5N Plus Inc.

Management Report Quarter Ended December 31, 2021

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 audited consolidated financial statements and the accompanying notes for the year ended December 31, 2021. 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 February 22, 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.

"Q4 2021" and "Q4 2020" refer to the three-month periods ended December 31, 2021 and December 31, 2020 respectively, and "FY 2021" and "FY 2020" refer to the years ended December 31, 2021 and December 31, 2020 respectively.

Non-IFRS Measures

This MD&A also includes certain figures that are not performance measures consistent with the International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board. These measures are defined at the end of this MD&A under the heading "Non-IFRS Measures".

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.

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. Factors of uncertainty and risk that might result in such differences include the risks associated with our 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 market price of the common shares. A description of the risks affecting the Company's business and activities appears under the heading "Risk and Uncertainties" of this MD&A dated February 22, 2022.

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.

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 deemed it appropriate to reposition certain products and applications between its two reportable segments and to rename these accordingly.

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[1], 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".

[1] See Non-IFRS Measures

Highlights of Q4 2021 and FY 2021 – A Growing and Resilient Business

The Company completed the year delivering strong results despite unfavorable global business conditions and established a unique specialty semiconductors platform with the strategic acquisition of AZUR, thereby strengthening our value chain, competitive capabilities and opening new business opportunities for the future.

In 2021, the Company delivered significant revenue growth over last year, notwithstanding AZUR, confirming the underlying strength of our business, as well as the unique and strategic role we play in the many critical industries we serve. Following the acquisition of AZUR, the Company renamed its disclosed segments to Specialty Semiconductors and Performance Materials. The 2021 growth in revenue is independent of any price adjustments underway to mitigate cost increases due to ongoing supply chain challenges.

The Company's results in 2021 were largely impacted by incremental costs associated with international freight and consumables impacting businesses globally. Adjusting for these factors, Adjusted EBITDA[1] for both the fourth quarter and full year would have surpassed Adjusted EBITDA generated in 2020. Mindful of inflation and its impact on our businesses, 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 Q4 2021 increased by 40%, reaching $64.6 million, compared to $46.2 million for the same period last year, and $210.0 million for FY 2021, compared to $177.2 million last year. Both periods were supported by higher demand for our Performance Materials and the acquisition of AZUR.

- Adjusted EBITDA[1] in Q4 2021 reached $10.1 million, compared to $6.5 million for the same period last year, supported by the acquisition of AZUR mitigating significant cost increases for international freight and consumables. Adjusted EBITDA for FY 2021 was $28.2 million, compared to $28.8 million, impacted by an unfavorable sales mix and significant cost increases for international freight, consumables and energy, partially mitigated by revenue growth.

- On December 31, 2021, the backlog[1] represented 221 days of annualized revenue, 47 days higher than the previous quarter. Bookings[1] in Q4 2021 reached 175 days, compared to 133 days for the same period last year.

- Annualized Return on Capital Employed ("ROCE")[1] reached 9.5% in 2021, compared to 14.4% at the end of 2020.

- Net debt[1] stood at $80.1 million on December 31, 2021, from $10.2 million at the end of last year, the increase reflecting the acquisition of AZUR on November 5, 2021.

Summary of Key 2021 Developments

- On January 12, 2021, 5N Plus announced that it entered into a strategic agreement and made an equity investment in Montana-based Microbion Corporation, aimed at furthering the development of its new class of antibiotic and antibiofilm drugs. Under the terms of the agreement, 5N Plus is responsible for the manufacturing of bismuth-based active pharmaceutical ingredients in Microbion's family of drug products under development.

- On March 24, 2021, 5N Plus announced the renewal of its $79.0 million senior secured multi-currency, revolving and syndicated credit facility. The agreement includes a contingent option to expand the facility to $124.0 million. The renewed credit facility has a two-year term, bearing interest and a margin based on the Company's senior consolidated debt to EBITDA[1] ratio. In addition to its contingent option, 5N Plus can exercise a $30.0 million accordion feature, increasing the facility's total size to $154.0 million, subject to lender approval.

[1] See Non-IFRS Measures

- On March 30, 2021, 5N Plus announced that it entered into an agreement with AZUR pursuant to which 5N Plus would acquire all of the issued and outstanding shares of AZUR (the "Transaction"), subject to the customary closing conditions, including regulatory approvals. The Transaction would allow 5N Plus to develop a highly competitive value chain spanning from procurement of strategic materials to finished epitaxy engineered substrates.

- On June 2, 2021, 5N Plus announced an investment of $8.5 million in its Montreal campus to expand the development and manufacturing of critical and strategic materials, including those containing tellurium for advanced II-VI semiconductor compounds and engineered powders. The investment has received provincial funding from the Ministère de l'Économie et de l'Innovation du (Ministry of Economy and Innovation) and the Ministère de l'Énergie et des Ressources Naturelles (Ministry of Energy and Natural Resources), comprising approximately a third of the investment. This investment will not only ensure competitive and reliable access to critical products, it will also decrease the Company's carbon footprint per unit of production for II-VI materials, reduce consumption of chemical reagents as well as processed water and solid by-product generation.

- On October 19, 2021, 5N Plus announced a long-term agreement with Samsung Electronics Co. ("Samsung") to supply engineered substrates based on II-VI semiconductor materials for the detector core of the next generation of medical imaging devices. The detector is based on Photon Counting Detector ("PCD") technology and will be incorporated into computed tomography ("CT") by Samsung's subsidiary NeuroLogica Corp., located in Danvers, Massachusetts.

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

- On December 1, 2021, Mr. Arjang Roshan stepped down as the Company's President and Chief Executive Officer, and Gervais Jacques was appointed interim President and Chief Executive Officer, a seasoned business executive who brings decades of leadership experience managing global businesses. Mr. Jacques, a member of the Board of 5N Plus since May 2020, will act as the Interim President and Chief Executive Officer until a permanent appointment is made, which is expected to be on or before the Company's 2022 annual general meeting of shareholders.

In connection with our acquisition of AZUR on November 5, 2021, we are required, under Part 8 of National Instrument 51-102 – Continuous Disclosure Obligations, to prepare and file a "Business Acquisition Report" (BAR) which requires, 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.

As the closing of the acquisition of AZUR was only confirmed towards the end of fiscal year 2021 for both the Company and AZUR, the priority was placed on the audit and reporting of fiscal year 2021, to timely consolidate and report AZUR's financial results from November 5, 2021 to December 31, 2021 per IFRS in the consolidated accounts. As a result of the sizeable workload and resourcing constraints associated with the conversion of AZUR's audited 2019 and 2020 annual financial statements from German GAAP to IFRS and the subsequent audit under ISA, it was concluded that it would not be possible to complete the audit of the 2019 and 2020 IFRS Financial Statements in due time to meet the filing deadline of the BAR. The Company has advised the applicable securities regulatory authorities of the situation, and expects that beginning on February 28, 2022, the Company will be listed as being in default by applicable securities regulatory authorities until the BAR is filed. The Company and external parties involved in supporting the effort, including advisors and AZUR's external auditors, are working diligently to finalize the preparation and thereafter complete the audit of the 2019 and 2020 IFRS Financial Statements so that the BAR can be filed at the earliest possible date. The Company currently expects to be in a position to file the BAR during the month of April 2022. AZUR is also regularly filing their audited German GAAP statutory financial statements to the German Federal Gazette ("Bundesanzeiger") as they become available and due. The Company otherwise confirms that the business integration of AZUR is progressing well, and there is no other information that has not been generally disclosed in respect thereof.

Outlook

The acquisition of AZUR provides 5N Plus with a highly competitive specialty semiconductor value chain and meaningfully expands our product portfolio in large and expanding target markets thereby transforming our positioning in this critical sector. This is reflected in 5N Plus's backlog[1] at year end, which represented 221 days of annualized revenue at year end, 47 days higher than the previous period. This provides a good indication of the immediate value AZUR brings to 5N Plus and the growth ahead.

Our near-term priority is to ensure the successful integration of AZUR, while also continuing to accelerate the Company's growth trajectory in 2022, both organically and through acquisitions.

