Trusted. Critical. Growing.

2023 Annual Report

Content

5N Plus (TSX:VNP) is a leading global producer of specialty semiconductors and performance materials. Our ultra-pure materials often form the core element of our customers' products.

Mission

To be critical to our customers, valued by our employees and trusted by our shareholders.

Vision

To enable critical industries through essential products based on advanced material technology.

Values

Commitment

Continuous improvement

Customer focus

Health and safety

Integrity

Sustainable development

The 5N+ Advantage

1 Trusted global developer, manufacturer and marketer of specialty semiconductors and performance materials

2 Market leader in majority of end-markets served: terrestrial renewable energy, space solar power, imaging and sensing, health and pharma, technical materials

3 Leading supplier of ultra-high purity semiconductor compounds based outside of China

4 Strong R&D capabilities and world-class technical team with decades of manufacturing experience, robust technologies and processes

5 Sourcing advantage with strategic global presence and upstream refining capabilities, including closed-loop metals management

6 Continuous investments in capacity expansion in high-growth sectors to meet long-term customer demand

7 Preferred partner to our customers focused on fostering long-term relationships and commercial excellence

38.3% ↗

Record Reported FY 2023 Adjusted EBITDA

$15.4M

FY 2023 Net Earnings

29.0%

Adjusted Gross Margin

292 DAYS

Backlog as at December 31, 2023

8
strategically located manufacturing facilities

800
employees on three continents

4
R&D centres

Headquartered in
Montréal

Global Presence

North America

Canada

Montréal

United States

Bridgeport

St. George

Europe

Germany

Eisenhüttenstadt

Heilbronn

Lübeck

Asia

China

Hong Kong

Shangyu

Laos

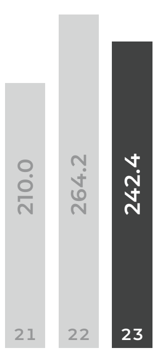
Vientiane

Malaysia

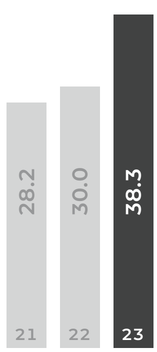
Kulim

Commercial Activities · Manufacturing · Research & Development

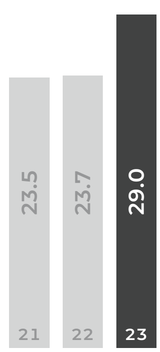
Selected Financial Highlights



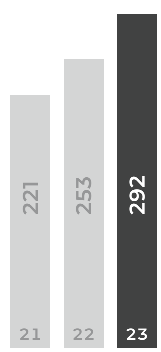
Revenues
(in millions of dollars)



Adjusted EBITDA[(1)]
(in millions of dollars)



Adjusted Gross Margin[(1)]
(as a percentage)



Backlog[(1)]
(number of days of last quarter annualized revenue)

(1) These measures are not recognized measures under IFRS and do not have standardized meanings prescribed by IFRS and therefore may not be comparable to similar measures presented by other companies. For further details of these non-IFRS measures, including a reconciliation to the most directly comparable IFRS measures, refer to our MD&A for the year ended December 31, 2023 available on SEDAR+ at sedarplus.ca.

All amounts in this document are expressed in U.S. dollars unless otherwise indicated.

Delivering Growth and Profitability

On behalf of your board, I am pleased to have this opportunity to provide you with our perspective on 2023 at 5N+. We take our responsibility of corporate oversight very seriously and, in particular, providing strategic counsel and guidance to the executive team to ensure responsible and sustainable management and growth of your company.

We are very proud of the progress the team has made over the last several years, both in terms of executing on the corporate strategy and with respect to delivering on individual objectives. After more than a year since being implemented, management's commercial excellence program is producing strong returns on the investments in high-growth markets with the right product mix. This focus, coupled with the deep customer relationships and long-term contracts, has generated improved profitability and margins, as well as greater predictability of future results, with a constant focus on value-added growth.

As such, we expect this strategy to continue to create long-term value for shareholders as we leverage our unique competitive advantages and high demand in several of our key sectors of operation, namely terrestrial renewable energy and space solar power, among others. With a strong and stable management team in place, the company is well-positioned to capitalize further on this strategy in 2024 and for years to come.

"With a strong and stable management team in place, the company is well-positioned to capitalize further on this strategy in 2024 and for years to come."

As shareholders, you can also have confidence that your board maintains its commitment to good governance in the proper establishment and review of policies and processes at both the board and corporate level. With the board charters and guidelines having last had a comprehensive update in 2021, the board continues its regular review of its policies to ensure they reflect best practices.

One area in which we persistently seek to improve is the strength of the board itself. We are committed to maintaining diversity of the board and the right skill set to meet the needs of the company as it grows and evolves. To that end, in February 2023, Blair Dickerson joined the board. Her experience in the resource sector combined with her expertise in sustainability, communications, corporate affairs and public policy have been invaluable to our deliberations. Our goal is to maintain a board that is composed of strong leaders with relevant experience ensuring a balance of history and fresh perspectives to help meet the needs of the company now and in the future.

With respect to sustainable development, in 2023, not only did the company issue its first comprehensive Sustainability Report, but also the board officially integrated the oversight of environmental, social and governance factors into the mandate of our Governance and Compensation Committee. Previously, as part of our enterprise risk management, we had already added oversight of climate risks to the Audit and Risk Management Committee. We will continue to ingrain these important factors into our decision-making as we gear up for impending regulatory requirements. We continue to do our part to enable a sustainable future through our own operations and through the products we help bring to market.

As we look ahead to 2024, I would like to extend the board's appreciation to management and the entire team at 5N+ for their outstanding achievements over the last year and their unwavering commitment to and disciplined execution on our strategy for sustainable growth.

As always, management and the board wish to thank you, our shareholders, for your ongoing trust and support.

On behalf of the Board,

Luc Bertrand
Chair of the Board

Board of Directors

Luc Bertrand
Corporate Director
Québec, Canada
Director since
January 2016

Jean Marie Bourassa
Corporate Director
Québec, Canada
Director since
December 2007

Nathalie Le Prohon
President, IBM
Quebec Technologies
Québec, Canada
Director since
May 2014

Blair Dickerson
Vice President,
Canadian Public
Affairs, Paper
Excellence Canada
Ontario, Canada
Director since
February 2023

Gervais Jacques
President and CEO
Québec, Canada
Director since
May 2020

Levelling Up, Year After Year

As we close out a year marked by earnings growth and margin expansion, and with our advanced materials powering history-making events on land and in space, we can look back with pride on all we have accomplished and forward with excitement at a promising 2024. I credit the exceptional efforts of our entire team for executing on our growth strategy and for meeting the unique requirements of our customers operating in critical and high-growth end markets.

The strategic changes we have made in recent years paired with robust demand in key sectors bore fruit last year, enabling us to deliver excellent financial results in 2023 despite macro-economic uncertainties. Our business model also now affords us better visibility and predictability of our expected performance over the coming years, which we expect to continue levelling up year after year.

A Strong Financial Performance

For 2023, in line with our projections, we generated $38.3 million in consolidated Adjusted EBITDA, or 28% growth year over year, representing the Company's strongest reported Adjusted EBITDA performance since inception. Adjusted gross margin was 29.0% in 2023, up from 23.7% in 2022. We capped off the year with an even higher backlog than at previous year-end, while also further deleveraging our balance sheet.

Our Specialty Semiconductors segment continues to be key in supporting our profitable growth. Growth in this segment is being driven by increasing demand in the high-growth solar space power and terrestrial renewable energy sectors. This year, we saw our products being used in some very exciting projects, including Chandrayaan-3 – India's mission to the moon; the European Space Agency's mission to Jupiter; and the world's largest next-generation long-duration energy storage project opened by RayGen in Australia.

In Performance Materials, earnings and margins improved dramatically following our strategic exit of the extractive and catalytic sector in the second half of 2022. We expect future growth in this segment to stem primarily from the health and pharmaceutical markets. We will also continue to explore product expansion opportunities and development initiatives both independently and through partnerships.

Commercial and Operational Excellence

Our strong financial performance is a testament to our commitment to a value-added product mix that addresses the needs of high-growth market segments, our deep expertise, commercial excellence and partnership approach. It also reflects our geographical competitive advantage as a leading provider of advanced materials and trusted partner to major corporations, global space agencies and western governments.

Through our commercial excellence program, we have been fostering our long-standing customer relationships and strategic partnerships. Our success is evident in the strength of our backlog, which stood at 292 days at December 31, 2023, eight days higher than the previous quarter and 39 days higher than at the same date last year. Our approach ensures we are an integral and valued part of our customers' solutions, focusing on working collaboratively to produce innovative products that meet their unique needs.

Operationally, we continue to invest in our production capacity to meet increasing demand and our strong pipeline of contracted work. In 2023, we increased our capacity to serve the renewable energy sector by 40%, with a further expansion of 60% on track for 2024. Once completed, we will have doubled our output capacity to serve this critical sector. With respect to our space solar technology, we are investing to increase our production capacity by 30% in 2024. Finally, as we secure additional complex feeds and secondary market streams for the recovery of critical minerals, we expect recently expanded operations in recycling and refining in Montréal to reach capacity in 2024.

Evolving our Sustainability Roadmap

Whether through our products that enable critical power alternatives or through our commitment to the circular economy, sustainability is engrained in our operations.

Last year, we published our inaugural Sustainability Report, which outlined our priority areas and commitment to responsible and sustainable operations. Since then, we have taken further steps to align with recognized ESG standards including TCFD recommendations, undertaking additional

climate risk assessments that will better inform our climate and energy management strategy. In addition, we are working across our organization to improve data tracking and disclosure, including on GHG emissions, to reduce our carbon footprint and ensure we meet emerging global legislative requirements. Beyond our operations, we increased our engagement with suppliers on ESG in 2023 and published our first Report on forced labour and child labour in supply chains. We intend to detail our continued progress in our second annual Sustainability Report as we continue on our sustainability journey.

Poised for Continued Growth

As we expand capacity to meet contracted demand and continue to execute on our strategy, we aim to build on the success of 2023 and deliver continued earnings growth. Records are made to be broken and it is our objective to do just that in the coming years because we firmly believe that our future holds even more opportunities and growth potential. With our commercial excellence program and customer-centric approach, we will further cement our position as a critical supplier of advanced materials to critical industries with compelling growth profiles.

In conclusion, I would like to thank our entire team for their commitment to our strategy for growth, our board for their oversight and guidance and our customers and partners for their confidence in our products and processes. Our remarkable performance this year would not have been possible without all these contributions. Finally, I would like to express my appreciation to all our shareholders for their ongoing support and trust. We look forward to continuing to provide value to all our stakeholders as we pursue our growth trajectory and aim to maintain our record-setting pace.

Gervais Jacques
President and CEO

Executive Committee

Gervais Jacques
President and CEO
since March 2022

Richard Perron
Chief Financial Officer
since March 2014

Roland Dubois
Chief Commercial Officer and Executive Vice President, Specialty Semiconductors
since September 2022

Paul Tancell
Executive Vice President, Performance Materials
since February 2017

Advanced Materials for Critical Applications

Performance Materials

Health & Pharma

Non-toxic to human health or the environment, we produce bismuth chemicals that are essential to the creation of everyday human care products. Our bismuth products are used as active pharmaceutical ingredients in over-the-counter antacids and antibiotic creams as well as in cosmetics product applications.

Technical Materials

Whether a substitute of toxic heavy metals in various applications or specialty alloys and chemicals, our technical materials are customizable and critical to a broad range of industries from aviation to optics.

Over the past few years, 5N+ has evolved its product mix to focus on providing value-added products to both critical and high-growth end markets. Through our unique and proprietary processes and world-class technological expertise, we create advanced materials that enable a broad range of applications.

Specialty Semiconductors

Terrestrial Renewable Energy

As a leading supplier to the renewable energy sector, our specialty semiconductor products are critical in moving towards a sustainable future. With gigawatts of solar panels incorporating our materials installed in utility-scale projects, our products convert the sun's power into renewable energy to provide electricity for consumers worldwide. In addition, our enabling materials are used in next generation energy storage infrastructure.

Space Solar Power

Our high-purity germanium wafers and epitaxial semiconductor substrates are used to produce ultra-high efficiency photovoltaic (PV) solar cells for satellite power generation and concentrated PV systems. Our enabling materials are frequently in orbit powering satellites, as well as various space vehicles.

Imaging & Sensing

Our materials are used to manufacture radiation detector chips in medical, infrared and earth imaging applications in the medical, security and defense industries, helping to reduce patient exposure to x-rays and keep nations safe.

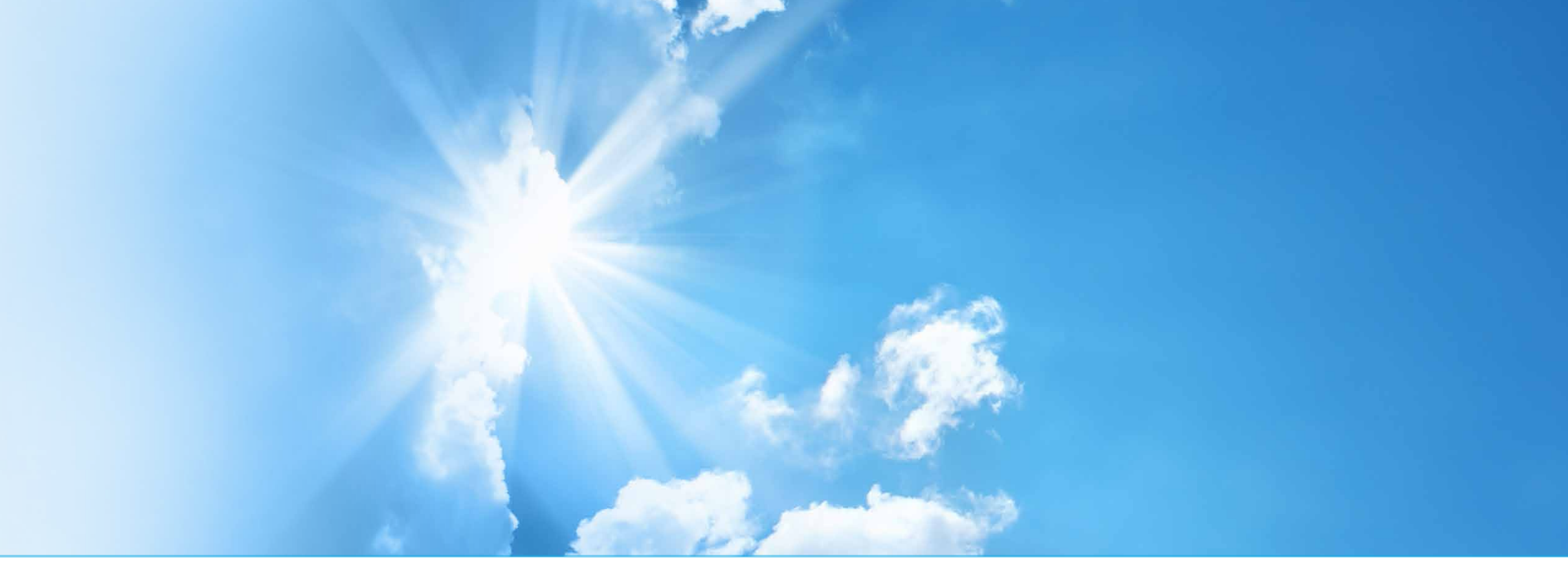
Enabling a Sustainable Future

5N+ is committed to being a reliable source for high-purity performance materials and specialty semiconductors enabling innovative products critical to our everyday lives, from converting solar power into electricity to active pharmaceutical ingredients.

