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# Management Report

Quarter Ended  
March 31, 2022



**5N PLUS**  
Enabling Performance™

## Management's Discussion and Analysis

This Management's Discussion and Analysis ("MD&A") of the financial condition and results of operations is intended to assist readers in understanding 5N Plus Inc. (the "Company" or "5N Plus"), its business environment, strategies, performance and risk factors. This MD&A should be read in conjunction with the unaudited condensed interim consolidated financial statements of Q1 2022 and the audited consolidated financial statements and the accompanying notes for the year ended December 31, 2021, based on International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Boards, unless otherwise stated. This MD&A has been prepared in accordance with the requirements of the Canadian Securities Administrators.

**All amounts in this MD&A are expressed in U.S. dollars, and all amounts in the tables are in thousands of U.S. dollars, unless otherwise indicated.**

Information contained herein includes any significant developments until May 4, 2022, the date on which the MD&A was approved by the Company's Board of Directors. Unless otherwise indicated, the terms "we", "us", "our" and "the group" as used herein refer to the Company together with its subsidiaries. "Q1 2022" and "Q1 2021" refer to the three-month periods ended March 31, 2022, and March 31, 2021 respectively.

### Non-IFRS Measures

This MD&A contains certain non-IFRS financial measures and ratios, which do not have a standard meaning under IFRS and, therefore, may not be comparable to similar measures presented by other issuers. Such non-IFRS measures and ratios included: backlog, bookings, EBITDA, EBITDA margin, Adjusted EBITDA, Adjusted EBITDA margin, Adjusted operating expenses, Adjusted net earnings, Basic adjusted net earnings, Adjusted gross margin, total debt, net debt, working capital and working capital ratio.

For definitions, further information and reconciliation of these measures to the most directly comparable measurers under IFRS, see the "Non-IFRS Measures" section.

### Notice Regarding Forward-Looking Statements

Certain statements in this MD&A may be forward-looking within the meaning of applicable securities laws. Forward-looking information and statements are based on the best estimates available to the Company at the time and involve known and unknown risks, uncertainties or other factors that may cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. A description of the risks affecting the Company's business and activities appears under the heading "Risk and Uncertainties" of the 5N Plus's 2021 MD&A dated February 22, 2022 and note 11 of the unaudited condensed interim consolidated financial statements for the three-month periods ended March 31, 2022 and March 31, 2021 available on [www.sedar.com](http://www.sedar.com).

The Company is not aware of any significant changes to its risk factors previously disclosed, however since February 2022, Russian military forces invaded Ukraine; the invasion is being actively resisted by Ukrainian military personnel and the people of Ukraine, and the outcome of the ongoing conflict is uncertain at this time. Although AZUR SPACE Solar Power GmbH (AZUR), a subsidiary of the Company, had sales in Russia in the past, the amount of such sales is not material to the Company as a whole. The Company has no sales in Russia in 2022. A prolonged armed conflict in Ukraine or an expansion of the armed conflict to other European countries could have a negative impact on the European and global economies. As well, Russia is a major exporter of oil and natural gas. Any disruption of supplies of oil and natural gas from Russia could have a significant adverse effect on the European and world economies. All of the foregoing factors could potentially have a negative effect on the Company's sales and results of operations.

Forward-looking statements can generally be identified by the use of terms such as "may", "should", "would", "believe", "expect", the negative of these terms, variations of them or any similar terms. No assurance can be given that any events anticipated by the forward-looking information in this MD&A will transpire or occur, or if any of them do so, what benefits that 5N Plus will derive therefrom. In particular, no assurance can be given as to the future financial performance of 5N Plus. The forward-looking information contained in this MD&A is made as of the date hereof and the Company has no obligation to publicly update such forward-looking information to reflect new information, subsequent or otherwise, unless required by applicable securities laws. The reader is warned against placing undue reliance on these forward-looking statements.

# Management's Discussion and Analysis

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## Adjustment of Comparatives Results

Certain comparative results in this MD&A have been adjusted to reflect a change in our Reporting Segments identified. Please refer to the "Reporting Segment" section.

## Overview

5N Plus is a leading global producer of specialty semiconductors and performance materials. The Company's ultra-pure materials often form the core element of its customers' products. These customers rely on 5N Plus's products to enable performance and sustainability in their own products. 5N Plus deploys a range of proprietary and proven technologies to develop and manufacture its products. The Company's products enable various applications in several key industries, including renewable energy, security, space, pharmaceutical, medical imaging, and industrial. Headquartered in Montréal, Québec, 5N Plus operates R&D, manufacturing and commercial centers in strategically located facilities around the world including Europe, North America and Asia.

## Vision, Mission and Values

The Company's vision is to enable critical industries through essential products based on advanced material technology and 5N Plus's aim is to propel the growth of these markets by developing and manufacturing advanced materials to enable product performance.

The Company's mission is to be critical to its customers, valued by its employees and trusted by its shareholders. The Company's core values are integrity, commitment and customer development, with an emphasis on sustainable development, continuous improvement, and health and safety.

## Reporting Segments

Following the acquisition of AZUR SPACE Solar Power GmbH (AZUR) on November 5, 2021, and the subsequent integration of its activities within the Company's operations, 5N Plus repositioned certain products and applications between its two reportable segments effective in the fourth quarter of 2021.

The Company has two new reportable segments: Specialty Semiconductors and Performance Materials. Corresponding operations and activities are managed accordingly by the Company's key decision makers. Segmented operating and financial information and labelled key performance indicators are available and used to manage these business segments, review performance and allocate resources. Financial performance of any given segment is evaluated primarily in terms of revenues and Adjusted EBITDA<sup>1</sup>, which are reconciled to consolidated numbers considering corporate income and expenses.

