



5N PLUS
Enabling Performance™



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Management Report

Quarter Ended
June 30, 2023

Management's Discussion and Analysis

This Management's Discussion and Analysis ("MD&A") of the financial condition and results of operations is intended to assist readers in understanding 5N Plus Inc. (the "Company" or "5N Plus"), its business environment, strategies, performance and risk factors. This MD&A should be read in conjunction with the unaudited condensed interim consolidated financial statements of Q2 2023 and the audited consolidated financial statements and the accompanying notes for the year ended December 31, 2022, based on International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Boards, unless otherwise stated. This MD&A has been prepared in accordance with the requirements of the Canadian Securities Administrators.

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

Information contained herein includes any significant developments until August 1, 2023, 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. "Q2 2023" and "Q2 2022" refer to the three-month periods ended June 30, 2023 and June 30, 2022, respectively, "YTD 2023" and "YTD 2022" refer to the six-month periods ended June 30, 2023, and June 30, 2022 respectively.

Non-IFRS Measures

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

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

Notice Regarding Forward-Looking Statements

Certain statements in this MD&A may be forward-looking within the meaning of applicable securities laws. Forward-looking information and statements are based on the best estimates available to the Company at the time and involve known and unknown risks, uncertainties or other factors that may cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. A description of the risks affecting the Company's business and activities appears under the heading "Risk and Uncertainties" of 5N Plus's 2022 MD&A dated February 21, 2023 and note 10 of the unaudited condensed interim consolidated financial statements for the three and six-month periods ended June 30, 2023 and June 30, 2022 available on www.sedar.com.

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

Management's Discussion and Analysis

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' 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' 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

The Company has the following two 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 EBITDA¹, which are reconciled to consolidated numbers considering corporate income and expenses.

Operating in North America and Europe, the Specialty Semiconductors segment integrates the products and operations of AZUR SOLAR Space GmbH ("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 manufactures and sells products that are used in several applications in pharmaceutical and healthcare, industrial, and extractive and catalytic. 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

MD&A Q2 2023 Highlights - Strong Performance Supported by Gross Margin Expansion

The Company's Q2 2023 and YTD 2023 results reflect strong demand in target end markets, an improved product mix and the effectiveness of its commercial excellence program. As a leading supplier of ultra-high purity specialty semiconductor materials outside of China and as a leader in critical metal recovery, the Company remains uniquely positioned to continue to benefit from strong demand in critical and high-growth industry sectors, such as space solar power and terrestrial renewable energy.

All amounts are expressed in U.S. dollars.

The Company delivered its strongest Adjusted EBITDA¹ and gross margin in Q2 2023 and YTD 2023 in nearly a decade. These results were primarily the result of a continued strong performance under Specialty Semiconductors and an improved product mix under Performance Materials.

In Specialty Semiconductors, revenue was up 18% in Q2 2023 and 19% YTD 2023, compared to the corresponding periods last year. Adjusted EBITDA increased by 27% both in Q2 2023 and YTD 2023. The Company continues to experience unprecedented demand, most notably in the space solar power and terrestrial renewable energy end markets, reflected in its strong backlog¹ as at June 30, 2023 and its active pipeline of future business opportunities in these industry sectors. Management continues to approach future business opportunities with discipline and within the framework of its commercial excellence program pillars of innovation, value optimization and client partnership.

Under Performance Materials, lower year-over-year revenue for the quarter and YTD 2023 reflects the Company's strategic exit of low-margin extractive and catalytic products in the second half of 2022. Despite lower revenues, the segment generated a 12% increase in Adjusted EBITDA in Q2 2023 and a 31% increase YTD 2023, compared to the corresponding periods last year, reflecting an improved product mix comprised of more value-added and higher margin products.

The Company generated a strong consolidated Adjusted gross margin¹ of 32.9% for Q2 2023, compared to 22.4% in Q2 2022, representing its strongest gross margin performance in nearly a decade. Gross margin for YTD 2023 reflects an improved product mix, as well as the Company's disciplined client partnership and value-added product development approach across both segments.

The financial performance is enabling the Company to pay down debt, with Net debt¹ reduced by \$4.9 million since the beginning of the year and \$6.2 million compared to Q1 2023, coming in at \$73.4 million as at June 30, 2023.

The ongoing implementation of the Company's capacity expansion programs is progressing well and as planned. This includes an increase in output capacity at AZUR by 30% by 2024 and an increase in production capacity for renewable energy applications, by 35% in 2023 and 100% in 2024, in support of key customer capacity expansion plans. The Company is also in the advanced stages of securing additional complex feeds and secondary streams for the recovery of critical minerals, following the recent expansion of recycling and refining capacity at its Montreal plant.