From our inception, we have applied a sustainability lens to our business operations and developed robust supply chains and practices. We aim to continue to do our part to enable a sustainable future by leading the sustainable economy, enabling critical industries and new technology, and through community responsibility.

We published our first comprehensive Sustainability Report in early 2023 and intend to continue to update the market annually on our progress against our evolving goals and commitments.

A Sustainable and Closed-looped Model



Strong R&D

New technological developments are critical to ensure we are prepared for future global challenges from medical advancements to increasing energy efficiency. 5N+ has strong R&D capabilities with a world-class technical team strategically located around the globe and close to suppliers and customers. We are constantly enhancing our processes, developing new materials or accelerating their path to market to address the needs of our customers and their end markets.

Proprietary Technology & Robust Processes

5N+ is an integrated manufacturer of advanced materials utilizing unique and proprietary process technologies. We hold several certifications for various aspects of our business to demonstrate our commitment to high standards in health and safety, quality, energy, environment and resource management. We leverage our strong technological platform and skillset to gain a first-to-market advantage and to make continuous improvements.

Responsible Sourcing and Upcycling

We take an integrated, lifecycle approach to materials management. We have deep expertise and unique technologies for the recovery, treatment and valuation of degraded resources, with a mineral recycling program that spans three continents. We are also constantly investing in sustainably sourcing our raw materials.

We procure degraded resources containing low grades of critical metals from upstream suppliers and extract the critical metals to develop and manufacture enabling materials for our customers. As an upcycler of by-products from other industries, we help reduce waste by promoting reuse, while broadening our source market, thereby strengthening our diversified supply chain.

Our ISO Certifications by Manufacturing Site

	ISO 9001	ISO 14001	ISO 45001	ISO 50001
Eisenhüttenstadt (Germany)	●	●		●
Heilbronn (Germany)	●	●	●	
Lübeck (Germany)	●			●
Montréal (Canada)	●	●	●	
Shangyu (China)	●	●	●	
St. George (USA)	●			

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+"), 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, 2023, based on International Financial Reporting Standards as issued by the International Accounting Standards Board ("IFRS Accounting Standards" or "IFRS"), 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 February 27, 2024, 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 2023" and "Q4 2022" refer to the three-month periods ended December 31, 2023 and December 31, 2022, respectively; "FY 2023" and "FY 2022" refer to the years ended December 31, 2023, and December 31, 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 Accounting Standards 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 percentage, Adjusted EBITDA, Adjusted EBITDA margin, Adjusted operating expenses, Adjusted net earnings (loss), Basic adjusted earnings (loss) per share, Adjusted gross margin, Adjusted gross margin percentage, Total debt, Net debt, Net debt to EBITDA ratio, Working capital and Working capital ratio.

For definitions, further information and reconciliation of these measures to the most directly comparable measures under IFRS Accounting Standards, 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. Such forward-looking statements are based on a number of estimates and assumptions that the Company believes are reasonable when made, including that 5N+ will be able to retain and hire key personnel and maintain relationships with customers, suppliers and other business partners, that 5N+ will continue to operate its business in the normal course, that 5N+ will be able to implement its growth strategy, that 5N+ will be able to successfully and timely complete the realization of its backlog, that 5N+ will not suffer any supply chain challenges or any material disruption in the supply of raw materials on competitive terms, that 5N+ will be able to generate new sales, produce, deliver, and sell its expected product volumes at the expected prices and control its costs, as well as other factors believed to be appropriate and reasonable in the circumstances. However, there can be no assurance that such estimates and assumptions will prove to be correct. These statements are not guarantees of future performance and involve assumptions, risks and uncertainties that are difficult to predict and 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 interest rate, foreign currency, credit, liquidity, global economic conditions, international operations including China, environmental regulations, crisis and climate change management, environmental social and governance (ESG) considerations, safety and hazards, prolonged armed conflict in Ukraine, disease outbreaks, availability and retention of qualified professional employees, collective agreements, litigation, our growth strategy, competition, commodity price, sources of supply, protection of intellectual property, inventory price, business interruptions, loss of an important customer, changes to backlog, acquisitions, systems, network infrastructure and data failure, privacy, market price of the common shares, as well as grants and other incentive programs. 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 27, 2024.

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 statements in this MD&A will transpire or occur, or if any of them do so, what benefits that 5N+ will derive therefrom. In particular, no assurance can be given as to the future financial performance of 5N+. The forward-looking statements 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+ 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+’s products to enable performance and sustainability in their own products. 5N+ 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+ 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+’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

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 EBITDA[1], which are reconciled to consolidated numbers considering corporate income and expenses.

Operating in North America and Europe, the Specialty Semiconductors 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 and industrial. Main products are sold as active pharmaceutical ingredients, animal feed additives, specialized chemicals, commercial grade metals, alloys and engineered powders. All commercial grade metal and engineered powder sales have been regrouped under Performance Materials. Revenues and earnings associated with recycling services and activities provided to Performance Materials customers are captured in this segment.

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

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[1] These measures are not recognized measures under IFRS and do not have standardized meanings prescribed by IFRS and therefore may not be comparable to similar measures presented by other companies. See Non-IFRS Measures for more information.

Q4 & FY 2023 Highlights – A Year Poised for Continued Strong Growth

Throughout FY 2023, 5N+ has successfully executed on its growth strategy to provide higher margin, value-added products under both its Specialty Semiconductor and Performance Materials segments. Its record reported Adjusted EBITDA and strong Gross Margin results for FY 2023 are proof that the Company is effectively leveraging its industry position as a supplier outside China in space solar power and terrestrial renewable energy technology. As management continues with its commercial excellence program, which has led to strong customer relationships and a sustained backlog[1], the investments made in production capacity will support the strong demand contracted through 2024 and 2025.

All amounts are expressed in U.S. dollars.

The Company met its expectations of delivering excellent performance in FY 2023 with Adjusted EBITDA results for FY 2023 reaching the highest level reported since the Company's creation. The Company achieved Adjusted EBITDA growth of 35% in Q4 2023 and 28% in FY 2023, compared to the same periods in 2022. Adjusted gross margin[1] came in at 29.0% in FY 2023, compared to 23.7% in FY 2022, as a result of its commercial excellence program, which focuses on improved margins, value-added product development and a customer-first approach. 5N+ also ended the year with a particularly strong backlog[1] under Specialty Semiconductors.

In Specialty Semiconductors, revenue was up $13.7 million in Q4 2023 and up $34.6 million for FY 2023, compared to the corresponding periods last year. Adjusted EBITDA was 31% higher in Q4 2023 compared to Q4 2022 and 13% higher on a full-year basis.

Under Performance Materials, the exit from the low-margin extractive and catalytic products in the second half of 2022 continued to impact results. As such, revenue for the quarter and FY 2023 was lower compared to the same periods in 2022. However, because of the improved product mix, the segment generated a 15% increase in Adjusted EBITDA in Q4 2023 and a 27% increase for FY 2023, compared to the corresponding periods last year.

While the Company continued to invest in building capacity and inventory to meet increasing demand in its Specialty Semiconductor segment, it was able to lower net debt[1] by $4.5 million in 2023.

In 2023, 5N+ invested to increase capacity by 40% over 2022 to serve the renewable energy sector, with a further 60% expansion to be completed in 2024. Once completed, the Company will have doubled its output capacity to serve this critical sector. Other capacity expansion plans for 2024 remain on track, with the Company committed to increasing its production capability for AZUR SOLAR Space GmbH ("AZUR") by 30% to support space solar sector important demand. In addition, 5N+ has been actively working to secure additional complex feeds and secondary market streams for the recovery of critical minerals and management expects operations in recycling and refining to be at capacity in 2024.

Financial Highlights

- Revenue in Q4 2023 reached $65.1 million, compared to $61.0 million for the same period last year. The 7% increase is primarily attributable to higher demand in the Specialty Semiconductors segment, offset by lower revenue in the Performance Materials segment following the strategic exit from the manufacturing of low-margin extractive and catalytic products in 2022.

- Net earnings in Q4 2023 were $2.3 million compared to a net loss of $8.1 million in Q4 2022. Net earnings in FY 2023 were $15.4 million compared to a net loss of $23.0 million in FY 2022.

- Adjusted EBITDA in Q4 2023 was $9.0 million, a 35% increase over the $6.7 million for the same period last year. Adjusted EBITDA was $38.3 million in FY 2023, a 28% increase compared to $30.0 million in FY 2022.

- Adjusted gross margin in FY 2023 was 29.0%, compared to 23.7% in FY 2022.

[1] These measures are not recognized measures under IFRS and do not have standardized meanings prescribed by IFRS and therefore may not be comparable to similar measures presented by other companies. See Non-IFRS Measures for more information.

- On December 31, 2023, the backlog represented 292 days of annualized revenue, 8 days higher than the previous quarter and 39 days higher than the same period last year, primarily due to increasing demand in both terrestrial renewable energy and space solar power.

- Net debt was $73.8 million as at December 31, 2023, compared to $78.3 million as at December 31, 2022. Net debt to EBITDA ratio[1] of 1.69x as at December 31, 2023.

Outlook

In Specialty Semiconductors, 5N+ continues to benefit from its unique position as the leading global supplier of ultra-high purity semiconductor compounds outside China, with extensive expertise and a favourable global footprint resulting in a reliable supply chain. The Company's products can be found in a wide range of technologies used in critical applications and everyday products.

Growing demand remains the rule in Specialty Semiconductors end markets, particularly in terrestrial renewable energy and space solar power. This positions 5N+ well to capitalize on future opportunities in these high-growth sectors, as well as other markets, including defense, security and medical imaging, and through its long-term partnerships with key customers.

Management expects growth in the Performance Materials segment to be primarily derived from health and pharmaceutical products, which provide high profitability and predictable cashflows. Additional long-term opportunities are expected to stem from product expansion and development initiatives, including through partnerships.

Furthermore, management continues to seek opportunities to increase operational efficiency, while exploring potential acquisitions and partnerships to enhance its own organic growth and leadership market position.

With the visibility afforded to management as a result of the solid execution of its business strategy over the last few years, its improved product mix and strong backlog, management is committed to sustaining its trajectory with respect to Adjusted EBITDA growth and margin improvements.

To meet these objectives, 5N+ will continue to execute on its value-added focused strategy and commercial excellence program, leveraging its competitive advantages stemming from its unique positioning both from a geographic and expertise standpoint. As a trusted partner in the development and manufacturing of critical specialty semiconductors and performance materials with a customer-centric mentality, the Company will also continue methodically investing in its production capacity to serve high-growth markets and strategic global customers.

[1] These measures are not recognized measures under IFRS and do not have standardized meanings prescribed by IFRS and therefore may not be comparable to similar measures presented by other companies. See Non-IFRS Measures for more information.

Summary of Results

(in thousands of U.S. dollars, except per share amounts)	**Q4 2023**	Q4 2022	**FY 2023**	FY 2022
	$	$	**$**	$
Revenue	**65,063**	61,042	**242,371**	264,223
Adjusted operating expenses[1]	**(56,030)**	(54,337)	**(204,048)**	(234,195)
Adjusted EBITDA	**9,033**	6,705	**38,323**	30,028
Share-based compensation (expense) recovery	**(414)**	171	**(1,432)**	(999)
Litigation and restructuring (costs) income	**(458)**	(3,210)	**8,314**	(3,823)
Impairment of non-current assets	**(64)**	-	**(672)**	(12,478)
Loss on disposal of property, plant and equipment	**-**	-	**(1,051)**	-
Loss on divestiture of subsidiary	**-**	(7,834)	**-**	(7,834)
Loss on disposal of assets held for sale	**-**	-	**-**	(216)
Foreign exchange and derivative (loss) gain	**(361)**	497	**136**	(42)
EBITDA[1]	**7,736**	(3,671)	**43,618**	4,636
Interest on long-term debt, imputed interest and other interest expense	**2,129**	716	**8,834**	5,192
Depreciation and amortization	**4,057**	4,051	**16,110**	17,732
Earnings (loss) before income taxes	**1,550**	(8,438)	**18,674**	(18,288)
Income tax expense (recovery)				
Current	**612**	43	**6,674**	6,865
Deferred	**(1,346)**	(335)	**(3,399)**	(2,154)
	(734)	(292)	**3,275**	4,711
Net earnings (loss)	**2,284**	(8,146)	**15,399**	(22,999)
Basic earnings (loss) per share	**$0.03**	($0.09)	**$0.17**	($0.26)
Diluted earnings (loss) per share	**$0.03**	($0.09)	**$0.17**	($0.26)

Revenue by Segment and Adjusted Gross Margin

(in thousands of U.S. dollars)	**Q4 2023**	Q4 2022	Change	**FY 2023**	FY 2022	Change
	$	$		**$**	$	
Specialty Semiconductors	**45,661**	31,951	43%	**156,479**	121,918	28%
Performance Materials	**19,402**	29,091	(33%)	**85,892**	142,305	(40%)
Total revenue	**65,063**	61,042	7%	**242,371**	264,223	(8%)
Cost of sales	**(49,677)**	(47,909)	4%	**(184,833)**	(215,715)	(14%)
Depreciation included in cost of sales	**3,189**	3,155	1%	**12,656**	14,208	(11%)
Adjusted gross margin	**18,575**	16,288	14%	**70,194**	62,716	12%
Adjusted gross margin percentage[1]	**28.5%**	26.7%		**29.0%**	23.7%	

Revenue in Q4 2023 increased by 7%, reaching $65.1 million, compared to $61.0 million for the same period last year. The increase is primarily attributable to the growth experienced under Specialty Semiconductors from the renewable energy and space power sectors, exceeding the lower revenue under Performance Materials following 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 margin in FY 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 exit from the manufacturing of low-margin extractive and catalytic products. Adjusted gross margin reached $18.6 million, or 28.5%, compared to $16.3 million, or 26.7%, in Q4 2022, and $70.2 million, or 29.0%, in FY 2023, compared to $62.7 million, or 23.7%, in FY 2022.

[1] These measures are not recognized measures under IFRS and do not have standardized meanings prescribed by IFRS and therefore may not be comparable to similar measures presented by other companies. See Non-IFRS Measures for more information.

Specialty Semiconductors Segment
Revenue in Q4 2023 reached $45.7 million, compared to $32.0 million in Q4 2022. In FY 2023, revenue reached $156.5 million, compared to $121.9 million in FY 2022, supported by higher demand in specific sectors. Adjusted gross margin in Q4 2023 was 26.7% compared to 31.0% in Q4 2022 impacted by a less favourable revenue mix. In FY 2023, Adjusted gross margin was 26.3%, compared to 28.1% in FY 2022.

Performance Materials Segment
Revenue in Q4 2023 reached $19.4 million, compared to $29.1 million in Q4 2022. In FY 2023, revenue reached $85.9 million, compared to $142.3 million in FY 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. In FY 2023, Adjusted gross margin was 34.6%, compared to 20.4% in FY 2022.

