



MANAGEMENT'S DISCUSSION & ANALYSIS

Six months ended June 30, 2020 and 2019
(Expressed in Canadian dollars)

Novra Technologies Inc.

Management's Discussion & Analysis

Six months ended June 30, 2020

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 six months ended June 30, 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 August 31, 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 August 31, 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"), 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 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

As expected, given the global impact of COVID-19, Novra's revenue for the first six months 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 was down significantly for the first six months of 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 address current customer needs and 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).

Q2 2020 vs. Q2 2019:

- Revenue was \$1.2 million, compared to \$2.4 million in Q2 2019, a reduction of 55%.
- Gross profit at \$761 thousand was 64.2% of total revenue, compared to \$1.3 million or 54.4%.
- Operating expenses were \$1.3 million, compared to \$1.6 million in 2019, a reduction of 22%.
- Net Income loss was \$447 thousand, compared to a loss of \$491 thousand in Q2 2019, a 9% improvement. Reducing net income, is approximately \$172 thousand of amortization expenses for intangible assets associated with the prior purchase of 51% of Wegener.
- Adjusted EBITDA* improved to \$103 thousand, compared to Adjusted EBITDA* of \$73 thousand.
- In Q2 2020, Novra recorded \$298 thousand in Other Income related to funding under the Canada Emergency Wage Subsidy.
- In Q2 2020, Wegener received \$375 thousand of financing under the Coronavirus Aid, Relief, and Economic Security Act (CARES Act). We expect a substantial portion of this debt to be forgiven; refer to Note 6 in the Unaudited Consolidated Financial Statements.

First 6 months of 2020 vs. 2019:

- Total revenue was \$2.2 million, compared to \$4.9 million, a reduction of 51%.
- Gross profit at \$1.2 million was 56.5% of total revenue, compared to \$2.2 million or 45.3%.
- Operating expenses were \$2.7 million, compared to \$3.2 million, a reduction of 16%.
- Net Income loss was \$962 thousand, compared to a loss of \$1.3 million, a 28% improvement. Reducing net income is approximately \$340 thousand of amortization expenses for intangible assets associated with the prior purchase of 51% of Wegener.
- Adjusted EBITDA* loss of \$479 thousand, compared to Adjusted EBITDA* loss of \$225 thousand caused mainly by foreign exchange adjustments.
- Novra recorded \$359 thousand in Other Income during the first six months of 2020 related to funding under the Canada 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 and Q2 compared to Q1 of this year. The additional permanent and temporary cost saving measures that have been implemented resulted in measurable reductions in these expenses 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 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. In line with more recent expectations, revenue in the first half of 2020 has been very weak compared to 2019, with COVID-19 having a major impact on our clients. Although COVID-19 has affected our Q1/Q2 revenue, and we expect it to continue to dampen revenues through the end of the year, 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, while taking measured actions to mitigate these effects where possible.

We are preparing for a stronger 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:

- Subsequent to the close of Q2 we received a \$2.2M order from a major radio network for our new Audiocaster Pro product. We expect to be delivering this order in Q4 and early 2021.
- 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 providing our MISTiQ cloud-based distribution service and new MISTiQ gateways to a California-based specialty video network whose other infrastructure failed recently. Disaster recovery is one of the MISTiQ service's strengths.
- We expanded and refreshed a long-time radio network customer in Australia to a new network based on our new MAP Pro Audio receivers. MAP (which stands for modular architecture platform) is designed to support modern radio networks with both satellite and IP capabilities as well as other flexible, expandable features.
- 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 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 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 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 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.

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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:

<i>(in thousands)</i>	Three Months Ended June 30,			Six Months Ended June 30,		
	2020	2019	% Chg	2020	2019	% Chg
Revenue by type:						
Products	\$ 508	\$ 1,744	-71%	\$ 1,044	\$ 3,667	-72%
Services	678	679	0%	1,169	1,256	-7%
Total revenue	1,186	2,423	-51%	2,213	4,923	-55%
Gross profit	761	1,319	-42%	1,250	2,228	-44%
<i>Gross margin</i>	64.2%	54.4%		56.5%	45.3%	
Operating expenses	1,271	1,639	-22%	2,717	3,243	-16%
Operating income (loss)	(510)	(320)	59%	(1,467)	(1,015)	45%
Other income (expenses)	63	(170)	NM	505	(319)	NM
Net income (loss) as reported under IFRS	\$ (447)	\$ (491)	-9%	\$ (962)	\$ (1,335)	-28%
<i>Adjustments:</i>						
Finance costs	48	62	-22%	99	126	-21%
Depreciation and amortization	312	391	-20%	626	784	-20%
EBITDA - non-IFRS measure	(87)	(38)	128%	(237)	(425)	-44%
Loss (gain) on foreign exchange	187	108	74%	(246)	194	NM
Share-based compensation	2	3	-38%	3	6	-50%
Adjusted EBITDA - non-IFRS measure	\$ 103	\$ 73	41%	\$ (479)	\$ (225)	113%