¹ See Non-IFRS Measures

Management's Discussion and Analysis

Financial Highlights

- Revenue in Q2 2023 reached \$59.1 million, compared to \$72.4 million for the same period last year. The decrease is primarily attributable to the Company's strategic exit from the manufacturing of low-margin extractive and catalytic products in the second half of 2022.
- In Q2 2023, EBITDA¹ was \$17.5 million, compared to \$6.7 million in Q2 2022. The \$10.8 million increase is mainly explained by litigation and restructuring income of \$9.0 million received from the previous shareholder of AZUR as per stipulations of the share purchase agreement.
- Adjusted EBITDA¹ in Q2 2023 reached \$10.8 million, compared to \$8.6 million for the same period last year, an increase of 26%, with Specialty Semiconductors increasing by 27% to \$8.1 million due to higher demand and Performance Materials increasing by 12% to \$6.2 million due to a more favourable product mix.
- Adjusted gross margin¹ in Q2 2023 was 32.9%, compared to 22.4% in Q2 2022.
- On June 30, 2023, the backlog¹ represented 289 days of annualized revenue, 17 days lower than the previous quarter due to the quarterly realization of yearly contracts under Performance Materials and 149 days higher than the same period last year primarily due to demand for terrestrial renewable energy and space solar power.
- Net debt¹ stood at \$73.4 million as at June 30, 2023, compared to \$78.3 million as at December 31, 2022, representing a decrease of \$4.9 million.

Outlook

The Company continues to expect strong demand in its target end markets, including terrestrial renewable energy and space solar power under Specialty Semiconductors and in the health and pharmaceutical sector under Performance Materials.

Management maintains its previously disclosed Adjusted EBITDA guidance range of between \$35 million and \$40 million for FY 2023 and a projected Adjusted EBITDA range of between \$45 million and \$50 million for FY 2024.

¹ See Non-IFRS Measures

Summary of Results

(in thousands of U.S. dollars, except per share amounts)	Q2 2023	Q2 2022	YTD 2023	YTD 2022
	\$	\$	\$	\$
Revenue	59,075	72,388	114,362	136,809
Adjusted operating expenses ^{1*}	(48,231)	(63,805)	(94,721)	(122,600)
Adjusted EBITDA¹	10,844	8,583	19,641	14,209
Share-based compensation expense	(701)	(1,036)	(713)	(1,160)
Litigation and restructuring income (costs)	8,772	(372)	8,772	(372)
Impairment of non-current assets	(608)	-	(608)	(5,386)
Loss on disposal of property, plant and equipment	(1,051)	-	(1,051)	-
Foreign exchange and derivative gain (loss)	274	(436)	259	(735)
EBITDA¹	17,530	6,739	26,300	6,556
Interest on long-term debt, imputed interest and other interest expense	2,056	1,384	4,316	2,655
Depreciation and amortization	4,015	4,856	8,074	9,685
Earnings (loss) before income taxes	11,459	499	13,910	(5,784)
Income tax expense (recovery)				
Current	2,855	2,819	3,769	4,664
Deferred	(1,539)	(190)	(1,456)	(2,563)
	1,316	2,629	2,313	2,101
Net earnings (loss)	10,143	(2,130)	11,597	(7,885)
Basic earnings (loss) per share	\$0.11	(\$0.02)	\$0.13	(\$0.09)
Diluted earnings (loss) per share	\$0.11	(\$0.02)	\$0.13	(\$0.09)

¹Excluding impairment of inventories, share-based compensation expense, litigation and restructuring income (costs), impairment of non-current assets, loss on disposal of property, plant and equipment ("PPE"), and depreciation and amortization.

Revenue by Segment and Adjusted Gross Margin

(in thousands of U.S. dollars)	Q2 2023	Q2 2022	Change	YTD 2023	YTD 2022	Change
	\$	\$		\$	\$	
Specialty Semiconductors	36,313	30,644	18%	69,052	57,945	19%
Performance Materials	22,762	41,744	(45%)	45,310	78,864	(43%)
Total revenue	59,075	72,388	(18%)	114,362	136,809	(16%)
Cost of sales	(42,765)	(60,147)	(29%)	(84,767)	(114,396)	(26%)
Depreciation included in cost of sales	3,152	3,954	(20%)	6,354	7,859	(19%)
Adjusted gross margin¹	19,462	16,195	20%	35,949	30,272	19%
Adjusted gross margin percentage¹	32.9%	22.4%		31.4%	22.1%	

Revenue in Q2 2023 decreased by 18%, reaching \$59.1 million, compared to \$72.4 million for the same period last year. The decrease is primarily attributable to the Company's strategic exit from the manufacturing of low margin extractive and catalytic products in the second half of 2022 and the related divestiture of its Tilly, Belgium operations in Q4 2022.