Operating Earnings (Loss), EBITDA and Adjusted EBITDA

(in thousands of U.S. dollars)	**Q4 2023**	Q4 2022	Change	**FY 2023**	FY 2022	Change
	$	$		**$**	$	
Specialty Semiconductors	**7,480**	5,690	31%	**27,544**	24,318	13%
Performance Materials	**4,615**	3,997	15%	**21,948**	17,277	27%
Corporate	**(3,062)**	(2,982)	3%	**(11,169)**	(11,567)	(3%)
Adjusted EBITDA	**9,033**	6,705	35%	**38,323**	30,028	28%
EBITDA	**7,736**	(3,671)		**43,618**	4,636	
Operating earnings (loss)	**4,040**	(8,219)		**27,372**	(13,054)	

Adjusted EBITDA in Q4 2023 reached $9.0 million, an increase of $2.3 million or 35%, compared to $6.7 million in Q4 2022. Adjusted EBITDA was $38.3 million in FY 2023, a 28% increase compared to $30.0 million in FY 2022.

In Q4 2023, EBITDA reached $7.7 million, compared to negative $3.7 million in Q4 2022. The increase of $11.4 million is mainly explained by a loss of divestiture of the Tilly, Belgium operations, as well as higher costs for litigation and restructuring recorded by the Company in Q4 2022. For more information, see the "Expenses" section.

In Q4 2023, operating earnings amounted to $4.0 million, compared to an operating loss of $8.2 million in Q4 2022. In FY 2023, operating earnings amounted to $27.4 million, compared to an operating loss of $13.1 million in FY 2022.

Specialty Semiconductors Segment
Adjusted EBITDA in Q4 2023 increased by $1.8 million, or 31%, under Specialty Semiconductors to reach $7.5 million. Adjusted EBITDA in FY 2023 increased by $3.2 million to $27.5 million, representing an Adjusted EBITDA margin[1] of 18%, compared to 20% for the same period in FY 2022.

Performance Materials Segment
Adjusted EBITDA in Q4 2023 increased by $0.6 million, or 15%, to $4.6 million, representing an Adjusted EBITDA margin of 24%, compared to 14% in Q4 2022. Adjusted EBITDA in FY 2023 increased by $4.7 million to $21.9 million, representing an Adjusted EBITDA margin of 26%, compared to 12% 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 FY 2022 and the related divestiture of its Tilly, Belgium operations in Q4 2022.

[1] These measures are not recognized measures under IFRS and do not have standardized meanings prescribed by IFRS and therefore may not be comparable to similar measures presented by other companies. See Non-IFRS Measures for more information.

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

(in thousands of U.S. dollars, except per share amounts)	Q4 2023	Q4 2022	FY 2023	FY 2022
	$	$	$	$
Net earnings (loss)	2,284	(8,146)	15,399	(22,999)
Basic earnings (loss) per share	$0.03	($0.09)	$0.17	($0.26)
Reconciling items:				
Share-based compensation expense (recovery)	414	(171)	1,432	999
Litigation and restructuring costs (income)	458	3,210	(8,314)	3,823
Impairment of non-current assets	64	-	672	12,478
Loss on disposal of property, plant and equipment	-	-	1,051	-
Loss on divestiture of subsidiary	-	7,834	-	7,834
Loss on disposal of assets held for sale	-	-	-	216
Income tax recovery on taxable items above	(226)	(595)	(854)	(2,618)
Adjusted net earnings (loss)[1]	2,994	2,132	9,386	(267)
Basic adjusted earnings (loss) per share[1]	$0.03	$0.02	$0.11	$-

In Q4 2023, net earnings were $2.3 million or $0.03 per share, compared to a net loss of $8.1 million or $0.09 per share in Q4 2022. Adjusted net earnings were $3.0 million or $0.03 per share in Q4 2023, compared to $2.1 million or $0.02 per share in Q4 2022.

In FY 2023, net earnings were $15.4 million or $0.17 per share, compared to a net loss of $23.0 million or $0.26 per share in FY 2022. Adjusted net earnings were $9.4 million or $0.11 per share in FY 2023, compared to an Adjusted net loss of $0.3 million or $nil per share in FY 2022.

Excluding income tax recovery, the items reconciling Adjusted net earnings in Q4 2023 are share-based compensation expense and litigation and restructuring costs. For FY 2023, the items are share-based compensation expense, litigation and restructuring income of $8.3 million, an impairment charge on non-current assets of $0.7 million and a loss on disposal of PPE of $1.1 million. For more information, see the "Expenses" section.

Backlog and Bookings

	BACKLOG			BOOKINGS[1]		
(in thousands of U.S. dollars)	Q4 2023	Q3 2023	Q4 2022	Q4 2023	Q3 2023	Q4 2022
	$	$	$	$	$	$
Specialty Semiconductors	174,957	167,709	129,710	52,909	50,710	57,325
Performance Materials	33,346	28,205	39,611	24,543	21,239	33,648
Total	208,303	195,914	169,321	77,452	71,949	90,973

	BACKLOG			BOOKINGS		
(number of days based on annualized revenues)*	Q4 2023	Q3 2023	Q4 2022	Q4 2023	Q3 2023	Q4 2022
Specialty Semiconductors	350	365	365	106	111	164
Performance Materials	157	122	124	115	92	106
Weighted average	292	284	253	109	104	136

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

Q4 2023 vs. Q3 2023

Backlog on December 31, 2023, represented 292 days of annualized revenue, 8 days higher than the backlog on September 30, 2023.

The backlog for Specialty Semiconductors represented 350 days of annualized revenue, a decrease of 15 days or 4%, over the backlog on September 30, 2023, due to the timing of signing and/or renewal of contracts.

[1] These measures are not recognized measures under IFRS and do not have standardized meanings prescribed by IFRS and therefore may not be comparable to similar measures presented by other companies. See Non-IFRS Measures for more information.

The backlog for Performance Materials represented 157 days of annualized revenue, an increase of 35 days, or 29%, compared to the backlog on September 30, 2023, mainly due to the signing and/or renewal of contracts, which typically occur in the fourth and first quarters of the year for this segment.

Bookings for Specialty Semiconductors decreased by 5 days, from 111 days in Q3 2023 to 106 days in Q4 2023. Bookings for Performance Materials increased by 23 days, from 92 days in Q3 2023 to 115 days in Q4 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.

Q4 2023 vs. Q4 2022

Backlog on December 31, 2023, for Specialty Semiconductors decreased by 15 days compared to on December 31, 2022. The backlog for Performance Materials, represented 157 days, an increase of 33 days, compared to 124 days on December 31, 2022.

Bookings for Specialty Semiconductors decreased by 58 days for the same factors mentioned above, and increased by 9 days for Performance Materials, compared to the previous year quarter.

Expenses

(in thousands of U.S. dollars)	**Q4 2023**	Q4 2022	**FY 2023**	FY 2022
	$	$	**$**	$
Depreciation and amortization	**4,057**	4,051	**16,110**	17,732
SG&A	**8,699**	7,183	**29,410**	28,565
Share-based compensation expense (recovery)	**414**	(171)	**1,432**	999
Litigation and restructuring costs (income)	**458**	3,210	**(8,314)**	3,823
Impairment of non-current assets	**64**	-	**672**	12,478
Loss on disposal of property, plant and equipment	**-**	-	**1,051**	-
Loss on divestiture of subsidiary	**-**	7,834	**-**	7,834
Loss on disposal of assets held for sale	**-**	-	**-**	216
Financial expense	**2,490**	219	**8,698**	5,234
Income tax (recovery) expense	**(734)**	(292)	**3,275**	4,711
Total expenses	**15,448**	22,034	**52,334**	81,592

Depreciation and Amortization

Depreciation and amortization expenses in Q4 2023 and FY 2023 amounted to $4.1 million and $16.1 million, respectively, compared to $4.1 million and $17.7 million, respectively, for the same periods in 2022. The decrease in FY 2023 is mainly associated with the Company's divestiture of its Tilly, Belgium operations in Q4 2022.

SG&A

SG&A expenses in Q4 2023 and FY 2023 were $8.7 million and $29.4 million, respectively, compared to $7.2 million and $28.6 million, respectively, for the same periods in FY 2022. The increase in Q4 2023 is mainly explained by a punctual need for third-party support, while in FY 2023, the increase is mainly caused by inflation impacting various expenses partially mitigated by the Company's divestiture of its Tilly, Belgium operations in Q4 2022.

Share-based Compensation Expense (Recovery)

Share-based compensation expense in Q4 2023 amounted to $0.4 million, compared to a recovery of $0.2 million in Q4 2022. In FY 2023, share-based compensation expense amounted to $1.4 million, compared to $1.0 million in FY 2022.

Litigation and restructuring costs (income)

In Q4 2023, the Company recorded litigation and restructuring costs of $0.5 million consisting of severances and other related costs and a charge related to a non-trade receivable which became non recoverable during the quarter for an amount of $0.2 million.

In Q2 2023, the Company recorded a litigation and restructuring income of $8.8 million, which represented 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 Q4 2022 and FY 2022, the Company recorded litigation and restructuring costs of $3.2 million and $3.8 million, respectively. These costs include $2.6 million related to the divestiture of a subsidiary, $0.4 million for a site closure in Asia, $0.2 million due to a change to its senior executive management recorded in Q2 2022, and $0.4 million for the settlement of a contract by mutual agreement recorded in Q2 2022.

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 Q3 2022, the Company recorded an impairment of non-current assets of $7.1 million ($2.4 million for buildings, $4.6 million for machinery and $0.1 million for furniture and fixtures) under its Performance Materials segment to reflect the assessment of the carrying value of PPE following its intention to halt production at its manufacturing facility in Tilly, Belgium.

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 its Specialty Semiconductors segment 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 are no longer supported given the international sanctions in place against Russia and the uncertainty related to, and the unknown duration of, the Ukraine/Russia 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 in 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 production equipment purchases.

Loss on Divestiture of Subsidiary

In Q4 2022, the Company divested its 100% interest in 5N Plus Belgium SA and recognized a loss on divestiture of $7.8 million. For more information, see the "Divestiture of 5N Plus Belgium SA" section.

Loss on Disposal of Assets Held for Sale

In Q3 2022, the Company recorded a loss of $0.2 million on the disposal of assets held for sale due to the planned relocation of operations to Canada from one of the Company's subsidiaries in Asia, announced in Q3 2020.

Financial Expense

Financial expense amounted to $2.5 million in Q4 2023, compared to $0.2 million in Q4 2022. The negative impact is partly due to interest income earned in Q4 2022, following the settlement of an international tax arbitration between two jurisdictions in which the Company operated. A foreign exchange and derivatives loss was recorded in Q4 2023, compared to a gain in the same period last year, which also contributed to the difference.

In FY 2023, financial expense amounted to $8.7 million, compared to $5.2 million in FY 2022. The increase is due to the significant increase in interest rates from the second half of FY 2022 against interest income earned following the settlement of an international tax arbitration in Q4 2022 described above.

Income Taxes

The Company reported earnings before income taxes of $1.6 million in Q4 2023 and $18.7 million in FY 2023. Income tax recovery in Q4 2023 and income tax expense in FY 2023 was $0.7 million and $3.3 million, respectively, compared to income tax recovery and income tax expense of $0.3 million and $4.7 million, for the respective periods of 2022. Both years were impacted by deferred tax assets applicable only in certain jurisdictions.

Liquidity and Capital Resources

(in thousands of U.S. dollars)	**Q4 2023**	Q4 2022	**FY 2023**	FY 2022
	$	$	**$**	$
Cash from operations before the following:	**5,883**	4,447	**32,051**	13,498
Net changes in non-cash working capital items	**5,891**	8,958	**(14,800)**	10,243
Cash from operating activities	**11,774**	13,405	**17,251**	23,741
Cash used in investing activities	**(8,097)**	(8,895)	**(12,362)**	(18,994)
Cash from (used in) financing activities	**1,029**	(2,308)	**(13,002)**	2,409
Effect of foreign exchange rate changes on cash and cash equivalents	**125**	317	**128**	(405)
Net increase (decrease) in cash and cash equivalents	**4,831**	2,519	**(7,985)**	6,751

In Q4 2023, cash generated by operating activities amounted to $11.8 million, compared to $13.4 million in Q4 2022. In FY 2023, cash generated from operating activities amounted to $17.3 million, compared to $23.7 million in FY 2022. The decrease in FY 2023 is mainly due to an increase in non-cash working capital to support growth in expected demand in 2024, partially mitigated by an increase in contributions of cash from operations of $18.6 million in FY 2023 before net change in non-cash working capital.

In Q4 2023, cash used in investing activities amounted to $8.1 million, compared to $8.9 million in Q4 2022. In FY 2023, cash used in investing activities amounted to $12.4 million, compared to $19.0 million in FY 2022. The decrease of $6.6 million in FY 2023 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, partially offset by increased additions to PPE of $1.2 million in 2023 and an increase in the Company's minority equity stake in Microbion Corporation ("Microbion") of $1.0 million. Compared to FY 2022, cash used in investing activities was impacted by the timing of additions to PPE, such as the St-Laurent project (Montréal, Canada), and cash disbursements associated with the divestiture of its Tilly, Belgium operations, partially mitigated by proceeds of $2.8 million on the disposal of assets held for sale in Q3 2022.

In Q4 2023, cash generated by financing activities amounted to $1.0 million, compared to cash used in financing activities of $2.3 million in Q4 2022. In FY 2023, cash used in financing activities amounted to $13.0 million, compared to cash generated from financing activities of $2.4 million in FY 2022. The variation of $15.4 million is mainly attributable to the reimbursements of $7.5 million in Q2 2023 and $5.0 million in Q3 2023 of the credit facility while the Company made a net drawdown of $5.0 million in FY 2022. In addition, the Company received cash from the issuance of common shares in FY 2023, while the principal elements of lease payments were similar for both periods.

Working Capital

(in thousands of U.S. dollars)	**As at December 31, 2023**	As at December 31, 2022
	$	$
Inventories	**105,850**	86,254
Other current assets	**76,113**	100,908
Current liabilities	**(81,807)**	(62,846)
Working capital[1]	**100,156**	124,316
Working capital current ratio[1]	**2.22**	2.98

The $24.2 million decrease in working capital, 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 $19.6 million in FY 2023 to support demand while other current assets are lower by $24.8 million.

[1] These measures are not recognized measures under IFRS and do not have standardized meanings prescribed by IFRS and therefore may not be comparable to similar measures presented by other companies. See Non-IFRS Measures for more information.

Net Debt

(in thousands of U.S. dollars)	**As at December 31, 2023**	As at December 31, 2022
	$	$
Bank indebtedness	**-**	-
Long-term debt including current portion	**108,500**	121,000
Total Debt[1]	**108,500**	121,000
Cash and cash equivalents	**(34,706)**	(42,691)
Net Debt	**73,794**	78,309

Total debt stood at $108.5 million as at December 31, 2023, compared to $121.0 million as at December 31, 2022.

Net debt, after considering cash and cash equivalents, decreased by $4.5 million to $73.8 million on December 31, 2023, from $78.3 million on December 31, 2022.

Available Short-Term Capital Resources

(in thousands of U.S. dollars)	**As at December 31, 2023**	As at December 31, 2022
	$	$
Cash and cash equivalents	**34,706**	42,691
Available revolving credit facility	**40,500**	28,000
Available short-term capital resources	**75,206**	70,691

In June 2022, the Company signed a senior secured multi-currency revolving credit facility of $124.0 million maturing in April 2026 to replace its existing $124.0 million senior secured revolving facility maturing in April 2023. 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 review and approval by the lenders. 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, U.S. base rate, Hong Kong base rate or SOFR, plus a margin based on the Company's senior net debt to consolidated EBITDA 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, 2023 and December 31, 2022, the Company had met all covenants.

In February 2019, the Company signed a five-year 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, 2023 and December 31, 2022, the Company had met all covenants.

