



Q2 2020

Management Discussion and Analysis

Nanalysis Scientific Corp.

(formerly Canvass Ventures Ltd.)

nanalysis

READER ADVISORY

The Management's Discussion and Analysis ("MD&A") for the three and six month periods ended June 30, 2020 of the financial condition and results of operations of Nanalysis Scientific Corp. ("the "Company"), is prepared as at August 21, 2020. This discussion should be read in conjunction with the Company's unaudited Interim Condensed Consolidated Financial Statements for the three and six month periods ended June 30, 2020 and notes thereto. Other information on Nanalysis is available on SEDAR at www.sedar.com and on the Company's website at www.nanalysis.com.

This discussion should not be considered all-inclusive as it does not include all changes regarding general economic, political, governmental and environmental events. This MD&A contains certain statements that constitute forward-looking statements under the meaning of applicable securities laws. Please see "Forward-Looking Information, Assumptions and Risk Factors" on page 13 for a discussion regarding Nanalysis' use of such information. For the reader's reference, the definition, calculation and reconciliation of non-GAAP terms are provided in "Non-GAAP Terms" on page 13. Readers are cautioned that these non-GAAP terms should not replace net earnings (loss), earnings (loss) per share, purchases and proceeds on sale of property, plant and equipment and debt as indicators of GAAP performance.

This MD&A and the consolidated financial statements were reviewed by the Audit Committee of the Company's Board of Directors and approved by Nanalysis' Board of Directors on August 21, 2020. All dollar figures are in thousands of Canadian dollars, except per share amounts or unless otherwise stated.

OVERVIEW OF BUSINESS

Nanalysis Scientific Corp. is the ultimate parent in the group. In June 2019, the Company completed an amalgamation with Canvass Ventures in a reverse takeover ("RTO") and obtained a listing on the TSX-V as Nanalysis Scientific Corp (NSCI). The Company is headquartered in Calgary, Alberta, Canada and performs all product development and manufacturing at its Calgary facility.

The Company's activities are carried out through three reportable segments: Nanalysis, RS2D and Corporate. The Company's executive leadership is responsible for strategic decision making, resource allocation, and assessing financial performance and, as a group, is identified as our chief operating decision maker for the purposes of reporting segment information under International Financial Reporting Standards ("IFRS").

Nanalysis Corp. ("Nanalysis"): a subsidiary of the Company was founded in 2009 with the specific intent of developing the world's first portable nuclear magnetic resonance ("NMR") spectrometer to address the three main limitations of this powerful magnetic resonance technique – affordability, accessibility and automatability. After approximately four years of development, Nanalysis began shipping their first commercial product in 2012. Since this time Nanalysis has expanded the functionality of this platform and launched the highest performing instrument available in the market to address the industrial market demands for increased performance metrics. Nanalysis Corp. is a provider of cutting edge, patent-protected magnetic resonance ("MR") technology to facilitate simple and rapid unknown chemical identification, quantification and diagnostics in a number of end markets including pharmaceutical, biotechnology, chemical, security, food, oil & gas and educational industries. Customers include Eli Lilly, Johnson & Johnson, Takeda Pharmaceutical, BASF, Hitachi Chemical, US Department of Agriculture, Lubrizol, Aramco Services, SABIC, Oxford University, Harvard University and many other Fortune 500 organizations. In 2018 the Company incorporated a wholly owned subsidiary in Germany, at which it conducts direct sales, marketing, technical support and channel management activities in the European region. The Company plans to open other international subsidiaries in upcoming years that will conduct similar activities in strategic geographical regions.

RS2D S.A.S. ("RS2D"): In March 2020, the Company acquired all outstanding shares of RS2D, a complementary technology company based in Strasbourg France that specializes in the development of cutting-edge MR electronics. Based on a single electronic board, RS2D has developed MR product lines in high-field ("HF") NMR and magnetic resonance imaging ("MRI") that can further advance Nanalysis' existing product line, while the new products to round out the Company's magnetic resonance technology portfolio.

Corporate: This segment is the corporate entity of the company; included in Corporate is executive, legal, and other administrative costs.

BUSINESS ACQUISITION

On March 3, 2020, the Company acquired all of the outstanding shares of RS2D S.A.S. ("RS2D"), a technology company based in Strasbourg, France that designs and builds cutting-edge electronics components for precision analytical instruments. The base consideration paid for RS2D was \$1.9 million in cash and the issuance of 2.9 million Nanalysis shares, which are subject to a three-year lock-up period restricting the sale of shares for specific periods. The former shareholders of RS2D may also receive an earnout over the three years to December 31, 2022, based on future revenue growth objectives. As receipt of this earnout is not subject to any service requirement by the former shareholders, management has concluded the earnout is part of the purchase consideration and has assessed its fair value to be \$Nil.

The acquisition was accounted for as a business combination. The Company determined the purchase consideration to be \$3.9 million, comprised of the following:

Purchase Price Allocation:

(\$000's)	
Cash and cash equivalents	1,897
Common shares	2,030
Purchase consideration	3,927

OUTLOOK

Nanalysis has addressed the recent outbreak of COVID-19 by adapting numerous work policies. This has allowed Nanalysis to continue operations with minimal disruptions to our development, manufacturing and distribution. Marketing and sales still face significant disruptions to normal operating procedures due to the restrictions of in-person meetings and border closures during the quarter. The Company has utilized government programs offered to Company's impacted by COVID-19, specifically the Canadian Emergency Wage Subsidy ("CEWS") and Canadian Emergency Business Account ("CEBA"). Nanalysis will continue to monitor results and seek government assistance where applicable.