The Specialty Semiconductors segment operates in North America and Europe and is similar to the former Electronic Materials segment and integrates the products and operations of AZUR since November 5, 2021. The segment manufactures and sells products used in several applications such as renewable energy, space satellites and imaging. Typical end markets include photovoltaics (terrestrial and spatial solar energy), medical imaging, infrared imaging, optoelectronics and advanced electronics. These products are sold either as semiconductor compounds, semiconductor wafers, ultra high purity metals, epitaxial semiconductor substrates and solar cells. Revenues and earnings associated with recycling services and activities provided to Specialty Semiconductors customers are captured in this segment.

The Performance Materials segment operates in North America, Europe and Asia and is similar to the former Eco-Friendly Materials segment. The segment manufactures and sells products that are used in several applications in pharmaceutical and healthcare, industrial, and catalytic and extractive. Main products are sold as active pharmaceutical ingredients, animal feed additives, specialized chemicals, commercial grade metals, alloys and engineered powders. All commercial grade metal and engineered powder sales have been regrouped under Performance Materials. Revenues and earnings associated with recycling services and activities provided to Performance Materials customers are captured in this segment.

Corporate expenses associated with the head office and unallocated selling, general and administrative expenses (SG&A), together with financial expenses (income), are grouped under "Corporate".

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<sup>1</sup> See Non-IFRS Measures

### Highlights of Q1 2022 – Results impacted by Industrial, and Extractive and Catalytic product portfolio performance, as well as unforeseen impacts of the Russia/Ukraine conflict

The Company entered 2022 with strong demand for products across core and growth businesses, delivering significant revenue growth over last year, over and above contributions from AZUR, confirming the unique and strategic role we play in many critical industries. The Company maintained a solid backlog and booking levels despite recent geo-political challenges forcing a sudden shift of production scheduling and shipments for certain European products and clients.

Per expectations, the key sectors that outperformed the same period last year were Renewable Energy and Space for Specialty Semiconductors with Imaging at a similar level, as well as Pharma and Health under Performance Materials. However, Industrial, and Extractive and Catalytic materials were negatively impacted by inflation and ongoing supply chain challenges, particularly in Europe, in addition to the ongoing Russia/Ukraine conflict. Sales to a Canadian client with operations in Russia historically purchasing Extractive materials annually at this time of the year did not materialize.

Also, AZUR sales commitments to Russian clients, including previously planned production and shipments, were not realized due to the Ukraine/Russia conflict and related sanctions.

While AZUR's capacity usage is lost for the quarter, demand for solar cells for space applications within Europe and North America has increased significantly. As such, we anticipate that demand will likely surpass worldwide capacity in the very near term, creating business opportunities for the Company that will more than offset the portion of the business impacted by the Russia/Ukraine conflict.

Mindful of ongoing geo-political events and inflationary impacts on our businesses, we believe there will be mid-term opportunities and strategic partnerships. We continue to be disciplined, focused and methodical in addressing these ongoing challenges while supporting our continued growth.

**All amounts are expressed in U.S. dollars.**

#### Financial Highlights

- Revenue in Q1 2022 increased by 37%, reaching \$64.4 million, compared to \$46.9 million for the same period last year. Both periods were supported by higher demand for Specialty Semiconductors, over and above contributions from AZUR, as well as Pharma and Health under Performance Materials.
- Adjusted EBITDA<sup>1</sup> in Q1 2022 reached \$5.6 million, compared to \$6.3 million for the same period last year. Adjusted EBITDA increased by \$2.5 million for Specialty Semiconductors and decreased by \$2.6 million for Performance Materials impacted by inflation and ongoing supply challenges, and higher project specific expenses under Corporate.
- On March 31, 2022, the backlog<sup>1</sup> represented 196 days of annualized revenue, 25 days lower than the previous quarter, and similar to the same quarter last year. Bookings<sup>1</sup> in Q1 2022 reached 68 days, compared to 100 days for the same period last year.
- Net debt<sup>1</sup> stood at \$90.0 million on March 31, 2022, from \$80.1 million at the end of last year, the increase reflecting the acquisition of AZUR on November 5, 2021, and additional working capital requirements normally required at this time of the year.

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<sup>1</sup> See Non-IFRS Measures

# Management's Discussion and Analysis

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## Summary of Key Q1 2022 Developments

- On March 11, 2022, NeuroLogica Corp, a subsidiary of Samsung Electronics, announced that state-of-the-art OmniTom Elite received FDA 510(k) clearance for the addition of Photon Counting Detector (PCD) technology. On October 19, 2021, 5N Plus announced a long-term agreement with Samsung Electronics Co. to supply engineered substrates based on II-VI semiconductor materials for the detector core of their next generation of medical imaging devices to be incorporated into computed tomography ("CT") by Samsung's subsidiary NeuroLogica Corp.
- On March 21, 2022, the Company announced that its Board of Directors has appointed Mr. Gervais Jacques as President and Chief Executive Officer (CEO), effective March 18, 2022. Mr. Jacques had been Interim President and CEO since December 1, 2021. He remains a member of the Board of Directors.
- On May 3, 2022, the Company filed a Business Acquisition Report in connection with the acquisition of AZUR requiring, among other things, the conversion of AZUR's annual audited financial statements from German GAAP to IFRS, and an audit of such financial statements under International Standards on Auditing (ISA) for the fiscal years 2019 and 2020.

## Outlook

Our near-term priority is to ensure the successful integration of AZUR, while also continuing to accelerate the Company's growth trajectory, both organically and through acquisitions. The Company is moving forward with the necessary investments in AZUR to develop and commercialize new Wide Band Gap materials, specifically Gallium Nitride (GaN), an emerging multi-billion dollar market around High Power Electronic and Communications (RF) applications.

The Company is also pleased with the advancement of its St-Laurent project in Montreal, Canada, aimed at expanding the development and manufacturing of critical and strategic minerals, including those containing Tellurium, for advanced II-VI based semiconductors. The commissioning of the project is expected to be completed, as planned, in mid-2022.