Share Information

	As at February 27, 2023	As at December 31, 2023
Issued and outstanding shares	**88,704,724**	88,704,724
Stock options potentially issuable	**1,365,162**	1,365,162

[1] These measures are not recognized measures under IFRS and do not have standardized meanings prescribed by IFRS and therefore may not be comparable to similar measures presented by other companies. See Non-IFRS Measures for more information.

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 RSU & PSU 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 2023, the Company granted 155,873 RSUs (2022 – 95,881), 111,458 RSUs were paid (2022 – 146,549) and 3,000 RSUs were forfeited (2022 – 13,110). On December 31, 2023, 319,896 RSUs were outstanding (2022 – 278,481).

No PSUs were granted or paid in FY 2023 and FY 2022 and 200,000 PSUs were cancelled in FY 2022. On December 31, 2023 and 2022, nil PSUs were outstanding.

Stock Option Plan

On April 11, 2011, the Company adopted a new stock option plan (the "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, 2023, may be exercised during a period not exceeding six years from their date of grant. Unless the Board of Directors decides otherwise at its sole discretion, 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 (collectively the "optionee") and one year after the optionee's death, retirement or permanent disability, as the case may be, or prior to the expiration of the term of the option, whichever occurs earlier.

The following table presents information concerning all outstanding stock options:

	2023		2022	
	Number of options	**Weighted average exercise price**	Number of options	Weighted average exercise price
		CA$		CA$
Outstanding, beginning of year	**1,598,938**	**1.91**	825,968	2.46
Granted	**140,712**	**2.74**	772,970	1.33
Exercised	**(374,488)**	**2.28**	-	-
Outstanding, end of year	**1,365,162**	**1.90**	1,598,938	1.91
Exercisable, end of year	**458,454**	**2.10**	457,749	2.41

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 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 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, 2023.

The following table reflects the contractual cash flows of the Company's financial liabilities as at December 31, 2023:

(in thousands of U.S. dollars)	Carrying amount	1 year	2 years	3 years	4 years	Over 5 years	**Total**
	$	$	$	$	$	$	**$**
Trade and accrued liabilities	37,024	37,024	-	-	-	-	**37,024**
Long-term debt	108,500	31,184	5,766	85,422	-	-	**122,372**
Lease liabilities	30,139	2,761	2,642	2,558	2,534	26,803	**37,298**
Total	175,663	70,969	8,408	87,980	2,534	26,803	**196,694**

Commitments

In the normal course of business, the Company contracted letters of credit for an amount of $0.6 million as at December 31, 2023 and $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.

Subsequent Event

In January 2024, the Company increased its minority equity stake in Microbion for an amount of $1.0 million. As at December 31, 2023, the Company's stake in Microbion was valued at $3.0 million.

Divestiture of 5N Plus 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 Plus Belgium SA had been completed as of January 1, 2022, the yearly consolidated Adjusted EBITDA 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+ 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.

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 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 Accounting Standards.

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 fiscal year ended December 31, 2023, 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

For the year ended December 31, 2023, the Company evaluated the new accounting standards issued and effective under IFRS Accounting Standards and determined that they have no significant impact to its financial statements.

Future Changes in accounting policies

As at December 31, 2023, the Company evaluated the new accounting standards issued but not yet effective under IFRS Accounting Standards and determined that none are applicable to the Company based on its current operations.

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 consolidated 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 (“CGU”) carrying amount exceeds its recoverable amount, which is the higher of fair value less cost of disposal and value in use.

To determine the recoverable amount, significant judgement is required as management must estimate expected future cash flows from the asset or CGU and it must determine a suitable interest rate in order to calculate the present value of those cash flows. In the process of measuring expected future cash flows, 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.

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.

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 18 of the audited consolidated financial statements for the year ended December 31, 2023.

Related Party Transactions

The Company's related parties are its directors and executive members. Transactions with these related parties are described in Note 26 in the 2023 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 19 – Fair Value of Financial Instruments of the audited consolidated financial statements for the year ended December 31, 2023.

The fair value of the financial instruments was as follows:

(in thousands of U.S. dollars)	**2023**	2022
	$	$
Total return swap	**591**	-
Indexed deposit agreement	**-**	5,517
Investment in equity instruments	**3,000**	2,000
Restricted investment	**603**	620

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 audited consolidated financial statements for the year ended December 31, 2023.

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 is 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 $0.8 million on the Company's earnings before income tax on a twelve-month horizon based on the balance outstanding on December 31, 2023.

Foreign Currency

Foreign currency risk is defined as the Company's exposure to a gain or a loss in the value of its financial instruments as a result of fluctuations in foreign exchange rates. The Company is exposed to foreign exchange rate variability primarily in relation to certain sales commitments, expected purchase transactions, certain local operating expenses and debt denominated in a foreign currency. In addition, these operations have exposure to foreign exchange rates primarily through cash and cash equivalents and other working capital accounts denominated in currencies other than their functional currencies.

In addition, the Company will occasionally enter into foreign exchange forward contracts to sell U.S. 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 U.S. dollars. As at December 31, 2023, the Company had no foreign exchange contracts outstanding.

The following table summarizes in U.S. dollar equivalents the Company's major currency exposures as at December 31, 2023:

(in thousands of U.S. dollars)	CA$	EUR	GBP	HKD	MYR	Other
	$	$	$	$	$	$
Cash and cash equivalents	489	1,999	67	34	36	9
Accounts receivable	1,662	6,594	-	-	1	-
Derivative financial assets	591	-	-	-	-	-
Other current assets	-	2,212	-	-	-	-
Other non-current assets	-	603	-	-	-	-
Trade and accrued liabilities	(12,987)	(9,349)	(436)	(116)	(166)	(55)
Lease liabilities	(6,360)	(297)	-	(69)	-	-
Net financial assets (liabilities)	(16,605)	1,762	(369)	(151)	(129)	(46)

For the Company's subsidiaries with a functional currency other than the U.S. dollar, their exposures of financial assets and financial liabilities denominated in U.S. dollars are $10.4 million and $0.5 million, respectively, with a net position of $9.9 million. A strengthening or weakening in the exchange rate between the functional currencies of these subsidiaries and the U.S. dollar of five-percentage points results in a decrease or increase of $0.5 million to earnings before income tax.

The following table shows the impact on earnings before income tax of a five-percentage point strengthening or weakening of foreign currencies against the U.S. dollar as at December 31, 2023 for the Company's financial instruments denominated in non-functional currencies:

(in thousands of U.S. dollars)	CA$	EUR	GBP	HKD	MYR	Other
	$	$	$	$	$	$
5% Strengthening	(830)	88	(18)	(8)	(6)	(2)
5% Weakening	830	(88)	18	8	6	2

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 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, 2023 and 2022, the Company had a loss allowance of $nil million and $0.1 million, respectively. The loss allowance is included in selling, general and administrative expenses in the consolidated statement of earnings (loss) 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 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

In the normal course of business, the Company is subject to a number of risk factors which may limit its ability to execute on its strategy and achieve its long-term growth objectives. Management identifies these risks and implement strategies to minimize their impact on the Company's performance. The Audit Committee together with the Corporate Internal Audit and site leadership teams have the mandate to review all business risks semi-annually. The risks and risk reduction measures are presented to the Audit Committee and the Board of Directors on an ongoing basis. 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.

Risks and uncertainties not presently known to the Company or that the Company currently considers as not material could become material in the future or impair its business operations or cause a decline in the price of shares.

Global Economic Conditions

The Company operates in a volatile economic environment. Current global economic conditions, which have been subject to increased volatility and contraction in credit markets, may impact the Company's access to public financing, its ability to obtain equity or debt financing on favourable terms and the valuation of the Company's securities. As a result, if unemployment, interest or inflation rates fluctuate substantially or increase to significant levels, they could have an impact on the Company's operating activities, financial position and profitability. In addition, the Company is exposed to market risk related to the current global inflationary situation, as the various environmental, social, political, economic and health factors had significant consequences on the world economy. In order to reduce inflation, several central banks are now tightening their monetary policies, which has an impact on interest rates, foreign currency exchange rates and economic development. The risks of recession in one or several of the countries where the Company operates are growing and could have an adverse impact on the Company's net earnings, financial position or cash flows.

International Operations

The Company operates in several countries, including China and Laos, and as such, faces risks associated with international business activities. The Company 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, changes in policy that alter regulations impacting the Company's operations, the potential for volatile economic and labor conditions, political instability, foreign exchange, expropriation, changes in taxes, and other regulatory costs. Although the Company operates primarily in countries with relatively stable economic and political climates, there can be no assurance that its business will not be adversely affected by the risks inherent in international operations.

The following conditions or events could disrupt its supply chain, interrupt production at its facilities or those of its suppliers or customers, increase its 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;
- the invasion of Ukraine by Russia;
- the current conflict in Israel and Gaza Strip;
- new trade barriers, including import and export imposed restrictions;
- the imposition of tariffs on its products or input; and
- change to legal, political, social, cultural, tax or other regulatory requirements.

The Company's insurance programs do not cover every potential loss associated with its operations, including potential damage to assets, lost profits and liability that could result from the aforementioned conditions or events. In addition, its 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 its 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 the Company. 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, imposing import and export restrictions, 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 the Company's 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, impact sourcing of materials and products out of China, and adversely affect the Company's competitive position.

Environmental Regulations

The Company's 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 local, provincial, national, 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 its reputation; stopping it from pursuing operations at one of its facilities; being subject to substantial fines, penalties, criminal proceedings, third party property damage or personal injury claims, clean-up costs, capital expenditures or other costs; increasing the costs of development or production and litigation or regulatory action against it, and materially adversely affecting its business, results of operations or financial condition. Environmental legislation is evolving in a manner that will require stricter standards and enforcement, and a heightened degree of responsibility for the Company and its officers, directors and employees. Future changes in applicable environmental and health and safety laws and regulations could substantially increase costs and burdens to achieve or maintain compliance or otherwise have an adverse impact on its business, results of operations or financial condition.

The Company has incurred and will continue to incur capital expenditures to comply with environmental laws and regulations. Exceedances in wastewater discharges 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 2024. 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 its business, results of operations and financial condition.

Crisis and Climate Change Management

Unexpected events including geopolitical crises, pandemic and epidemic outbreaks, catastrophes and natural disasters, such as extreme and increasingly frequent weather-related disasters linked to climate change, could have a negative impact on the continuation of the Company's operations as well as its suppliers.

Environmental, Social and Governance (ESG) Considerations

The Company could be subject to growing stakeholder expectations as it relates to ESG factors, including from investors, who 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 ESG standards and failure to meet evolving standards may impact the Company's reputation and ability to access capital.

Safety Risks and Hazards

The Company's health, safety and wellbeing systems, processes and policies are aimed at reducing risks to employees, subconsultants and others; however, work sites can put employees and others in proximity with large equipment, moving vehicles, dangerous processes or highly regulated materials in challenging or remote locations which may increase the risk to health and safety. Failure to implement or follow appropriate safety procedures by the Company or others could result in personal injury, illness or loss of life to people, or environmental and other damage to the Company's property or the property of others, or in regulatory fines or civil suits.

Prolonged Armed Conflict in Ukraine

The outbreak of war in Ukraine has deeply disturbed the global economy and the outcome of the ongoing conflict remains uncertain at this time. Although AZUR had sales in Russia in the past, the amount of such sales is not material to the Company as a whole. A prolonged armed conflict in Ukraine or an expansion of the armed conflict to other European countries could have a negative effect on the European and global economies. As well, Russia is a major exporter of oil and natural gas. Any disruption of supplies of oil and natural gas from Russia could have a significant adverse effect on the European and world economies. All the foregoing factors could potentially have a negative impact on the Company's sales and results of operations.

Disease Outbreaks

The local or worldwide outbreak of a disease, a virus, including, but not limited to, the COVID-19 pandemic or any other contagious disease and government actions to address them, could have an adverse impact on the Company's operations, operating results and financial position. While it is sudden, its impact on economic cycles can give rise to unfavourable temporary disruptions in the market where the Company operates as well as on its internal structure, such as plant closures, shortages of raw materials and labour, and in supply chains and distribution channels.

Availability and Retention of Qualified Employees

The Company relies on the expertise and know-how of its personnel to conduct its operations. The loss of any member of its team could have a material adverse effect on it. Its future success also depends on its ability to execute succession plans, attract and retain key employees, train, retain and successfully integrate new talent into its management and technical teams. Recruiting and retaining talented personnel, particularly those with expertise in the specialty metals industry and refining technology is vital to its success and may prove difficult. The Company cannot provide assurance that it will be able to attract and retain qualified personnel when needed, especially in light of the current labour shortage affecting several markets in which it operates. 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 the Company's workforce is unionized, and it is party to collective agreements that are due to expire at various times in the future. If it is unable to renew these collective agreements on acceptable 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 its performance.

Litigation Risks

The Company 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.

Risks Associated with our Growth Strategy

The Company's strategic plan is designed to enhance profitability while reducing earnings volatility, delivering quality growth from existing growth initiatives, new products introduction, and future M&A opportunities. There can be no assurance that the expected benefits will materialize or 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 its control. The Company will incur costs in pursuing any particular opportunity, which may be significant.

Competition

The Company is a leading producer of specialty semiconductors and performance materials with a limited number of competitors, few of which are as fully integrated as it is or have a similar range of products. Accordingly, they have limitations to provide the same comprehensive set of services and products as 5N+ does. 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 its customers who could decide to backward integrate. Greater competition could have an adverse effect on the Company's revenues and operating margins if its competitors gain market share and it is unable to compensate for the volume lost to competition.

Commodity Price

Commodity prices affect the costs and the price the Company pays for, and availability of, various inputs fluctuate due to numerous factors beyond its 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, labour costs, competition, over capacity of producers and price surcharges. Fluctuations in availability and cost of inputs may materially affect its 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 the Company is not able to pass on any increases, its business, financial condition, results of operations and cash flows may be materially adversely affected.

Sources of Supply

The Company may not be able to secure the critical raw material feedstock on which it depends for its operations and there can be no assurance that the prices of such critical feedstock will not rise dramatically. It currently procures raw materials from a number of suppliers with which it has had long-term commercial relationships. The loss of any one of these suppliers or a reduction in the level of deliveries to it may reduce production capacity and impact deliveries to customers. This would, in turn, negatively impact its sales, net margins and may lead to liabilities with respect to some of its supply contracts.

In addition, supplemental supply-chain challenges created by the economic conjecture following the COVID-19 global pandemic and most recent geo-political instability and conflicts, 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 of the Company.

Canada has enacted the *Act to enact the Fighting Against Forced Labour and Child Labour in Supply Chains Act and to amend the Customs Tariff* ("Act"), which came into effect on January 1, 2024. The Act requires the Company to examine its supply chains and produce annual reports, to be published on the Company's website and submitted to the Minister of Public Safety and Emergency Preparedness, disclosing measures and steps it has taken to prevent and reduce the risk that forced labour or child labour is being used in its supply chains. Compliance with the Act may result into increased costs and failure to comply with the Act could have a material adverse effect on the Company's reputation, business, results of operations and financial condition. Despite our effort to take increased actions to ensure our entire supply chain is free of any forced labour, there is nonetheless a risk of forced labour on products we source from third parties where we may not have complete visibility into their supply chain. As a result, the Company may face regulatory challenges in complying with applicable sanctions and trade regulations and reputational challenges with various stakeholders if we are unable to sufficiently verify the origins for the material sourced.

