

MANAGEMENT'S DISCUSSION & ANALYSIS

Six months ended June 30, 2022 and 2021 (Expressed in Canadian dollars)

Management's Discussion & Analysis

Six Months Ended June 30, 2022

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 periods ended June 30, 2022 and 2021, 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 August 29, 2022 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 29, 2022.

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", "promising", "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.

Management's Discussion & Analysis Six Months Ended June 30, 2022

Table of Contents

BUSINESS OVERVIEW	3
OVERALL PERFORMANCE	4
Results and Outlook	6
Highlights of 2022 so far	7
DISCUSSION OF OPERATIONS	8
Revenue and Gross Margin	8
Operating Expenses	9
Foreign Exchange Gain (Loss)	10
Other Income and Finance Costs	10
Depreciation and Amortization	11
Tax Expense	11
EBITDA and Adjusted EBITDA	11
SELECTED QUARTERLY FINANCIAL INFORMATION	11
LIQUIDITY	12
CAPITAL RESOURCES	14
OFF BALANCE SHEET ARRANGEMENTS	15
TRANSACTIONS WITH RELATED PARTIES	15
ACCOUNTING MATTERS	15
Critical Accounting Estimates	15
FINANCIAL INSTRUMENTS AND OTHER INSTRUMENTS	15
RISKS AND UNCERTAINTIES	15

Management's Discussion & Analysis Six Months Ended June 30, 2022

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. Novra is also listed in the United States on the OTCQB Venture Exchange, under the symbol NVRVF. We have been in the satellite data distribution business since 2000. In 2016, we significantly expanded our product portfolio and global presence with the acquisition of International Datacasting Corporation ("IDC"), a long-time leader in the same sector (based in Ottawa, Canada). Novra also owns 51.6% controlling interest of Wegener Corporation ("Wegener"), based in Atlanta GA, which has expanded our 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"). For more background see our group website at www.novragroup.com.

Today, the Novra Group is a global business with customers on every continent. We provide technology for distribution of broadband data via satellite and IP networks. The Novra Group companies offer a comprehensive portfolio of products, systems, and services. Products include hardware and software tailored for advanced applications in key vertical markets: video, radio, and data distribution, digital cinema and digital signage. 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. Changes in our market are creating opportunities we are addressing with product evolution as well as targeted marketing focus. Important trends include:

- Increasing migration to IP delivery—via internet or private IP networks—as connectivity options expand. Our products are IP enabled and we offer both future-proof technology and expertise to help customers leverage the right distribution platform for their networks.
- **Ongoing consolidation**—customers, partners, and competitors in some of our traditional vertical markets are increasingly merging and combining. This creates opportunity to capture market share in areas where we provide a proven reliable alternative.
- Stability and continuity—satellite continues to be strong in government applications around the world. Global weather services, defense and information services continue to rely on satellite and we see continuity and progress.
- **Growth**—video, faith-based broadcasting, blockchain data, cybersecurity are all market niches where we are enjoying success and see growth and opportunity.

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 international network of reseller partners and, of course, our clients. These close customer relationships give us important market insights that, combined with our extensive engineering experience, form the foundation for our continuing development of advanced products and flexible solutions.

Of particular importance over the last several quarters, given current global supply chain challenges impacting all types of businesses around the world, is the experience and dedication of our procurement and production teams, which has been a critical competitive advantage. They continue to work constructively with our networks of vendors and partners to procure the necessary components and assemblies to facilitate product deliveries to our customers.

Management's Discussion & Analysis

Six Months Ended June 30, 2022

Our business focus: We are leaders in an important market niche—mission-critical professional networks that require rapid, ultra-reliable content delivery, whether for a live on-air broadcast, urgent secure defence data, the latest Hollywood blockbuster, or encrypted block chain data. Our core product lines are applicable across a range of vertical markets. This allows us to focus on maintaining a diversified business base. Our target vertical markets 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 ongoing 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)
 - Delivery of live and file-based video content distribution
 - Digital signage
 - > IPTV
 - Professional-quality streaming video
- Broadcast Radio: We are a leading global provider of turnkey infrastructure solutions for broadcast radio networks small, medium, and large. We have a reputation for reliable, costeffective 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 long-established and respected product lines as well as innovative new products recently released for this market.
- Data distribution: Our broadband multimedia distribution technology is ideally suited for fast, ultra-reliable, secure delivery of data via satellite or private IP network. In addition to providing hardware infrastructure (transmit and receive), we offer an advanced content distribution network (CDN) software solution, Datacast XD, with sophisticated file broadcasting capabilities.
- Digital Cinema: We provide leading digital cinema networks with their core distribution infrastructure (uplink equipment, content management, and network management) and highend 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 receivers provide standalone communication gateways to local networks or have been integrated into a wide range of purpose-built appliances.

