlights below include consolidation of Novra's subsidiaries; International Datacasting (acquired in 2016) and Wegener Corporation (51.6% controlling interest acquired in 2017).

Q1 2020 vs. Q1 2019:

- Total revenue was $1.0 million, compared to $2.5 million in Q1 2019.
- Gross profit at $488 thousand was 47.6% of total revenue, compared to $909 thousand or 36.4%.
- Operating expenses were $1.4 million, compared to $1.6 million from prior year.
- Net Income loss was $515 thousand, compared to a loss of $844 thousand in Q1 2019.
- Adjusted EBITDA* loss of $642 thousand, compared to Adjusted EBITDA* loss of $299 thousand
- Included in the Q1 2020 results, and reducing net income, is approximately $168 thousand of amortization expenses for intangible assets associated with the prior purchase of 51% of Wegener. In Q1 2019 intangible asset amortization expense was higher as it included intangible assets related to the acquisition of International Datacasting. Amortization of those assets was completed in 2019 Q2.
- In Q1 2020 Novra qualified for $61 thousand of funding under the Canadian Emergency Wage subsidy.

*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 this reporting period compared to last year. We also put in place additional permanent and temporary cost reductions that just began to take effect and will lower these expenses significantly again in Q2. We will continue to actively control and adjust operating expenses in response to company performance and current volatile market conditions.

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 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 enabled us to keep full staffing in place during this time of severely dampened economic activity. We expect revenue for the first half of 2020 to be very weak compared to 2019, with COVID-19 having a major impact on our clients.

Although COVID-19 has affected our Q1/Q2 revenue, we are very encouraged by significant recent bookings, demonstrating the importance our customers, even in times of global uncertainty, place on investment in the critical infrastructure components that Novra provides. While some customers are delaying or scaling back purchases at this time, 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.

As we enter the second half of 2020, the resurgence of COVID-19 in a number of countries is causing disruptions and uncertainty in supply chains for electronic components and extending manufacturing lead times. We are very carefully watching these "ripples" in our supply chain and their impact on our ability to deliver large orders in future quarters and taking measured actions to mitigate these effects where possible.

We are preparing for a strong second half 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 those initial 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 so far in 2020:

- Booked more than $1.6M US in sales to major radio networks subsequent to the close of Q1.The majority of these sales include the new Audiocaster Pro product and are expected to be delivered by the end of Q4.

- Received a follow-on order for 700 additional receivers for an existing IPTV network in Japan, to be delivered in 2020 and early 2021.

- We have an initial order from a major US Christian radio broadcaster for custom product to help them retrofit their extensive network.

- Our new S400pro has been successfully qualified for the NOAA GOES rebroadcast network (GRB). The S400pro has dual DVB-S2 tuners and can receiver 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 have been 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.

- 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 are supplying a US based communications provider a customized version of our S400 data receiver to upgrade their 3,000-site legacy network. We expect to ramp up deliveries in Q3 and Q4, and to continue to roll out over the next couple of years.

- 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.

- Our team is redoubling marketing efforts to work with customers and resellers through a series of webinar events and launching a "virtual tradeshow booth" online to generate new business.

We are continuing to execute on our stated corporate vision to bring great companies with complementary technologies together to capitalize on market opportunities by consolidating and refocusing engineering to provide world-class leading-edge products and services to our clients.

Novra has significantly evolved into a strong, scalable global company in the growing multimedia broadband content distribution business. We are progressing toward our goal of moving from being an engineering-centric to client-centric company. As such, our product development is being driven by identified client requirements and real market trends. Our clients are looking for cost effective solutions with built-in flexibility to enable them to deliver their services with the lowest operational costs, not only today but over the lifespan of our products. Only offering hardware and software is not adequate in this technologically dynamic environment. We want to offer our clients complete solutions and would like for them to consider Novra as their technology partner that they can depend on to help them solve their engineering challenges. We take these challenges very seriously and all of us at the Novra Group of companies are committed and determined in addressing them.

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 March 31,		
	2020	2019	% Chg
Revenue by type:			
Products	**$ 536**	$ 1,923	-72%
Services	**490**	577	-15%
Total revenue	**1,026**	2,500	-59%
Gross profit	**488**	909	-46%
Gross margin	***47.6%***	*36.4%*	
Operating expenses	**1,446**	1,604	-10%
Operating income (loss)	**(958)**	(695)	38%
Other income (expenses)	**443**	(149)	NM
Net income (loss) as reported under IFRS	**$ (515)**	$ (844)	-39%
Adjustments:			
Finance income	**(61)**	-	NM
Finance costs	**51**	64	-21%
Depreciation and amortization	**314**	393	-20%
EBITDA - non-IFRS measure	**(211)**	(387)	-45%
Loss (gain) on foreign exchange	**(433)**	85	NM
Share-based compensation	**1**	3	-52%
Adjusted EBITDA - non-IFRS measure	**$ (642)**	$ (299)	115%

Revenue and Gross Margin

Q1 2020 vs. Q1 2019

Total revenue decreased 59% to $1.0 million (2019 - $2.5 million). Gross margin was 47.6% for the current quarter, an 11.2% increase over the comparable quarter in 2019. The increase in gross margin was driven by a change in product mix.