Protection of Intellectual Property

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

Inventory Price

The Company may be subject to risk associated with the value of our inventories in relation to the market price of such inventories. The highly illiquid nature of many of its inventories may increase such risk. The Company relies on a combination of standard risk measurement techniques, such as value at risk as well as a more empirical assessment of the market conditions to manage inventory levels. Decisions on appropriate physical stock levels are taken by considering both the value at risk calculations and the market conditions.

Business Interruptions

The Company may incur losses resulting from business interruptions due to equipment failure, power loss, fire or water damage, and similar events beyond its control. In many instances, especially those related to its long-term contracts, it has contractual obligations to deliver product in a timely manner. Any disruption in its activities which leads to a business interruption could harm its customers' confidence level and lead to the cancellation of contracts and legal recourse against it. Although the Company believes that it has taken the necessary precautions to avoid business interruptions and carry all-risk business interruption insurance to protect its assets and business, it could still experience interruptions which would adversely impact production activities and financial results.

Loss of an Important Customer

The loss of any large customers, unanticipated demand fluctuations from these customers, or the inability of these customers to perform under their contracts, could significantly reduce the Company's revenue and negatively impact its results of operations.

Changes to Backlog

The Company cannot guarantee that the revenues projected in its backlog at any given time will be realized or that they will perform as expected with respect to margin. 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.

Acquisition Risk

The Company completed the acquisition of AZUR in November 2021 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

The Company's operations rely on information systems, communications technology, business and other technology applications, including global and regional networks, complex server infrastructure and operating systems, to operate properly. If it is unable to continually maintain software and hardware, effectively upgrade its systems and network infrastructure, and take other steps to improve the efficiency and protect its systems, the Company's operation systems could be interrupted or delayed. The same applies if its 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. Following the pandemic and the lifting of COVID-19 restrictions, there a significant number of employees who continue to work remotely, which could contribute to an increase in cyber-attack attempts.

Executive management consultations are held regularly to monitor the progress of various cybersecurity projects, review significant incidents and review various security-related performance indicators. Executive management reports on its work to the members of the Board of Directors on a biannual basis. The Corporate IT function sets up and coordinates prevention, detection, and remediation measures in the area of cybersecurity. Cybersecurity measures include, among others, setting up strong controls with respect to systems access, implementing information security awareness programs, and hiring specialized firms to carry out occasional intrusion tests.

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.

Privacy

Data privacy breaches could adversely affect the Company's results of operations and profitability. Personal privacy and data security have become significant issues in North America and Europe, and in many other jurisdictions in which it operates. The regulatory framework for privacy and security issues worldwide is rapidly evolving and it may prove to be difficult to comply with all applicable laws and regulations in Canada and other jurisdictions regarding privacy. Furthermore, local or foreign government bodies or agencies have in the past adopted, and may in the future adopt, laws and regulations affecting data privacy, all of which may be subject to invalidation by relevant foreign judicial bodies. Industry organizations also regularly adopt and advocate for new standards in this area.

Market Price of Common Shares

The common shares of the Company are traded 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, which may result in losses for investors, will not occur.

Grants and other incentive programs

The reduction, elimination, or expiration of government subsidies, economic incentives, tax incentives, R&D and business development incentives, or other public policies could negatively impact the Company's financial performance.

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 Accounting Standards, do not have any standardized meaning prescribed under IFRS Accounting Standards 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 Accounting Standards.

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+ 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 tax expense (recovery), depreciation and amortization. 5N+ 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)	**Q4 2023**	Q4 2022	**FY 2023**	FY 2022
	$	$	**$**	$
Net earnings (loss)	**2,284**	(8,146)	**15,399**	(22,999)
Interest on long-term debt, imputed interest and other interest expense	**2,129**	716	**8,834**	5,192
Income tax (recovery) expense	**(734)**	(292)	**3,275**	4,711
Depreciation and amortization	**4,057**	4,051	**16,110**	17,732
EBITDA	**7,736**	(3,671)	**43,618**	4,636

EBITDA margin is defined as EBITDA divided by revenues.

Adjusted EBITDA means operating earnings (loss) as defined before the effect of impairment of inventories, share-based compensation expense (recovery), litigation and restructuring costs (income), impairment of non-current assets, loss on disposal of property, plant and equipment, loss on divestiture of subsidiary, loss on disposal of assets held for sale, and depreciation and amortization. 5N+ 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)	**Q4 2023**	Q4 2022	**FY 2023**	FY 2022
	$	$	**$**	$
Revenues	**65,063**	61,042	**242,371**	264,223
Operating expenses	**(61,023)**	(69,261)	**(214,999)**	(277,277)
Operating earnings (loss)	**4,040**	(8,219)	**27,372**	(13,054)
Share-based compensation expense (recovery)	**414**	(171)	**1,432**	999
Litigation and restructuring costs (income)	**458**	3,210	**(8,314)**	3,823
Impairment of non-current assets	**64**	-	**672**	12,478
Loss on disposal of property, plant and equipment	**-**	-	**1,051**	-
Loss on divestiture of subsidiary	**-**	7,834	**-**	7,834
Loss on disposal of assets held for sale	**-**	-	**-**	216
Depreciation and amortization	**4,057**	4,051	**16,110**	17,732
Adjusted EBITDA	**9,033**	6,705	**38,323**	30,028
Adjusted EBITDA margin percentage	**13.9%**	11.0%	**15.8%**	11.4%

Adjusted operating expenses means operating expenses before impairment of inventories, share-based compensation expense (recovery), litigation and restructuring costs (income), impairment of non-current assets, loss on disposal of property, plant and equipment, loss on divestiture of subsidiary, loss on disposal of assets held for sale, and depreciation and amortization. 5N+ uses Adjusted operating expenses to calculate Adjusted EBITDA. 5N+ 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)	**Q4 2023**	Q4 2022	**FY 2023**	FY 2022
	$	$	**$**	$
Operating expenses	**61,023**	69,261	**214,999**	277,277
Share-based compensation (expense) recovery	**(414)**	171	**(1,432)**	(999)
Litigation and restructuring (costs) income	**(458)**	(3,210)	**8,314**	(3,823)
Impairment of non-current assets	**(64)**	-	**(672)**	(12,478)
Loss of disposal of property, plant and equipment	**-**	-	**(1,051)**	-
Loss on divestiture of subsidiary	**-**	(7,834)	**-**	(7,834)
Loss on disposal of assets held for sale	**-**	-	**-**	(216)
Depreciation and amortization	**(4,057)**	(4,051)	**(16,110)**	(17,732)
Adjusted operating expenses	**56,030**	54,337	**204,048**	234,195

Adjusted net earnings (loss) means the net earnings (loss) before the effect of impairment of inventory, share-based compensation expense (recovery), litigation and restructuring costs (income), impairment of non-current assets and loss on disposal of property, plant and equipment, loss on divestiture of subsidiary, loss on disposal of assets held for sale, net of the related income tax expense (recovery). 5N+ 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+ 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.

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

(in thousands of U.S. dollars, except per share amounts and number of shares)	**Q4 2023**	Q4 2022	**FY 2023**	FY 2022
	$	$	**$**	$
Net earnings (loss)	**2,284**	(8,146)	**15,399**	(22,999)
Basic earnings (loss) per share	**$0.03**	($0.09)	**$0.17**	($0.26)
Reconciling items:				
Share-based compensation expense (recovery)	**414**	(171)	**1,432**	999
Litigation and restructuring costs (income)	**458**	3,210	**(8,314)**	3,823
Impairment of non-current assets	**64**	-	**672**	12,478
Loss on disposal of property, plant and equipment	**-**	-	**1,051**	-
Loss on divestiture of subsidiary	**-**	7,834	**-**	7,834
Loss on disposal of assets held for sale	**-**	-	**-**	216
Income tax recovery on taxable items above	**(226)**	(595)	**(854)**	(2,618)
Adjusted net earnings (loss)	**2,994**	2,132	**9,386**	(267)
Basic weighted average number of shares	**88,704,724**	88,330,236	**88,533,263**	88,330,236
Basic adjusted earnings (loss) per share	**$0.03**	$0.02	**$0.10**	$-

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

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

(in thousands of U.S. dollars)	**Q4 2023**	Q4 2022	**FY 2023**	FY 2022
	$	$	**$**	$
Total revenue	**65,063**	61,042	**242,371**	264,223
Cost of sales	**(49,677)**	(47,909)	**(184,833)**	(215,715)
Gross margin	**15,386**	13,133	**57,538**	48,508
Depreciation included in cost of sales	**3,189**	3,155	**12,656**	14,208
Adjusted gross margin	**18,575**	16,288	**70,194**	62,716
Adjusted gross margin percentage	**28.5%**	26.7%	**29.0%**	23.7%

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+ uses this measure as an indicator of its overall financial position.

The net debt to EBITDA ratio is defined as net debt divided by EBITDA.

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

(in thousands of U.S. dollars)	**As at December 31, 2023**	As at December 31, 2022
	$	$
Bank indebtedness	**-**	-
Long-term debt including current portion	**108,500**	121,000
Lease liabilities including current portion	**30,139**	30,402
Subtotal Debt	**138,639**	151,402
Lease liabilities including current portion	**(30,139)**	(30,402)
Total Debt	**108,500**	121,000
Cash and cash equivalents	**(34,706)**	(42,691)
Net Debt	**73,794**	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.

Working capital is reconciled to the most comparable IFRS measure:

(in thousands of U.S. dollars)	**As at December 31, 2023**	As at December 31, 2022
	$	$
Inventories	**105,850**	86,254
Other current assets excluding inventories	**76,113**	100,908
Current assets	**181,963**	187,162
Current liabilities	**(81,807)**	(62,846)
Working capital	**100,156**	124,316
Working capital current ratio	**2.22**	2.98

Additional Information

5N+'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.sedarplus.com.

Selected Quarterly Financial Information

(in thousands of U.S. dollars, except per share amounts)	**Dec 31, 2023**	Sept 30, 2023	June 30, 2023	March 31, 2023	Dec 31, 2022	Sept 30, 2022	June 30, 2022	March 31, 2022
	$	$	$	$	$	$	$	$
Revenue	**65,063**	62,946	59,075	55,287	61,042	66,372	72,388	64,421
EBITDA	**7,736**	9,582	17,530	8,770	(3,671)	1,751	6,739	(183)
Adjusted EBITDA	**9,033**	9,649	10,844	8,797	6,705	9,114	8,583	5,626
Net earnings (loss)	**2,284**	1,518	10,143	1,454	(8,146)	(6,968)	(2,130)	(5,755)
Basic earnings (loss) per share	**$0.03**	$0.02	$0.11	$0.02	($0.09)	($0.08)	($0.02)	($0.07)
Diluted earnings (loss) per share	**$0.03**	$0.02	$0.11	$0.02	($0.09)	($0.08)	($0.02)	($0.07)
Adjusted net earnings (loss)	**2,994**	1,742	3,187	1,463	2,132	520	(997)	(1,922)
Basic adjusted earnings (loss) per share	**$0.03**	$0.02	$0.04	$0.02	$0.02	$-	($0.01)	($0.02)
Cash from operations before net change in non-cash working capital items	**5,883**	5,064	15,227	5,877	4,447	2,473	3,778	2,800
Backlog	**292 days**	284 days	289 days	306 days	253 days	192 days	140 days	196 days

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

Selected Yearly Financial Information

As at and for the years ended December 31 (in thousands of U.S. dollars except per share amounts)	**2023**	2022	2021
	$	$	$
Revenue	**242,371**	264,223	209,990
EBITDA	**43,618**	4,636	24,988
Adjusted EBITDA	**38,323**	30,028	28,239
Net (loss) earnings	**15,399**	(22,999)	3,110
Basic (loss) earnings per share	**$0.17**	($0.26)	$0.04
Diluted (loss) earnings per share	**$0.17**	($0.26)	$0.04
Adjusted net (loss) earnings	**9,386**	(267)	5,354
Basic adjusted net earnings per share	**$0.11**	$-	$0.06
Cash from operations before net change in non-cash working capital items	**32,051**	13,498	16,553
Backlog	**292 days**	253 days	221 days
Balance Sheet			
Total assets	**350,202**	347,985	373,590
Total non-current liabilities	**139,803**	172,363	172,284
Net debt	**73,794**	78,309	80,060
Shareholders' equity	**128,592**	112,776	136,247

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

MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL REPORTING

The consolidated financial statements and related notes have been prepared by management in conformity with generally accepted accounting principles in Canada which incorporate International Financial Reporting Standards as issued by the International Accounting Standards Board (IFRS Accounting Standards). Management is responsible for the selection of accounting policies and making significant accounting judgements and estimates.

Management is also responsible for all other information included in the management's discussion and analysis and for ensuring that this information is consistent with the information contained in the consolidated financial statements.

Management is responsible for establishing and maintaining adequate internal control over financial reporting which includes those policies and procedures that provide reasonable assurance over the safeguarding of assets and over the completeness, fairness and accuracy of the consolidated financial statements.

The Audit and Risk Management Committee, which is comprised entirely of independent directors, reviews the quality and integrity of the Company's financial reporting and provides its recommendations, in respect of the approval of the financial statements, to the Board of Directors; oversees management's responsibilities as to the adequacy of the supporting systems of internal controls; provides oversight of the independence, qualifications, and appointment of the external auditor; and reviews audit, audit-related, and non-audit fees and expenses. The Board of Directors approves the Company's consolidated financial statements and management's discussion and analysis disclosures prior to their release. The Audit and Risk Management Committee meets with management, the internal auditor and external auditors at least four times each year to review and discuss financial reporting, disclosures, auditing and other matters.

The external auditors, PricewaterhouseCoopers LLP, conduct an independent audit of the consolidated financial statements in accordance with Canadian generally accepted auditing standards and express their opinion thereon. Those standards require that the audit is planned and performed to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. The external auditors have unlimited access to the Audit and Risk Management Committee and meet with the Committee on a regular basis.

(signed) Gervais Jacques	*(signed) Richard Perron*
Gervais Jacques	Richard Perron
President and Chief Executive Officer	Chief Financial Officer

Montreal, Canada
February 27, 2024

Independent auditor's report

To the Shareholders of 5N Plus Inc.

Our opinion

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the financial position of 5N Plus Inc. and its subsidiaries (together, the Company) as at December 31, 2023 and 2022, and its financial performance and its cash flows for the years then ended in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board (IFRS Accounting Standards).

What we have audited
The Company's consolidated financial statements comprise:

- the consolidated statements of financial position as at December 31, 2023 and 2022;
- the consolidated statements of earnings (loss) for the years then ended;
- the consolidated statements of comprehensive income (loss) for the years then ended;
- the consolidated statements of changes in equity for the years then ended;
- the consolidated statements of cash flows for the years then ended; and
- the notes to the consolidated financial statements, comprising material accounting policy information and other explanatory information.

Basis for opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence
We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Canada. We have fulfilled our other ethical responsibilities in accordance with these requirements.