As part of the next phase of its strategic transformation toward advanced materials with improved margins and moving away from products affected by commoditization, the Company has re-launched its strategic review of certain legacy businesses to assess their long-term compatibility with its strategy. Based on current challenges, Adjusted EBITDA<sup>1</sup> for 2022 is expected to be between \$25 million to \$30 million. The range of variance for the Adjusted EBITDA is largely dictated by the speed at which 5N Plus will be able to address the challenges associated with inflation and ongoing geopolitical events.

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<sup>1</sup> See Non-IFRS Measures

## Summary of Results

(in thousands of U.S. dollars, except per share amounts)	Q1 2022	Q1 2021
	\$	\$
Revenue	64,421	46,876
Adjusted operating expenses <sup>1*</sup>	(58,795)	(40,596)
<b>Adjusted EBITDA<sup>1</sup></b>	<b>5,626</b>	6,280
Impairment of inventories	-	-
Impairment of non-current assets	(5,386)	-
Share-based compensation expense	(124)	(1,396)
Foreign exchange and derivative (loss) gain	(299)	859
<b>EBITDA<sup>1</sup></b>	<b>(183)</b>	5,743
Interest on long-term debt, imputed interest and other interest expense	1,271	740
Depreciation and amortization	4,829	2,630
<b>Earnings (loss) before income taxes</b>	<b>(6,283)</b>	2,373
Income tax expense (recovery)		
Current	1,845	756
Deferred	(2,373)	854
	(528)	1,610
<b>Net (loss) earnings</b>	<b>(5,755)</b>	763
Basic (loss) earnings per share	(\$0.07)	\$0.01
Diluted (loss) earnings per share	(\$0.07)	\$0.01

\*Excluding impairment of inventories, share-based compensation expense, impairment of non-current assets, and depreciation and amortization.

## Revenue by Segment and Adjusted Gross Margin

(in thousands of U.S. dollars)	Q1 2022	Q1 2021	Change
	\$	\$	
Specialty Semiconductors	27,301	12,142	125%
Performance Materials	37,120	34,734	7%
<b>Total revenue</b>	<b>64,421</b>	46,876	37%
Cost of sales	(54,249)	(37,417)	45%
Depreciation included in cost of sales	3,905	2,235	75%
<b>Adjusted Gross margin<sup>1</sup></b>	<b>14,077</b>	11,694	20%
<b>Adjusted Gross margin percentage<sup>1</sup></b>	<b>21.9%</b>	24.9%	

Comparative results have been adjusted to reflect a change in our reporting segments

Revenue in Q1 2022 increased by 37%, reaching \$64.4 million, compared to \$46.9 million in the same period last year, supported by higher demand for Specialty Semiconductors, over and above contributions from AZUR, as well as Pharma and Health materials under Performance Materials.

Adjusted gross margin<sup>1</sup> in Q1 2022 was favorably impacted by volume, reaching \$14.1 million, or 21.9%, compared to \$11.7 million, or 24.9%, in Q1 2021. The Adjusted gross margin percentage was impacted by an unfavorable mix under Specialty Semiconductors as well as inflation and ongoing supply challenges under Performance Materials.

<sup>1</sup> See Non-IFRS Measures

# Management's Discussion and Analysis

## Specialty Semiconductors Segment

Revenue in Q1 2022 increased by 125%, reaching \$27.3 million, compared to \$12.1 million in the same period last year, supported by higher demand, over and above contributions from AZUR.

Adjusted gross margin<sup>1</sup> in Q1 2022 was 24.5%, compared to 33.1% in Q1 2021, mainly explained by an unfavorable mix of products and clients, and to a lesser extent inflation.

## Performance Materials Segment

Revenue in Q1 2022 increased by 7%, reaching \$37.1 million, compared to \$34.7 million in the same period last year, favorably impacted by higher demand for Performance Materials products.

Adjusted gross margin in Q1 2022 was 20.3%, compared to 22.3% in Q1 2021, mainly explained by inflation and ongoing supply challenges.

## Operating (Loss) Earnings, EBITDA and Adjusted EBITDA

(in thousands of U.S. dollars)	Q1 2022	Q1 2021	Change
	\$	\$	
Specialty Semiconductors	5,671	3,166	79%
Performance Materials	2,622	5,243	(50%)
Corporate	(2,667)	(2,129)	25%
<b>Adjusted EBITDA<sup>1</sup></b>	<b>5,626</b>	<b>6,280</b>	<b>(10%)</b>
<b>EBITDA<sup>1</sup></b>	<b>(183)</b>	<b>5,743</b>	<b>(103%)</b>
<b>Operating (loss) earnings</b>	<b>(4,713)</b>	<b>2,254</b>	<b>(309%)</b>

*Comparative results have been adjusted to reflect a change in our reporting segments*

Adjusted EBITDA<sup>1</sup> in Q1 2022 reached \$5.6 million, compared to \$6.3 million in Q1 2021. Adjusted EBITDA for Specialty Semiconductors increased by \$2.5 million and decreased by \$2.6 million under Performance Materials impacted by inflation and ongoing supply challenges, and higher project specific expenses under Corporate.

In Q1 2022, EBITDA<sup>1</sup> was negative \$0.2 million, compared to \$5.7 million in Q1 2021. The decrease is mainly explained by a non-cash impairment charge on non-current assets of \$5.4 million recorded this quarter. See the Expenses section.

In Q1 2022, operating loss reached \$4.7 million, compared to operating earnings of \$2.3 million in Q1 2021. The decrease is mainly explained by the same reasons mentioned above.

## Specialty Semiconductors Segment

Adjusted EBITDA in Q1 2022 increased by \$2.5 million to \$5.7 million representing an Adjusted EBITDA margin<sup>1</sup> of 21% compared to 26% in Q1 2021.

## Performance Materials Segment

Adjusted EBITDA in Q1 2022 decreased by \$2.6 million to \$2.6 million representing an Adjusted EBITDA margin of 7% compared to 15% in Q1 2021.