[1] See Non-IFRS Measures

Summary of Results

(in thousands of U.S. dollars, except per share amounts)	Q4 2021	Q4 2020	FY 2021	FY 2020
	$	$	$	$
Revenue	**64,556**	46,230	**209,990**	177,192
Adjusted operating expenses[1]*	**(54,470)**	(39,687)	**(181,751)**	(148,401)
Adjusted EBITDA[1]	**10,086**	6,543	**28,239**	28,791
Impairment of inventories	**-**	(2,411)	**-**	(2,411)
Impairment of non-current assets	**-**	-	**-**	(4,934)
Share-based compensation recovery (expense)	**460**	(867)	**(689)**	(1,801)
Litigation and restructuring (costs) income, net	**(1,644)**	-	**(2,144)**	5,577
Foreign exchange and derivative loss	**(1,080)**	(1,035)	**(418)**	(2,798)
EBITDA[1]	**7,822**	2,230	**24,988**	22,424
Interest on long-term debt, imputed interest and other interest expense	**1,164**	770	**3,713**	3,490
Depreciation and amortization	**4,364**	2,651	**12,535**	11,725
Earnings (loss) before income taxes	**2,294**	(1,191)	**8,740**	7,209
Income tax expense				
Current	**1,446**	439	**5,580**	3,385
Deferred	**(132)**	1,234	**50**	1,638
	1,314	1,673	**5,630**	5,023
Net earnings (loss)	**980**	(2,864)	**3,110**	2,186
Basic earnings (loss) per share	**$0.01**	($0.03)	**$0.04**	$0.03
Diluted earnings(loss) per share	**$0.01**	($0.03)	**$0.04**	$0.03

**Excluding impairment of inventories, share-based compensation expense, litigation and restructuring (costs) income, net, impairment of non-current assets, and depreciation and amortization.*

Revenue by Segment and Adjusted Gross Margin

(in thousands of U.S. dollars)	Q4 2021	Q4 2020	Change	FY 2021	FY 2020	Change
	$	$		$	$	
Specialty Semiconductors	**30,160**	15,459	95%	**70,655**	57,640	23%
Performance Materials	**34,396**	30,771	12%	**139,335**	119,552	17%
Total revenue	**64,556**	46,230	40%	**209,990**	177,192	19%
Cost of sales	**(53,090)**	(39,241)	35%	**(171,214)**	(140,806)	22%
Impairment of inventories	**-**	2,411	(100%)	**-**	2,411	(100%)
Depreciation included in cost of sales	**3,515**	2,231	58%	**10,539**	10,064	5%
Adjusted Gross margin[1]	**14,981**	11,631	29%	**49,315**	48,861	1%
Adjusted Gross margin percentage[1]	**23.2%**	25.2%		**23.5%**	27.6%	

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

Revenue in Q4 2021 increased by 40%, reaching $64.6 million, compared to $46.2 million in the same period last year, favorably impacted by the contribution for an amount of $17.0 million of AZUR for the Specialty Semiconductors segment, as well as higher demand for Performance Materials products.

Adjusted gross margin[1] in Q4 2021 was $15.0 million, or 23.2%, compared to $11.6 million, or 25.2%, in Q4 2020, impacted by inflation, notably for international freight and consumables. Adjusted gross margin in FY 2021 was $49.3 million, or 23.5%, compared to $48.9 million, or 27.6%, in the previous year.

[1] See Non-IFRS Measures

Specialty Semiconductors Segment
Revenue in Q4 2021 increased by 95%, reaching $30.2 million, compared to $15.5 million in the same period last year, favorably impacted by the contribution of AZUR. In FY 2021, revenue was $70.6 million, compared to $57.6 million in FY 2020, for the same reasons mentioned above.

Adjusted gross margin[1] in Q4 2021 was 29.5%, compared to 34.9% in Q4 2020. For FY 2021, Adjusted gross margin was 31.5%, compared to 42.3% in FY 2020, mainly explained an unfavorable sales mix and materially higher costs for international freight and consumables.

Performance Materials Segment
Revenue in Q4 2021 increased by 12%, reaching $34.4 million, compared to $30.8 million in the same period last year, favorably impacted by higher demand for Performance Materials products. In FY 2021, revenue was $139.3 million, compared to $119.6 million in FY 2020, for the same reasons mentioned above.

Adjusted gross margin in Q4 2021 was 18.8%, compared to 20.7% in Q4 2020. For FY 2021, Adjusted gross margin was 19.8%, compared to 21.2% in FY 2020, mainly explain by significant increases for international freight and consumables mitigating by higher volume, especially strong for Health and Pharma products.

Operating Earnings, EBITDA and Adjusted EBITDA

(in thousands of U.S. dollars)	**Q4 2021**	Q4 2020	Change	**FY 2021**	FY 2020	Change
	$	$		**$**	$	
Specialty Semiconductors	**8,304**	4,857	71%	**18,817**	21,329	(12%)
Performance Materials	**5,159**	4,697	10%	**18,957**	17,037	11%
Corporate	**(3,377)**	(3,011)	12%	**(9,535)**	(9,575)	-%
Adjusted EBITDA[1]	**10,086**	6,543	54%	**28,239**	28,791	(2%)
EBITDA[1]	**7,822**	2,230	251%	**24,988**	22,424	11%
Operating earnings	**4,538**	614	639%	**12,871**	13,497	(5%)

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

Adjusted EBITDA[1] in Q4 2021 reached $10.1 million, compared to $6.5 million in Q4 2020, supported by the acquisition of AZUR mitigating significant cost increases of international freight and consumables in both segments. In FY 2021, Adjusted EBITDA was $28.2 million, compared to $28.8 million in FY 2020, positively impacted by the solid performance in Performance Materials and the same reasons mentioned above.

In Q4 2021, EBITDA[1] was $7.8 million, compared to $2.2 million in Q4 2020. The increase is mainly explained by higher Adjusted EBITDA and a positive impact from share-based compensation expense. In addition, $1.6 million was recorded as restructuring costs this year, while last year the Company recorded an impairment of inventories of $2.4 million.

In FY 2021, EBITDA was $25.0 million, compared to $22.4 million in FY 2020. The increase is mainly explained by a decrease in foreign exchange and derivatives loss, and lower share-based compensation expense against higher restructuring costs this year, compared to higher net costs from impairment charges and litigation and restructuring income in FY 2020.

In Q4 2021, operating earnings reached $4.5 million, compared to $0.6 million in Q4 2020 and $12.9 million in FY 2021, compared to $13.5 million in FY 2020.

Specialty Semiconductors Segment
Adjusted EBITDA in Q4 2021 increased by $3.4 million to $8.3 million representing an Adjusted EBITDA margin[1] of 28% compared to 31% in Q4 2020. Adjusted EBITDA decreased by $2.5 million to $18.8 million in FY 2021 representing an Adjusted EBITDA margin of 27% compared to 37% in FY 2020.

[1] See Non-IFRS Measures

Performance Materials Segment

Adjusted EBITDA[1] in Q4 2021 increased by $0.5 million to $5.2 million representing an Adjusted EBITDA margin[1] of 15% similar to Q4 2020. Adjusted EBITDA increased by $1.9 million in FY 2021 to $19.0 million, representing an Adjusted EBITDA margin of 14% similar to FY 2020.

Net Earnings and Adjusted Net Earnings

(in thousands of U.S. dollars, except per share amounts)	**Q4 2021**	Q4 2020	**FY 2021**	FY 2020
	$	$	**$**	$
Net earnings (loss)	**980**	(2,864)	**3,110**	2,186
Basic earnings per share (loss)	**$0.01**	($0.03)	**$0.04**	$0.03
Reconciling items:				
Impairment of inventories	**-**	2,411	**-**	2,411
Share-based compensation (recovery) expense	**(460)**	867	**689**	1,801
Litigation and restructuring costs (income), net	**1,644**	-	**2,144**	(5,577)
Impairment of non-current assets	**-**	-	**-**	4,934
Income tax recovery on taxable items above	**(285)**	(230)	**(589)**	(775)
Adjusted net earnings[1]	**1,879**	184	**5,354**	4,980
Basic adjusted net earnings per share[1]	**$0.02**	$-	**$0.06**	$0.06

In Q4 2021, net earnings were $1.0 million, or $0.01 per share, compared to a net loss of $2.9 million or $0.03 per share in Q4 2020. Adjusted net earnings[1] increased by $1.7 million and were $1.9 million, or $0.02 per share, in Q4 2021, compared to $0.2 million, or $nil per share, in Q4 2020.

In FY 2021, net earnings were $3.1 million, or $0.04 per share, compared to $2.2 million, or $0.03 per share, in FY 2020. Adjusted net earnings increased by $0.4 million and were $5.4 million, or $0.06 per share, in FY 2021, compared to $5.0 million, or $0.06 per share, in FY 2020.

Excluding the income tax recovery, the items reconciling Adjusted net earnings in Q4 2021 and FY 2021 are the share-based compensation (recovery) expense and additional restructuring charges recorded this quarter related to a change to senior executive management, as well as an amount recorded in Q3 2021 related to the decision initiated in Q3 2020 to close a subsidiary in Asia.