PricewaterhouseCoopers LLP
1250 René-Lévesque Boulevard West, Suite 2500, Montréal, Quebec, Canada H3B 4Y1
T: +1 514 205 5000, F: +1 514 876 1502, ca_montreal_main_fax@pwc.com

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the year ended December 31, 2023. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matter	How our audit addressed the key audit matter
Valuation of inventories *Refer to note 2 – Summary of material accounting policies and note 6 – Inventories to the consolidated financial statements.* The carrying value of inventories on the Company's consolidated financial statements was $105.9 million as at December 31, 2023. Inventories are carried at the lower of cost and net realizable value. In estimating net realizable value, 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. Management applied judgment in estimating the net realizable value of inventories, which involved the use of significant assumptions, including the consideration of prices of similar products in the market at the time the estimates are made and expected future selling prices. We considered this a key audit matter due to the magnitude of the inventory balance, the various types of inventory items and the judgment made by management in determining the net realizable value of inventories, which in turn led to increased audit effort in performing audit procedures.	Our approach to addressing the matter included the following procedures, among others: • Tested how management estimated the net realizable value of inventories, which included the following: – Tested the data used by management in determining the net realizable value. – Evaluated the appropriateness of the method of estimating net realizable value. – Evaluated the reasonableness of significant assumptions used by management in the calculation of net realizable value of inventories, by comparing them to: ○ prices of similar products in the market at the time the estimates are made; and ○ expected future selling prices. • For a sample of inventory items, compared the prior year estimates of inventory prices to their actual selling prices during the year.

Other information

Management is responsible for the other information. The other information comprises the Management's Discussion and Analysis, which we obtained prior to the date of this auditor's report and the information, other than the consolidated financial statements and our auditor's report thereon, included in the annual report, which is expected to be made available to us after that date.

Our opinion on the consolidated financial statements does not cover the other information and we do not and will not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information that we obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard. When we read the information, other than the consolidated financial statements and our auditor's report thereon, included in the annual report, if we conclude that there is a material misstatement therein, we are required to communicate the matter to those charged with governance.

Responsibilities of management and those charged with governance for the consolidated financial statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with IFRS Accounting Standards, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Company to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is Marc-Stéphane Pennee.

/s/PricewaterhouseCoopers LLP[1]

Montréal, Quebec
February 27, 2024

[1] CPA auditor, public accountancy permit No. A123642

Consolidated Statements of Financial Position

(in thousands of United States dollars)

	Notes	December 31 2023	December 31 2022
		$	$
Assets			
Current			
Cash and cash equivalents		**34,706**	42,691
Accounts receivable	5	**33,437**	32,872
Inventories	6	**105,850**	86,254
Income tax receivable	18	**1,672**	5,488
Derivative financial assets	19	**591**	-
Other current assets	7	**5,707**	19,857
Total current assets		**181,963**	187,162
Property, plant and equipment	8	**84,600**	77,951
Right-of-use assets	9	**29,290**	30,082
Intangible assets	10	**29,304**	31,563
Goodwill	11	**11,825**	11,825
Deferred tax assets	18	**8,261**	6,002
Other assets	12	**4,959**	3,400
Total non-current assets		**168,239**	160,823
Total assets		**350,202**	347,985
Liabilities			
Current			
Trade and accrued liabilities	13	**37,024**	40,200
Income tax payable	18	**4,535**	8,780
Current portion of deferred revenue	16	**13,437**	11,730
Current portion of lease liabilities	9	**1,811**	2,136
Current portion of long-term debt	14	**25,000**	-
Total current liabilities		**81,807**	62,846
Long-term debt	14	**83,500**	121,000
Deferred tax liabilities	18	**5,284**	6,959
Employee benefit plan obligations	15	**13,393**	11,643
Lease liabilities	9	**28,328**	28,266
Deferred revenue	16	**5,629**	2,354
Other liabilities	17	**3,669**	2,141
Total non-current liabilities		**139,803**	172,363
Total liabilities		**221,610**	235,209
Equity		**128,592**	112,776
Total liabilities and equity		**350,202**	347,985

Commitments and contingencies (Note 25)
Subsequent event (Note 30)

The accompanying notes are an integral part of these consolidated financial statements.

Years ended December 31
(in thousands of United States dollars)

	Notes	2023	2022
		$	$
Revenue		**242,371**	264,223
Cost of sales	29	**184,833**	215,715
Selling, general and administrative expenses	29	**29,410**	28,565
Other expenses (income), net	29	**756**	32,997
		214,999	277,277
Operating earnings (loss)		**27,372**	(13,054)
Financial expenses			
Interest on long-term debt	14	**8,262**	5,466
Imputed interest and other interest expense (income)		**572**	(274)
Foreign exchange and derivative (gain) loss		**(136)**	42
		8,698	5,234
Earnings (loss) before income taxes		**18,674**	(18,288)
Income tax expense (recovery)			
Current	18	**6,674**	6,865
Deferred	18	**(3,399)**	(2,154)
		3,275	4,711
Net earnings (loss)		**15,399**	(22,999)
Basic earnings (loss) per share	23	**0.17**	(0.26)
Diluted earnings (loss) per share	23	**0.17**	(0.26)

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

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Comprehensive Income (Loss)

Years ended December 31
(in thousands of United States dollars)

	Notes	2023	2022
		$	$
Net earnings (loss)		**15,399**	(22,999)
Other comprehensive (loss) income			
Items that may be reclassified subsequently to net earnings (loss)			
Currency translation adjustment		**590**	(3,657)
		590	(3,657)
Items that will not be reclassified subsequently to net earnings (loss)			
Remeasurement of employee benefit plan obligations	15	**(1,572)**	4,159
Income taxes		**492**	(1,300)
		(1,080)	2,859
Other comprehensive loss		**(490)**	(798)
Comprehensive income (loss)		**14,909**	(23,797)

Comprehensive income (loss) is completely attributable to equity holders of 5N Plus Inc.

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Changes in Equity

Years ended December 31
(in thousands of United States dollars)

2023	**Number of shares**	**Share capital**	**Contributed surplus**	**Accumulated other comprehensive loss**	**Deficit**	**Total equity**
		$	**$**	**$**	**$**	**$**
Balances at beginning of year	**88,330,236**	**21,004**	**342,985**	**(5,987)**	**(245,226)**	**112,776**
Net earnings for the year	**-**	**-**	**-**	**-**	**15,399**	**15,399**
Other comprehensive loss	**-**	**-**	**-**	**(490)**	**-**	**(490)**
Comprehensive earnings	**-**	**-**	**-**	**(490)**	**15,399**	**14,909**
Exercise of stock options	**374,488**	**880**	**(247)**	**-**	**-**	**633**
Share-based compensation (Note 24)	**-**	**-**	**274**	**-**	**-**	**274**
Balances at end of year	**88,704,724**	**21,884**	**343,012**	**(6,477)**	**(229,827)**	**128,592**

2022	Number of shares	Share capital	Contributed surplus	Accumulated other comprehensive loss	Deficit	Total equity
		$	$	$	$	$
Balances at beginning of year	88,330,236	21,004	342,659	(5,189)	(222,227)	136,247
Net loss for the year	-	-	-	-	(22,999)	(22,999)
Other comprehensive loss	-	-	-	(798)	-	(798)
Comprehensive loss	-	-	-	(798)	(22,999)	(23,797)
Share-based compensation (Note 24)	-	-	326	-	-	326
Balances at end of year	88,330,236	21,004	342,985	(5,987)	(245,226)	112,776

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Cash Flows

Years ended December 31
(in thousands of United States dollars)

	Notes	2023	2022
		$	$
Operating activities			
Net earnings (loss)		**15,399**	(22,999)
Adjustments to reconcile net earnings (loss) to cash flows			
Depreciation of property, plant and equipment	8	**10,297**	11,717
Depreciation of right-of-use assets	9	**2,538**	2,702
Amortization of intangible assets	10	**3,275**	3,313
Amortization of other assets	12	**258**	260
Impairment of non-current assets	4, 8, 10, 29	**672**	12,478
(Decrease) increase on loss allowance	5, 27	**(114)**	3
Loss on divestiture of a subsidiary	4	**-**	7,834
Share-based compensation expense	24	**2,768**	1,893
Deferred income taxes	18	**(3,399)**	(2,154)
Imputed interest	9	**690**	605
Employee benefit plan obligations	15	**(246)**	(403)
Loss on disposal of assets held for sale	29	**-**	216
Loss (gain) on disposal of property, plant and equipment	29	**973**	(13)
Unrealized gain on non-hedge financial instruments		**(1,694)**	(1,003)
Unrealized foreign exchange loss (gain) on assets and liabilities		**634**	(951)
Cash from operations before the following:		**32,051**	13,498
Net change in non-cash working capital balances	21	**(14,800)**	10,243
Cash from operating activities		**17,251**	23,741
Investing activities			
Divestiture of a subsidiary, net of cash divested	4	**-**	(2,652)
Cash outflows to cash held in escrow	4	**-**	(2,123)
Additions to property, plant and equipment	8, 21	**(17,341)**	(16,062)
Additions of intangible assets	10	**(902)**	(993)
Acquisition of investment in equity instruments	12	**(1,000)**	-
Proceeds on settlement of indexed deposit agreement	7	**6,506**	-
Proceeds on disposal of assets held for sale	29	**-**	2,816
Proceeds on disposal of property, plant and equipment	8	**375**	20
Cash used in investing activities		**(12,362)**	(18,994)
Financing activities			
Repayment of long-term debt	14	**(12,500)**	(5,000)
Proceeds from issuance of long-term debt	14	**-**	10,000
Deferred costs related to long-term debt	12	**-**	(732)
Issuance of common shares		**633**	-
Principal elements of lease payments	21	**(2,858)**	(2,999)
Increase in other liabilities	17	**1,723**	1,140
Cash (used in) from financing activities		**(13,002)**	2,409
Effect of foreign exchange rate changes on cash and cash equivalents		**128**	(405)
Net (decrease) increase in cash and cash equivalents		**(7,985)**	6,751
Cash and cash equivalents, beginning of year		**42,691**	35,940
Cash and cash equivalents, end of year		**34,706**	42,691
Supplemental information[(1)]			
Income tax paid		**6,945**	3,745
Interest paid		**7,332**	5,360

(1) Amounts paid for income tax and interest were reflected as cash flows from operating activities in the consolidated statements of cash flows.

The accompanying notes are an integral part of these consolidated financial statements.

1. Nature of Activities

5N Plus Inc. ("5N+" or the "Company") is a Canadian-based international company. 5N+ is a leading global producer of specialty semiconductors and performance materials. The Company's ultra-pure materials often form the core element of its customer products. These customers rely on 5N+'s products to enable performance and sustainability in their own products. 5N+ deploys a range of proprietary and proven technologies to develop and manufacture its products. The Company's products enable various applications in a number of key industries including renewable energy, security, space, pharmaceutical, medical imaging, and industrial. The Company is headquartered at 4385 Garand Street, Montreal, Quebec (Canada) H4R 2B4. The Company operates R&D, manufacturing and commercial centers in strategically located facilities around the world including Europe, North America and Asia. 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 focus on integrity, commitment and customer development along with emphasis on sustainable development, continuous improvement, health and safety. The Company's shares are listed on the Toronto Stock Exchange ("TSX"). 5N+ and its subsidiaries represent the "Company" mentioned throughout these consolidated financial statements. The Company has two reportable business segments, namely Specialty Semiconductors and Performance Materials.

These consolidated financial statements were approved by the Board of Directors on February 27, 2024.

2. Summary of Material Accounting Policies

The material accounting policy information regarding the preparation of these consolidated financial statements is set out below. These policies have been consistently applied to all periods presented, unless otherwise stated.

Basis of preparation

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board ("IFRS Accounting Standards"). The consolidated financial statements have been prepared under the historical cost convention, except for certain financial assets and liabilities, which have been measured at fair value as described below.

The preparation of consolidated financial statements in conformity with IFRS Accounting Standards requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the Company's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements, are also further disclosed in this note, in the "Significant management estimation and judgment in applying accounting policies" section.

Subsidiaries

Subsidiaries are all entities over which the Company has control. Control exists when the Company is exposed to, or has the rights to, variable returns from its involvement with the entity and has the ability to affect those returns through the power over the entity.

(in thousands of United States dollars)

The following table includes the principal entities which significantly impact the results or assets of the Company:

	Country of incorporation	% Equity interest 2023	2022
5N Plus Inc.	Canada	100%	100%
5N PV GmbH	Germany	100%	100%
AZUR SPACE Solar Power GmbH (“Azur”)	Germany	100%	100%
5N Plus Lübeck GmbH	Germany	100%	100%
5N Plus Belgium SA(1)	Belgium	-	-
5N Plus Asia Limited	Hong Kong	100%	100%
5N Plus Wisconsin Inc.	United States	100%	100%

(1) On December 19, 2022, the Company divested its investment in 5N Plus Belgium SA. The revenues and expenses of this investment from January 1, 2022 until the date of disposition have been included within the Company’s consolidated statement of earnings (loss). See note 4 for additional information.

Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Company.

Foreign currency translation

a) Functional and presentation currency

The Company’s functional and presentation currency is the US dollar. Functional currency is determined for each of the Company’s entities, and items included in the financial statements of each entity are measured using that functional currency.

b) Transactions and balances

Monetary assets and liabilities denominated in foreign currencies are translated at the prevailing exchange rate at the reporting date. Non-monetary assets and liabilities, and revenue and expense items denominated in foreign currencies are translated into the functional currency using the exchange rate prevailing at the date of the respective transactions. Foreign exchange gains and losses resulting from the settlement of such transactions are recognized in the consolidated statement of earnings (loss).

Foreign exchange gains and losses are presented in the consolidated statement of earnings (loss) within “foreign exchange and derivative (gain) loss”.

c) Foreign operations

Assets and liabilities of subsidiaries that have a functional currency other than US dollar are translated from their functional currency to US dollars at exchange rates in effect at the reporting date. The resulting translation adjustments are included in the currency translation adjustment in other comprehensive loss. Revenue and expenses are translated at the average exchange rates for the period.

Segment reporting

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, financial information and labelled key performance indicators are available and used to manage these business segments, review performance and allocate resources.

Operating in North America and Europe, the Specialty Semiconductors 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 in 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 and industrial. 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, together with financing expenses have been regrouped under the heading “Corporate and unallocated”.

Each operating segment is managed separately as each of these service lines requires different technologies, resources and marketing approaches. The financial information of the recycling and trading of complex material is allocated to the two main segments. All intersegment transactions between the Specialty Semiconductors and the Performance Materials segments have been eliminated on consolidation.

Revenue recognition

Revenue comprises the sale of manufactured products and the rendering of services and is measured at the amounts specified in the customer’s arrangement.

Sales of manufactured products are recognized when products are delivered to the customer, which is also the moment when control of the products is transferred, and when there is no unfulfilled obligation that could affect the customer’s acceptance of the products. Delivery occurs when the products have been shipped to the specified location, the risks of loss have been transferred to the customer and the customer has accepted the products in accordance with the sales contract. Revenue from custom refining activities, often referred to as tolling, is recognized when services are rendered, at a point in time.

Accounts receivable are recognized when the products are delivered or services are rendered, as this is the point in time that the consideration is unconditional because only the passage of time is required before the payment is due. The Company does not expect to have any contracts where the period between the transfer of the promised products or services to the customer and payment by the customer exceeds one year. As a consequence, the Company does not adjust any of the transaction prices for the time value of money.

Deferred revenue is recognized by the company as a non-current liability in relation to long-term revenue contracts with customers which involve performance obligations which are satisfied over time rather than at a point in time. The amount of which is expected to be realized within one year is recorded within the heading “Current portion of deferred revenue”. Cash payments received or advances due pursuant to contractual arrangements related to the sale of goods are also recorded as deferred revenue until all of the foregoing conditions of revenue recognition have been met. The Company does not expect to have any contractual arrangements whereby the cash payment or advance is received more than one year before the underlying goods are delivered and therefore these advances are also presented within the heading “Current portion of deferred revenue”.