<sup>1</sup> See Non-IFRS Measures

## Net (Loss) Earnings and Adjusted Net (Loss) Earnings

(in thousands of U.S. dollars, except per share amounts)	Q1 2022	Q1 2021
	\$	\$
Net (loss) earnings	(5,755)	763
Basic (loss) earnings per share	(\$0.07)	\$0.01
Reconciling items:		
Share-based compensation expense	124	1,396
Impairment of non-current assets	5,386	-
Income tax recovery on taxable items above	(1,677)	(370)
<b>Adjusted net (loss) earnings<sup>1</sup></b>	<b>(1,922)</b>	<b>1,789</b>
<b>Basic adjusted net (loss) earnings per share<sup>1</sup></b>	<b>(\$0.02)</b>	<b>\$0.02</b>

In Q1 2022, net loss was \$5.8 million or \$0.07 per share, compared to net earnings of \$0.8 million or \$0.01 per share in Q1 2021. Adjusted net loss<sup>1</sup> was \$1.9 million or \$0.02 per share in Q1 2022, compared to Adjusted net earnings<sup>1</sup> of \$1.8 million or \$0.02 per share, in Q1 2021.

Excluding the income tax recovery, the items reconciling Adjusted net loss in Q1 2022 are the share-based compensation expense and a non-cash impairment charge on non-current assets of \$5.4 million recorded this quarter.

## Backlog and Bookings

(in thousands of U.S. dollars)	BACKLOG <sup>1</sup>			BOOKINGS <sup>1</sup>		
	Q1 2022	Q4 2021	Q1 2021	Q1 2022	Q4 2021	Q1 2021
	\$	\$	\$	\$	\$	\$
Specialty Semiconductors	73,199	94,363	36,734	6,137	83,180	13,308
Performance Materials	65,485	60,454	63,324	42,151	39,512	38,033
<b>Total</b>	<b>138,684</b>	<b>154,817</b>	<b>100,058</b>	<b>48,288</b>	<b>122,692</b>	<b>51,341</b>

Comparative results have been adjusted to reflect a change in our reporting segments

(number of days based on annualized revenues) *	BACKLOG <sup>1</sup>			BOOKINGS <sup>1</sup>		
	Q1 2022	Q4 2021	Q1 2021	Q1 2022	Q4 2021	Q1 2021
Specialty Semiconductors	245	293	276	21	258	100
Performance Materials	161	160	166	104	105	100
Weighted average	196	221	195	68	175	100

Comparative results have been adjusted to reflect a change in our reporting segments

\* Backlog and bookings are also presented in number of days to normalize the impact of commodity prices.

### Q1 2022 vs Q4 2021

Backlog<sup>1</sup> on March 31, 2022, represented 196 days of annualized revenue, a decrease of 25 days or 11% over the backlog on December 31, 2021. The net difference is largely attributable to the quarterly realization of long-term contracts under negotiation for renewal in the coming quarters, as well as adjustments made due to the impact of recent international sanctions on Russia on sales to certain customers. In both cases, the impact is on the backlog for Specialty Semiconductors.

Backlog on March 31, 2022 for Specialty Semiconductors represented 245 days of annualized segment revenue, a decrease of 48 days, or 16%, over the backlog on December 31, 2021. The backlog for Performance Materials represented 161 days of annualized segment revenue, similar to December 31, 2021.

Bookings<sup>1</sup> for the Specialty Semiconductors decreased by 237 days, from 258 days in Q4 2021 to 21 days in Q1 2022. Bookings are calculated by adding revenues to the increase or decrease in backlog for the period divided by annualized year revenues. As such, the decrease in bookings is attributable to the same factors as the decrease in backlog. Bookings for Performance Materials decreased by one day, from 105 days in Q4 2021 to 104 days in Q1 2022.

<sup>1</sup> See Non-IFRS Measures



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## Q1 2022 vs. Q1 2021

Backlog<sup>1</sup> on March 31, 2022, for Specialty Semiconductors decreased by 31 days, largely attributable to the quarterly realization of long-term contracts under negotiation for renewal in the coming quarters. The backlog for Performance Materials decreased by five days, compared to March 31, 2021, reaching 161 days, compared to 166 days in Q1 2021. The Performance Materials segment decreased by five days, compared to March 31, 2021, reaching 161 days, compared to 166 days in Q1 2021.

Bookings<sup>1</sup> for Specialty Semiconductors decreased by 79 days for the same factors mentioned above, and increased by four days for Performance Materials, compared to the previous year quarter.

## Expenses

(in thousands of U.S. dollars)	Q1 2022	Q1 2021
	\$	\$
Depreciation and amortization	4,829	2,630
SG&A	7,493	4,976
Share-based compensation expense	124	1,396
Impairment of non-current assets	5,386	-
Financial expense (income)	1,570	(119)
Income tax (recovery) expense	(528)	1,610
<b>Total expenses</b>	<b>18,874</b>	<b>10,493</b>

### Depreciation and Amortization

Depreciation and amortization expenses in Q1 2022 amounted to \$4.8 million, compared to \$2.6 million for the same period in 2021. The increase in Q1 2022 is mainly explained by the increase in property, plant and equipment ("PPE"), intangible assets and right-of-use assets following the acquisition of AZUR in Q4 2021.

### SG&A

SG&A expenses in Q1 2022 were \$7.5 million, compared to \$5.0 million for the same period in 2021. The increase is mainly explained by the acquisition of AZUR in Q4 2021 as well as general inflation impacting various expenses and progressing easing of restrictions related to COVID-19.

### Share-Based Compensation Expense

Share-based compensation expense in Q1 2022 amounted to \$0.1 million, compared to \$1.4 million for the same period of 2021, reflecting the scheduled vesting of long-term incentive plans mitigated by the negative changes in the Company's share price initiated at the end of 2021 while the Company's share price rose at the end of Q1 2021.