For the first three months of 2020, our top 10 customers accounted 58.6% of total revenue with the first and second largest accounting for 19% and 7% respectively or $259 thousand in aggregate. For the same period last year Novra's Top 10 customers accounted for 72% of total revenue with the top two accounting for 30% and 24% respectively or $1.3 million in aggregate. 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 year.

	Three Months Ended March 31,	
Geographic Market	2020	2019
Americas ex-Canada	$ 585	$ 1,453
Canada	95	164
EMEA	90	787
APAC	256	96
	$ 1,026	$ 2,500

Operating Expenses

(in thousands)	Three Months Ended March 31,		
	2020	2019	% Chg
General and administrative ("G&A")	315	$ 363	-13%
Sales and marketing ("S&M")	281	340	-17%
Research and development, net ("R&D")	851	901	-6%
Total operating expenses	1,446	$ 1,604	-10%

Total OPEX during the first three months of 2020 has been reduced by 10% from the same period in 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 13% to $315 thousand (2019 - $363 thousand), a reduction of $48 thousand.

Our Sales and Marketing ("S&M") costs include 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 17% to $281 thousand (2019 - $340 thousand), a decrease of $59 thousand. Travel restrictions related to COVID-19 began to affect these expenses in Q1, but will have more significant impact in Q2.

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 $168 thousand for the three-month reporting period 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 do not capitalize development costs. Capitalizing appropriate development costs could result in increased assets and reduced operating expenses, improving net income. With significant development being invested in new products and technologies with 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.

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 Consolidate Financial Position; the impact of which is reported as a foreign exchange gain or loss.

In the current quarter we recorded a foreign exchange gain of $433 thousand, compared to a loss of $85 thousand in the comparable period in 2019.

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

(in thousands)		USD		Euro
Assets	$	3,208	€	78
Liabilities		(638)		(14)
Net assets before hedging	$	2,570	€	65
Currency derivative contracts		-		-
Net assets -unhedged	$	2,570	€	65
Impact on Novra's earnings if 5% change in foreign exchange rates	**$**	**128**	**€**	**3**

At March 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 $131 thousand. The above excludes Wegener's assets and liabilities which are denominated in USD.

Finance Income and Costs

The Company qualified for the Canadian Emergency Wage Subsidy (CEWS) for the month of March 2020 and recorded $61 thousand in finance income. The CEWS is a federal government program created to provide financial support to businesses affected by COVID-19.

Finance costs were $51 thousand for the current period, a 24% decrease over the same period last year (2019 – $63 thousand). The decrease is a result of payments to reduce balances on the Western Economic Diversification Canada (WEDC) repayable contribution and the $US floating rate IMT promissory note. There were no bank borrowings on our RBC credit facilities in 2020.

Depreciation and Amortization

The decrease in depreciation and amortization costs to $314 thousand for the year 2020 (2019 - $393 thousand) was due to intangible assert amortization related to the IDC acquisition completing in June 2019. For the first three months ended 2020, intangible asset amortization was $168 thousand (2019 - $230 thousand).

EBITDA and Adjusted EBITDA

EBITDA and Adjusted EBITDA are non-IFRS measures. EBITDA is defined as earnings before income tax expense, net financing costs, 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.*

Adjusted EBITDA was a loss of<$642> thousand for the three months ended March 31, 2020 compared to loss of <$299> thousand for the same period in 2019. The decrease in EBITDA resulted primarily from reduced revenue.