Adjusted gross margin¹ in Q2 2023 and YTD 2023 was favourably impacted by the consolidated product mix, supported by the implementation of the Company's commercial excellence program last year, and the Company's strategic exit from the manufacturing of low margin extractive and catalytic products. Adjusted gross margin reached \$19.5 million, or 32.9%, compared to \$16.2 million, or 22.4%, in Q2 2022, and \$35.9 million, or 31.4%, in YTD 2023, compared to \$30.3 million, or 22.1%, in YTD 2022.

Specialty Semiconductors Segment

Revenue in Q2 2023 increased by 18%, reaching \$36.3 million, compared to \$30.6 million in Q2 2022. In YTD 2023, revenue reached \$69.1 million, compared to \$57.9 million in YTD 2022, supported by higher demand. Adjusted gross margin in Q2 2023 was 31.9%, compared to 27.7% in Q2 2022. In YTD 2023, Adjusted gross margin was 31.5%, compared to 26.2% in YTD 2022.

¹ See Non-IFRS Measures

Management's Discussion and Analysis

Performance Materials Segment

Revenue in Q2 2023 reached \$22.8 million, compared to \$41.7 million in Q2 2022. In YTD 2023, revenue reached \$45.3 million, compared to \$78.9 million in YTD 2022. The decrease is primarily attributable to the Company's strategic exit from the manufacturing of low margin extractive and catalytic products in the second half of 2022 and the related divestiture of its Tilly, Belgium operations in Q4 2022. Adjusted gross margin¹ in Q2 2023 was 36.6%, compared to 18.9% in Q2 2022. In YTD 2023, Adjusted gross margin was 32.7%, compared to 19.6% in YTD 2022.

Operating Earnings (Loss), EBITDA and Adjusted EBITDA

(in thousands of U.S. dollars)	Q2 2023	Q2 2022	Change	YTD 2023	YTD 2022	Change
	\$	\$		\$	\$	
Specialty Semiconductors	8,128	6,410	27%	15,350	12,081	27%
Performance Materials	6,235	5,568	12%	10,696	8,190	31%
Corporate	(3,519)	(3,395)	4%	(6,405)	(6,062)	6%
Adjusted EBITDA¹	10,844	8,583	26%	19,641	14,209	38%
EBITDA¹	17,530	6,739	160%	26,300	6,556	301%
Operating earnings (loss)	13,241	2,319	471%	17,967	(2,394)	-

Adjusted EBITDA¹ in Q2 2023 reached \$10.8 million, an increase of \$2.3 million, compared to \$8.6 million in Q2 2022. Adjusted EBITDA increased by \$1.7 million, or 27%, under Specialty Semiconductors supported by higher demand. Under Performance Materials, Adjusted EBITDA increased by \$0.7 million, or 12%, supported by a more favourable product mix.

In Q2 2023, EBITDA¹ reached \$17.5 million, compared to \$6.7 million in Q2 2022. The increase of \$10.8 million is mainly explained by litigation and restructuring income of \$9.0 million received from the previous shareholder of AZUR. For more information, see the "Expenses" section.

In Q2 2023, operating earnings amounted to \$13.2 million, compared to \$2.3 million in Q2 2022. In YTD 2023, operating earnings amounted to \$18.0 million, compared to an operating loss of \$2.4 million in YTD 2022.

Specialty Semiconductors Segment

Adjusted EBITDA in Q2 2023 increased by \$1.7 million, or 27%, to \$8.1 million due to higher demand, representing an Adjusted EBITDA margin¹ of 22%, compared to 21% in Q2 2022. Adjusted EBITDA in YTD 2023 increased by \$3.3 million to \$15.4 million, representing an Adjusted EBITDA margin of 22%, compared to 21% for the same period in 2022.

Performance Materials Segment

Adjusted EBITDA in Q2 2023 increased by \$0.7 million, or 12%, to \$6.2 million, representing an Adjusted EBITDA margin of 27%, compared to 13% in Q2 2022. Adjusted EBITDA in YTD 2023 increased by \$2.5 million to \$10.7 million, representing an Adjusted EBITDA margin of 24%, compared to 10% in the same period in 2022. The increase is primarily attributable to the Company's strategic exit from the manufacturing of low margin extractive and catalytic products in the second half of 2022 and the related divestiture of its Tilly, Belgium operations in Q4 2022.