### Impairment of Non-current Assets

In Q1 2022, the Company recorded a non-cash impairment charge on non-current assets of \$5.4 million (\$5.1 million for customer relationships and \$0.3 million for other intangibles), included in the Specialty Semiconductors segment, to reflect the assessment of the carrying value of intangible assets impacted by the Russia/Ukraine conflict, more precisely in reference to Russia based customers. The impairment charge results from the fact that the Company's initial assumptions regarding the timing of future cashflows from these customers can no longer be supported given the uncertainty associated with recent international sanctions against Russia, and the unknown duration of the conflict.

### Financial Expense (Income)

Financial expense in Q1 2022 amounted to \$1.6 million, compared to a financial income of \$0.1 million in Q1 2021. The negative impact is mainly due to the interest on long-term debt, imputed interest which is higher following the acquisition of AZUR, combined with a loss on foreign exchange and derivatives this quarter while the Company recorded a gain in the same quarter last year.

<sup>1</sup> See Non-IFRS Measures

## Income Taxes

The Company recorded a loss before income taxes of \$6.3 million in Q1 2022. Income tax recovery in Q1 2022 was \$0.5 million, compared an income tax expense of \$1.6 million for the same period in 2021. Both periods were impacted by deferred tax assets applicable only in certain jurisdictions.

## Liquidity and Capital Resources

(in thousands of U.S. dollars)	Q1 2022	Q1 2021
	\$	\$
Funds from operations before the following	2,800	4,899
Net changes in non-cash working capital items	(7,742)	876
Cash (used in) from Operating activities	(4,942)	5,775
Cash used in Investing activities	(4,065)	(3,736)
Cash used in Financing activities	(766)	(6,432)
Effect of foreign exchange rate changes on cash and cash equivalents	(206)	(171)
<b>Net decrease in cash and cash equivalents</b>	<b>(9,979)</b>	<b>(4,564)</b>

In Q1 2022, cash used in operating activities amounted to \$4.9 million, compared to cash from operating activities of \$5.8 million in Q1 2021. The decrease in Q1 2022 is mainly due to lower contribution of funds from operating activities combined with a negative change in non-cash working capital in Q1 2022.

In Q1 2022, cash used in investing activities totaled \$4.1 million compared to \$3.7 million in Q1 2021, mainly attributed to the timing of additions to PPE. During Q1 2021, the Company acquired a minority equity stake in Microbion Corporation for an amount of \$2.0 million.

In Q1 2022, cash used in financing activities amounted to \$0.8 million, compared to \$6.4 million in Q1 2021. The decrease of \$5.7 million is mainly explained by the reimbursement of \$5.0 million of the credit facility in Q1 2021. In addition, the Company repurchased and cancelled 249,572 common shares under its Normal Course Issuer Buyback ("NCIB") program for an amount of \$0.8 million during Q1 2021. Since March 8, 2021, no NCIB is active.

## Working Capital

(in thousands of U.S. dollars)	As at March 31, 2022	As at December 31, 2021
	\$	\$
Inventories	102,316	95,526
Other current assets	88,800	99,996
Current liabilities	(62,781)	(65,059)
<b>Working capital<sup>1</sup></b>	<b>128,335</b>	<b>130,463</b>
<b>Working capital current ratio<sup>1</sup></b>	<b>3.04</b>	<b>3.01</b>

The decrease of \$2.1 million in working capital<sup>1</sup> as compared to December 31, 2021, was mainly attributable to additional working capital requirements normally required at this time of the year.

## Net Debt

(in thousands of U.S. dollars)	As at March 31, 2022	As at December 31, 2021
	\$	\$
Bank indebtedness	-	-
Long-term debt including current portion	116,000	116,000
<b>Total Debt<sup>1</sup></b>	<b>116,000</b>	<b>116,000</b>
Cash and cash equivalents	(25,961)	(35,940)
<b>Net Debt<sup>1</sup></b>	<b>90,039</b>	<b>80,060</b>

<sup>1</sup> See Non-IFRS Measures

## Management's Discussion and Analysis

Total debt<sup>1</sup> as at March 31, 2022 is similar to as at December 31, 2021, following the drawdown from the credit facility to finance a portion of the acquisition of AZUR during Q4 2021.

Net debt<sup>1</sup>, after considering cash and cash equivalents, increased by \$10.0 million to \$90.0 million on March 31, 2022, from \$80.1 million on December 31, 2021, reflecting additional working capital requirements normally required at this time of the year.

### Share Information

	As at May 4, 2022	As at March 31, 2022
Issued and outstanding shares	88,330,236	88,330,236
Stock options potentially issuable	898,938	898,938

### Off-Balance Sheet Arrangements

The Company is exposed to currency risk on sales in Euro and other currencies as well as interest rate fluctuations on its credit facility, and therefore may periodically enter into foreign currency forward contracts and interest rate or foreign currency swap contracts to protect itself against interest rate and currency fluctuations. The reader will find more details related to these contracts in Notes 17 and 25 of the audited consolidated financial statements for the year ended December 31, 2021.

### Commitments

As at March 31, 2022, in the normal course of business, the Company contracted letters of credit for an amount of \$0.9 million (\$1.0 million as at December 31, 2021).

### Contingencies

In the normal course of operations, the Company is exposed to events that could give rise to contingent liabilities or assets. As at the date of issue of the consolidated financial statements, the Company was not aware of any significant events that would have a material effect on its consolidated financial statements.

### Acquisition of AZUR

On November 5, 2021, the Company acquired all of the issued and outstanding shares of AZUR for a purchase price of 50.1 million euros, subject to post-closing adjustments. The consideration transferred was comprised of 6.5 million shares of 5N Plus, which were issued from the treasury at 12.4 million euros, along with a cash payment of 37.7 million euros. Furthermore, the Company financed the working capital and equipment loans for an amount of 23.8 million euros. The cash portion of the transaction was funded through the Company's liquidity and senior debt facility.