NM - Not meaningful

Revenue and Gross Margin

Total revenue for the 6-month reporting period decreased 55% to \$2.2 million (2019 - \$4.9 million). Gross margin was 56.5% for the reporting period, 11.2% higher than for the comparable period in 2019. The increase in gross margin was driven by a change in product/service mix. Although our revenue for this reporting period is down by 55%, our net income loss improved to \$962 thousand compared to a loss of \$1.3 million.

For the first six months of 2020, our top 10 customers accounted 47.9% of total revenue with the first and second largest accounting for 10% and 7% respectively or \$366 thousand in aggregate. For the same period last year Novra's Top 10 customers accounted for 51.4% of total revenue with the top two accounting for 16% and 9% respectively or \$1.2 million in aggregate. No other customer accounted for more than 10% of total revenue.

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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.

Geographic Market	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Americas ex-Canada	\$ 819	\$ 1,751	\$ 1,404	\$ 3,204
Canada	88	269	183	433
EMEA	198	258	288	1,045
APAC	81	145	337	241
	\$ 1,186	\$ 2,423	\$ 2,212	\$ 4,923

Operating Expenses

(in thousands)	Three Months Ended June 30,			Six Months Ended June 30,		
	2020	2019	% Chg	2020	2019	% Chg
General and administrative ("G&A")	\$ 285	\$ 372	-23%	\$ 600	\$ 735	-18%
Sales and marketing ("S&M")	222	371	-40%	503	711	-29%
Research and development, net ("R&D")	764	896	-15%	1,614	1,797	-10%
Total operating expenses	\$ 1,271	\$ 1,639	-22%	\$ 2,717	\$ 3,243	-16%

Total OPEX during the first six months of 2020 has been reduced by 16% 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 18% to \$600 thousand (2019 - \$735 thousand), a reduction of \$135 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 29% to \$503 thousand (2019 - \$711 thousand), a decrease of \$208 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 \$340 thousand in 2020 for the six-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 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 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. Novra continues to invest strategically in this area to position the company for future success.

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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 6-month reporting period we recorded a foreign exchange gain of \$246 thousand, compared to a loss of \$194 thousand in the comparable period in 2019.

At June 30, 2020, the foreign currency denominated assets and liabilities, subject to remeasurement, are as follows:

<i>(in thousands)</i>	USD	Euro
Assets	\$ 2,057	€ 114
Liabilities	(508)	0
Net assets before hedging	\$ 1,548	€ 114
Currency derivative contracts	-	-
Net assets -unhedged	\$ 1,548	€ 114
Impact on Novra's earnings if 5% change in foreign exchange rates	\$ 77	€ 6

At June 30, 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 \$83 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 - June 2020 and recorded \$359 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 \$48 thousand for the current period, a 23% decrease over the same period last year (2019 – \$62 thousand). The decrease is a result of payments to reduce balances on the \$US floating rate IMT promissory note and our lease commitments. There were no bank borrowings on our RBC credit facilities in 2020.

Depreciation and Amortization

The decrease in depreciation and amortization costs to \$626 thousand for the first six months of 2020 (2019 - \$784 thousand) was primarily the result of the intangible asset amortization related to the IDC acquisition completing in June 2019. For the first six months ended 2020, intangible asset amortization was \$340 thousand (2019 - \$449 thousand).

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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 \$237 thousand for the six months ended June 30, 2020 compared to loss of \$425 thousand for the same period in 2019. While Adjusted EBITDA for the 6 month period fell from last year's figure, in Q2 Novra's Adjusted EBITDA improved to positive \$103 thousand, compared \$73 thousand in 2019

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.