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)	**Mar 31 2020**	Dec 31 2019	Sep 30 2019	Jun 30 2019	**Mar 31 2019**	Dec 31 2018	Sep 30 2018	Jun 30 2018	**Mar 31 2018**
Revenue	**$ 1,026**	$ 1,817	$ 3,016	$ 2,423	**$ 2,500**	$ 3,406	$ 3,558	$ 1,594	**$ 2,072**
Gross profit	**488**	747	1,849	1,319	**909**	1,854	2,087	758	**880**
Operating expenses	**1,446**	1,439	1,374	1,639	**1,604**	1,603	1,527	1,582	**1,699**
Foreign exchange gain (loss)	**433**	(133)	68	(108)	**(86)**	188	(37)	90	**109**
Net income (loss) as reported under IFRS	**(515)**	(860)	493	(491)	**(844)**	535	467	(791)	**(763)**
Adjusted EBITDA income (loss)	**(642)**	(358)	796	75	**(299)**	647	862	(592)	**(598)**
Earnings (loss) per share - diluted	**$ (0.023)**	$ (0.026)	$ 0.015	$ (0.015)	**$ (0.025)**	$ 0.016	$ 0.012	$ (0.024)	**$ (0.023)**
Weighted average shares outstanding	**33,393**	33,372	33,372	33,372	**33,360**	33,467	33,348	33,348	**33,336**

We occasionally receive large orders from customers and partners which 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.

We expect continued significant volatility in revenue from quarter to quarter due to particular timing of orders from existing customers, continued economic 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 Risk 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.

	March 31, 2020	December 31, 2019
Cash	**$ 2,868**	$ 3,176
Accounts receivable	**879**	808
Total liquid assets	**$ 3,747**	$ 3,984
Quick ratio [1]	**1.31:1**	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 March 31, 2020, Novra's quick ratio was 1.31:1 or $1.31 of liquid assets available to cover each $1.00 of third-party current liabilities, a decrease from 1.69:1 at December 31, 2019.

The following is a summary of cash flows by activities for the first three months of 2020 vs. the same period in 2019.

Operating activities

We had positive cash flows of $294 thousand from operating activities for the current period in 2020, compared to negative cash flows from operating activities of $853 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 the first three months 2020 and 2019.

Financing activities

We have negative $140 thousand net cash from financing activities in the current period, compared to negative net cash from financing activities of $184 thousand in the comparable prior period. In the first three months of 2020, we made repayments on our IMT promissory notes, repayments on the WEDC contribution and made lease payments of $130 thousand toward our lease liabilities.

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

<u>Working Capital Ratio</u>

Novra's working capital ratio was as follows:

		March 31, 2020		December 31, 2019
Working Capital:				
Current assets	**$**	**5,704**	$	5,950
Current liabilities		**5,378**		5,001
Working capital	**$**	**327**	$	950
Working capital, excluding related party and deferred revenue balances	**$**	**2,847**	$	3,599
Working capital ratio(1)		**2.00:1**		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 $327 thousand at March 31, 2020, from $950 thousand at December 31, 2019. Excluding related party and deferred revenue balances, Novra's working capital decreased to $2.8 million at March 31, 2020 from $3.6 million at December 31, 2019. Our working capital ratio (as defined above) remained healthy at 2.00:1 or $2.00 per $1.00 of current liabilities at March 31, 2020.

Contractual obligations and commitments

At March 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
Borrowings (Note 6)	$ 2,636	$ 102	$ 154	$ 2,380
Operating leases (Note 13)	3,178	622	1,348	1,208
Purchase commitments (Note 13)	78	78	-	-
Trade payables and other payables	716	716	-	-
Total third party contractual obligations	6,608	1,518	1,502	3,588
Promissory notes from related party (Note 5)	927	789	138	-
Advances from related parties (Note 5)	856	856	-	-
Total contractual obligations	$ 8,391	$ 3,163	$ 1,640	$ 3,588

See Consolidated Financial Statements notes for further details.

Based on the March 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 March 31, 2020, the Company had cash and cash equivalents of $2.9 million and access to an undrawn revolving facility (the RBC Credit Facilities as described in Note 6 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 March 31, 2020, Novra's total outstanding voting common shares were 33,396,307, excluding the 2,000,000 common shares held by our subsidiary, Wegener (December 31, 2019 - 33,372,307). Our debt and equity position sat December 31st were as follows:

	March 31, 2020	December 31, 2019
Borrowings (drawn)	$ 2,636	$ 2,443
Promissory notes from related party	926	920
Shareholders' equity	(1,100)	70
Total capital resources	$ 2,462	$ 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 March 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 5 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 the years ended December 31, 2019 and 2018 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

There were no new financial instruments. Refer to Note 5 of the audited Consolidated Financial Statements for the years ended December 31, 2019 and 2018 for disclosure relating to Novra's financial instruments and financial risk management objectives and policies.

RISKS AND UNCERTAINTIES

Refer to our December 31, 2019 MD&A for a list of risks and uncertainties facing Novra. We are currently not aware of any new material risks and uncertainties.

COVID-19 Advisory: Since December 31, 2019, 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 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.