Despite COVID-19 short-term market forces presenting challenges in the second quarter and into the latter half of 2020, Nanalysis continues to have confidence that the market for compact NMR spectrometers and related accessories and services will grow for the medium term. To date, the Company has received \$2,626k pre-orders for our 100MHz, of which \$438K was reflected in unearned revenue as at June 30, 2020. The nascent nature of the Company's market opportunity coupled with the value proposition to its customers will continue to drive increased demand for compact NMR devices in growing number of research, commercial, and industrial applications. The Company is continuing to develop cutting edge new products, is working with local, national, and international partners to develop use-specific solutions in a variety of industries and will continue to execute its acquisition strategy.

The five objectives the Company is committed to for the remainder of 2020 is: (1) release of our new 100 MHz product, (2) continued execution of our acquisition strategy, (3) continued vertical market partnering agreements, and (4) expanding investor relations activity, especially in the United States in keeping with our recent OTCQX listing (5) realization of our large balance of unearned revenue.

SELECTED FINANCIAL INFORMATION

(\$000's except share information amounts)	Three months ended June 30,			Six months ended June 30,		
	2020	2019	Change	2020	2019	Change
Financial results						
Revenue	1,995	2,535	(540)	3,520	4,600	(1,080)
Gross profit ⁽¹⁾	1,264	1,767	(503)	2,248	3,102	(854)
Total comprehensive loss	(358)	(1,177)	819	(1,290)	(1,379)	89
Share Information						
Loss per share (basic and diluted)	(0.01)	(0.02)	0.01	(0.02)	(0.03)	0.01
Share price (June 30)	0.56	0.44	0.12	0.56	0.44	0.12
Other Information						
Capitalized property plant and equipment	2	130	(128)	89	139	(50)
Capitalized development expenditures and intangibles	552	343	209	1,454	776	678

(\$ 000's)	June 30, 2020	December 31, 2019	\$ Change
Financial Position			
Total assets	25,199	18,306	6,893
Total debt obligations (includes current portion)	3,599	1,507	2,092
Total liabilities	8,935	3,187	5,748
Net assets ⁽²⁾	16,264	15,119	1,145

⁽¹⁾ Gross profit is a non-IFRS term and is defined as revenue less cost of products sold, see reconciliation on page 13 of this document.

⁽²⁾ Net assets is a non-IFRS term and is defined as total assets less total liabilities.

FINANCIAL POSITION

At June 30, 2020, Nanalysis had \$5,233K (December 31, 2019 - \$8,534K) of working capital, including \$4,805K (December 31, 2019 - \$6,619K) in cash. The Company has an undrawn line of credit of \$2,000K and \$1,046K of available borrowing on the Western Economic Diversification Canada interest free loan. Nanalysis's business has been affected by COVID-19 and as such is eligible for a subsidy of 75% of employees' wages. During the three and six months ended June 30, 2020 the Company received \$715K from the CEWS. Nanalysis will continue to monitor revenues and seek government assistance where applicable.

OVERALL PERFORMANCE

For the six months ended June 30, 2020, the Company reported consolidated revenue of \$3,520K, a decrease of \$1,080K or 23% from the comparative period in 2019. Unearned revenue was \$2,170K as at June 30, 2020, an increase of \$1,554K from \$616K as at December 31, 2019. The increase was due to the acquisition of RS2D and the associated backlog of work that they were unable to complete in the quarter due to COVID-19 delays, coupled with an increase in extended warranty sales to customers, and customer deposits on pre-orders for the 100MHz product. The decrease in revenue was partially a result from COVID-19 as local, national, and international regulations have made conducting business difficult amid 'shut down and shelter in place' orders. Nanalysis has faced delayed international shipments due to closures at the border, while RS2D employees in Strasbourg, France were unable service customers as all nonessential services were ceased. Also contributing to the reduction in revenue is customers holding off on purchases and awaiting the release of the 100MHz product.

Gross profit for six months ended June 30, 2020 was \$2,248K (a margin of 64%) as compared to gross profit of \$3,102K (a margin of 67%) for 2019.

The Company's comprehensive loss for the six months ended was \$1,290K as compared to comprehensive loss of \$1,379K in 2019. The loss for the six months ended June 30, 2020 was due to decreased sales, increased depreciation and amortization, acquisition transaction costs, increase general and administration expense, partially offset by an increase on foreign exchange gain, finance income, other comprehensive income and deferred tax recovery. The loss for the six months ended June 30, 2019 was primarily due to \$1,360K of reverse takeover transaction costs.