OVERALL PERFORMANCE

Novra entered 2022 with a backlog and deferred revenue of more than \$6.1 million. Shipments against our order backlog ramped up in Q2 and this is reflected in improved financial results for this quarter compared to Q1. However, transportation delays for incoming components and electronic assemblies, resulting from the global geo-political and public health situations that continue to effect global supply chains, caused some backlog shipments scheduled for Q2 to slip into Q3. With hardware now on-hand for the majority of our backlogged orders, the impacts of further global uncertainty on their delivery should be cushioned, allowing us to clear most of our current \$4.2 million dollar backlog before year end. Novra also continues to ship most orders for standard products from stock, with very short lead-times.

Management's Discussion & Analysis

Six Months Ended June 30, 2022

Net Income loss for the quarter was \$92 thousand, compared to a loss of \$758 thousand for the first three months of 2022. These combined for a Net Income loss of \$850 thousand for the six-month reporting period.

Because of the lumpiness of Novra's revenue, quarterly profit and loss does not provide a full picture of results. Operating cost improvements continued through the current period, coming in 9% lower than the same period in 2021. On June 30, 2022, Novra's deferred revenue was \$1.3 million, and our bookings backlog remained strong at \$4.3 million. Our anticipated significant shipments against this backlog in the next couple of quarters provide some visibility into our 2022 revenue, which will also include additional revenue from sales and bookings made during the remaining two quarters of 2022.

In adapting to the evolving market dynamics, management has taken 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 for Q2 and the six-month period shown below are derived from our Consolidated Financial Statements and include consolidation of Novra's subsidiaries; International Datacasting Corporation and Wegener Corporation (51.6% controlling interest).

Q2 2022 vs. Q2 2021:

- Revenue was \$2.3 million, compared to \$1.1 million in Q2 2021, an increase of \$1.3 million.
- Gross profit at \$1.2 million was 50% of total revenue, compared to \$404 thousand or 37.5%.
- Operating expenses were \$1.2 million, compared to \$1.3 million in 2021, a reduction of 9%*.
- Net Loss was \$92 thousand, compared to a loss of \$472 thousand in Q2 2021. Reducing net income, is approximately \$152 thousand of amortization expenses for intangible assets associated with the prior purchase of 51% of Wegener.
- Adjusted EBITDA** increased to \$274 thousand, compared to Adjusted EBITDA* of negative \$58 thousand.

First 6 months of 2022 vs. 2021:

- Total revenue was \$3.3 million, compared to \$4.8 million, a decrease of \$1.5 million.
- Gross profit at \$1.5 million was 46.5% of total revenue, compared to \$2.6 million or 53.4%.
- Operating expenses were \$2.3 million, compared to \$2.5 million, a reduction of 9%*. Amortization expenses of \$299 thousand for intangible assets associated with the prior purchase of 51.6% of Wegener are included in 2022 operating expenses (\$296 thousand in 2021).
- Our consolidated net loss was \$850 thousand, compared to a gain of \$647 thousand in 2021.
- Adjusted EBITDA** loss of \$131 thousand, compared to Adjusted EBITDA* gain of \$1.3 million.
- Novra recorded \$9 thousand in Other Income in the six months ended June 30, 2022 related to funding under the Canadian Recovery Hiring Program (2021 - \$nil); refer to Note 9(a) in the Consolidated Financial Statements for details

^{*} Operating expenses in 2022 were affected by the move to begin capitalizing certain development costs at the end of 2021. Refer to the Operating Expenses section for further discussion of this change.

^{**}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

Management's Discussion & Analysis

Six Months Ended June 30, 2022

period. Refer to the "EBITDA and Adjusted EBITDA" section below for details regarding calculation of this non-IFRS measure.

Our ongoing drive to realize synergies and efficiencies across the group resulted in consolidated operating expenses continuing to trend down in the first half of 2022 compared to the same period in 2021. 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.

Operating cost reductions this period in other areas were partially offset by an increase in Sales and Marketing expenses. This was the result of a return to strategic spending on sales and business development travel. The return of industry events and in-person customer meetings is enabling us to effectively nurture existing customer relationships and initiate new ones.