Impairment of Inventories

(in thousands of U.S. dollars)	**Q4 2021**	Q4 2020	**FY 2021**	FY 2020
	$	$	**$**	$
Specialty Semiconductors	-	244	-	244
Performance Materials	-	2,167	-	2,167
Total	-	2,411	-	2,411

Following the expected net realizable value analysis as at December 31, 2020, an impairment of inventories of $2.4 million on specific products was recorded in Q4 2020. None was required as at December 31, 2021.

[1] See Non-IFRS Measures

Backlog and Bookings

(in thousands of U.S. dollars)	BACKLOG[1]			BOOKINGS[1]		
	Q4 2021	Q3 2021	Q4 2020	**Q4 2021**	Q3 2021	Q4 2020
	$	$	$	**$**	$	$
Specialty Semiconductors	**94,363**	41,343	35,568	**83,180**	17,574	33,575
Performance Materials	**60,454**	55,338	60,025	**39,512**	25,766	33,645
Total	**154,817**	96,681	95,593	**122,692**	43,340	67,220

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

(number of days based on annualized revenues) *	BACKLOG[1]			BOOKINGS[1]		
	Q4 2021	Q3 2021	Q4 2020	**Q4 2021**	Q3 2021	Q4 2020
Specialty Semiconductors	**293**	240	210	**258**	102	198
Performance Materials	**160**	144	178	**105**	67	100
Weighted average	**221**	174	189	**175**	78	133

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.*

Q4 2021 vs Q3 2021

Backlog[1] on December 31, 2021, represented 221 days of annualized revenue, an increase of 47 days, or 27% over the backlog on September 30, 2021. The contribution of AZUR represents 31% of the total value of the backlog as at December 31, 2021, and was included in the bookings of Specialty Semiconductors in Q4 2021.

Backlog on December 31, 2021, for the Specialty Semiconductors segment, represented 293 days of annualized segment revenue, an increase of 53 days, or 22%, over the backlog on September 30, 2021. The backlog for the Performance Materials segment represented 160 days of annualized segment revenue, an increase of 16 days, or 11%, over the backlog on September 30, 2021.

Bookings[1] for the Specialty Semiconductors segment increased by 156 days, from 102 days in Q3 2021 to 258 days in Q4 2021. Bookings for the Performance Materials segment increased by 38 days, from 67 days in Q3 2021 to 105 days in Q4 2021. The renewal timing of long-term contracts mostly occurs in the first and fourth quarter of the year.

Q4 2021 vs. Q4 2020

Backlog on December 31, 2021, for the Specialty Semiconductors segment increased by 83 days, supported by the contribution from AZUR and by the renewable energy sector. The Performance Materials segment decreased by 18 days, compared to December 31, 2020, reaching 160 days, compared to 178 days in Q4 2020.

Bookings for the Specialty Semiconductors segment increased by 60 days, and by five days for the Performance Materials segment, compared to the previous year quarter.

Expenses

(in thousands of U.S. dollars)	**Q4 2021**	Q4 2020	**FY 2021**	FY 2020
	$	$	**$**	$
Depreciation and amortization	**4,364**	2,651	**12,535**	11,725
SG&A	**7,025**	5,872	**21,883**	19,874
Share-based compensation (recovery) expense	**(460)**	867	**689**	1,801
Litigation and restructuring costs (income), net	**1,644**	-	**2,144**	(5,577)
Impairment of non-current assets	**-**	-	**-**	4,934
Financial expense	**2,244**	1,805	**4,131**	6,288
Income tax expense	**1,314**	1,673	**5,630**	5,023
Total expenses	**16,131**	12,868	**47,012**	44,068

[1] See Non-IFRS Measures

Depreciation and Amortization

Depreciation and amortization expenses in Q4 2021 and FY 2021 amounted to $4.4 million and $12.5 million, respectively, compared to $2.7 million and $11.7 million for the same periods in 2020. The increases in Q4 2021 and FY 2021 are 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 Q4 2021 and FY 2021 were $7.0 million and $21.9 million, respectively, compared to $5.9 million and $19.9 million for the same periods in 2020. The expenses in FY 2020 were positively impacted by lower travel and consulting expenses, either avoided or delayed, due to the COVID-19 pandemic. The Company also recorded a reduction in wages expense of $1.2 million in FY 2020, resulting from the Canada Emergency Wage Subsidy available in the context of the COVID-19 pandemic.

Share-Based Compensation (Recovery) Expense

Share-based compensation recovery in Q4 2021 amounted to $0.5 million, compared to an expense of $0.9 million for the same period of 2020. In FY 2021, share-based compensation expense amounted to $0.7 million, compared to $1.8 million in FY 2020, 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. Furthermore, a reversal of certain share-based compensation liabilities was recorded in Q4 2021 following the change in senior executive management.

Litigation and Restructuring Costs (Income)

In Q4 2021, the Company record an amount of $1.5 million following the announcement of a change to its senior executive management.

In Q3 2020, the Company consolidated selected activities and closed one of its subsidiaries located in Asia following the introduction of unfavorable business conditions and new local regulations preventing the site's economic viability. A provision for restructuring costs was recorded in Q3 2020 for an amount of $2.3 million and an additional $0.6 million in FY 2021, consisting of severance and other costs related to the site closure.

Also, in Q3 2020, the Company recorded non-recurring income of $8.0 million from the settlement and termination of a supply agreement, net of associated costs of $0.1 million.

Impairment of Non-current Assets

In Q3 2020, the Company recorded an impairment charge on non-current assets of $4.9 million, following the decision to close a subsidiary located in Asia, as well as for specific production equipment related to the site affected by the settlement and termination of a supply agreement.

Financial Expense

Financial expense in Q4 2021 amounted to $2.2 million, compared to $1.8 million in Q4 2020. The negative impact is mainly due to the interest on long-term debt, imputed interest which are higher following the acquisition of AZUR, while the loss in foreign exchange and derivatives was at similar levels for both periods.

In FY 2021, financial expense amounted to $4.1 million, compared to $6.3 million in FY 2020. The decrease is mainly due to a lower loss in foreign exchange and derivatives recorded in FY 2021 compared to the same period last year, while the interest on long-term debt increased in FY 2021 following the increase of the long-term debt following the acquisition of AZUR during Q4 2021.

Income Taxes

The Company reported earnings before income taxes of $2.3 million in Q4 2021 and $8.7 million in FY 2021. Income tax expenses in Q4 2021 and FY 2021 were $1.3 million and $5.6 million, respectively, compared to $1.7 million and $5.0 million for the same periods in 2020. Both periods were impacted by deferred tax assets applicable only in certain jurisdictions.

Liquidity and Capital Resources

(in thousands of U.S. dollars)	**Q4 2021**	Q4 2020	**FY 2021**	FY 2020
	$	$	**$**	$
Funds from operations[1] before the following	**5,604**	4,355	**16,553**	25,830
Net changes in non-cash working capital items	**(3,233)**	13,297	**(6,283)**	10,975
Cash from Operating activities	**2,371**	17,652	**10,270**	36,805
Cash from Investing activities	**(42,615)**	(2,338)	**(49,929)**	(8,461)
Cash from (used in) Financing activities	**42,922**	(6,050)	**36,219**	(8,804)
Effect of foreign exchange rate changes on cash and cash equivalents	**107**	258	**(570)**	345
Net increase (decrease) in cash and cash equivalents	**2,785**	9,522	**(4,010)**	19,885

In Q4 2021, cash generated by operating activities amounted to $2.4 million, compared to $17.7 million in Q4 2020. In FY 2021, cash generated by operating activities amounted to $10.3 million, compared to $36.8 million in FY 2020. The decrease in FY 2021 is mainly due to lower contribution of funds from operating activities combined with a negative change in non-cash working capital in FY 2021.

In Q4 2021, cash used in investing activities totaled $42.6 million compared to $2.3 million in Q4 2020, mainly attributed to the acquisition of AZUR and the timing of additions to PPE. In FY 2021, cash used in investing activities totaled $49.9 million, compared to $8.5 million in FY 2020, mainly attributed to the acquisition of AZUR and a minority equity stake in Microbion Corporation, as well as the timing of additions to PPE.

In Q4 2021, cash generated from financing activities amounted to $42.9 million, compared to cash used in financial activities of $6.1 million in Q4 2020. The increase of $49.0 million is mainly explained by the drawdown of the credit facility to finance the acquisition of AZUR, net of repayment of equipment loans in AZUR.

In FY 2021, cash generated from financing activities amounted to $36.2 million, compared to cash used from financing activities of $8.8 million in FY 2020. The increase of $45.0 million is explained by the new drawdown of the credit facility to finance the acquisition of AZUR, net of repayment of equipment loans in AZUR. In FY 2021, the Company repurchased and cancelled 249,572 common shares under its Normal Course Issuer Buyback ("NCIB") program for an amount of $0.8 million, compared to 1,750,428 common shares for an amount of $2.2 million in FY 2020, mitigated by the issuance of common shares for an amount of $0.6 million in FY 2021.