DISCUSSION OF OPERATIONS

(\$000's)	Three months ended June 30			Six months ended June 30		
	2020	2019	(\$ Change)	2020	2019	(\$ Change)
Revenue	1,995	2,535	(540)	3,520	4,600	(1,080)
Cost of products sold	731	768	(37)	1,272	1,498	(226)
Gross profit ⁽¹⁾	1,264	1,767	(503)	2,248	3,102	(854)
Expenses						
Sales and marketing	628	513	115	1,380	1,180	200
General and administration	824	768	56	1,518	1,282	236
Earnings (loss) before other items	(188)	486	(674)	(650)	640	(1,290)
Other Items						
Acquisition transaction costs	42	-	42	275	-	275
RTO transaction costs	-	1,296	(1,296)	-	1,360	(1,360)
Depreciation and amortization expense	222	172	50	721	334	387
Finance expense (income)	(5)	65	(70)	(88)	80	(168)
Stock-based compensation	102	103	(1)	163	157	6
Foreign exchange (gain) loss	58	63	(5)	(114)	124	(238)
Loss before tax	(607)	(1,213)	606	(1,607)	(1,415)	(192)
Deferred tax recovery	82	36	46	175	36	139
Net loss	(525)	(1,177)	652	(1,432)	(1,379)	(53)
Other comprehensive income	167	-	167	142	-	142
Total comprehensive loss	(358)	(1,177)	819	(1,290)	(1,379)	89

(1) Gross profit is a non-IFRS term and is defined as revenue less cost of products sold, see reconciliation on page 13 of this document.

Revenue

The Company derives revenue from two operating segments, Nanalysis and RS2D. Nanalysis has been involved in the development, manufacturing, and sales of NMR spectrometers from inception in 2009. As such, all revenue is related to product sales and extended warranties. Nanalysis does not engage in consulting services or any other revenue generating activity unrelated to product sales. RS2D is a technology company based in Strasbourg, France which specializes in the manufacturing of cutting-edge electronics components for precision analytical instruments, their revenue is derived from product sales and contracted installation services of these products.

For the three months ended June 30, 2020, the Company reported consolidated revenue of \$1,995K, a 21% decrease from the \$2,535K recognized from the comparable period ended June 30, 2019. The second quarter for both Nanalysis and RS2D was impacted due to COVID-19. The shutdown of facilities in Strasbourg, coupled with the closing of borders impacted the Company's ability to ship product and fulfill contracts.

For the six months ended June 30, 2020 the company reported consolidated revenue of \$3,520K, a 23% decrease from the \$4,600K recognized from the comparable period ended June 30, 2019. This decline in revenue was due to the aforementioned impact of COVID-19. Despite difficult macro forces at play, the Company continues to see pre-orders of the 100MHz, a backlog of RS2D work and the resulting increase to unearned revenue from \$616K as at December 31, 2019 to \$2,170K at June 30, 2020.

Cost of products sold

Cost of sales for the Company includes the costs of manufacturing its products as well as the costs of servicing those products. The cost of sales for products comprises of raw materials, direct costs, direct labor, an allocation of overhead, freight charges, warranty and depreciation.

Cost of products sold for the three months ended June 30, 2020 was \$731K or 37 percent of revenue as compared to \$768K or 30 percent of revenue and for the comparable period of the prior year. On a dollar basis cost of product sold has decreased due to less sales in the second quarter of 2020, margin specifically in Nanalysis has decreased due to increased overhead costs per unit resulting from depressed sales in the quarter, these have been slightly offset by CEWS.

Cost of products sold for the six months ended June 30, 2020 was \$1,272K or 36 percent of revenue as compared to \$1,498K or 33 percent of revenue for the comparable period of the prior year. On a dollar basis cost of product sold has decreased due to less sales in first half of 2020.

Sales and marketing (“S&M”)

S&M expenses include the salaries, benefits and expense of the sales, marketing, business development, travel costs, selling and marketing expenses.

S&M for the three months ended June 30, 2020 was \$628K as compared to \$513K for the same period of the prior year. Overall sales and marketing salaries and wages have increased as the Company continues to expand the sales and marketing team, coupled with the addition of staff from RS2D. The increase has been offset by decreased commission expenses due to reduced sales for the quarter and reduced conference expense as all planned shows were cancelled in the second quarter due to COVID19.

S&M for the six months ended June 30, 2020 was \$1,380K as compared \$1,180K for the same period of the prior year. Overall sales and marketing salaries and wages have increased as the Company continues to expand the sales and marketing team, coupled with the addition of staff from RS2D from March 3rd 2020 – June 30th 2020.

General and administrative expenses (“G&A”)

G&A includes the cost of maintaining a corporate office, all publicly traded company-related expenses as well as the G&A incurred with respect to the day to day operation of the Company.

For the three June 30, 2020, G&A was \$824K as compared to \$768K for the same period of the prior year. The increase for the three months ended is due to the acquisition of RS2D, increased salaries and wages, the result of increased head count, coupled with increased costs associated with being a public entity and the associated expenses of listing on the OTCQX.

For the six months ended June 30, 2020, G&A was \$1,518K as compared to \$1,282K for the same period of the prior year. The increase for the six months ended is due to the acquisition of RS2D from March 3rd 2020 – June 30th 2020. The increased to G&A for the six months ended is due to the aforementioned costs of being public, costs associated with the acquisition of RS2D and the aforementioned OTCQX listing.

Acquisition transaction costs

On March 3, 2020, the Company acquired all of the outstanding shares of RS2D, these costs of \$275k are the one time legal, accounting and advisory fees associated with the acquisition.

Amortization of property, plant, equipment and intangibles

For the three and six months ended June 30, 2020 amortization was \$222K and \$721K as compared to \$172K and \$334K for the same period of the prior year. The increase for the three and six month periods is due to the change in useful life of intangibles assets, specifically the 60MHz product from 11 years to 5 years.