Results and Outlook

Continued COVID-19 lockdowns and Russia's invasion of Ukraine have resulted in global geopolitical turmoil. This continues to negatively affect supply chains, with distributor inventories dropping, price increases and lead-times on certain electronic components stretching to many months. In addition, global transport times and manufacturing costs have also increased. Novra's adaptive strategy to deal with these challenges is through strategic inventory purchases, including advance purchasing of certain key components, and nurturing additional procurement channels.

Our clients continue to navigate and adapt through these challenging circumstances to ensure operational reliability of their networks. We play a major part in helping them to achieve their goals by providing expert support services and our R&D investment to develop new products, which enhance their networks and enable a more reliable service to their customers. Their continued confidence in choosing our products and services is reflected in our 2021 and year-to-date 2022 bookings and our identified sales opportunities for 2022 and 2023. These demonstrate the importance our customers, even in times of global uncertainty, place on investment in critical infrastructure components that Novra provides. 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.

Although Novra has maintained sufficient inventory to continue to fulfil most orders, some larger or customized orders in our current backlog have seen increased lead-times, which caused a slippage in our ability to deliver these orders. We are very carefully monitoring our supply chains and transport channels, while taking measured actions to mitigate these effects where practical.

We are preparing for continued stronger future performance with our on-going sales efforts and with our client centric R&D activities. These have resulted in several recent new products which have now been selected for new project rollouts, and we are starting to receive more of those orders. We continue to be flexible in our product development with an eye on technological trends and new communications standards to ensure our products remain relevant throughout their life cycle and provide a valued investment to our clients.

An important component of our R&D strategy over the last three years has been the continued development of the MISTiQ platform for cloud-based distribution of content. We are also expanding our software products—including the Datacast XD content management and distribution—into the Software as a Service (SaaS) model. This recurring-revenue model is increasingly popular with customers who don't have to invest upfront in software, and it's part of our ongoing strategic goal of generating a more consistent revenue base. In a project-based business like Novra's this offers the advantage of smoothing out

Management's Discussion & Analysis

Six Months Ended June 30, 2022

inconsistent revenues. The work we've done and our substantial R&D investment over the past several years is paying off as we book more and more service business.

Highlights of 2022 so far

- A major digital cinema customer placed a sizable order, expanding their existing network. This is a positive indication of confidence in our products/solution, as well a good sign of growth as cinema chains bounce back.
- We continue to enjoy robust follow-on orders as well as new opportunities from long-time government customers to grow and/or upgrade existing networks.
- ❖ We booked a significant large digital signage order for another major banking network in Latin America through a long-time service provider customer/partner. The project is using Wegener's Signcaster 864 product, with the enhanced secure connectivity features required for banking environments.
- We received a major follow-on order for a customized health and well-being channel distributed via private healthcare networks. This order is significant due to its larger than usual size and represents a committed strategy by the client to upgrade their current technology and to expand their network using our solution. We expect this will be a multiyear project with orders over the next 2 to 3 years.
- * Radio business continues strong:
 - > We received a sizable order for a long-time customer in Europe that is expanding their network.
 - We got another major order from a large broadcast customer in Canada that is adding 16 channels to their network and ordering next-generation MAP receivers as they migrate to the latest technology.
 - Radio network customers, from South Sudan to Papua New Guinea and New Zealand, continue to adopt MAP receivers as their new platform of choice.
- ❖ In February we announced that we have been selected by LinkUp Communications Corporation to provide a migration and modernization path for radio networks still using legacy and obsolete competitive products. LinkUp is providing an integrated replacement technology package based on the IDC MAP system—as well as installation and configuration services—to help networks easily transition with improved reliability, reduced downtime, and lower operating expenses. Since this announcement the system has been installed and the first end user customer orders have been received
- ❖ We received our largest order to date from Blockstream, for secure distribution of blockchain data via satellite. We are the exclusive providers of receivers used in their "Satellite Pro Kit" professional solution.

We are seeing business pick up in terms of new opportunities and projects restarting. We continue to integrate and improve our product lines—adding new features and new capabilities—to take advantage of increasing opportunities to grow market share in key vertical markets.

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. Our new products have integrated features and a consistent "look and feel", communicating to the market (including long-time customers) that we are a strong, unified company. 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. We are focused on meeting the needs of

Management's Discussion & Analysis

Six Months Ended June 30, 2022

our clients, who are looking for flexible, cost-effective solutions. Our product development is centred on listening and responding to identified client requirements as well as 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.