Located in Heilbronn, Germany, AZUR is a global leader and develops and manufactures multi-junction solar cells based on III-V compound semiconductor materials. The integration of AZUR has not only expanded the Company's position within renewable energy but has also established 5N Plus as a reliable and competitive supplier to the European and U.S. space programs through Canada's membership in the European Space Agency (ESA).

To estimate the fair value of the intangible assets, management used the excess earnings method to value customer relationships and the royalty relief method to value technology and trade names using discounted cash flow models. Management developed significant assumptions related to revenue and gross margin forecasts, customer retention rates, royalty rates and discount rates.

<sup>1</sup> See Non-IFRS Measures

## Management's Discussion and Analysis

The table below presents the Company's adjusted preliminary assessment of the fair values of the assets acquired and liabilities assumed as at March 31, 2022. The Company has not restated the consolidated statement of financial position as at December 31, 2021 as the adjustments were deemed not material. The Company also determined that the net impact on net earnings as a result of these adjustments was not material for the year ended December 31, 2021, and as such, were accounted for in the consolidated statement of earnings for the three-month period ended March 31, 2022.

Identified assets acquired and liabilities assumed	(in thousands of U.S. dollars)		
	Preliminary	Adjustments	Adjusted Preliminary
	\$	\$	\$
Cash and cash equivalents	1,017	-	1,017
Accounts receivable	8,342	1,057	9,399
Inventories	21,394	(1,057)	20,337
Other current assets	256	-	256
Property, plant and equipment	31,128	-	31,128
Right-of-use assets	21,626	(286)	21,340
Intangible assets	32,144	(973)	31,171
Other assets	5	-	5
Goodwill	13,841	840	14,681
<b>Total assets acquired</b>	<b>129,753</b>	<b>(419)</b>	<b>129,334</b>
Trade and accrued liabilities	12,197	-	12,197
Long-term debt <sup>(1)</sup>	27,396	-	27,396
Employee benefit plan obligations	2,673	-	2,673
Lease liabilities	21,626	(286)	21,340
Other liabilities	1,059	216	1,275
Deferred tax liabilities	7,094	(349)	6,745
<b>Total liabilities assumed</b>	<b>72,045</b>	<b>(419)</b>	<b>71,626</b>
<b>Total net assets</b>	<b>57,708</b>	<b>-</b>	<b>57,708</b>

<sup>1)</sup> The long-term debt acquired was repaid in full on November 5, 2021.

The preliminary amount recorded for goodwill is not deductible for tax purposes. The accounts receivable are presented net of a loss allowance of \$28 thousand.

### Governance

As required by Multilateral Instrument 52-109 of the Canadian Securities Administrators ("MI 52-109"), 5N Plus will file certificates signed by the Chief Executive Officer and the Chief Financial Officer that, among other things, attest to the design of the disclosure controls and procedures and the design and effectiveness of internal controls over financial reporting.

### Disclosure Controls and Procedures

The Chief Executive Officer and the Chief Financial Officer have designed disclosure controls and procedures, or have caused them to be designed under their supervision, in order to provide reasonable assurance that:

- Material information relating to the Company has been made known to them; and
- Information required to be disclosed in the Company's filings is recorded, processed, summarized and reported within the time periods specified in securities legislation.

An evaluation of the effectiveness of the Company's disclosure controls and procedures was carried out under the supervision of the Chief Executive Officer and Chief Financial Officer. Based on this evaluation, the Chief Executive Officer and the Chief Financial Officer concluded that the disclosure controls and procedures are effective.

# Management's Discussion and Analysis

## Internal Control over Financial Reporting

The Chief Executive Officer and the Chief Financial Officer have also designed internal controls over financial reporting (ICFR) or have caused them to be designed under their supervision, in order to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS.

Based on their evaluation carried out to assess the effectiveness of the Company's ICFR, the Chief Executive Officer and the Chief Financial Officer have concluded that the ICFR were designed and operated effectively using the Internal Control – Integrated Framework ("2013 Framework") issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO 2013 Framework").

## Limitations on Scope of Design

The scope of design of the disclosure controls and procedures as well as the effectiveness of internal controls over financial reporting excluded those of AZUR, which was acquired on November 5, 2021.

The adjusted preliminary amounts recognized for the assets acquired and liabilities assumed at the date of acquisition of AZUR are described in note 3 of the unaudited consolidated financial statements for the three-month period ended March 31, 2022.

AZUR's contribution on Consolidated Financial Statements	Percentage
Revenues	19%
Net loss	80%
Current assets	19%
Non-current assets	54%
Current liabilities	26%
Non-current liabilities	34%

## Changes in Internal Control over Financial Reporting

No changes were made to the ICFR during the three-month period ended March 31, 2022 that have materially affected, or are reasonably likely to materially affect, the ICFR.

## Financial Instruments and Risk Management

### Fair Value of Financial Instruments

A detailed description of the methods and assumptions used to measure the fair value of the Company's financial instruments and their fair value is discussed in Note 17 – Fair Value of Financial Instruments in the 2021 audited consolidated financial statements of the Company.

### Financial Risk Management

For a detailed description of the nature and extent of risks arising from financial instruments, and their related risk management, refer to Note 25 of the 2021 audited consolidated financial statements of the Company. The Company is not aware of any significant changes to its risk factors from those disclosed at that time.

## Risk and Uncertainties

For a detailed description of risk factors associated with 5N Plus and its business, refer to "Risk and Uncertainties" of 5N Plus's 2021 MD&A dated February 22, 2022. Factors of uncertainty and risk include the risks associated with the Company's growth strategy, credit, liquidity, interest rate, litigation, inventory pricing, commodity pricing, currency fluctuation, fair value, source of supply, environmental regulations, competition, dependence on key personnel, business interruptions, changes to backlog, protection of intellectual property, international operations including China, international trade regulations, collective agreements, being a public issuer, systems, network infrastructure and data failure, interruption and breach, global economic conditions, COVID-19, business acquisitions, environmental, social and governance (ESG) considerations, as well as the market price of common shares.