Finance income (expense)

For the three and six months ended June 30, 2020 interest, finance income was \$5k and \$88k as compared to finance expense of \$65K and \$80k for the comparable periods in 2019. The increased finance income for both three and six months is a result of interest income stemming from the large cash balance on hand coupled with the accounting treatment of interest free government loans and the resulting income.

Foreign exchange

Foreign exchange gains or losses typically occur when the exchange rate changes between the time revenue or expenses are recognized and when the resulting receivable is collected, or invoice is paid. Nanalysis conducts the vast majority of its business in US dollars and Euro's.

SUMMARY OF QUARTERLY RESULTS

The following table highlights revenue, cash used in operating activities, total comprehensive income (loss) before tax and earnings (loss) per share for the eight most recently completed quarters ended June 30, 2020.

(\$000's) (except per share information)	2020		2019				2018	
	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3
Revenue	1,995	1,523	2,123	1,641	2,535	2,065	2,784	1,799
Cash (used in) generated from operating activities	(562)	563	5	204	225	347	164	177
Total comprehensive income (loss) for the period	(358)	(935)	19	(298)	(1,177)	(204)	463	(553)
Earnings (loss) per share basic and diluted	(0.01)	(0.01)	0.00	(0.00)	(0.03)	(0.00)	0.01	(0.01)

- Q2 2020 was impacted by COVID-19, as borders and businesses shut down the Company was impacted significantly on revenue, but continued to take pre-orders for the new 100MHz product in spite of reduced sales activity for the quarter.
- Q1 2020 completed the acquisition of RS2D, results were impacted by COVID-19 as borders and businesses alike shut down in the month of March.
- Q4 2019 saw a reduction in revenue compared to Q4 2018 as customers await the release of the new 100MHz device.
- Q3 2019 experienced a slight reduction in revenue compared to Q3 2018. Despite reduced demand the Company saw improved net comprehensive income due to recovery on previously expensed inventory.
- Q2 2019 revenue was 16% higher than Q2 2018. Total comprehensive loss for the period was primarily due to RTO transaction costs.
- Q1 2019 saw significant revenue was 28% higher than Q1 2018. US sales were 38% higher than in the comparable period in 2018, while overseas sales were 13% higher.
- Q4 2018 revenue was 21% higher than the comparative quarter in the previous year, which is representative of management's belief that the market opportunity is nascent and that the company continues to improve execution as it penetrates the opportunity. Total comprehensive income for Q4 2018 had increased from the previous year by 135%.
- Q3 2018 revenues were 19% lower than the previous years comparable quarter. This was primarily due to a reduction in sales to academic institutions.

INVESTMENT IN INTANGIBLES AND DEVELOPMENT COSTS

(\$000'S)	Three months ended June 30,		Six months ended June 30,	
	2020	2019	2020	2019
Gross development additions	822	674	1,716	1,495
Less: government grants	(323)	(310)	(364)	(700)
Net development additions	499	364	1,352	795

The Company is engaged in research and development activities and has internally generated intangible assets. Total development costs are reduced by government grants with the net difference being capitalized. Government grants consist of federal grants received under the Industrial Research Assistance Program ("IRAP") and scientific research and experimental development ("SRED") tax credits, as well as provincial assistance through the Alberta Innovates ("AI") Voucher Program and the Alberta Economic Development and Trade ("AEDT") Alberta-Germany Collaboration Fund for Product Development and Commercialization, the Alberta-Canada-France Joint Industrial R&D Projects Program and CEWS for business affected by COVID-19. During the three and six months ended the Company received \$715k from CEWS, of which \$364k is included as a government grant as it specifically related to Nanalysis employees working in the development department.

As at June 04, 2019 the Company ceased being a Canadian Controlled Private Corporation ("CCPC") and is no longer eligible for a cash refund from the federal government on SRED credits, additionally as at January 01, 2020 the Alberta provincial government no longer provides SRED credits. The reduced SRED credits has resulted in increased additions to intangible assets.

The development costs for the first three and six months of June 30, 2020 were associated with the new 100 MHz product, as well as on the evolution of our technology platform for solutions being developed in publicly announced partnerships with Bosch, Sartec, and others.