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 M	onth	s Ended J	une 30,	Pe	rio	d er	nded Jun	e 30 ,
	2022	2	2021	% Chg	20	22		2021	% Chg
Revenue by type:									
Products	\$ 1,954	\$	766	155%	\$ 2,45	8	\$	4,046	-39%
Services	384		312	23%	80	9		760	6%
Total revenue	2,338		1,078	117%	3,26	7		4,806	-32%
Gross profit	1,170		404	190%	1,51	.8		2,568	-41%
Gross margin	50.0%		37.5%		46.5	%		53.4%	
Operating expenses	1,228		1,345	-9%	2,31	1		2,535	-9%
Operating income (loss)	(58))	(941)	-94%	(79	3)		33	NM
Other income (expenses)	(34))	469	NM	(5	8)		614	NM
Net income loss as reported under IFRS	(92)	\$	(472)	-81%	(85	0)	\$	647	NM
Adjustments:									
Finance costs	46		41	12%	11	8.		95	24%
Depreciation and amortization	328		284	16%	65	2		569	15%
EBITDA - non-IFRS measure	282		(148)	NM	(8	(0)		1,310	NM
Loss (gain) on foreign exchange	(8))	90	NM	(5	1)		(30)	70%
Share-based compensation	()	0	0%		0		0	0%
Adjusted EBITDA - non-IFRS measure	274	\$	(58)	NM	(13	1)	\$	1,280	NM

*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 6-month reporting period decreased to \$3.3 million (2021 - \$4.8 million). Gross margin was 46.5% for the reporting period, 7% lower than for the comparable period in 2021. The decrease in gross margin was a result of fixed costs being spread over less revenue, differences in product/service mix and higher costs incurred as a result of current supply chain and transportation challenges.

For the first six months of 2022, our top 10 customers accounted 84.2% of total revenue with the three largest accounting for 37%, 10%, and 10% respectively or \$1.9 million in aggregate. For the same period last year Novra's Top 10 customers accounted for 84.2% of total revenue with the two largest accounting for 45% and 10% respectfully or \$2.6 million in aggregate. No other customer accounted for more than 10% of total revenue.

Six Months Ended June 30, 2022

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 wellestablished customer base to provide diversification in our revenue base. The following table summarizes the geographic distribution of our revenues for the period.

	Th	ree Months I	Ende	d June 30,	Six Months Ended June 30,					
Geographic Market		2022		2021		2022		2021		
Americas ex-Canada	\$	1,960	\$	627	\$	2,689	\$	3,645		
Canada		170		9	315			315		
EMEA		183		168		220		175		
APAC		25		274		43		671		
	\$	2,338	\$	1,078	\$	3,267	\$	4,806		

Operating Expenses

(In thousands)	Three Mo	nths Ended .	June 30,	Perio	Period Ended June 30		
	2022	2021	% Chg	2022	2021	% Chg	
General and administrative ("G&A")	292	382	-24%	561	725	-23%	
Sales and marketing ("S&M")	241	251	-4%	474	449	6%	
Research and development ("R&D")	696	712	-2%	1,276	1,361	-6%	
Total operating expenses	1,229	1,345	-9%	2,311	2,535	-9%	

Total OPEX during the first six months of 2022 has decreased by 9% from the comparable period in 2021. 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 23% to \$561 thousand (2021 - \$725 thousand), a decrease of \$164 thousand. This decrease is primarily attributable to a reduction in compensation expenses in 2022 and the extra costs for an AGM held in Q1 of 2021.

Our Sales and Marketing ("S&M") costs consist of compensation paid to our sales team, as well as tradeshow, promotion and travel and entertainment costs. We increased our marketing expense by 6% to \$474 thousand (2021 - \$449 thousand). The increase was primarily driven by increased compensation and travel-related costs.

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 acquisition of controlling interest in Wegener are also included in R&D costs. This amortization of \$285 thousand in 2022 (\$291 thousand in 2021) distorts our R&D expenditures as a percentage of revenue and it has an impact on our net operating results.