## Management's Discussion and Analysis

The Company is not aware of any significant changes to its risk factors previously disclosed, however since February 2022, Russian military forces invaded Ukraine; the invasion is being actively resisted by Ukrainian military personnel and the people of Ukraine, and the outcome of the ongoing conflict is uncertain at this time. Although AZUR had sales in Russia in the past, the amount of such sales is not material to the Company as a whole. The Company has no sales in Russia in 2022. A prolonged armed conflict in Ukraine or an expansion of the armed conflict to other European countries could have a negative effect on the European and global economies. As well, Russia is a major exporter of oil and natural gas. Any disruption of supplies of oil and natural gas from Russia could have a significant adverse effect on the European and world economies. All of the foregoing factors could potentially have a negative impact on the Company's sales and results of operations.

We have incurred and will continue to incur capital expenditures in order to comply with environmental laws and regulations. Exceedances in wastewater and air emissions generated by some Company facilities over the limits prescribed in applicable laws and permits have been registered in the past. At such facilities, the Company is collaborating with governmental authorities and implementing various measures including upgrading equipment to ensure compliance. Management believes that dealing with these environmental compliance issues will not have a material effect on the Company's earnings or competitive position during fiscal 2022. Future developments such as more aggressive enforcement policies, the implementation of new, more stringent laws and regulations may require expenditures that could have a material adverse effect on our business, results of operations and financial condition.

### Non-IFRS Measures

In this Management's Report, the Company's management believes that these non-IFRS measures provide useful information to investors regarding the Company's financial condition and results of operations as they provide additional key metrics of its performance. These non-IFRS measures are not recognized under IFRS, do not have any standardized meaning prescribed under IFRS and may differ from similarly named measures as reported by other issuers, and accordingly may not be comparable. These measures should not be viewed as a substitute for the related financial information prepared in accordance with IFRS.

Backlog represents the expected orders the Company has received but has not yet executed and that are expected to translate into sales within the next twelve months expressed in number of days. Bookings represent orders received during the period considered, expressed in number of days, and calculated by adding revenues to the increase or decrease in backlog for the period considered divided by annualized year revenues. 5N Plus uses backlog to provide an indication of expected future revenues in days, and bookings to determine its ability to sustain and increase its revenues.

EBITDA means net earnings before interest expenses, income taxes, depreciation and amortization. 5N Plus uses EBITDA because it believes it is a meaningful measure of the operating performance of its ongoing business, without the effects of certain expenses. The definition of this non-IFRS measure used by the Company may differ from that used by other companies.

EBITDA is reconciled to the most comparable IFRS measure:

(in thousands of U.S. dollars)	Q1 2022	Q1 2021
Net (loss) earnings	\$ (5,755)	\$ 763
Interest on long-term debt, imputed interest and other interest expense	1,271	740
Income taxes (recovery) expense	(528)	1,610
Depreciation and amortization	4,829	2,630
EBITDA	(183)	5,743

## Management's Discussion and Analysis

EBITDA margin is defined as EBITDA divided by revenues.

Adjusted EBITDA means Operating (loss) earnings as defined before the effect of impairment of inventories, share-based compensation expense (recovery), impairment of non-current assets, litigation and restructuring costs (income), and gain on disposal of property, plant and equipment. 5N Plus uses adjusted EBITDA because it believes it is a meaningful measure of the operating performance of its ongoing business without the effects of certain expenses. The definition of this non-IFRS measure used by the Company may differ from that used by other companies.

Adjusted EBITDA margin is defined as Adjusted EBITDA divided by revenues.

Adjusted EBITDA and Adjusted EBITDA margin are reconciled to the most comparable IFRS measure:

(in thousands of U.S. dollars)	Q1 2022	Q1 2021
	\$	\$
Revenues	64,421	46,876
Operating expenses	(69,134)	(44,622)
Operating (loss) earnings	(4,713)	2,254
Impairment of non-current assets	5,386	-
Share-based compensation expense	124	1,396
Depreciation and amortization	4,829	2,630
<b>Adjusted EBITDA</b>	<b>5,626</b>	<b>6,280</b>
<b>Adjusted EBITDA margin</b>	<b>8.7%</b>	<b>13.4%</b>

Adjusted operating expenses means operating expenses before impairment of inventories, share-based compensation expense (income), impairment of non-current assets, litigation and restructuring costs (recovery), gain on disposal of property, plant and equipment and depreciation and amortization. 5N Plus uses adjusted operating expenses to calculate Adjusted EBITDA. 5N Plus believes it is a meaningful measure of the operating performance of its ongoing business. The definition of this non-IFRS measure used by the Company may differ from that used by other companies.

Adjusted operating expenses are reconciled to the most comparable IFRS measure:

(in thousands of U.S. dollars)	Q1 2022	Q1 2021
	\$	\$
Operating expenses	69,134	44,622
Impairment of non-current assets	(5,386)	-
Share-based compensation expense	(124)	(1,396)
Depreciation and amortization	(4,829)	(2,630)
<b>Adjusted operating expenses</b>	<b>58,795</b>	<b>40,596</b>

Adjusted net earnings means the net earnings before the effect of charges of impairment related to inventory, PPE and intangible assets, share-based compensation expense (recovery), litigation and restructuring costs (income), accelerated depreciation, and gain on disposal of PPE, net of the related income tax. 5N Plus uses adjusted net earnings because it believes it is a meaningful measure of the operating performance of its ongoing business without the effects of unusual inventory write-downs, property plant and equipment and intangible asset impairment charges, share-based compensation expense (recovery), litigation and restructuring costs (income), accelerated depreciation and gain on disposal of PPE. The definition of this non-IFRS measure used by the Company may differ from that used by other companies.