Working Capital

(in thousands of U.S. dollars)	**As at December 31, 2021**	As at December 31, 2020
	$	$
Inventories	**95,526**	67,139
Other current assets	**99,996**	83,756
Current liabilities	**(65,059)**	(36,550)
Working capital[1]	**130,463**	114,345
Working capital current ratio[1]	**3.01**	4.13

The increase in working capital[1] as compared to December 31, 2020, was mainly attributable to higher current liabilities partially mitigated by higher inventory, reflecting the consolidation of AZUR combined with the current operations level, and recent increases in metal notations observed since the beginning of the year, as well as a decrease in cash and cash equivalents.

[1] See Non-IFRS Measures

Net Debt

(in thousands of U.S. dollars)	**As at December 31, 2021**	As at December 31, 2020
	$	$
Bank indebtedness	**-**	-
Long-term debt including current portion	**116,000**	50,109
Total Debt[1]	**116,000**	50,109
Cash and cash equivalents	**(35,940)**	(39,950)
Net Debt[1]	**80,060**	10,159

Total debt[1] increased by $65.9 million to $116.0 million, compared to $50.1 million on December 31, 2020, following the drawdown from the credit facility to finance a portion of the acquisition of AZUR.

Net debt[1], after considering cash and cash equivalents, increased by $69.9 million to $80.1 million on December 31, 2021, from $10.2 million on December 31, 2020.

Available Short-Term Capital Resources

(in thousands of U.S. dollars)	**As at December 31, 2021**	As at December 31, 2020
	$	$
Cash and cash equivalents	**35,940**	39,950
Available bank indebtedness	**-**	1,533
Available revolving credit facility	**33,000**	54,000
Available short-term capital resources	**68,940**	95,483

In March 2021, the Company signed a senior secured multi-currency revolving credit facility of $79.0 million maturing in April 2023 to replace its existing $79.0 million senior secured revolving facility maturing in April 2022. As a result of the acquisition of AZUR in November 2021, the senior secured multi-currency revolving credit facility of $79.0 million increased to $124.0 million. At any time, the Company has the option to request that the credit facility be expanded through the exercise of an additional $30.0 million accordion feature, subject to lender approval. This revolving credit facility can be drawn in U.S. dollars, Canadian dollars or Hong Kong dollars (up to $4.0 million). Drawings bear interest at either the Canadian prime rate, US base rate, Hong Kong base rate or LIBOR, plus a margin based on the Company's senior net debt to consolidated EBITDA[1] ratio. Under the terms of its credit facility, the Company is required to satisfy certain restrictive covenants as to financial ratios. As at December 31, 2021, the Company had met all covenants.

In February 2019, the Company signed a five-year unsecured subordinated term loan with Investissement Québec. The loan was disbursed in two tranches: the first tranche of $5.0 million on February 6, 2019 and the second tranche of $20.0 million on March 22, 2019. The two tranches of the term loan bear interest equivalent to the five-year U.S. dollar swap rate plus a margin of 4.19%, which equals to 6.82% and 6.64%, respectively. Under the terms of the loan, the Company is required to satisfy certain restrictive covenants as to financial ratios. As at December 31, 2021, the Company has met all covenants.

Share Information

	As at February 22, 2022	As at December 31, 2021
Issued and outstanding shares	**88,330,236**	88,330,236
Stock options potentially issuable	**825,968**	825,968

On November 5, 2021, in connection with the acquisition of AZUR, the Company issued 6,500,000 common shares at an average price of $1.90 to finance the purchase.

[1] See Non-IFRS Measures

On March 5, 2020, the TSX approved the Company's NCIB. Under the NCIB, the Company had the right to purchase for cancellation, from March 9, 2020 to March 8, 2021, a maximum of 2,000,000 common shares. In 2021, the Company repurchased and cancelled 249,572 common shares at an average price of $3.24 (CA$4.10) for a total amount of $0.8 million applied against the equity. In March 2021, all approved shares had been repurchased and cancelled.

Restricted Share Unit and Performance Share Unit Plan

On November 4, 2015, the Company adopted a new Restricted Share Unit ("RSU") and Performance Share Unit ("PSU") Plan (the "RSU & PSU Plan") to replace the previous RSU Plan. The RSU & PSU Plan enables the Company to award eligible participants: (i) phantom RSUs that vest no later than three years following the grant date; and (ii) phantom PSUs that vest after certain periods of time, not exceeding three years, and subject to the achievement of certain performance criteria as determined by the Board of Directors. Such plan provides for the settlement of RSUs and PSUs through either cash or the issuance of common shares of the Company from treasury, for an amount equivalent to the volume weighted average of the trading price of the common shares of the Company on the TSX for the five trading days immediately preceding the applicable RSU vesting determination date or PSU vesting determination date.

In FY 2021, the Company granted 164,412 RSUs (2020 – 234,770), 413,710 RSUs were paid (2020 – 322,540) and 143,851 RSUs were forfeited (2020 – 41,250). On December 31, 2021, 342,259 RSUs were outstanding (2020 – 735,408).

In FY 2021, the Company granted nil PSUs (2020 – nil), 166,700 PSUs were paid (2020 – 168,300) and 230,000 were cancelled (2020 – nil). On December 31, 2021, 200,000 PSUs were outstanding (2020 – 596,700).

Stock Option Plan

On April 11, 2011, the Company adopted a new stock option plan under which a maximum number of options granted cannot exceed 5,000,000. Options granted under the Stock Option Plan may be exercised during a period not exceeding ten years from the date of grant. The stock options outstanding on December 31, 2021, may be exercised during a period not exceeding six years from their date of grant. Options vest at a rate of 25% (100% for directors) per year, beginning one year following the grant date of the options. Any unexercised options will expire one month after the date beneficiary ceases to be an employee, director or officer and one year for retired directors.

The following table presents information concerning all outstanding stock options:

	2021		2020	
	Number of options	**Weighted average exercise price**	Number of options	Weighted average exercise price
		CA$		CA$
Outstanding, beginning of year	**672,600**	**2.09**	932,041	2.58
Granted	**648,212**	**2.49**	86,240	2.10
Exercised	**(428,678)**	**1.88**	-	-
Forfeited	**(66,166)**	**2.78**	(133,681)	2.43
Expired	**-**	**-**	(212,000)	4.03
Outstanding, end of year	**825,968**	**2.46**	672,600	2.09
Exercisable, end of year	**267,007**	**2.33**	472,975	1.94

Off-Balance Sheet Arrangements

The Company has few off-balance sheet arrangements since most of the leases are recognized on the consolidated statement of financial position following the adoption of the standard, IFRS 16 – Leases, as at January 1, 2019. Any off-balance sheet arrangements consist of contractual obligations in the normal course of business.

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.

The following table reflects the contractual cash flows of the Company's financial liabilities as at December 31, 2021:

(in thousands of U.S. dollars)	Carrying amount	1 year	2 years	3 years	4 years	Over 5 years	**Total**
	$	$	$	$	$	$	**$**
Trade and accrued liabilities	56,848	56,848	-	-	-	-	**56,848**
Long-term debt	116,000	3,311	93,217	25,418	-	-	**121,946**
Lease liabilities	32,640	2,998	2,543	2,324	2,278	26,756	**36,899**
Total	205,488	63,157	95,760	27,742	2,278	26,756	**215,693**

Commitments

As at December 31, 2021, in the normal course of business, the Company contracted letters of credit for an amount of $1.0 million (2020 – $0.7 million).

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 is funded through the Company's liquidity and senior debt facility. Transaction fees for an amount of $0.7 million for 2021 (2020 - $0.5 million) were expensed as incurred in the consolidated statement of earnings.

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 will not only expand the Company's position within renewable energy, but, through Canada's membership in the European Space Agency (ESA), will also establish 5N Plus as a reliable and competitive supplier to the European and U.S. space programs.

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.

The tables below present the consideration paid and the Company's preliminary assessment of the fair value of the assets acquired and the liabilities assumed. The assessment of the fair values will be finalized after the values of the assets and liabilities have been definitively determined.

Consideration transferred	(in thousands of U.S. dollars)
	$
Cash and cash equivalents	34,301
Consideration payable[1)]	9,158
Common shares issued	14,249
	57,708

[1)] This amount of $9.2 million or 8.0 million euros, held in escrow and recorded in Other current assets, will be released within 12 months in accordance with the terms of the Share Purchase Agreement.