In prior periods before the year ended December 31, 2021, R&D product development costs were expensed as incurred; we did not capitalize development costs. Because of this, no capital asset related to our internal investments in developing products and technologies was previously included in our consolidated statement of financial position. With continued significant development being invested in products and technologies that have extended useful lives. Novra made the decision in Q4 of 2021 to begin capitalizing certain development costs to more appropriately present our technology assets and R&D expenses. This change was made retroactively to applicable development costs starting January 1, 2021. This change increased the Intangible Assets reported on the Consolidated Statement of Financial Position. Beginning in 2022, certain new development costs will continue to be capitalized. At the same time, amortization of

Management's Discussion & Analysis

Six Months Ended June 30, 2022

these development assets over their useful lives will be added to Operating Expenses. Novra will continue to invest strategically in product development 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, many 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 the first six months of 2022 Novra had a foreign exchange gain of \$51 thousand, compared to a gain of \$30 thousand in 2021.

At June 30, 2022, the foreign currency denominated assets and liabilities, subject to remeasurement, are as follows:

(in thousands)	USD	Euro
Assets	2,393	26
Liabilities	(1,477)	-
Net assets before hedging	916	26
Currency derivative contracts	-	-
Net assets - unhedged	916	26
Impact on Novra's earnings if 5% change in foreign exchange rate	46	1

At June 30, 2022, 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 \$47 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 Recovery Hiring Program (CRHP) for the six months ended June 30, 2022 and recorded \$9 thousand to finance income. This is a federal government program created to provide financial support to businesses affected by COVID-19.

Finance costs were \$118 thousand for the current period, a slight increase over the same period last year (2021 – \$95 thousand). There were no bank borrowings on our RBC credit facilities in Q2 2022.

Management's Discussion & Analysis

Six Months Ended June 30, 2022

Depreciation and Amortization

Depreciation and amortization costs increased to \$652 thousand for the first six months of 2022 (2021 - \$569 thousand). This includes intangible asset amortization of \$362 thousand (2021 - \$296 thousand) and \$287 thousand in amortization of right-of-use assets (2021 - \$262 thousand). The intangible asset amortization in 2022 includes \$63 thousand in amortization of capitalized development costs. Specific development costs were first capitalized at the end of 2021 and therefore periods in 2022 are the first where amortization expenses related to these have been recorded.

Tax Expense

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

Despite the significant non-capital loss carry forwards and available investment tax credits (see Note 14 of the audited Consolidated Financial Statements for the years ended December 31, 2021 and 2020) to shelter future taxable income from income taxes, we have not recognized deferred tax assets at either June 30, 2022 or 2021 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 competitive environment 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 gain of \$274 thousand for the quarter ended June 30, 2022 compared to a loss of \$58 thousand in 2021. For the six-month reporting period EBITDA was negative \$80 thousand in 2022 and positive \$1.3 million in 2021, Adjusted EBITDA for the current reporting period was negative \$131 thousand, while adjusted EBITDA for the same period in 2021 was a positive \$1.3 million. The decrease in six-month 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 prior quarters.

Management's Discussion & Analysis

Six Months Ended June 30, 2022

(In thousands of dollars, except with respect to earnings (loss) per share	Jun	30, 2022	Mar	31, 2022	Dec	c 31, 2021	Sep	30, 2021	Jun	30, 2021	Mar	31, 2021	Dec 31	l, 2020	Sep 3	0, 2020	Jun 30	, 2020
Revenue	\$	2,338	\$	929	\$	1,509	\$	891	\$	1,078	\$	3,728	\$	1,675	\$	1,092	\$	1,186
Gross profit		1,170		348		568.581		192.608		404		2164		631		517		761
Operating expenses		1,228		1,082		279.023		1184.695		1345		1190		1201		1229		1271
Foreign exchange gain (loss)		(8)		(43)		52		17		(90)		120		260		(36)		(187)
Net income (loss) attributable to Novra		(873)		(643)		264		(710)		(432)		759		(749)		(550)		(266)
Adjusted EBITDA Income (loss)		274		(426)		594		(380)		(57)		1,338		(116)		(325)		103
Earnings (loss) per share - diluted	\$	(0.026)	\$	(0.019)	\$	0.008	\$	(0.021)	\$	(0.013)	\$	0.023	\$	(0.022)	\$	(0.016)	\$	(0.008)
Weighted average shares outstanding		33,420		33,420		33,396		33,396		33,396		33,396		33,396		33,396		33,396

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 deferred revenue and a backlog of orders received, but not yet shipped, at June 30, 2022.

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 (refer to the Risks and Uncertainties section below).