## Management's Discussion and Analysis

Basic adjusted net earnings per share means adjusted net earnings divided by the weighted average number of outstanding shares. 5N Plus uses basic adjusted net earnings per share because it believes it is a meaningful measure of the operating performance of its ongoing business without the effects of unusual impairment charges on inventories, PPE and intangible asset, share-based compensation expense (recovery), litigation and restructuring costs (income), accelerated depreciation and gain on disposal of property, plant and equipment. The definition of this non-IFRS measure used by the Company may differ from that used by other companies.

Adjusted net earnings and Basic adjusted net earnings are reconciled to the most comparable IFRS measure:

(in thousands of U.S. dollars, except per share amounts and number of shares)	Q1 2022	Q1 2021
	\$	\$
Net (loss) earnings	(5,755)	763
Basic (loss) earnings per share	(\$0.07)	\$0.01
Reconciling items:		
Share-based compensation expense	124	1,396
Impairment of non-current assets	5,386	-
Income tax recovery on taxable items above	(1,677)	(370)
<b>Adjusted net (loss) earnings</b>	<b>(1,922)</b>	<b>1,789</b>
Basic weighted average number of shares	88,330,236	81,585,956
<b>Basic adjusted net (loss) earnings per share</b>	<b>(\$0.02)</b>	<b>\$0.02</b>

Adjusted gross margin is a measure used to monitor the sales contribution after paying cost of sales, excluding depreciation and inventory impairment charges. 5N Plus also expressed this measure in percentage of revenues by dividing the gross margin value by the total revenue.

Adjusted Gross margin is reconciled to the most comparable IFRS measure:

(in thousands of U.S. dollars)	Q1 2022	Q1 2021
	\$	\$
<b>Total revenue</b>	<b>64,421</b>	<b>46,876</b>
Cost of sales	(54,249)	(37,417)
<b>Gross margin</b>	<b>10,172</b>	<b>9,459</b>
Depreciation included in cost of sales	3,905	2,235
<b>Adjusted Gross margin</b>	<b>14,077</b>	<b>11,694</b>
<b>Adjusted Gross margin percentage</b>	<b>21.9%</b>	<b>24.9%</b>

Net debt is calculated as total debt less cash and cash equivalents. Any introduced IFRS 16 reporting measures in reference to lease liabilities are excluded from the calculation. 5N Plus uses this measure as an indicator of its overall financial position.

Total debt and Net debt are reconciled to the most comparable IFRS measure:

(in thousands of U.S. dollars)	As at March 31, 2022	As at December 31, 2021
	\$	\$
Bank indebtedness	-	-
Long-term debt including current portion	116,000	116,000
Lease liabilities including current portion	31,453	32,640
<b>Subtotal Debt</b>	<b>147,453</b>	<b>148,640</b>
Lease liabilities including current portion	(31,453)	(32,640)
<b>Total Debt</b>	<b>116,000</b>	<b>116,000</b>
Cash and cash equivalents	(25,961)	(35,940)
<b>Net Debt</b>	<b>90,039</b>	<b>80,060</b>



## Management's Discussion and Analysis

Working capital is a measure of liquid assets that is calculated by taking current assets and subtracting current liabilities. Given that the Company is currently indebted, it uses it as an indicator of its financial efficiency and aims to maintain it at the lowest possible level.

Working capital ratio is calculated by dividing current assets by current liabilities.

Working capital is reconciled to the most comparable IFRS measure:

(in thousands of U.S. dollars)	As at March 31, 2022	As at December 31, 2021
	\$	\$
Inventories	102,316	95,526
Other current assets excluding inventories	88,800	99,996
Current assets	191,116	195,522
Current liabilities	(62,781)	(65,059)
<b>Working capital</b>	<b>128,335</b>	<b>130,463</b>
<b>Working capital current ratio</b>	<b>3.04</b>	<b>3.01</b>

### Additional Information

5N Plus's common shares trade on the Toronto Stock Exchange (TSX) under the ticker symbol VNP. Additional information relating to the Company, including the Company's annual information form is available under the Company's profile on SEDAR at [www.sedar.com](http://www.sedar.com).

### Selected Quarterly Financial Information

(in thousands of U.S. dollars, except per share amounts)	March 31, 2022	Dec 31, 2021	Sept 30, 2021	June 30, 2021	March 31, 2021	Dec 31, 2020	Sept 30, 2020	June 30, 2020
	\$	\$	\$	\$	\$	\$	\$	\$
Revenue	64,421	64,556	50,839	47,719	46,876	46,230	39,872	41,136
EBITDA <sup>1</sup>	(183)	7,822	5,105	6,318	5,743	2,230	7,450	6,506
Adjusted EBITDA <sup>1</sup>	5,626	10,086	5,537	6,336	6,280	6,543	7,744	7,647
Net (loss) earnings	(5,755)	980	(792)	2,159	763	(2,864)	2,709	1,749
Basic (loss) earnings per share	(\$0.07)	\$0.01	(\$0.01)	\$0.03	\$0.01	(\$0.03)	\$0.03	\$0.02
Diluted (loss) earnings per share	(\$0.07)	\$0.01	(\$0.01)	\$0.03	\$0.01	(\$0.03)	\$0.03	\$0.02
Adjusted net (loss) earnings <sup>1</sup>	(1,922)	1,879	(246)	1,932	1,789	184	1,955	2,124
Basic adjusted net (loss) earnings per share <sup>1</sup>	(\$0.02)	\$0.02	\$-	\$0.02	\$0.02	\$-	\$0.02	\$0.03
Funds from operations <sup>1</sup>	2,800	5,604	2,394	3,656	4,899	4,355	11,181	5,520
Backlog <sup>1</sup>	196 days	221 days	174 days	199 days	195 days	189 days	171 days	202 days

Net earnings are completely attributable to equity holders of 5N Plus Inc.

<sup>1</sup> See Non-IFRS Measures