¹ See Non-IFRS Measures

Management's Discussion and Analysis

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

(in thousands of U.S. dollars, except per share amounts)	Q2 2023	Q2 2022	YTD 2023	YTD 2022
		\$	\$	\$
Net earnings (loss)	10,143	(2,130)	11,597	(7,885)
Basic earnings (loss) per share	\$0.11	(\$0.02)	\$0.13	(\$0.09)
Reconciling items:				
Share-based compensation expense	701	1,036	713	1,160
Litigation and restructuring (income) costs	(8,772)	372	(8,772)	372
Impairment of non-current assets	608	-	608	5,386
Loss on disposal of property, plant and equipment	1,051	-	1,051	-
Income tax recovery on taxable items above	(544)	(275)	(547)	(1,952)
Adjusted net earnings (loss)¹	3,187	(997)	4,650	(2,919)
Basic adjusted earnings (loss) per share¹	\$0.04	(\$0.01)	\$0.05	(\$0.03)

In Q2 2023, net earnings were \$10.1 million or \$0.11 per share, compared to a net loss of \$2.1 million or \$0.02 per share in Q2 2022. Adjusted net earnings¹ were \$3.2 million or \$0.04 per share in Q2 2023, compared to an Adjusted net loss of \$1.0 million or \$0.01 per share in Q2 2022.

In YTD 2023, net earnings were \$11.6 million or \$0.13 per share, compared to a net loss of \$7.9 million or \$0.09 per share in YTD 2022. Adjusted net earnings were \$4.7 million or \$0.05 per share in YTD 2023, compared to an Adjusted net loss of \$2.9 million or \$0.03 per share, in YTD 2022.

Excluding income tax recovery, the items reconciling Adjusted net earnings in Q2 2023 and YTD 2023 are share-based compensation expense, litigation and restructuring income of \$8.8 million, a non-cash impairment charge on non-current assets of \$0.6 million and a loss on disposal of PPE of \$1.1 million. For more information, see the "Expenses" section.

Backlog and Bookings

(in thousands of U.S. dollars)	BACKLOG ¹			BOOKINGS ¹		
	Q2 2023	Q1 2023	Q2 2022	Q2 2023	Q1 2023	Q2 2022
	\$	\$	\$	\$	\$	\$
Specialty Semiconductors	158,765	147,362	65,345	47,716	50,391	22,790
Performance Materials	28,146	37,865	45,445	13,043	20,802	21,704
Total	186,911	185,227	110,790	60,759	71,193	44,494

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

(number of days based on annualized revenues)*	BACKLOG ¹			BOOKINGS ¹		
	Q2 2023	Q1 2023	Q2 2022	Q2 2023	Q1 2023	Q2 2022
Specialty Semiconductors	365	365	195	120	140	68
Performance Materials	113	153	99	52	84	47
Weighted average	289	306	140	94	118	56

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

Q2 2023 vs. Q1 2023

Backlog¹ on June 30, 2023, represented 289 days of annualized revenue, a decrease of 17 days, or 6%, over the backlog on March 31, 2023. The decrease in the backlog is mainly due to the quarterly realization of yearly contracts under Performance Materials.

The backlog for Specialty Semiconductors represented 365 days of annualized revenue, at a similar level as the backlog on March 31, 2023, when expressed in days. While the estimated number of days based on annualized revenue cannot exceed 365 days per our definition, it is important to note that the effective backlog under Specialty Semiconductors surpasses the next twelve months due to confirmed long-term contracts in renewable energy and space solar power applications.

¹ See Non-IFRS Measures

Management's Discussion and Analysis

The backlog¹ for Performance Materials represented 113 days of annualized revenue, a decrease of 40 days, or 26%, compared to the backlog on March 31, 2023, mainly due to the quarterly realization of yearly contracts. The key contracts under this segment, now presenting an improved product mix, continue to be mainly renewed in the fourth and first quarters of the year.

Bookings¹ for Specialty Semiconductors decreased by 20 days, from 140 days in Q1 2023 to 120 days in Q2 2023. Bookings for Performance Materials decreased by 32 days, from 84 days in Q1 2023 to 52 days in Q2 2023. Bookings are calculated by adding revenues to the increase or decrease in backlog for the period divided by annualized revenue. As such, the increase or decrease in bookings is attributable to the same factors as the increase or decrease in backlog.

Q2 2023 vs. Q2 2022

Backlog on June 30, 2023, for Specialty Semiconductors increased by 170 days, largely attributable to favourable negotiations of long-term contracts under Specialty Semiconductors. The backlog for Performance Materials, represented 113 days, an increase of 14 days, compared to 99 days on June 30, 2022.