Preliminary recognized amounts of identified assets acquired and liabilities assumed	(in thousands d U.S. dollars)
	$
Cash and cash equivalents	1,017
Accounts receivable	8,342
Inventories	21,394
Other current assets	256
Property, plant and equipment	31,128
Right-of-use assets	21,626
Intangible assets	32,144
Other assets	5
Goodwill	13,841
Total assets acquired	129,753
Trade and accrued liabilities	12,197
Long-term debt[1]	27,396
Employee benefit plan obligations	2,673
Lease liabilities	21,626
Other liabilities	1,059
Deferred tax liabilities	7,094
Total liabilities assumed	72,045
Total net assets	57,708

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

For the 57-day period ended December 31, 2021, AZUR contributed $17.0 million of revenue and $2.3 million of net earnings to the Company's consolidated statement of earnings based on operations after the acquisition date. If the acquisition of AZUR had been completed on January 1, 2021, the Company estimates that its consolidated revenues and net earnings for the year would have totalled $261.0 million and $nil million respectively, inclusive of the additional depreciation and amortization expenses recorded in reference to the preliminary purchased price allocation. AZUR delivers products to its customers on a project basis creating an unequal distribution of revenue and profitability from one period to another.

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 upon filing of the Corporation's Annual Information Form.

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.

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").

In light of the COVID-19 pandemic and in compliance with the recommendations from public health authorities, the Company implemented remote work arrangements. These new working arrangements may have an impact on the performance of some internal controls. The Company will continually monitor and assess the effects of the COVID-19 pandemic on its ICFR. Management has reiterated the importance of internal controls and maintained frequent communication across the organization at all levels.

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 preliminary amounts recognized for the assets acquired and liabilities assumed at the date of acquisition of AZUR are described in note 4 of the audited consolidated financial statements for the year ended December 31, 2021.

AZUR's contribution on Consolidated Financial Statements	Percentage
Revenues	8%
Net earnings	75%
Current assets	19%
Non-current assets	55%
Current liabilities	25%
Non-current liabilities	35%

Changes in Internal Control over Financial Reporting

No changes were made to the ICFR during the fiscal year ended December 31, 2021 that have materially affected, or are reasonably likely to materially affect, the ICFR.

Adoption of New Accounting Standards and Future Changes in Accounting Policies

Adoption of new accounting standards

IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 – Interest Rate Benchmark Reform (Phase 2)

On January 1, 2021, the Company adopted the amendments regarding the Interest Rate Benchmark Reform (Phase 2) which impact IFRS 9 Financial Instruments, IAS 39 Financial Instruments: Recognition and measurement, IFRS 7 Financial Instruments: Disclosures and IFRS 16 Leases. The Phase 2 amendments address issues that might affect financial reporting after the reform of an interest rate benchmark, including its replacement with alternative benchmark rates. These amendments complement those issued in 2019 and focus on issues that might affect financial reporting during the reform of an interest rate benchmark, including the effects of changes to contractual cash flows arising from the replacement of an interest rate benchmark with an alternative benchmark rate. The amendments are effective for annual periods beginning on or after January 1, 2021, with earlier application permitted. In adopting the amendments, there has been no significant impact to the financial statements for the year ended December 31, 2021.

Future Changes in Accounting Policies

The following standards have been issued but not yet effective:

IFRS 3 – Business combinations
In May 2020, the IASB issued amendments to IFRS 3 regarding its reference to the Conceptual Framework. With this amendment, IFRS 3 will reference the current version of the Conceptual Framework rather than the Conceptual Framework in effect at the time of IFRS 3's development. The amendments to IFRS 3 also indicate that for the purposes of identifying certain liabilities within the context of a business combination, the definition of a liability as per IAS 37 – Provisions Contingent Liabilities and Contingent assets, shall supersede the definition within the Conceptual Framework. The amendments are effective for annual periods beginning on or after January 1, 2022, with earlier application permitted.

IAS 16 – Property, plant and equipment
In May 2020, the IASB issued amendments to IAS 16 regarding the accounting of Proceeds before Intended Use. Proceeds received from the sale of items produced by property, plant and equipment (PPE) which is still being prepared for its intended use cannot be deducted from the PPE's cost. Instead proceeds must be immediately recognized in the consolidated statement of earnings. The amendments are effective for annual periods beginning on or after January 1, 2022, with earlier application permitted.

IFRS 9 – Financial Instruments
In May 2020, the IASB issued an amendment to IFRS 9 to clarify which fees should be considered for the purpose of applying the derecognition test to a modified financial liability. The IASB clarified that only fees paid or received between the borrower and the lender should be considered. The amendment is effective for annual periods beginning on or after January 1, 2022, with earlier application permitted.

Significant Management Estimation and Judgment in Applying Accounting Policies

The following are significant management judgments used in applying the accounting policies of the Company that have the most significant effect on the consolidated financial statements.

Estimation Uncertainty
When preparing the consolidated financial statements, management undertakes a number of judgments, estimates and assumptions about recognition and measurement of assets, liabilities, revenues and expenses. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

Information about the significant judgments, estimates and assumptions that have the most significant effect on the recognition and measurement of assets, liabilities, revenues and expenses are discussed below.

Impairment of Non-financial Assets
Non-financial assets are reviewed for an indication of impairment at each statement of financial position date upon the occurrence of events or changes in circumstances indicating that the carrying value of the assets may not be recoverable which requires significant judgement.

An impairment loss is recognized for the amount by which an asset's or cash-generating unit's carrying amount exceeds its recoverable amount, which is the higher of fair value less cost of disposal and value in use.

An intangible asset and related equipment that are not yet available for their intended use and CGUs to which goodwill is allocated are tested for impairment at least annually, which also requires significant judgement. To determine the recoverable amount (value in use or fair value less cost to dispose of these assets), management estimates expected future cash flows from the asset or CGU and determines a suitable interest rate in order to calculate the present value of those cash flows. In the process of measuring expected future cash flows for intangible and tangible assets not yet available for their intended use and CGUs to which goodwill is allocated, management makes assumptions about future operating results using the estimated forecasted prices obtained from various market sources. These key assumptions

relate to future events and circumstances. The actual results will vary and may cause adjustments to the Company's assets in future periods. In most cases, determining the applicable discount rate involves estimating the appropriate adjustment to market risk and to asset-specific risk factors.

By their nature, assets not yet available for intended use have a higher estimation uncertainty, as they depend on future market development and the Company's ability to commercialize and manufacture new products to realize forecasted earnings. For example, new manufacturing processes may not be scalable to industrial level within expected timeframe and new products might not receive sufficient market penetration. Management believes that the following assumptions are the most susceptible to change and impact the valuation of these assets in time: a) expected significant growth of the market for different metal products (demand), b) selling prices which have an impact on revenues and metal margins (pricing), and c) the discount rate associated with new processes and products (after considering a premium over the Company's weighted average cost of capital (WACC) to reflect the additional uncertainty).

In most cases, determining the applicable discount rate involves estimating the appropriate adjustment to market risk and to asset specific risk factors. Assets not yet available for intended use have a higher estimation uncertainty, since they depend on future market information and the Company's ability to finish the project and realize the budgeted earnings. Management believes that the following assumptions are the most susceptible to change and therefore could impact the valuation of the assets in the next year: metal prices which have an impact on revenues and metal margins and the discount rate.

Inventories

Inventories are carried at the lower of cost and net realizable value, with cost determined using the average cost method. In estimating net realizable values, management takes into account the most reliable evidence available at the time the estimates are made. The Company's core business is subject to changes in foreign policies and internationally accepted metal prices which may cause future selling prices to change rapidly. The Company evaluates its inventories using a group of similar items basis and considers expected future prices as well as events that have occurred between the consolidated statement of financial position date and the date of the completion of the consolidated financial statements. Net realizable value for inventory to satisfy a specific sales contract is measured at the contract price.

Business Combinations

The Company must make assumptions and estimates to determine the fair value of identifiable assets acquired and liabilities assumed. These estimates are based on future events, forecasts of future cash flows, future operating costs, future capital expenditures and estimated discount rates. Changes to the preliminary measurements of assets and liabilities acquired may be retrospectively adjusted when new information is obtained until the final measurements are determined within one year of the acquisition date.

Income Taxes

The Company is subject to income taxes in numerous jurisdictions. Significant judgment is required in determining the worldwide provision for income taxes. There are many transactions and calculations for which the ultimate tax determination is uncertain. The Company recognizes liabilities for anticipated tax audit issues based on estimates of whether additional taxes will be due. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will impact the current and deferred income tax assets and liabilities in the period in which such determination is made.

The Company has deferred income tax assets that are subject to periodic recoverability assessments. Realization of the Company's deferred income tax assets is largely dependent on its achievement of projected future taxable income and the continued applicability of ongoing tax planning strategies. The Company's judgments regarding future profitability may change due to future market conditions, changes in tax legislation and other factors that could adversely affect the ongoing value of the deferred income tax assets. These changes, if any, may require a material adjustment of these deferred income tax asset balances through an adjustment to the carrying value thereon in the future. This adjustment would reduce the deferred income tax asset to the amount that is considered to be more likely than not to be realized and would be recorded in the period such a determination was to be made. Refer to note 16 of the 2021 audited consolidated financial statements of the Company.