<i>(in thousands of dollars, except with respect to earnings (Loss) per share)</i>	Jun 30 2020	Mar 31 2020	Dec 31 2019	Sep 30 2019	Jun 30 2019	Mar 31 2019	Dec 31 2018	Sep 30 2018	Jun 30 2018
Revenue	\$ 1,186	\$ 1,026	\$ 1,817	\$ 3,016	\$ 2,423	\$ 2,500	\$ 3,406	\$ 3,558	\$ 1,594
Gross profit	761	488	747	1,849	1,319	909	1,854	2,087	758
Operating expenses	1,271	1,446	1,439	1,374	1,639	1,604	1,603	1,527	1,582
Foreign exchange gain (loss)	(187)	433	(133)	68	(108)	(86)	188	(37)	90
Net income (loss) as reported under IFRS	(447)	(515)	(860)	493	(491)	(844)	535	467	(791)
Adjusted EBITDA income (loss)	103	(582)	(358)	796	73	(299)	647	862	(592)
Earnings (loss) per share - diluted	\$ (0.029)	\$ (0.023)	\$ (0.026)	\$ 0.015	\$ (0.015)	\$ (0.025)	\$ 0.016	\$ 0.012	\$ (0.024)
Weighted average shares outstanding	33,396	33,393	33,372	33,372	33,372	33,360	33,467	33,348	33,348

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.

As was recently announced, subsequent to the end of Q2 Novra received a \$2.2 million order for a major radio network. This order is expected to be delivered in Q4 of 2020 and early 2021. It is an initial order from a major North American radio network for several hundred Audiocaster Pro, Novra Group's next-generation high-end audio receiver. This order adds considerably to Novra's backlog and provides some visibility into future revenue.

We continue to expect 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 Risks and Uncertainties).

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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.

	June 30, 2020	December 31, 2019
Cash	\$ 2,638	\$ 3,176
Accounts receivable	1,175	808
Total liquid assets	\$ 3,813	\$ 3,984
Quick ratio ⁽¹⁾	1.67:1	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 June 30, 2020, Novra's quick ratio was 1.67:1 or \$1.67 of liquid assets available to cover each \$1.00 of third-party current liabilities, a slight decrease from 1.69:1 at December 31, 2019. Note however that this is a significant improvement from 1.31:1 at March 31, 2020.

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

Operating activities

We had negative cash flows of \$552 thousand from operating activities for the first six months of 2020, compared to negative cash flows from operating activities of \$1.8 million 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 six months 2020 and 2019.

Financing activities

We have positive \$92 thousand net cash from financing activities in the current period, compared to negative net cash from financing activities of \$340 thousand in the comparable prior period. In the current period of 2020, we made repayments on our IMT promissory notes and made lease payments of \$258 thousand toward our lease liabilities. Wegener also received funding from Truist Bank through the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) in the amount of \$375 thousand. Management expects all or a substantial portion of the loan to be forgiven in Q3 2020. 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 loan 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.

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Working Capital Ratio

Novra's working capital ratio was as follows:

	June 30, 2020	December 31, 2019
Working Capital:		
Current assets	\$ 5,838	\$ 5,950
Current liabilities	5,101	5,001
Working capital	\$ 737	\$ 950
Working capital, excluding related party and deferred revenue balances	\$ 3,550	\$ 3,599
Working capital ratio⁽¹⁾	2.55:1	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 \$737 thousand at June 30, 2020, from \$950 thousand at December 31, 2019. Excluding related party and deferred revenue balances, Novra's working capital decreased to \$3.5 million at June 30, 2020 from \$3.6 million at December 31, 2019. Our working capital ratio (as defined above) remained healthy at 2.55:1 or \$2.55 per \$1.00 of current liabilities at June 30, 2020.

Contractual obligations and commitments

At June 30, 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)	\$ 2,911	\$ 477	\$ 154	\$ 2,280
Operating leases (Note 13)	3,025	639	1,240	1,146
Purchase commitments (Note 13)	75	75	-	-
Trade payables and other payables	571	571	-	-
Total third party contractual obligations	6,582	1,762	1,394	3,426
Promissory notes from related party (Note 5)	919	793	126	-
Advances from related parties (Note 5)	928	928	-	-
Total contractual obligations	\$ 8,429	\$ 3,483	\$ 1,520	\$ 3,426

See Consolidated Financial Statements notes for further details.

Based on the June 30, 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.

Novra Technologies Inc.

Management's Discussion & Analysis

Six months ended June 30, 2020

As at June 30, 2020, the Company had cash and cash equivalents of \$2.6 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 June 30, 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 at December 31st were as follows:

	June 30, 2020	December 31, 2019
Borrowings (drawn)	\$ 2,912	\$ 2,443
Promissory notes from related party	918	920
Shareholders' equity	(1,118)	70
Total capital resources	\$ 2,712	\$ 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 June 30, 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

As previously indicated a promissory note for \$375 thousand was issued from Truist Bank through the CARES Act (for additional information see Note 6 of the Condensed Consolidated Financial Statements for the six months ended June 30, 2020 and 2019). 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, except as noted below.

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.