Bookings for Specialty Semiconductors increased by 52 days for the same factors mentioned above, and by 5 days for Performance Materials, compared to the previous year quarter.

Expenses

(in thousands of U.S. dollars)	Q2 2023	Q2 2022	YTD 2023	YTD 2022
	\$	\$	\$	\$
Depreciation and amortization	4,015	4,856	8,074	9,685
SG&A	7,569	7,421	14,462	14,914
Share-based compensation expense	701	1,036	713	1,160
Litigation and restructuring (income) costs	(8,772)	372	(8,772)	372
Impairment of non-current assets	608	-	608	5,386
Loss on disposal of property, plant and equipment	1,051	-	1,051	-
Financial expense	1,782	1,820	4,057	3,390
Income tax expense	1,316	2,629	2,313	2,101
Total expenses	8,270	18,134	22,506	37,008

Depreciation and Amortization

Depreciation and amortization expenses in Q2 2023 and YTD 2023 amounted to \$4.0 million and \$8.1 million, respectively, compared to \$4.9 million and \$9.7 million, respectively, for the same periods in 2022. The decrease in Q2 2023 and YTD 2023 is mainly associated with the Company's divestiture of its Tilly, Belgium operations in Q4 2022.

SG&A

SG&A expenses in Q2 2023 and YTD 2023 were \$7.6 million and \$14.5 million, respectively, compared to \$7.4 million and \$14.9 million, respectively, for the same periods in 2022.

Share-based Compensation Expense

Share-based compensation expense in Q2 2023 amounted to \$0.7 million, compared to \$1.0 million in Q2 2022. In YTD 2023, share-based compensation expense amounted to \$0.7 million, compared to \$1.2 million in YTD 2022.

Litigation and restructuring (income) costs

In Q2 2023, the Company recorded a litigation and restructuring income of \$8.8 million which represents the amount received from the previous shareholder of AZUR, net of related expenses. The income was received as per stipulations of the share purchase agreement and is not related to AZUR's performance post-acquisition.

In Q2 2022, the Company recorded litigation and restructuring costs of \$0.4 million following the settlement of a contract by mutual agreement.

¹ See Non-IFRS Measures

Impairment of Non-Current Assets

In Q2 2023, the Company recorded an impairment of non-current assets of \$0.6 million in relation to PPE included within the Performance Materials segment, to reflect the assessment of the carrying value of production equipment following the Company's decision to switch to higher capacity production equipment.

In Q1 2022, the Company recorded an impairment of non-current assets of \$5.4 million (\$5.1 million for customer relationships and \$0.3 million for other intangibles) under Specialty Semiconductors, to reflect the assessment of the carrying value of intangible assets due to the impact of the Russia/Ukraine conflict on the Company's Russia-based customer relationships. The Company's initial assumptions regarding future cashflows from these customers could no longer be supported given the international sanctions in place against Russia and the uncertainty related to, and the unknown duration of, the Russia/Ukraine conflict.

Loss on disposal of property, plant and equipment

In Q2 2023, the Company recorded a loss of \$1.1 million on the disposal of a production equipment following a change of technical requirements and functionalities by the Company. The Company disposed of this production equipment in a non-monetary transaction with the supplier in exchange for a credit to be applied against future acquisitions of production equipment.

Financial Expense

Financial expense amounted to \$1.8 million in Q2 2023 and Q2 2022. In YTD 2023, financial expense amounted to \$4.1 million, compared to \$3.4 million in YTD 2022. The negative impact of a significant increase in interest rates in Q2 2023 and YTD 2023 was mitigated by a gain in foreign exchange and derivatives this year, compared to a loss last year.

Income Taxes

The Company reported earnings before income taxes of \$11.5 million in Q2 2023 and \$13.9 million in YTD 2023. Income tax expense in Q2 2023 and YTD 2023 was \$1.3 million and \$2.3 million, respectively, compared to \$2.6 million and \$2.1 million, respectively, in the same periods in 2022. Both periods were impacted by deferred tax assets applicable only in certain jurisdictions.

Liquidity and Capital Resources

(in thousands of U.S. dollars)	Q2 2023	Q2 2022	YTD 2023	YTD 2022
	\$	\$	\$	\$
Funds from operations before the following	15,227	3,165	21,104	5,965
Net changes in non-cash working capital items	(3,849)	1,981	(13,498)	(5,761)
Cash from operating activities	11,378	5,146	7,606	204
Cash used in investing activities	(4,503)	(2,775)	(1,571)	(6,840)
Cash (used in) from financing activities	(8,195)	8,750	(8,785)	7,984
Effect of foreign exchange rate changes on cash and cash equivalents	(16)	(645)	146	(851)
Net (decrease) increase in cash and cash equivalents	(1,336)	10,476	(2,604)	497

In Q2 2023, cash generated from operating activities amounted to \$11.4 million, compared to \$5.1 million in Q2 2022. In YTD 2023, cash generated from operating activities amounted to \$7.6 million, compared to \$0.2 million in YTD 2022. The increase in YTD 2023 is mainly due to the net difference from higher contribution of funds from operating activities of \$15.1 million, negatively impacted by a less favourable change in non-cash working capital in YTD 2023.