LIQUIDITY & CAPITAL RESOURCES

Long Term Debt

(\$000's)	June 30, 2020	December 31, 2019
Shareholders Loans: original amount of \$223k repayable in monthly blended installments of \$6k commencing June 15, 2016 until May 15, 2020. Interest payable at 11.99% per annum. Secured with Makino machinery (F5).	-	28
Western Economic Diversification Canada (WINN #1) interest free loan \$496k repayable in monthly installments of \$8k commencing June 30, 2017, and maturing May 31, 2022. Any amounts in default will incur interest at the Bank of Canada's interest rate plus 3% compounded monthly. The obligation is recorded at its present value using a 7.04% discount rate. This loan is unsecured.	206	220
Western Economic Diversification Canada (WINN #2) interest free loan, repayable in monthly installments of \$46k commencing February 1, 2022, and maturing January 31, 2027. Total value of this loan will be up to \$2,773k. Any amounts in default will incur interest at the Bank of Canada's interest rate plus 3% compounded monthly. The obligation is recorded at its present value using a 6.0% discount rate. This loan is unsecured.	1,570	884
\$6k loan for the purchase of equipment repayable in equal monthly installments of \$109 over 56 months commencing April 28, 2018.	3	4
The Canada Emergency Business Account (CEBA) interest-free loans of \$40,000 to small businesses and not-for-profits, to help cover their operating costs during a period where their revenues have been temporarily reduced. \$30k is repayable on or before December 31, 2022	36	-
Prêt garanti par l'état – (PGE) is a Euro denominated loan granted by the French state to RS2D. Interest free loan for \$153k, repayable in full on June 5, 2021, or at the election of the Company, monthly payments can be made to extend the loan until June 5, 2025.	153	-
Procédure de sauvegarde, interest free Euro denominated loan repayable in monthly payments of \$20k. Acquired debt from RS2D relating to a restructuring of RS2D.	826	-
	2,794	1,136
Less: current portion	284	116
Non-current portion of loans and borrowings	2,510	1,020

Credit Facility

The Company entered into a line of credit agreement with Scotiabank in 2019, pursuant to which it may borrow up to maximum of \$2.0 million dollars ("the Credit Facility"). The borrowing base is calculated using the aggregate of 75% of eligible USD receivables, 85% of eligible CAD receivables, 90% of secured receivables and 50% of eligible inventory. As of June 30, 2020 the Company had no drawings on the facility, the facility bears interest at prime plus 0.75 percent.

(\$000's)	June 30, 2020	December 31, 2019
Current lease liabilities		
Lease obligations equipment and vehicles	21	2
Lease obligations office and shop	196	130
Current portion of lease liabilities	217	132
Non current lease liabilities		
Lease obligations equipment and vehicles	92	5
Lease obligations office and shop	496	234
Non-current portion of lease liabilities	588	239
Total lease obligation	805	371

WORKING CAPITAL

(\$000's)	June 30, 2020	December 31, 2019	\$ Change
Cash	4,805	6,619	(1,814)
Loans and leases	3,684	1,507	2,177
Net Cash (debt)	1,121	5,112	(3,991)
Working capital ⁽¹⁾	5,233	8,534	(3,301)

(1) Working capital is calculated as current assets less current liabilities.

At June 30, 2020, the Company had \$5,233K of working capital (December 31, 2019 – \$8,534K), which included \$4,805K of cash and cash equivalents (December 31, 2019 - \$6,619K), of which \$43k was denominated in U.S dollars and €397k in Euro's (December 31, 2019 \$1,338K and €5K, respectively). The primary reason for the decrease in working capital is due to the cash outflow of \$1,209K for a portion of the purchase consideration for RS2D, coupled with an increase to current liabilities, specifically payables of \$2,266 and unearned revenue of \$1,554K, these have been partially offset by an increase to receivables of \$1,229k and inventory of \$1,121K.

The Company's objectives when managing capital are to safeguard the Company's ability to continue as a going concern, and manage capital so that it can continue to provide returns for shareholders and benefits for other stakeholders through the development and sales of its spectrometers. The Company attempts to maximize return to shareholders by minimizing shareholder dilution.

The Company defines its capital as share capital, debt and contributed surplus. The company manages the capital structure and makes adjustments to it in light of changes in economic conditions and the risk characteristics of the underlying assets. The Company's liquidity needs in short term and long term can be sourced multiple ways including: funds from operations, available cash balances, new debt instruments, equity issuances and government funding. The Company monitors its financing requirements through regular forecasting of its cash position. Financing decisions are based on the timing and extent of expected operating and capital cash outlays.

The Company has financed its capital requirements primarily through loans and share issuances since inception. The Company may issue new securities. The Company is not subject to any externally imposed capital requirements.

FINANCIAL MANAGEMENT

(\$000's)	Six months ended June 30,		
	2020	2019	\$ Change
Cash generated provided by (used in):			
Operating activities	1	(331)	332
Investing activities	(2,752)	(915)	(1,837)
Financing activities	937	7,907	(6,970)
Increase (decrease) in cash	(1,814)	6,661	(8,475)

Cash flows from operating activities increased for the six months ended June 30, 2020 from the same period in 2019 by \$332K. The increase is was mainly due to increased changes in non-cash working capital of \$386k period over period. The increase to changes in non-cash working capital is primarily due to the collection of receivables, specifically the SRED receivable in the first quarter, an increase to payables and accrued liabilities, offset by cash used in the purchase of inventory. This increase to operating activities has been partially offset by decreased earnings for the period.

Cash flows used in investing activities decreased for the six months ended June 30, 2020 from the same period in 2019 by \$1,837k.

The increase is due to the purchase of RS2D, coupled with increased intangible asset additions stemming from the change in the Company's status from a Canadian Controlled Private Corporation to a public entity resulting in reduced SRED credits that previously offset additions to intangibles.

Cash flows provided by financing activities decreased for the six months ended June 30, 2020 from the same period in 2019 by \$6,970K. The decrease is due to proceeds from financing with respect to the private placement and RTO that occurred in Q2 of 2019. This has been partially offset by increased borrowings on debt and the exercise of stock options.