Government grants

Grants from the government are recognized at their fair value where there is a reasonable assurance that the grant will be received and the Company will comply with all attached conditions.

Grants that compensate the Company for a specific expense incurred are recognized in the consolidated statement of earnings (loss) against the expenses.

Grants that are related to assets are recognized by deducting the grant from the carrying amount of the specific asset. The grant is recognized in the consolidated statement of earnings (loss) over the life of a depreciable asset as a reduced depreciation expense.

Property, plant and equipment

Property, plant and equipment are recorded at cost, net of accumulated depreciation, accumulated impairment losses and subsequent reversals, if applicable. Property, plant and equipment are depreciated using the straight-line method over their estimated useful lives, taking into account any residual values. Useful lives are as follows:

	Period
Land	Not depreciated
Building	25 years
Production equipment	Up to 15 years
Furniture	3 to 10 years
Office equipment	3 to 10 years
Rolling stock	3 to 10 years
Leasehold improvements	Over the term of the lease

Construction in progress is not depreciated until the assets are put into use. Costs are only capitalized if they are directly attributable to the construction or development of the assets.

Residual values, method of depreciation and useful life of the assets are reviewed annually and adjusted if appropriate.

Leases

Leases are recognized as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Company. Assets and liabilities arising from a lease are initially measured on a present value basis.

Right-of-use assets
Right-of-use assets are measured at cost. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

Lease liabilities
Lease liabilities are measured at the net present value of future lease payments.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be determined, the lessee’s incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

Payments associated with short-term leases and leases of low-value assets are recognized on a straight-line basis as an expense in the consolidated statement of earnings (loss). Short-term leases are leases with a lease term of 12 months or less. Low-value assets comprise IT-equipment and small items of office furniture.

Extension options are included in a number of property and equipment leases across the Company. These terms are used to maximise operational flexibility in terms of managing contracts. The majority of extension options held are exercisable only by the Company and not by the respective lessor.

Intangible assets

Intangible assets acquired separately are recorded at cost, net of accumulated amortization, accumulated impairment losses and reversals, if applicable.

Intangible assets are amortized on a straight-line basis over their useful lives according to the following annual terms:

	Period
Customer relationships	15 years
Technology	Not exceeding 15 years
Trade name	10 years
Software	5 years
Development costs	Not exceeding 10 years
Backlog	3 years

Goodwill

Goodwill represents the excess of the consideration transferred over the fair value of the identifiable net assets acquired in a business combination and is initially measured at the acquisition date. Goodwill is subsequently carried at cost less any accumulated impairment losses.

At the date of acquisition, goodwill is assigned to the cash-generating unit (CGU) or group of CGUs that is expected to benefit from the synergies of the business combination. For the purposes of impairment testing, goodwill is allocated to the Company's operating segments, which is the level at which the chief operating decision maker monitors goodwill. The CGU is tested for impairment annually, or more frequently when there is indication that the CGU may be impaired. If the recoverable amount of the CGU is less than its carrying amount, the impairment loss is allocated first to reduce the goodwill allocated to the CGU and then, to reduce the carrying amounts of the other assets in the CGU on a pro-rata basis. Any impairment loss is recognized in the consolidated statement of earnings (loss). An impairment loss recognized for goodwill is not reversed in subsequent periods.

Impairment of non-financial assets

The carrying amounts of the Company's non-financial assets that have an indefinite useful life and assets that are not yet available for use, are not subject to amortization and are tested annually for impairment or whenever indicators of impairment exist. Assets that are subject to amortization are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable.

An impairment loss is recognized if the carrying amount of an asset or a cash-generating unit (CGU) exceeds its recoverable amount. The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less cost of disposal. The recoverable amount is determined for an individual asset; unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. In such case, the CGU to which the asset belongs is used to determine the recoverable amount. Impairment losses are recognized in the consolidated statement of earnings (loss).

The Company evaluates impairment losses for potential reversals at each reporting date. An impairment loss is reversed if there is any indication that the loss has decreased or no longer exists due to changes in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized. Such reversal is recognized in the consolidated statement of earnings (loss).

Financial instruments

Financial assets and liabilities are recognized when the Company becomes a party to the contractual provisions of the instrument. Financial assets are derecognized when the rights to receive cash flows from the assets have expired or have been transferred and the Company has transferred substantially all risks and rewards of ownership.

Financial assets and liabilities are offset and the net amount is reported in the consolidated statement of financial position when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis, or realize the asset and settle the liability simultaneously.

Measurement

At initial recognition, the Company measures a financial asset or financial liability at its fair value plus or minus, in the case of a financial asset or financial liability not at fair value through profit or loss (FVPL), transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability. Transaction costs of financial assets or financial liabilities carried at FVPL are expensed in the consolidated statement of earnings (loss).

Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are solely payment of principal and interest.

Measurement in subsequent periods depends on the classification of the financial instrument. The Company has classified its financial instruments in the following categories depending on the purpose for which the instruments were acquired and their characteristics.

Financial assets

Debt instruments

For the subsequent measurement, there are two measurement categories into which the Company classifies its debt instruments:

- Amortized cost: Assets that are held for collection of contractual cash flows where those cash flows represent solely payments of principal and interest are measured at amortized cost. Interest income from these financial assets is included in finance income using the effective interest rate method. Any gain or loss arising on derecognition is recognized directly in the consolidated statement of earnings (loss) and presented in other gains (losses), together with foreign exchange gains and losses. Impairment losses are presented as separate line item in the consolidated statement of earnings (loss).
- Fair value through profit or loss (FVPL): Assets that do not meet the criteria for amortized cost or fair value through other comprehensive loss (FVOCI) are measured at FVPL. A gain or loss on a debt investment that is subsequently measured at FVPL is recognized in the consolidated statement of earnings (loss) and presented net within other expenses (income), net in the period in which it arises.

Investment in equity instruments

For the subsequent measurement, investments in equity instruments which the Company did not make an irrevocable election to present in FVOCI are measured at FVPL. A gain or loss on an investment in equity instruments that is subsequently measured at FVPL is recognized in the consolidated statement of earnings (loss) and presented net within “Other expenses (income), net” in the period in which it arises.

Financial liabilities

Financial liabilities are subsequently measured at amortized cost using the effective interest method, except for financial liabilities at FVPL. Such liabilities, including derivatives that are liabilities, shall be subsequently measured at fair value.

Financial instrument classification

Category	Financial instrument
Financial assets and liabilities at fair value through profit and loss	Total return swap (Note 7)
	Indexed deposit agreement (Note 7)
	Investment in equity instrument (Note 12)
	Restricted investment (Note 12)
Financial assets and liabilities at amortized cost	Cash and cash equivalents
	Accounts receivable
	Cash held in escrow (Note 7)
	Trade and accrued liabilities
	Long-term debt

Impairment

At each reporting date, the Company assesses, on a forward-looking basis, the expected credit losses associated with its debt instruments carried at amortized cost. The impairment methodology applied depends on whether there has been a significant increase in credit risk.

For trade receivables, the Company applies the simplified approach permitted by IFRS 9, which requires expected lifetime losses to be recognized from initial recognition of the receivables (Note 27). The Company assumes that there is no significant increase in credit risk for instruments that have a low credit risk.

Derivative financial instruments and hedging activities

Derivatives are initially recognized at fair value on the date a derivative contract is entered into and are subsequently remeasured at their fair value. The method of recognizing the resulting gain or loss depends on whether the derivative is designated as a hedging instrument and, if so, the nature of the item being hedged.

For the year ended December 31, 2023 and 2022, the Company has no derivative financial instruments designated as a hedging instrument.

Embedded financial liabilities derivatives

Embedded derivatives are recorded at fair value separately from the host contract when their economic characteristics and risks are not clearly and closely related to those of the host contract. Subsequent changes in fair value are recorded in financial expenses in the consolidated statement of earnings (loss). For the year ended December 31, 2023 and 2022, the Company has no embedded derivative.

Cash and cash equivalents

Cash and cash equivalents comprise cash on hand.

Cash held in escrow

Cash held in escrow represents cash which is restricted pursuant to a contractual arrangement and is held in a separate bank account. Cash held in escrow is presented within “Other current assets”.

Inventories

Inventories are carried at the lower of cost and net realizable value. Cost includes all expenditures directly attributable to the manufacturing process as well as suitable portions of related production overheads based on normal operating capacity. Costs of ordinarily interchangeable items are assigned using weighted average cost. Net realizable value is the estimated selling price in the ordinary course of business less costs of completion and any applicable selling expenses. When the circumstances that previously caused inventories to be written down below cost no longer exist or when there is clear evidence of an increase in net realizable value because of changed economic circumstances, the amount of the impairment is reversed (i.e. the reversal is limited to the amount of the original impairment) so that the new carrying amount is the lower of the cost and the revised net realizable value.

From time to time, when substantially all required raw materials are in inventory, the Company may choose to enter into long-term fixed-price sales contracts. The quantity of raw materials required to fulfill these contracts is specifically assigned, and the average cost of these raw materials is accounted for separately throughout the duration of the contract.

Income taxes

The tax expense for the year which comprises current and deferred tax is recognized in the consolidated statement of earnings (loss), except to the extent that it relates to items recognized in other comprehensive loss or directly in equity. In which case, the tax expense is also recognized in other comprehensive loss or directly in equity, respectively.

a) Current tax

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the date of the consolidated statement of financial position in the countries where the Company and its subsidiaries operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

b) Deferred tax

Deferred income tax is recognized using the liability method on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, deferred tax liabilities are not recognized if they arise from the initial recognition of goodwill; deferred income tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax is determined using tax rates (and laws) that are enacted or substantively enacted at the date of the consolidated statement of financial position and are expected to apply when the related deferred income tax asset is realized or the deferred income tax liability is settled.

Deferred income tax assets are recognized only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be used.

Deferred income tax is presented to provide impact of temporary differences arising on investments in subsidiaries, except for deferred income tax liability where the timing of the reversal of the temporary difference is controlled by the Company and it is probable that the temporary difference will not be reversed in the foreseeable future.

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities, and when the deferred income tax assets and liabilities relate to income taxes levied by the same taxation authority, on either the same taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

Research and development expenses

Research expenses are charged to the consolidated statement of earnings (loss) in the period they are incurred and are included under “Other expenses (income), net”. Development expenses which are directly attributable expenses, either internal or external, are charged to the consolidated statement of earnings (loss), except if the Company can demonstrate all of the following (in that case capitalised as an intangible assets – development costs):

- The technical feasibility of completing the intangible asset so that it will be available for use or sale;
- Its intention to complete the intangible asset and use or sell it;
- Its ability to use or sell the intangible asset;
- How the intangible asset will generate probable future economic benefits. Among other things, the Company can demonstrate the existence of a market for the output of the intangible asset or the intangible asset itself or, if it is to be used internally, the usefulness of the intangible asset;
- The availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and
- Its ability to measure reliably the expenditure attributable to the intangible asset during its development.

Employee future benefits

The Company contributes to two defined benefit pension plans. The significant policies related to employee future benefits are as follows:

- The cost of pension and other post-retirement benefits earned by employees is actuarially determined using the projected benefit method prorated on service, market interest rates and management’s best estimate of expected plan investment performance, retirement age of employees and expected health care costs;
- Fair value is used to value the plan assets for the purpose of calculating the expected return on plan assets; and
- Actuarial gains and losses arising from experience adjustment and change in actuarial assumptions are charged or credited to equity in other comprehensive loss in the period in which they arise.

Share-based payments

The fair value of the equity-settled share-based payment plan is determined using the Black-Scholes model on the grant date. Measurement inputs include the share price on the measurement date, the exercise price of the instrument, expected volatility, weighted average expected life of the instrument, expected dividends, expected forfeiture rate, and the risk-free interest rate. The impact of service and non-market vesting conditions is not taken into account in determining fair value. The compensation expense of the equity-settled awards is recognized in the consolidated statement of earnings (loss) over the graded vesting period, where the fair value of each tranche is recognized over its respective vesting period.

For cash-settled share-based payment plans, the compensation expense is determined based on the fair value of the liability incurred at each reporting date until the award is settled. The fair value of compensation expense is calculated by multiplying the number of units expected to vest with the fair value of one unit as of grant date based on the market price of the Company’s common shares. Until the liability is settled, the Company re-measures the fair value of the liability at the end of each reporting period and at the date of settlement, with any changes in fair value recognized in the consolidated statement of earnings (loss).

Earnings per share

Diluted earnings (loss) per share assume the conversion, exercise or contingent issuance of securities only when such conversion, exercise or issuance would have a dilutive effect on the income per share. The treasury stock method is used to determine the dilutive effect of share options.

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

To determine the recoverable amount, significant judgement is required as management must estimate expected future cash flows from the asset or CGU and it must determine a suitable interest rate in order to calculate the present value of those cash flows. In the process of measuring expected future cash flows, 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.

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.

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 (Note 18).

(in thousands of United States dollars)

3. Adoption of New Accounting Standards and Future Changes in Accounting Policies

Adoption of new accounting standards

For the year ended December 31, 2023, the Company evaluated the new accounting standards issued and effective under IFRS Accounting Standards and determined that they have no significant impact to its financial statements.

Future Changes in accounting policies

As at December 31, 2023, the Company evaluated the new accounting standards issued but not yet effective under IFRS Accounting Standards and determined that none are applicable to the Company based on its current operations.

4. Divestiture of Subsidiary

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 $7,834. The decision to cease the production of lower margin products used in catalytic and extractive applications was made following a strategic review of the Company's legacy operations. As part of the transaction, a provision of $2,594 was recorded under Litigation and Restructuring to support the new owners to ensure site compliance with most recent environmental standards and for other related costs, of which 2.0 million euros or $2,133 is held in escrow. Prior to the divestiture, the Company recorded an impairment charge of $7,092 on Property, plant, and equipment (Note 8) following the intention to halt production at its manufacturing facility in Tilly, Belgium.

These expenses are presented within the consolidated statement of earnings (loss) within Other expenses (income), net.

5. Accounts Receivable

	2023	2022
	$	$
Gross trade receivables	**25,155**	26,255
Loss allowance (Note 27)	**(38)**	(152)
Trade receivables	**25,117**	26,103
Sales taxes receivable	**4,963**	3,265
Other receivables	**3,357**	3,504
Total accounts receivable	**33,437**	32,872

The Company's exposure to credit risks and the calculation of the loss allowance related to accounts receivable are disclosed in Note 27.

Most of the accounts receivable are pledged as security for the revolving credit facility (Note 14).

(in thousands of United States dollars)

6. Inventories

	2023	2022
	$	$
Raw materials	**36,297**	28,436
Finished goods	**69,553**	57,818
Total inventories	**105,850**	86,254

For the year ended December 31, 2023, a total of $101,176 of inventories was included as an expense in cost of sales (2022 – $118,643).

For the year ended December 31, 2023, a total of $38 previously written down was recognized as a reduction of expenses in cost of sales concurrently with the related inventories being sold ($15 for the Specialty Semiconductors segment and $23 for the Performance Materials segment). For the year ended December 31, 2022, a total of $1,464 previously written down was recognized as a reduction of expenses in cost of sales concurrently with the related inventories being sold ($22 for the Specialty Semiconductors segment and $1,442 for the Performance Materials segment).

The majority of inventories are pledged as security for the revolving credit facility (Note 14).