In Q2 2023, cash used in investing activities amounted to \$4.5 million, compared to \$2.8 million in Q2 2022. The increase of \$1.7 million is mainly explained by the increase in additions to PPE. In YTD 2023, cash used in investing activities amounted to \$1.6 million, compared to \$6.8 million in YTD 2022. The decrease of \$5.3 million is mainly explained by the proceeds on settlement of an indexed deposit agreement which was amended during Q1 2023, resulting in a receipt of cash of \$6.5 million. This receipt was partially mitigated by higher additions to PPE of \$1.6 million in YTD 2023.

Management's Discussion and Analysis

In Q2 2023, cash used in financing activities amounted to \$8.2 million, compared to cash generated from financing activities of \$8.8 million in Q2 2022. In YTD 2023, cash used in financing activities amounted to \$8.8 million, compared to cash generated from financing activities of \$8.0 million in YTD 2022. The increase of \$16.8 million is mainly attributable to the reimbursement of \$7.5 million of the credit facility in Q2 2023 while the Company made a drawdown of \$10.0 million in Q2 2022. In addition, the Company received cash from the issuance of common shares in Q1 2023, while the principal elements of lease payments were similar for both periods.

Working Capital

(in thousands of U.S. dollars)	As at June 30, 2023	As at December 31, 2022
	\$	\$
Inventories	100,406	86,254
Other current assets	81,516	100,908
Current liabilities	(76,519)	(62,846)
Working capital¹	105,403	124,316
Working capital current ratio¹	2.38	2.98

The \$18.9 million decrease in working capital¹ compared to December 31, 2022 is mainly attributable to higher current liabilities following the presentation of the subordinated term loan of \$25.0 million maturing in March 2024 as a current portion of long-term debt in Q1 2023, net of lower trade and accrued liabilities. In addition, inventories increased by \$14.2 million in Q2 2023 to support demand and were mitigated by lower other current assets of \$19.4 million.

Net Debt

(in thousands of U.S. dollars)	As at June 30, 2023	As at December 31, 2022
	\$	\$
Bank indebtedness	-	-
Long-term debt including current portion	113,500	121,000
Total Debt¹	113,500	121,000
Cash and cash equivalents	(40,087)	(42,691)
Net Debt¹	73,413	78,309

Total debt¹ stood at \$113.5 million as at June 30, 2023, compared to \$121.0 million as at December 31, 2022.

Net debt¹, after considering cash and cash equivalents, decreased by \$4.9 million to \$73.4 million on June 30, 2023, from \$78.3 million on December 31, 2022.

Share Information

	As at August 1, 2023	As at June 30, 2023
Issued and outstanding shares	88,454,724	88,454,724
Stock options potentially issuable	1,615,162	1,615,162

Off-balance Sheet Arrangements

The Company is exposed to currency risk on sales in euros 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 19 and 27 of the audited consolidated financial statements for the year ended December 31, 2022. As at June 30, 2023, the Company had no off-balance sheet arrangements except for the use of letters of credit.

¹ See Non-IFRS Measures

Commitments

As at June 30, 2023, in the normal course of business, the Company contracted letters of credit for an amount of \$0.8 million (\$0.9 million as at December 31, 2022).

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.

Divestiture of 5N Belgium SA

On December 19, 2022, the Company divested its 100% interest in 5N Plus Belgium SA, previously included within its Performance Materials segment, and recognized a loss on divestiture of \$7.8 million. The decision to cease the production of lower margin products used in extractive and catalytic applications was made following a strategic review of the Company's operations. As part of the transaction, a provision of \$2.6 million was recorded under Litigation and Restructuring costs in Q4 2022, of which 2.0 million euros or \$2.1 million is held in escrow, to support the new owners to ensure site compliance with most recent environmental standards and other related costs. Prior to the divestiture, the Company recorded an impairment charge of \$7.1 million on PPE in Q3 2022 following the announcement of its intention to halt production at its manufacturing facility in Tilly, Belgium.