Related Party Transactions

The Company's related parties are its directors and executive members. Transactions with these related parties are described in Note 24 in the 2021 audited consolidated financial statements of the Company.

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.

The fair value of the derivative financial instruments was as follows:

(in thousands of U.S. dollars)	2021	2020
	$	$
Indexed deposit agreement	4,819	5,950
Investment in equity instruments	2,000	-
Restricted investment	713	790
Interest rate swap agreement	(109)	(439)

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.

Interest Rate

Interest rate risk refers to the risk that future cash flows will fluctuate as a result of changes in market interest rates. The Company's policy is to limit its exposure to interest rate risk fluctuation by ensuring that a reasonable portion of its long-term debt, made of subordinated debts at fixed rate. The Company is exposed to interest rate fluctuations on its revolving credit facility, which bears a floating interest rate. A 1% increase/decrease in interest rates would have an impact of approximately $0.9 million on the Company's net earnings on a twelve-month horizon based on the balance outstanding on December 31, 2021.

In February 2020, the Company entered into an interest rate swap agreement with a major Canadian financial institution to reduce its financial expense fluctuations on Libor rate on a portion of its credit facility. Under this interest rate swap, the Company exchanges interest payments. The terms are such that on each interest payment date, the Company will receive or pay the net difference between the fixed rate of 1.435% and its Libor rate on a notional amount of $25.0 million.

Foreign Currency

The Company's sales are primarily denominated in U.S. dollars whereas a portion of its operating costs are realized in local currencies, such as Euros and Canadian dollars. Even though the purchases of raw materials are denominated in U.S. dollars, which reduce to some extent exchange rate fluctuations, we are subject to currency translation risk which can negatively impact our results. Management has implemented a policy for managing foreign exchange risk against the relevant functional currency.

In addition, the Company will occasionally enter into foreign exchange forward contracts to sell US dollars in exchange for Canadian dollars and Euros. These contracts would hedge a portion of ongoing foreign exchange risk on the Company's cash flows since much of its non-US dollar expenses are incurred in Canadian dollars and Euros. The Company may also enter into foreign exchange contracts to sell Euros for US dollars. As at December 31, 2021, the Company had no foreign exchange contracts outstanding.

The following table summarizes in US dollar equivalents the Company's major currency exposures as at December 31, 2021:

(in thousands of U.S. dollars)	CA$	EUR	GBP	RMB	MYR	Other
	$	$	$	$	$	$
Cash and cash equivalents	302	3,356	(53)	(4)	311	23
Accounts receivable	830	9,778	-	-	-	199
Other current assets	4,819	9,004	-	-	-	-
Other non-current assets	-	713	-	-	-	-
Trade and accrued liabilities	(7,890)	(20,295)	(4,718)	(212)	(169)	(638)
Long-term debt	-	-	-	-	-	-
Lease liabilities	(6,906)	(577)	-	-	-	(69)
Net financial assets (liabilities)	(8,845)	1,979	(4,771)	(216)	142	(485)

For the Company's subsidiaries with a functional currency other than the US dollar, their exposures of financial assets and financial liabilities denominated in US dollars are $6.0 million and $4.5 million respectively with a net position of $1,4 million. A variation in the exchange rate between the functional currencies of these subsidiaries and the US dollar of five-percentage points does not result in a material impact.

The following table shows the impact on earnings before income tax of a five-percentage point strengthening or weakening of foreign currencies against the US dollar as at December 31, 2021 for the Company's financial instruments denominated in non-functional currencies:

(in thousands of U.S. dollars)	CA$	EUR	GBP	RMB	MYR	Other
	$	$	$	$	$	$
5% Strengthening	(442)	99	(239)	(11)	7	(24)
5% Weakening	442	(99)	239	11	(7)	24

Credit

Credit risk refers to the possibility that a customer or counterparty will fail to fulfill its obligations under a contract and, as a result, create a financial loss for the Company. The Company has a credit policy that defines standard credit practice. This policy dictates that all new customer accounts be reviewed prior to approval and establishes the maximum amount of credit exposure per customer. The creditworthiness and financial well-being of the customer are monitored on an ongoing basis.

The outbreak of the COVID-19 is disrupting many sectors of the global economy and, consequently, many of the Company's customers. The Company has strengthened its strict controls on credit, including a tighter monitoring of customers that are severely affected by the pandemic.

The Company applies the IFRS 9 simplified approach to measuring expected credit losses using a lifetime expected credit loss allowance for trade receivables. The expected loss rates are based on the Company's historical credit losses experienced over the three-year period prior to the period end. The historical loss rates are then adjusted for current and forward-looking information on macroeconomic factors affecting the Company's customers. Historically, the Company has not incurred any significant losses in respect of its trade receivables. Therefore, the loss allowance at the end of each period and the change recorded for each period is insignificant.

As at December 31, 2021 and 2020, the Company had a loss allowance of $0.1 million. The loss allowance is included in selling, general and administrative expenses in the consolidated statement of earnings and is net of any recoveries that were provided for in prior periods.

Liquidity

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they come due. The Company manages liquidity risk through the management of its capital structure. It also manages liquidity risk by continually monitoring actual and projected cash flows, taking into account the Company's sales and receipts and matching the maturity profile of financial assets and financial liabilities. The Board of Directors reviews and approves the Company's annual operating and capital budgets as well as any material transactions out of the ordinary course of business, including proposals on acquisitions and other major investments. Under the terms of its credit facility, the Company is required to satisfy certain restrictive covenants. In order to comply with these covenants, the Company will need to execute on its EBITDA[1] and cash flow estimates. Management believes that the assumptions used by the Company in preparing its estimates are reasonable. However, risk remains. Successful achievement of these estimates results is dependent on stability in the price of metals and other raw materials, the reduction of debt due to the optimization of the Company's working capital and the continued viability and support of the Company's banks.

Risk and Uncertainties

We are subject to a number of risk factors which may limit our ability to execute our strategy and achieve our long-term growth objectives. Management analyses these risks and implements strategies in order to minimize their impact on the Company's performance. The realization of the risks described in any of the following risk factors could have a material adverse effect on the Company's business, results of operations and financial condition.

COVID-19

Since January 2020, the gradual outbreak of the novel strain of the coronavirus, COVID-19 and its declaration as a pandemic by the World Health Organization, has resulted in governments worldwide enacting emergency measures to combat the spread of the virus. These measures have caused material disruption to businesses globally resulting in an economic slowdown. While the Company has been able to mitigate the ongoing impact from the crisis, it is not possible to reliably estimate the length, severity and long-term impact the global pandemic may have on the Company's financial results, conditions and cash flows.

The COVID-19 pandemic may also have the effect of amplifying other risk and uncertainties described in this section.

Risks Associated with our Growth Strategy

5N Plus' strategic plan is designed to enhance profitability while reducing earnings volatility, delivering quality growth from both existing growth initiatives and future M&A opportunities. There is a risk that some of the expected benefits will fail to materialize or may not occur within the time periods anticipated by management. The realization of such benefits may be affected by a number of factors, many of which are beyond our control.

International Operations

We operate in a number of countries, including China, Laos and Malaysia, and, as such, face risks associated with international business activities. We could be significantly affected by such risks, which include, but are not limited to, the integration of international operations, challenges associated with dealing with numerous legal and tax systems, the potential for volatile economic and labor conditions, political instability, foreign exchange, expropriation, changes in taxes, and other regulatory costs. Although we operate primarily in countries with relatively stable economic and political climates, there can be no assurance that our business will not be adversely affected by the risks inherent in international operations.

[1] See Non-IRFS Measures

The following conditions or events could disrupt our supply chain, interrupt production at our facilities or those of our suppliers or customers, increase our cost of sales and other operating expenses, result in material asset losses, or require additional capital expenditures to be incurred:

- fires, pandemics (including regional and global infectious diseases), extraordinary weather conditions, or natural disasters, such as hurricanes, tornadoes, floods, tsunamis, typhoons, and earthquakes;
- political instability, social and labor unrest, war, or terrorism;
- disruptions in port activities, shipping and freight forwarding services;
- interruptions in the availability of basic services and infrastructure, including power and water shortages;
- changes in a specific country’s or region’s economic conditions, such as a recession;
- new certification requirements; significant fluctuations in currency exchange rates; and
- new trade barriers.