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,	2022	Decemb	er 31, 2021
Cash	\$	1,902	\$	2,965
Accounts receivable		1,148		1,124
Total liquid assets	\$	3,050	\$	4,089
Quick ratio (1)	0.78:1		0.97:1	

(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 is 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, 2022, Novra's quick ratio was 0.78:1 or \$0.78 of liquid assets available to cover each \$1.00 of third-party current liabilities, a decrease from 0.97:1 at December 31, 2021. Note that a significant portion (June 30, 2022 - \$1.8 million, December 31, 2021 - \$2.1 million) of current liabilities included in the calculation of the quick ratio are customer deposits. This is a liability that reverses once customers have been invoiced for the related orders.

Management's Discussion & Analysis

Six Months Ended June 30, 2022

The following is a summary of cash flows by activities for the first six months of 2022 vs. the same period in 2021. Overall, cash decreased by \$1.1 million during the six months ended June 30, 2022.

Operating activities

We had negative cash flows of \$690 thousand from operating activities in the first six months of 2022, compared to positive cash flows from operating activities of \$558 thousand for the same period in 2021. This was mostly a result of the Net Income loss.

Investing activities

We had no cash flows driven by investing activities during the second quarter of 2022 or 2021.

Financing activities

We had negative \$392 thousand net cash flow from financing activities in the first six months of 2022, compared to negative net cash from financing activities of \$395 thousand in the comparable prior period. In the current period we made repayments on our WEDC loan and IMT promissory notes and made lease payments of \$330 thousand toward our lease liabilities (2021 - \$308 thousand).

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:

	June	30, 2022	Decem	ber 31, 2021
Working Capital:				
Current assets	\$	5,771	\$	6,509
Current liabilities		6,799		7,001
Working Capital	\$	(1,028)	\$	(492)
Working capital, excluding related party				
and deferred revenue balances	\$	1,855	\$	2,276
Working capital ratio ⁽¹⁾		1.47:1		1.54:1

⁽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 fell to negative \$1.0 million at June 30, 2022 from negative \$492 thousand at December 31, 2021. Excluding related party and deferred revenue balances, Novra's working capital decreased to \$1.9 million at June 30, 2022 from \$2.3 million at December 31, 2021, but remained substantial. Our working capital ratio (as defined above) remained healthy at 1.47:1 or \$1.47 of current assets per \$1.00 of current liabilities, excluding amounts due to related parties and deferred revenue at June 30, 2022.

Contractual obligations and commitments

At June 30, 2022, Novra's contractual obligations and commitments were as follows:

Six Months Ended June 30, 2022

		Within		1 to		5 to		
Payment due:	Total	1 year		5 years	10 years		10+ years	
Borrowings (Note 6)	\$ 2,523	\$ 54	\$	134	\$	2,188	\$	147
Operating leases (Note 11)	1,748	387		1,037		324		-
Trade payables and other payables	1,695	1,695		-		-		-
Total third party contractual obligations	5,966	2,136		1,171		2,512		147
Promissory notes from related party (Note 5)	841	841		-		-		-
Advances from related parties (Note 5)	1,480	1,480		-		-		-
Total contractual obligations	\$ 8,287	\$ 4,457	\$	1,171	\$	2,512	\$	147

Refer to the notes to the Consolidated Financial Statements for further details.

Based on the June 30, 2022 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 June 30, 2022, the Company had cash and cash equivalents of \$1.9 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 June 30, 2022, Novra's total outstanding voting common shares were 33,420,293 excluding the 2,000,000 common shares held by our subsidiary, Wegener (December 31, 2021 - 33,420,293). Our debt and equity positions were as follows:

	Ju	une 30, 2022	Decen	nber 31, 2021
Borrowings (drawn)	\$	2,523	\$	2,510
Promissory notes from related party		841		864
Shareholders' equity		(2,545)		(1,727)
Total capital resources	\$	819	\$	1,647

The change in capital resources was primarily due to net income loss for the.

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.

Management's Discussion & Analysis

Six Months Ended June 30, 2022

OFF BALANCE SHEET ARRANGEMENTS

At June 30, 2022, 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 condensed 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, 2021 and 2020 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 significant changes to the types of financial instruments held during the six months ended June 30, 2022. For further details refer to Note 8 of the audited Consolidated Financial Statements for the years ended December 31, 2021 and 2020, with additional information on Borrowings in Note 11.

RISKS AND UNCERTAINTIES

Refer to our December 31, 2021 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: 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

Management's Discussion & Analysis

Six Months Ended June 30, 2022

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.