If the Company's exit from the manufacturing of low margin extractive and catalytic products and related divestiture of 5N Belgium SA had been completed as of January 1, 2022, the yearly consolidated Adjusted EBITDA¹ would have been higher by approximately \$2.0 million, and revenue under Performance Materials segment lower by \$39.3 million.

Governance

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

Disclosure Controls and Procedures

The CEO and the CFO have designed disclosure controls and procedures ("DC&P"), 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.

Internal Control over Financial Reporting

The CEO and the CFO have also designed internal controls over financial reporting (ICFR) or have caused them to be designed under their supervision, using the Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 COSO Framework), to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS.

Due to their intrinsic limitations, DC&P and ICFR only provide reasonable assurance and may not prevent or detect all misstatement or errors.

Changes in Internal Control over Financial Reporting

No changes were made to the ICFR during the six-month period ended June 30, 2023, that have materially affected, or are reasonably likely to materially affect, the ICFR.

¹ See Non-IFRS Measures

Management's Discussion and Analysis

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 19 – Fair Value of Financial Instruments in the 2022 audited consolidated financial statements of the Company.

Financial Risk Management

For a detailed description of the nature and extent of risks arising from financial instruments, and their related risk management, refer to Note 27 of the 2022 audited consolidated financial statements of the Company. The Company is not aware of any significant changes to its risk factors from those disclosed at that time.

Risk and Uncertainties

For a detailed description of risk factors associated with 5N Plus and its business, refer to "Risk and Uncertainties" of 5N Plus' 2022 MD&A dated February 21, 2023. Factors of uncertainty and risk that might result in such differences include the risks associated with interest rate, foreign currency, credit, liquidity, global economic conditions, crisis and climate change management, international operations including China, environmental regulations, social and governance (ESG) considerations, safety and hazards, prolonged armed conflict in Ukraine, COVID-19, availability and retention of qualified employees, collective agreements, litigation, our growth strategy, competition, commodity price, sources of supply, protection of intellectual property, inventory price, business interruptions, changes in backlog, acquisitions, systems, network infrastructure and data failure, as well as market price of the common shares.

Non-IFRS Measures

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

Backlog represents the expected orders the Company has received, but has not yet executed, and that are expected to translate into sales within the next twelve months, expressed in dollars and estimated in number of days not to exceed 365 days. Bookings represent orders received during the period considered, expressed in number of days, and calculated by adding revenues to the increase or decrease in backlog for the period considered, divided by annualized year revenues. 5N Plus uses backlog to provide an indication of expected future revenues in days, and bookings to determine its ability to sustain and increase its revenues.

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

EBITDA is reconciled to the most comparable IFRS measure:

(in thousands of U.S. dollars)	Q2 2023	Q2 2022	YTD 2023	YTD 2022
	\$	\$	\$	\$
Net earnings (loss)	10,143	(2,130)	11,597	(7,885)
Interest on long-term debt, imputed interest and other interest expense	2,056	1,384	4,316	2,655
Income taxes expense	1,316	2,629	2,313	2,101
Depreciation and amortization	4,015	4,856	8,074	9,685
EBITDA	17,530	6,739	26,300	6,556

EBITDA margin is defined as EBITDA divided by revenues.

Management's Discussion and Analysis

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

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

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

(in thousands of U.S. dollars)	Q2 2023	Q2 2022	YTD 2023	YTD 2022
	\$	\$	\$	\$
Revenues	59,075	72,388	114,362	136,809
Operating expenses	(45,834)	(70,069)	(96,395)	(139,203)
Operating earnings (loss)	13,241	2,319	17,967	(2,394)
Share-based compensation expense	701	1,036	713	1,160
Litigation and restructuring (income) costs	(8,772)	372	(8,772)	372
Impairment of non-current assets	608	-	608	5,386
Loss on disposal of property, plant and equipment	1,051	-	1,051	-
Depreciation and amortization	4,015	4,856	8,074	9,685
Adjusted EBITDA	10,844	8,583	19,641	14,209
Adjusted EBITDA margin	18.4%	11.9%	17.2%	10.4%

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

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

(in thousands of U.S. dollars)	Q2 2023	Q2 2022	YTD 2023	YTD 2022
	\$	\$	\$	\$
Operating expenses	45,834	70,069	96,395	139,203
Share-based compensation expense	(701)	(1,036)	(713)	(1,160)
Litigation and restructuring income (costs)	8,772	(372)	8,772	(372)
Impairment of non-current assets	(608)	-	(608)	(5,386)
Loss of disposal of property, plant and equipment	(1,051)	-	(1,051)	-
Depreciation and amortization	(4,015)	(4,856)	(8,074)	(9,685)
Adjusted operating expenses	48,231	63,805	94,721	122,600

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

Basic adjusted earnings (loss) per share means adjusted net earnings (loss) divided by the weighted average number of outstanding shares. 5N Plus uses basic adjusted earnings (loss) per share because it believes it is a meaningful measure of the operating performance of its ongoing business without the effects of unusual expenses or income. The definition of this non-IFRS measure used by the Company may differ from that used by other companies.