Our insurance programs do not cover every potential loss associated with our operations, including potential damage to assets, lost profits, and liability that could result from the aforementioned conditions or events. In addition, our insurance may not fully cover the consequences resulting from a loss event, due to insurance limits, sub-limits, or policy exclusions. Any occurrence not fully covered by insurance could have a negative effect on our business.

Risks Related to China

The legal system in mainland China is a civil law system based on written statutes. Unlike common law systems, it is a system in which decided legal cases have little precedential value. The legal system in mainland China evolves rapidly, and the interpretations of many laws, regulations and rules may contain inconsistencies and their interpretation and enforcement involve uncertainties. These uncertainties could limit the legal protections available to us. In addition, the Company cannot predict the effect of future developments in the mainland Chinese legal system, including the promulgation of new laws, changes to existing laws or the interpretation or enforcement thereof, or the pre-emption of local regulations by national laws. Such unpredictability towards the Company's contractual, property (including intellectual property) and procedural rights could adversely affect the Company's business and impede its ability to continue operations. Furthermore, any litigation in mainland China may be protracted and result in substantial costs and diversion of resources and management attention.

The mainland Chinese government exercises significant control over mainland China's economic growth through strategically allocating resources, controlling the payment of foreign currency-denominated obligations, setting monetary policy and providing preferential treatment to particular industries or companies. Any growth in the Chinese economy may not continue and any slowdown may have a negative effect on our business. Any adverse changes in economic conditions in mainland China, in the policies of the mainland Chinese government, or in the laws and regulations in mainland China, could have a material adverse effect on the overall economic growth of mainland China. Such developments could adversely affect the Company's business, lead to reduction in demand for its products and adversely affect the Company's competitive position.

International Trade Regulations

We do business in a number of countries from various locations, and, as such, face risks associated with changes to International trade regulations and policies. Such risks include, but are not limited to, barriers to or restrictions on free trade, changes in taxes, tariffs and other regulatory costs. The current global political environment, including but not limited to the stated positions of the U.S. administration towards China, and the United Kingdom leaving the European Union on January 31, 2020, appear to favour increasing restrictions on trade. Such restrictions could have a negative effect on our business if they were to limit our ability to export our products to markets in which we currently do business or to import raw materials from our current suppliers. Conversely, it is possible that they could have a favourable effect on our business if they were to inhibit competition in markets in which we do business without having an adverse effect on our operations.

Although we operate primarily in countries with proximity to our customers and suppliers and with relatively stable economic and political climates, there can be no assurance that our business will not be adversely affected by the risks inherent to the changing international political landscape and its impact on global trade.

Environmental Regulations

Our operations involve the use, handling, generation, processing, storage, transportation, recycling and disposal of hazardous materials and are subject to extensive environmental laws and regulations at the national, provincial, local and international level. These environmental laws and regulations include those governing the discharge of pollutants into the air and water, the use, management and disposal of hazardous materials and wastes, the clean-up of contaminated sites and occupational health and safety. Failure to comply with such laws, regulations and permits can have serious consequences, including damage to our reputation; stopping us from pursuing operations at one of our facilities; being subject to substantial fines, penalties, criminal proceedings, third party property damage or personal injury claims, clean-up costs or other costs; increasing the costs of development or production and litigation or regulatory action against us, and materially adversely affecting our business, results of operations or financial condition. Future changes in applicable environmental and health and safety laws and regulations could substantially increase costs and burdens to achieve compliance or otherwise have an adverse impact on our business, results of operations or financial condition.

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, or the discovery of currently unknown environmental conditions may require expenditures that could have a material adverse effect on our business, results of operations and financial condition.

Competition

We are a leading producer of specialty semiconductors and performance materials with a limited number of competitors, few of which are as fully integrated as we are or have a similar range of products. Accordingly, they have limitation to provide the same comprehensive set of services and products as we do. However, there can be no guarantee that this situation will continue in the future and competition could arise from new low-cost metal refiners or from certain of our customers who could decide to backward integrate. Greater competition could have an adverse effect on our revenues and operating margins if our competitors gain market share and we are unable to compensate for the volume lost to our competition.

Commodity Price

The price we pay for, and availability of, various inputs fluctuate due to numerous factors beyond our control, including political and economic conditions, currency exchange rates, inflation or deflation, global supply and demand for metal products, fluctuations in the value of the U.S. dollar and foreign currencies, speculative trading, trade sanctions, tariffs, labor costs, competition, over capacity of producers and price surcharges. Fluctuations in availability and cost of inputs may materially affect our business, financial condition, results of operations and cash flows. These fluctuations can be unpredictable and can occur over short periods of time. To the extent that we are not able to pass on any increases, our business, financial condition, results of operations and cash flows may be materially adversely affected.

Sources of Supply

We may not be able to secure the critical raw material feedstock on which we depend for our operations. We currently procure our raw materials from a number of suppliers with whom we have had long-term commercial relationships. The loss of any one of these suppliers or a reduction in the level of deliveries to us may reduce our production capacity and impact our deliveries to customers. This would in turn negatively impact our sales, net margins and may lead to liabilities with respect to some of our supply contracts.

In addition, supplemental supply-chain challenges created by the economic conjecture following the COVID-19 global pandemic could negatively affect the Company’s general procurement through longer delays of transportation or through an increase in prices to obtain supplies. This may adversely affect the business, financial condition and operating results Company.

Protection of Intellectual Property

Protection of our proprietary processes, methods and other technologies is important to our business. We rely on international patents as well as trade secrets and employee confidentiality agreements to safeguard our intellectual property. We have deliberately chosen to limit our patent position for certain intellectual properties to avoid disclosing valuable information. Failure to protect and monitor the use of our existing intellectual property rights could result in the loss of valuable technologies and processes. There can be no assurance that our confidentiality agreements will provide meaningful protection for our intellectual property rights or other proprietary information in the event of any unauthorized use or disclosure or that we will be able to meaningfully protect our trade secrets.

Inventory Price

We monitor the risks associated with the value of our inventories in relation to the market price of such inventories. Because of the highly illiquid nature of many of our inventories, we rely on a combination of standard risk measurement techniques, such as value at risk as well as a more empirical assessment of the market conditions. Decisions on appropriate physical stock levels are taken by considering both the value at risk calculations and the market conditions.

Business Interruptions

We may incur losses resulting from business interruptions. In many instances, especially those related to our long-term contracts, we have contractual obligations to deliver product in a timely manner. Any disruption in our activities which leads to a business interruption could harm our customers' confidence level and lead to the cancellation of our contracts and legal recourse against us. Although we believe that we have taken the necessary precautions to avoid business interruptions and carry business interruption insurance, we could still experience interruptions which would adversely impact our financial results.

Changes to Backlog

The Company cannot guarantee that the revenues projected in its backlog will be realized. In addition, contract delays, suspensions, terminations, cancellations, reductions in scope or other adjustments may occur from time to time due to considerations beyond the Company's control and may have an impact on the value of reported backlog with a corresponding adverse impact on future revenues and profitability.

Dependence on Key Personnel

We rely on the expertise and know-how of our personnel to conduct our operations. The loss of any member of our senior management team could have a material adverse effect on us. Our future success also depends on our ability to execute succession plans, attract and retain key employees, train, retain and successfully integrate new talent into our management and technical teams. Recruiting and retaining talented personnel, particularly those with expertise in the specialty metals industry and refining technology is vital to our success and may prove difficult. We cannot provide assurance that we will be able to attract and retain qualified personnel when needed, especially in light of the current labor shortage affecting several markets in which we operate. If the Company is unable to recruit and retain additional qualified personnel in the future, its business, financial condition and operating results could be adversely affected.

Collective Agreements

A portion of our workforce is unionized, and we are party to collective agreements that are due to expire at various times in the future. If we are unable to renew these collective agreements on similar terms as they become subject to renegotiation from time to time, this could result in work stoppages or other labour disturbances, such as strikes, walkouts or lockouts, potentially affecting our performance.

Litigation Risks

We may be subject to a variety of civil or other legal proceedings, with or without merit. Although the Company establishes provisions for such litigation, there can be no assurance that the provisions for all claims correspond to the settlement amount. A significant judgment against the Company or the imposition of a significant fine or penalty could have a material adverse effect on its business, financial condition and results of operations.

Environmental, Social and Governance (ESG) Considerations

Investors are increasingly placing a greater emphasis on ESG factors when assessing investment options. Future investments made in the Company or future partnerships or business relations made with the Company may depend on various (and sometimes subjective) ESG standards.