SHARE CAPITAL

[a] Authorized

Unlimited number of common shares, without nominal or par value
 Unlimited number of Class A voting preferred shares without par value
 Unlimited number of Class B non-voting preferred shares without par value

[b] Issued

At June 30, 2020 Nanalysis had 66,038,000 common shares outstanding. At June 30, 2020 there were 3,667,334 shares in escrow with scheduled release over 5 months completing on December 11, 2020.

[i] During the six month period ended June 30, 2020 the Company issued the following common shares:

- 776,250 shares upon the exercise of options for cash consideration of \$242K
- 2,900,000 shares issued at a price of \$0.70 for the acquisition of RS2D

[c] Stock options

Stock option transactions and the number of stock options outstanding are summarized below:

The Company has a stock option plan that provides for the issuance of options to eligible persons. The option price under each option granted must be no less than the discount market price defined by the TSX-V. The term of the options must be no longer than 5 years and the directors determine the vesting period, which is typically 3 years. The maximum number of outstanding options must be no more than 10% of the issued and outstanding common shares at any point in time, the 10% includes both stock options and restricted share units in aggregate. The maximum number of outstanding options issued for investor relations must be no more than 2% of the issued and outstanding shares and the options issued to investor relations must vest in stages over a 12 month period with no more than one quarter of the options vesting in any three month period.

	Number	Weighted Average Exercise Price \$
Balance, December 31, 2018	3,704,250	0.29
Granted	1,872,500	0.62
Canvass options ⁽¹⁾	112,500	0.47
Exercised	(1,391,500)	(0.20)
Forfeitures	(404,250)	(0.40)
Balance, December 31, 2019	3,893,500	0.46
Granted Q1 2020	1,195,000	0.60
Granted Q2 2020	Nil	N/A
Exercised	(776,250)	(0.31)
Forfeitures	(37,500)	(0.60)
Balance, June 30, 2020	4,274,750	0.53

(1) Converted at an exchange ratio of 0.25, pursuant to the RTO

During the three and six month periods ended June 30, 2020, the Company recorded stock-based compensation of \$102K and \$163K, respectively (three and six months ended June 30, 2019 - \$103K and \$157K), for stock options granted.

The fair values of stock options granted during the six month period ended June 30, 2020 and 2019 were estimated using the Black-Scholes option pricing model with the following weighted-average assumptions:

	2020	2019
Risk-free interest rate	0.78%	1.1%-1.9%
Estimated annualized volatility based on historical performance	78%	67%-78%
Expected life	5.0 years	5.0 years
Expected dividend yield	0%	0%
Exercise price	\$0.60	\$0.60-\$0.75
Share price on date of grant	\$0.43	\$0.40 to \$0.60

[d] Restricted Share Units ("RSU")

The RSU Plan was approved by the disinterested shareholders of the Company at the annual general and special meeting held on June 23, 2020. The fixed maximum number of the Company's Common Shares which may be available for issuance upon settlement

of the RSUs issued under the RSU Plan is 1,000,000 Common Shares. In accordance with the policies of the TSX Venture Exchange, the maximum number of Common Shares which may be reserved for issuance under the RSU Plan and the Company's Stock Option Plan, in aggregate, cannot exceed 10% of the total number of the Company's issued and outstanding Common Shares. Subsequent to quarter end the Company granted 40,000 RSUs to each director of the Company for a total of 160,000 RSUs. These RSUs vest in two stages, one-half 18 months from the date of grant and one half 36 months from the date of grant. Each vested RSU entitles the holder to receive one common share of the Company.

[e] Warrants

As at June 30, 2020 the Company has 1,250,000 warrants outstanding (December 31, 2019 – 5,773,900). 4,523,900 warrants at an exercise price of \$0.75 expired during the quarter. The remaining warrants were issued in conjunction with a financing in 2019, at an exercise price of \$0.75 and expire on June 6, 2021. The Company calculated the fair value of the share purchase warrants using the Black-Scholes pricing model to estimate the fair value of the warrants issued at the date of grant. The warrants were valued using a risk-free interest rate of 1.33% and volatility of 71%. The fair value of warrants issued is \$250K.

BUSINESS RISK AND UNCERTAINTIES

Fair value

Financial instruments at June 30, 2020 consist of cash and cash equivalents, accounts receivable, other receivables, deposits, accounts payable, finance lease obligations and long-term debt/repayable contributions. The carrying values of these financial instruments approximate their fair values.

Risk management framework

The Board of Directors has overall responsibility for the establishment and oversight of the Company's risk management framework. The Company's risk management policies are established to identify and analyze the risks faced by the Company, to set appropriate risk limits and controls, and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the Company's activities.

Credit risk

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations. The Company's maximum exposure to credit risk at June 30, 2020 is the carrying amount of cash, accounts receivable, and other receivables on the consolidated statements of financial position. Trade accounts receivable are written off when there is no reasonable expectation of recovery. Indicators that there is no reasonable expectation of recovery include, amongst others, the failure of the counterparty to engage in a repayment plan with the Company, and a failure to make contractual payments for a period of greater than 180 days past due. During the 6 months ended June 30, 2020, a bad debt of \$37K was recognized as an expense (2019 - \$Nil).

Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its obligations as they come due. As of June 30, 2020, the Company had working capital of \$5,232K (December 31, 2019 - \$8,534K). The Company's exposure to liquidity risk is dependent on the sale of inventory, collection of accounts receivable and other receivables, and the raising of funds to meet commitments and sustain operations and research and development. The Company manages liquidity risk by management of working capital, cash flows, availability of borrowing facilities and share issuances.