Management's Discussion and Analysis

Adjusted net earnings (loss) and Basic adjusted earnings (loss) are reconciled to the most comparable IFRS measures:

(in thousands of U.S. dollars, except per share amounts and number of shares)	Q2 2023	Q2 2022	YTD 2023	YTD 2022
	\$	\$	\$	\$
Net earnings (loss)	10,143	(2,130)	11,597	(7,885)
Basic earnings (loss) per share	\$0.11	(\$0.02)	\$0.13	(\$0.09)
Reconciling items:				
Share-based compensation expense	701	1,036	713	1,160
Litigation and restructuring (income) costs	(8,772)	372	(8,772)	372
Impairment of non-current assets	608	-	608	5,386
Loss on disposal of property, plant and equipment	1,051	-	1,051	-
Income tax recovery on taxable items above	(544)	(275)	(547)	(1,952)
Adjusted net earnings (loss)	3,187	(997)	4,650	(2,919)
Basic weighted average number of shares	88,454,724	88,330,236	88,411,447	88,330,236
Basic adjusted earnings (loss) per share	\$0.04	(\$0.01)	\$0.05	(\$0.03)

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

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

(in thousands of U.S. dollars)	Q2 2023	Q2 2022	YTD 2023	YTD 2022
	\$	\$	\$	\$
Total revenue	59,075	72,388	114,362	136,809
Cost of sales	(42,765)	(60,147)	(84,767)	(114,396)
Gross margin	16,310	12,241	29,595	22,413
Depreciation included in cost of sales	3,152	3,954	6,354	7,859
Adjusted gross margin	19,462	16,195	35,949	30,272
Adjusted gross margin percentage	32.9%	22.4%	31.4%	22.1%

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

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

(in thousands of U.S. dollars)	As at June 30, 2023	As at December 31, 2022
	\$	\$
Bank indebtedness	-	-
Long-term debt including current portion	113,500	121,000
Lease liabilities including current portion	30,105	30,402
Subtotal Debt	143,605	151,402
Lease liabilities including current portion	(30,105)	(30,402)
Total Debt	113,500	121,000
Cash and cash equivalents	(40,087)	(42,691)
Net Debt	73,413	78,309

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.

Management's Discussion and Analysis

Working capital is reconciled to the most comparable IFRS measure:

(in thousands of U.S. dollars)	As at June 30, 2023	As at December 31, 2022
	\$	\$
Inventories	100,406	86,254
Other current assets excluding inventories	81,516	100,908
Current assets	181,922	187,162
Current liabilities	(76,519)	(62,846)
Working capital	105,403	124,316
Working capital current ratio	2.38	2.98

Additional Information

5N Plus' 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)	June 30, 2023	March 31, 2023	Dec 31, 2022	Sept 30, 2022	June 30, 2022	March 31, 2022	Dec 31, 2021	Sept 30, 2021
	\$	\$	\$	\$	\$	\$	\$	\$
Revenue	59,075	55,287	61,042	66,372	72,388	64,421	64,556	50,839
EBITDA ¹	17,530	8,770	(3,671)	1,751	6,739	(183)	7,822	5,105
Adjusted EBITDA ¹	10,844	8,797	6,705	9,114	8,583	5,626	10,086	5,537
Net earnings (loss)	10,143	1,454	(8,146)	(6,968)	(2,130)	(5,755)	980	(792)
Basic earnings (loss) per share	\$0.11	\$0.02	(\$0.09)	(\$0.08)	(\$0.02)	(\$0.07)	\$0.01	(\$0.01)
Diluted earnings (loss) per share	\$0.11	\$0.02	(\$0.09)	(\$0.08)	(\$0.02)	(\$0.07)	\$0.01	(\$0.01)
Adjusted net earnings (loss) ¹	3,187	1,463	2,132	520	(997)	(1,922)	1,879	(246)
Basic adjusted earnings (loss) per share ¹	\$0.04	\$0.02	\$0.02	\$-	(\$0.01)	(\$0.02)	\$0.02	\$-
Funds from operations	15,227	5,877	5,478	2,055	3,165	2,800	5,604	2,394
Backlog ¹	289 days	306 days	253 days	192 days	140 days	196 days	221 days	174 days

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

¹ See Non-IFRS Measures