Risks related to Acquisitions

The Company has recently completed the acquisition of Azur and may from time to time acquire or propose to acquire other companies. The Company’s inability to properly integrate acquired companies, unanticipated acquisition costs, unforeseen delays and unknown liabilities associated with acquisitions, the potential loss of key employees following acquisitions, challenges with the integration of new operations and new personnel, the diversion of management’s time and focus from other business concerns, opportunities and operational matters to work on acquisitions or integrate acquisitions, the loss of momentum in ongoing operations and disruptions to operations, possible inconsistencies in procedures and policies among the combined companies, and the need to implement new accounting, information technology, human resources or other administrative systems, may each materially and adversely affect the Company’s business, results of operations or financial condition.

Systems, Network Infrastructure and Data Failure, Interruption and Breach

Our operations rely on information systems, communications technology, business and other technology applications, including global and regional networks, complex server infrastructure and operating systems, in order to operate properly. If we are unable to continually maintain our software and hardware, effectively upgrade our systems and network infrastructure, and take other steps to improve the efficiency and protect our systems, the Company’s operation systems could be interrupted or delayed. The same applies if our network, communication and operations systems are damaged or interrupted by natural disasters, telecommunications failures, acts of war or terrorism, computer viruses, sabotage, human errors, physical or electronic security breaches, or similar events or disruptions. The Company also faces the threat of unauthorized system access, computer hackers, malicious code and organized cyber-attacks. The COVID- 19 pandemic context with a significant number of employees working remotely contributes to an increase in cyber-attack attempts. Although the Company has not experienced any material losses relating to cyberattacks or other information security breaches in the past, there can be no assurance that the Company will not experience such losses in the future due to the evolving nature of these threats.

Risks Associated with Public Issuer Status

Our shares are publicly traded and, as such, we are subject to all of the obligations imposed on "reporting issuers" under applicable securities laws in Canada and all of the obligations applicable to a listed company under stock exchange rules. Another risk associated with a public issuer status is the disclosure of key Company information as compared to privately owned competitors.

Global Economic Conditions

Current global economic conditions, which have been subject to increased volatility, may impact the Company's access to public financing and its ability to obtain equity or debt financing on favourable terms.

Market Price of the Common Shares

The common shares of the Company trade on the Toronto Stock Exchange under the symbol ''VNP''. The market price of securities of many companies experiences wide fluctuations from time to time that are not necessarily related to the operating performance, underlying asset values or future growth prospects of such companies. There can be no assurance that fluctuations in the price of the common shares of the Company will not occur.

Non-IFRS Measures

In this Management’s Report, the Company’s management uses certain measures which are not in accordance with IFRS. Non-IFRS measures are useful supplemental information but may not have a standardized meaning according to IFRS.

Backlog represents the expected orders the Company has received but have 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 are 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 margin is defined as EBITDA divided by revenues.

Adjusted EBITDA means EBITDA as defined above before impairment of inventories, share-based compensation expense (recovery), impairment of non-current assets, litigation and restructuring costs (income), gain on disposal of property, plant and equipment, foreign exchange and derivatives loss (gain). 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 operating expenses means operating charges before impairment of inventories, share-based compensation expense (income), impairment of non-current assets, litigation and restructuring costs (recovery), gain on disposal on property, plant and equipment and depreciation and amortization. 5N Plus uses adjusted operating expenses to calculate the 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.

(in thousands of U.S. dollars)	**Q4 2021**	Q4 2020	**FY 2021**	FY 2020
	$	$	**$**	$
Operating expenses	**60,018**	45,616	**197,119**	163,695
Impairment of inventories	**-**	(2 411)	**-**	(2 411)
Impairment of non-current assets	**-**	-	**-**	(4 934)
Share-based compensation recovery (expense)	**460**	(867)	**(689)**	(1 801)
Litigation and restructuring (costs) income, net	**(1 644)**	-	**(2 144)**	5 577
Depreciation and amortization	**(4 364)**	(2 651)	**(12 535)**	(11 725)
Adjusted operating expenses	**54,470**	39,687	**181,751**	148,401

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.

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.

Funds from (used in) operations means the amount of cash generated from operating activities before changes in non-cash working capital balances related to operations. This amount appears directly in the consolidated statements of cash flows of the Company. 5N Plus considers funds from (used in) operations to be a key measure as it demonstrates the Company's ability to generate the cash necessary for future growth and debt repayment.

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.

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.

(in thousands of U.S. dollars)	**As at December 31, 2021**	As at December 31, 2020
	$	$
Bank indebtedness	**-**	-
Long-term debt including current portion	**116,000**	50,109
Lease liabilities including current portion	**32,640**	5,358
Subtotal Debt	**148,640**	55,467
Lease liabilities including current portion	**(32,640)**	(5,358)
Total Debt	**116 000**	50 109
Cash and cash equivalents	**(35,940)**	(39,950)
Net Debt	**80,060**	10,159

Return on Capital Employed ("ROCE") is a non-IFRS financial measure, calculated by dividing the annualized Adjusted EBIT by capital employed at the end of the period. Adjusted EBIT is calculated as the Adjusted EBITDA less depreciation of PPE and amortization of intangible assets (adjusted for accelerated depreciation charge, if any). Capital employed is the sum of accounts receivable, inventory, PPE, and intangibles (excluding intangible from Business acquisition) less trade and accrued liabilities (adjusted for exceptional items). 5N Plus uses ROCE to measure the return on capital employed, whether the financing is through equity or debt. In the view of the Company, this measure provides useful information to determine if capital invested in the Company yields competitive returns. The usefulness of ROCE is limited by the fact that it is a ratio and does not provide information as to the absolute amount of its net income, debt or equity. It also excludes certain items from the calculation. Other companies may use a similar measure but calculate it differently.

(in thousands of U.S. dollars)	**As at December 31, 2021**	As at December 31, 2020
	$	$
Revenue	**209,990**	177,192
Adjusted operating expenses as previously defined	**(181,751)**	(148,401)
Adjusted EBITDA	**28,239**	28,791
Depreciation of property, plant and equipment	**(8,969)**	(8,805)
Amortization of intangible assets	**(1,802)**	(1,469)
Adjusted EBIT	**17,468**	18,517
Account receivables	**42,098**	30,110
Inventories	**95,526**	67,139
Property, plant and equipment	**81,526**	53,191
Intangible asset excluding intangible assets from business acquisition	**12,840**	9,668
Trade and accrued liabilities excluding consideration payable	**(47,844)**	(31,671)
Capital employed	**184,146**	128,437
ROCE	**9.5%**	14.4%

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.

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.

Selected Quarterly Financial Information

(in thousands of U.S. dollars, except per share amounts)	**Dec 31, 2021**	Sept 30, 2021	June 30, 2021	March 31, 2021	Dec 31, 2020	Sept 30, 2020	June 30, 2020	March 31, 2020
	$	$	$	$	$	$	$	$
Revenue	**64,556**	50,839	47,719	46,876	46,230	39,872	41,136	49,954
EBITDA[1]	**7,822**	5,105	6,318	5,743	2,230	7,450	6,506	6,238
Adjusted EBITDA[1]	**10,086**	5,537	6,336	6,280	6,543	7,744	7,647	6,857
Net earnings (loss)	**980**	(792)	2,159	763	(2,864)	2,709	1,749	592
Basic earnings (loss) per share	**$0.01**	($0.01)	$0.03	$0.01	($0.03)	$0.03	$0.02	$0.01
Diluted earnings (loss) per share	**$0.01**	($0.01)	$0.03	$0.01	($0.03)	$0.03	$0.02	$0.01
Adjusted net earnings (loss)[1]	**1,879**	(246)	1,932	1,789	184	1,955	2,124	717
Basic adjusted net earnings per share[1]	**$0.02**	$-	$0.02	$0.02	$-	$0.02	$0.03	$0.01
Funds from operations[1]	**5,604**	2,394	3,656	4,899	4,355	11,181	5,520	4,774
Backlog[1]	**221 days**	174 days	199 days	195 days	189 days	171 days	202 days	188 days

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

Selected Yearly Financial Information

As at and for the years ended December 31 (in thousands of U.S. dollars except per share amounts)	**2021**	2020	2019
	$	$	$
Revenue	**209,990**	177,192	195,971
EBITDA	**24,988**	22,424	19,051
Adjusted EBITDA	**28,239**	28,791	21,950
Net earnings	**3,110**	2,186	1,785
Basic earnings per share	**$0.04**	$0.03	$0.02
Diluted earnings per share	**$0.04**	$0.03	$0.02
Adjusted net earnings	**5,354**	4,980	3,875
Basic adjusted net earnings per share	**$0.06**	$0.06	$0.05
Funds from operations	**16,553**	25,830	15,724
Backlog	**221 days**	189 days	243 days
Balance Sheet			
Total assets	**373,590**	226,678	229,942
Total non-current liabilities	**172,284**	71,752	75,629
Net debt[1]	**80,060**	10,159	35,042
Shareholders' equity	**136,247**	118,376	117,297

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

[1] See Non-IFRS Measures