Market risk

Market risk is the risk of loss that results from changes in market prices, market risk is comprised of foreign currency risk, interest rate risk and other price risks. The level of market risk to which the Company is exposed to depends on market condition, expectations of future price or market rate movements and the composition of the Company's financial assets and liabilities. The Company regularly monitors market risk exposure, tolerance and control processes in order to manage the exposure related to changes in market risk and to stay within acceptable market risk limits.

[i] Currency risk

The Company is exposed to the financial risk related to the fluctuation of foreign exchange rates. The majority of the Company's sales are in U.S. dollars and the Euro. The Company has not entered into foreign exchange derivative contracts.

As at June 30, 2020 and 2019, the Company had the following assets and liabilities denominated in U.S. dollars:

	June 30, 2020	Dec 31, 2019
(\$000's)	US\$	US\$
Cash	43	1,338
Accounts receivable	1,067	776
Accounts payable and accrued liabilities	(73)	(37)
Total	1,037	2,077

The above assets and liabilities were translated at \$1.38 at June 30, 2020 (December 31, 2019 – \$1.30). Based on the above net exposure as at June 30, 2020 and 2019, assuming that all other variables remain constant, a 10% appreciation or deterioration of the Canadian dollar against the U.S. dollar would result in a change of approximately \$143K in the Company's net income/loss. Total

sales in USD for the quarter ended June 30, 2020 was \$640K, a 10% appreciation or deterioration of the Canadian dollar against the U.S dollar would result in a change of approximately \$84K.

As at June 30, 2020 and 2019, the Company had the following assets and liabilities denominated in Euros:

	June 30, 2020	Dec 31, 2019
(\$000's)	Euro (€)	Euro (€)
Cash	397	5
Accounts receivable	675	55
Unearned revenue	(744)	-
Debt and lease liabilities	(1,084)	-
Accounts payable and accrued liabilities	(1,251)	(1)
Total	(2,007)	59

The above assets and liabilities were translated at \$1.53 at June 30, 2020 (December 31, 2019 - \$1.46). Based on the above net exposure as at June 30, 2020, assuming that all other variables remain constant, a 10% appreciation or deterioration of the Canadian dollar against the Euro would result in a change of approximately \$307K in the Company's other comprehensive income. Total sales in Euros for the quarter ended June 30, 2020 was \$486K, a 10% appreciation or deterioration of the Canadian dollar against the Euro would result in a change of approximately \$77K.

[ii] Interest rate risk

Interest rate risk is the risk that the future cash flows of a financial instrument will fluctuate because of changes in the market interest rates. During the quarter ended June 30, 2020 and 2019, fluctuations in the market interest rates had no significant impact on its interest expense.

REVENUE AND SEGMENT INFORMATION

Inter-segment transactions are recorded at values that approximate third-party selling prices and are eliminated for segmented reporting. Segment performance is measured based on operating earnings, as included in the internal management reports which are reviewed at least quarterly by the Chief Executive Officer, Chief Financial Officer and other senior management. Segment operating earnings is believed to be the most relevant measure of performance as it enables comparison against the results of the other competitors operating in the same industries.

(\$000's)

Three months ended June 30, 2020	Nanalysis	RS2D	Corporate	Total
Revenue	1,405	590	-	1,995
Operating income (loss)	102	208	(498)	(188)
Net income (loss)	(96)	199	(628)	(525)
Depreciation and amortization	222	-	-	222
Capital expenditures	554	-	-	554
Total assets as at June 30, 2020	12,666	8,388	4,145	25,199

(#000's)

Three months ended June 30, 2019	Nanalysis	RS2D	Corporate	Total
Revenue	2,535	-	-	2,535
Operating earnings	507	-	(21)	486
Net income (loss)	242	-	(1,419)	(1,177)
Depreciation and amortization	172	-	-	172
Capital expenditures	442	-	-	442
Total assets as at June 30, 2019	13,114	-	5,192	18,306

(\$000's)

Six months ended June 30, 2020	Nanalysis	RS2D	Corporate	Total
Revenue	2,882	638	-	3,520
Operating loss	(25)	75	(700)	(650)
Net loss	(280)	(35)	(1,117)	(1,432)
Depreciation and amortization	621	100	-	721
Capital expenditures	1,543	-	-	1,543
Total assets as at June 30, 2020	12,666	8,388	4,145	25,199

(\$000's)

Six months ended June 30, 2019	Nanalysis	RS2D	Corporate	Total
Revenue	4,600	-	-	4,600
Operating earnings	661	-	(21)	640
Net income (loss)	104	-	(1,483)	(1,379)
Depreciation and amortization	334	-	-	334
Capital expenditures	915	-	-	915
Total assets as at June 30, 2019	13,114	-	5,192	18,306

GEOGRAPHIC LOCATION

During the three and six months ended June 30, 2020 and 2019, the Company was economically dependent on one customer accounting for more than 10% of revenue (2019 – none). The Company's revenues are allocated to geographic segments for the 3 and six months ended June 30, 2020 and 2019 as follows:

(\$000's)	Three months ended June 30		Six months ended June 30	
	2020	2019	2020	2019
United States of America	850	1,481	1,762	2,826
Europe	743	125	883	343
Canada	134	335	307	524
Asia	-	256	112	257
Other (Brazil, Chile, India, Mexico, Morocco, Nigeria)	268	338	456	650
Total	1,995	2,535	3,520	4,600

TRANSACTIONS WITH RELATED PARTIES

Related parties include members of the Board of Directors and officers of the Company, and enterprises controlled by these individuals. The following fees and expenses were incurred in the normal course of business:

(\$000's)	Three months ended June 30,		Six months ended June 30,	
	2020	2019	2020	2019
Interest and finance fees on shareholder loans:				
Makino loan (F5) (note 8)	1	2	1	5
Essemtec loan (SMT)	-	5	-	11
	1	7	1	16

For the three months ended June 30, 2020 no advisory fees were paid to a director, for the six months ended June 30, 2020 \$4K were paid in advisory services fees to a director (three and six months ended June 30, 2019 \$NIL).

NON - GAAP TERMS

The Company reports on certain key financial performance measures that are used by management to evaluate the performance of Nanalysis. These key financial performance measures are not recognized financial terms ("Non-GAAP Terms") under Canadian generally accepted accounting principles (Canadian "GAAP"). For publicly accountable enterprises, such as Nanalysis, Canadian GAAP is governed by principles based on International Financial Reporting Standards ("IFRS") and interpretations of the International Financial Reporting Interpretation Committee ("IFRIC"). Management believes these Non-GAAP Terms are useful supplemental measures.

GROSS PROFIT

Gross profit is defined as revenue less cost of products sold, cost of products sold includes direct cost of manufacturing, overhead and warranty expenses. The Company's method of calculating gross profit may differ from that of other companies and accordingly, may not be comparable to measures used by other companies.

Non-GAAP Term (\$000's)	Three months ended June 30		Six months ended June 30	
	2020	2019	2020	2019
Revenue	1,995	2,535	3,520	4,600
Deduct:				
Cost of products sold	(731)	(768)	(1,272)	(1,498)
Gross profit	1,264	1,767	2,248	3,102

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The Company prepares its interim condensed consolidated financial statements in accordance with IFRS. In preparing its financial statements, management is required to make various estimates and judgments in determining the reported amounts of assets and liabilities, revenues and expenses, as well as the disclosure of commitments and contingencies. Management bases its estimates and judgments on its own experience and various other assumptions believed to be reasonable at the time and under the circumstances in existence when the financial statements were prepared. Anticipating future events cannot be done with certainty; therefore, these estimates may change as new events occur, more experience is acquired or the Company's operating environment changes. More detailed information regarding the accounting estimates believed by management to require the most difficult, subjective or complex judgments and which are material to the Company's financial reporting results are discussed in the Company's Annual MD&A for the year ended December 31, 2019 and filed under the Company's profile on SEDAR at www.sedar.com.

ADDITIONAL CORPORATE INFORMATION

The Company is a publicly-traded Corporation listed on the TSX Venture Exchange under the symbol "NSCI". Additional information relating to the Company, can be found on SEDAR at www.sedar.com.

Forward Looking Statement Advisory

This Management's Discussion and Analysis ("MD&A") contains certain forward looking statements and forward looking information (collectively referred to herein as "forward looking statements") within the meaning of applicable Canadian securities laws. All statements other than statements of present or historical fact are forward looking statements. Forward looking information is often, but not always, identified by the use of words such as "could", "should", "can", "anticipate", "expect", "believe", "will", "may", "projected", "sustain", "continues", "strategy", "potential", "projects", "grow", "take advantage", "estimate", "well positioned" or similar words suggesting future outcomes. In particular, this MD&A may contain forward looking statements relating to future opportunities, business strategies, development and production plans and competitive advantages.

The forward looking statements regarding the Company are based on certain key expectations and assumptions of the Company concerning anticipated financial performance, business prospects, strategies, regulatory developments, exchange rates, tax laws, the sufficiency of budgeted capital expenditures in carrying out planned activities, the availability and cost of labour and services and the ability to obtain financing on acceptable terms and future costs and expenses being based on historical costs and expenses, adjusted for inflation, all of which are subject to change based on market conditions and potential timing delays. Although management of the Company consider these assumptions to be reasonable based on information currently available to them, they may prove to be incorrect.

By their very nature, forward looking statements involve inherent risks and uncertainties (both general and specific) and risks that forward looking statements will not be achieved. Undue reliance should not be placed on forward looking statements, as a number of important factors could cause the actual results to differ materially from the beliefs, plans, objectives, expectations and anticipations, estimates and intentions expressed in the forward looking statements, including among other things: general economic and market factors, including business competition, changes in government regulations or in tax laws; component prices; technology development or operational activities; inability to scale manufacturing; changes in market demand; changes in international trade regulations, affecting the Company; timing and availability of external financing on acceptable terms; and lack of qualified, skilled labour or loss of key individuals; as well as those factors detailed from time to time in the Company's interim and annual financial

statements and management's discussion and analysis of those statements. Readers are cautioned that the foregoing list is not exhaustive.

The forward looking statements contained herein are expressly qualified in their entirety by this cautionary statement. The forward looking statements included in this MD&A are made as of the date of this MD&A and the Company does not undertake and is not obligated to publicly update such forward looking statements to reflect new information, subsequent events or otherwise unless so required by applicable securities laws.