7. Other current assets

	2023	2022
	$	$
Cash held in escrow (Note 4 and 29)	**2,212**	10,613
Indexed deposit agreement	**-**	5,517
Prepaids and others	**3,495**	3,727
Total other current assets	**5,707**	19,857

During 2023, the Company recovered cash held in escrow for an amount of 7,950 euros. This amount, previously recorded since the acquisition as payable to the previous shareholder of AZUR, was recovered as per stipulations in the share purchase agreement not related to AZUR's performance post-acquisition.

In March 2023, the indexed deposit agreement entered with a major Canadian financial institution in June 2017, was amended to a total return swap wherein share price fluctuations are settled via cash annually. As part of this amendment, the Company received, $6,506 which represents the fair value of the indexed deposit agreement as at the amendment date.

The Company entered into the total return swap, previously the indexed deposit agreement, to reduce its income exposure to fluctuations in its share price relating to the DSU, PSU, RSU and SAR programs. Pursuant to the agreement, the Company receives the economic benefit of the share price appreciation while providing payments to the financial institution for the institution's cost of funds and any share price depreciation. The net effect of the total return swap partly offset movements in the Company's share price impacting the cost of the DSU, PSU, RSU and SAR programs. As at December 31, 2023, the total return swap covered 2,571,569 common shares of the Company.

(in thousands of United States dollars)

8. Property, Plant and Equipment

	Land and buildings	Production equipment	Construction in progress	Furniture, office equipment and rolling stock	Leasehold improvements	Total
	$	$	$	$	$	$
Net book value as at December 31, 2021	15,585	46,796	14,060	2,506	2,579	81,526
Business combination	-	5,017	(379)	-	355	4,993
Additions	86	1,737	13,081	378	14	15,296
Disposals	(4)	(3)	-	-	-	(7)
Reclassification to assets held for sale (Note 29)	(3,032)	-	-	-	-	(3,032)
Depreciation	(764)	(8,940)	-	(1,304)	(709)	(11,717)
Impairment	(2,374)	(4,599)	-	(119)	-	(7,092)
Transfer between categories	1,597	4,264	(6,627)	10	756	-
Effect of foreign exchange	(150)	(1,511)	(224)	(52)	(79)	(2,016)
Net book value as at December 31, 2022	10,944	42,761	19,911	1,419	2,916	77,951
Additions	**30**	**893**	**18,598**	**500**	**332**	**20,353**
Disposals	**-**	**(288)**	**(3,571)**	**(3)**	**(1)**	**(3,863)**
Depreciation	**(765)**	**(8,535)**	**-**	**(556)**	**(441)**	**(10,297)**
Impairment	**-**	**(672)**	**-**	**-**	**-**	**(672)**
Transfer between categories	**-**	**17,537**	**(17,597)**	**15**	**45**	**-**
Effect of foreign exchange	**(25)**	**706**	**358**	**18**	**71**	**1,128**
Net book value as at December 31, 2023	**10,184**	**52,402**	**17,699**	**1,393**	**2,922**	**84,600**
As at December 31, 2022						
Cost	18,823	90,157	19,911	5,135	6,275	140,301
Accumulated depreciation	(7,879)	(47,396)	-	(3,716)	(3,359)	(62,350)
Net book value	10,944	42,761	19,911	1,419	2,916	77,951
As at December 31, 2023						
Cost	**18,791**	**107,675**	**17,699**	**5,136**	**6,676**	**155,977**
Accumulated depreciation	**(8,607)**	**(55,273)**	**-**	**(3,743)**	**(3,754)**	**(71,377)**
Net book value	**10,184**	**52,402**	**17,699**	**1,393**	**2,922**	**84,600**

(in thousands of United States dollars)

During 2023, the Company recorded an impairment of non-current assets of $672 in relation to Property, plant and equipment 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 equipment.

During 2022, the Company recorded an impairment of non-current assets of $7,092, included in the Performance Materials segment, to reflect the assessment of the carrying value of property, plant and equipment following the intention to halt production at its manufacturing facility in Tilly, Belgium. Consequently, the Company's projections regarding the future cashflows from the property, plant and equipment of Tilly were minimal. The impairment charges are recognized under Other expenses within the consolidated statement of earnings (loss) (Note 4).

As at December 31, 2023, property, plant and equipment include $6,669 of prepayments for construction in progress ($4,001 as at December 31, 2022).

Most of the property, plant and equipment are pledged as security for the revolving credit facility (Note 14).

9. Leases

Right-of-use assets

	Buildings	Production equipment	Office equipment and rolling stock	Total
	$	$	$	$
Net book value as at December 31, 2021	31,543	238	417	32,198
Business combination	(938)	-	-	(938)
Additions	2,300	107	290	2,697
Modification to lease contracts	198	-	-	198
Divestiture of subsidiary (Note 4)	-	(55)	(140)	(195)
Depreciation	(2,364)	(128)	(210)	(2,702)
Effect of foreign exchange and others	(1,167)	(4)	(5)	(1,176)
Net book value as at December 31, 2022	29,572	158	352	30,082
Additions	**229**	**12**	**207**	**448**
Modification to lease contracts	**654**	**24**	**-**	**678**
Depreciation	**(2,292)**	**(66)**	**(180)**	**(2,538)**
Effect of foreign exchange and others	**618**	**-**	**2**	**620**
Net book value as at December 31, 2023	**28,781**	**128**	**381**	**29,290**
As at December 31, 2022				
Cost	35,319	305	509	36,133
Accumulated depreciation	(5,747)	(147)	(157)	(6,051)
Net book value	29,572	158	352	30,082
As at December 31, 2023				
Cost	**35,357**	**335**	**737**	**36,429**
Accumulated depreciation	**(6,576)**	**(207)**	**(356)**	**(7,139)**
Net book value	**28,781**	**128**	**381**	**29,290**

(in thousands of United States dollars)

Lease liabilities

	2023	2022
	$	$
Current portion	**1,811**	2,136
Non-current portion	**28,328**	28,266
Total lease liabilities	**30,139**	30,402

Amounts recognized in the consolidated statements of earnings:

	2023	2022
	$	$
Imputed interest[1]	**690**	605
Income from sub-leasing right-of-use assets[2]	**(71)**	(123)
Variable lease payments not included in the measurement of lease liabilities[3]	**200**	235
Expenses relating to short-term leases[3]	**103**	188
Expenses relating to leases of low-value assets, excluding short-term leases of low-value assets[3]	**256**	173

(1) Included in financial expenses.

(2) Included in other expenses (income), net.

(3) Included in cost of sales and selling, general and administrative expenses.

10. Intangible Assets

	Customer relationship	**Technology**	**Trade name, software, development costs and others**	**Total**
	$	**$**	**$**	**$**
Net book value as at December 31, 2021	15,805	11,072	13,597	40,474
Business combination	(423)	2,984	(3,534)	(973)
Additions	-	-	993	993
Divestiture of subsidiary (Note 4)	-	-	(66)	(66)
Amortization	(742)	(1,251)	(1,320)	(3,313)
Impairment	(5,123)	-	(263)	(5,386)
Effect of foreign exchange	-	(37)	(129)	(166)
Net book value as at December 31, 2022	9,517	12,768	9,278	31,563
Additions	**-**	**-**	**902**	**902**
Amortization	**(688)**	**(1,223)**	**(1,364)**	**(3,275)**
Effect of foreign exchange	**-**	**11**	**103**	**114**
Net book value as at December 31, 2023	**8,829**	**11,556**	**8,919**	**29,304**
As at December 31, 2022				
Cost	10,425	15,023	15,465	40,913
Accumulated amortization	(908)	(2,255)	(6,187)	(9,350)
Net book value	9,517	12,768	9,278	31,563
As at December 31, 2023				
Cost	**10,425**	**15,045**	**16,503**	**41,973**
Accumulated amortization	**(1,596)**	**(3,489)**	**(7,584)**	**(12,669)**
Net book value	**8,829**	**11,556**	**8,919**	**29,304**

(in thousands of United States dollars)

In 2022, the Company recorded an impairment of non-current assets of $5,386, included in the Specialty Semiconductors segment, to reflect the assessment of the carrying value of intangible assets impacted by the invasion of Ukraine by Russia, more precisely in reference to Russia based customers. The Company's initial assumptions regarding the timing of future cashflows from these customers can no longer be supported given the uncertainty associated with recent international sanctions against Russia, and the unknown duration of the conflict. The impairment charges are recognized under Other expenses within the consolidated statement of earnings (loss).

As at December 31, 2023, intangible assets that were not depreciated until ready for their intended use amounted to $1,568 (2022 – $812). The category of development costs which includes capitalized costs of $11,295 (2022 - $10,798), consists of internally generated intangible assets.

11. Goodwill

	2023	2022
	$	$
Beginning of year	**11,825**	13,841
Business combination	**-**	(2,016)
End of year	**11,825**	11,825

Goodwill is allocated to the Specialty Semiconductor segment. For the purposes of the Company's annual goodwill impairment test, AZUR is considered as its own CGU. Based on the result of this test, no impairment charges are required. The recoverable amount was determined based on the CGU's value in use which was calculated by using a discounted cash flow (DCF) approach.

The key assumptions used for the purposes of the DCF are outlined below:

- Cash flows: Estimated cash flows were projected based on actual operating results from internal sources as well as industry and market trends. The first three years of the five-year projection period were forecasted by Management. The extended two-year period was calculated using the 2018-2023 Compound Annual Growth Rate for the revenues;
- Terminal growth rate: A terminal growth rate of 5.0% is used to extrapolate the Company's projection and it was determined using the industry expectation and market trends; and
- Discount rate: Cash flows are discounted using pre-tax discount rate which is estimated based on the historical industry average weighted-average cost of capital. The discount rate used is 9.2% (2022 – 9.9%).

12. Other assets

	2023	2022
	$	$
Deferred costs	**519**	777
Investment in equity instruments	**3,000**	2,000
Prepaids	**836**	-
Restricted investment and other	**604**	623
Total other assets	**4,959**	3,400

In December 2023 and January 2021, the Company acquired a minority equity stake in Microbion Corporation (Microbion) for an amount of $1,000 and $2,000 respectively.

The Company also owns a restricted investment of $603 (2022 - $620) which is valued at fair value through profit or loss.

(in thousands of United States dollars)

13. Trade and Accrued Liabilities

	2023	2022
	$	$
Trade payables	**17,906**	14,281
Accrued liabilities(1)	**19,118**	17,440
Consideration payable (Note 7 and 29)	**-**	8,479
Total trade and accrued liabilities	**37,024**	40,200

(1) As at December 31, 2023, an amount of $2,210 was still outstanding with respect to the provision of $2,675 outstanding as at December 31, 2022. Provisions of $289 were taken in 2023, of which $152 was still outstanding as at December 31, 2023.

14. Long-Term Debt

	2023	2022
	$	$
Senior secured revolving facility of $124,000 with a syndicate of banks, maturing in April 2026	**83,500**	96,000
Subordinated term loan, maturing in March 2024	**25,000**	25,000
	108,500	121,000
Less current portion of long-term debt	**(25,000)**	-
	83,500	121,000

Senior secured revolving facility

In June 2022, the Company signed a senior secured multi-currency revolving credit facility of $124,000 maturing in April 2026 to replace its existing $124,000 senior secured revolving facility maturing in April 2023. At any time, the Company has the option to request that the credit facility be expanded through the exercise of an additional $30,000 accordion feature, subject to review and approval by the lenders. This revolving credit facility can be drawn in US dollars, Canadian dollars or Hong Kong dollars (up to $4,000). Drawings bear interest at either the Canadian prime rate, US base rate, Hong Kong base rate or SOFR, plus a margin based on the Company's senior net debt to consolidated EBITDA 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, 2023, the Company had met all covenants.

Subordinated term loan

In February 2019, the Company signed a five-year subordinated term loan with Investissement Québec. The loan was disbursed in two tranches: the first tranche of $5,000 on February 6, 2019 and the second tranche of $20,000 on March 22, 2019. The two tranches of the term loan bear interest equivalent to the 5-year US 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, 2023, the Company has met all covenants.

(in thousands of United States dollars)

15. Employee Benefit Plan Obligations

The Company operates two defined pension plans in Germany based on employee pensionable earnings and length of service.

Unfunded defined benefit plan

Former general and senior managers had been provided with direct benefit commitments. Employees had been provided with indirect benefit commitments via the Unterstützungseinrichtung der HEK GmbH e.V. Such promises had been made for employees with an entry date of December 31, 1993 or earlier.

Funded defined benefit plan

The pension obligations are via a pension fund with commitments to old-age, disability and survivors' pension to managers as well as employees. Such promises had been made for employees with an entry date of December 31, 2007 or earlier. Vesting of benefits is being determined by the employers' pension-plan act (Gesetz über die Verbesserung der betrieblichen Altersversorgung). The pension scheme is fully funded by two absolute return strategies funds at Generali Pensionsfond AG. These investment funds have quoted prices in active markets.

	2023	2022
	$	$
Fair value of plan assets	**2,269**	2,363
Present value of funded obligation	**3,839**	3,425
Present value of net obligation for funded obligation	**1,570**	1,062
Present value of unfunded obligation	**11,823**	10,581
Present value of net obligations	**13,393**	11,643

Movement in the defined benefit obligations is as follows:

			2023			2022
	Unfunded	**Funded**	**Total**	Unfunded	Funded	Total
	$	**$**	**$**	$	$	$
Beginning of year	**10,581**	**3,425**	**14,006**	14,725	5,575	20,300
Current service cost	**39**	**-**	**39**	58	-	58
Interest cost	**432**	**140**	**572**	165	63	228
Effect of foreign exchange	**374**	**131**	**505**	(862)	(350)	(1,212)
Benefits paid	**(695)**	**(187)**	**(882)**	(655)	(177)	(832)
Actuarial losses (gains)						
From changes in financial assumptions	**761**	**304**	**1,065**	(3,481)	(1,728)	(5,209)
From changes in other assumptions	**331**	**26**	**357**	631	42	673
End of year	**11,823**	**3,839**	**15,662**	10,581	3,425	14,006

Movement in plan assets is as follows:

	2023	2022
	$	$
Beginning of year	**2,363**	3,069
Interest income	**97**	34
Return on plan assets, excluding amounts included in interest income	**(150)**	(377)
Contributions	**65**	-
Pension benefits paid	**(187)**	(177)
Effect of foreign exchange	**81**	(186)
End of year	**2,269**	2,363

(in thousands of United States dollars)

The principal actuarial assumptions as at December 31 were as follows:

	2023		2022	
	Unfunded	**Funded**	Unfunded	Funded
Discount rate	**3.5%**	**3.5%**	4.2%	4.2%
Salary growth rate	**2.5%**	**2.5%**	2.5%	2.5%
Pension growth rate	**2.3%**	**2.0%**	2.3%	2.0%

Assumptions regarding mortality are based on mortality tables "Richttafeln 2018 G" by Prof. Dr. Klaus Heubeck as biometrical basis in accordance with age of earliest retirement by law RV-Altersgrenzenanpassungsgesetz, dated April 20, 2007 for the unfunded defined benefit plan and with age of earliest retirement by 65 years for the funded defined benefit plan.

The sensitivity of the defined benefit obligations to changes in assumptions is set out below. The effects on each plan of a change in an assumption are weighted proportionately to the total plan obligations to determine the total impact for each assumption presented.

	Impact on defined benefit obligations					
	Change in assumption		**Increase in assumption**		**Decrease in assumption**	
	Unfunded	**Funded**	**Unfunded**	**Funded**	**Unfunded**	**Funded**
Discount rate	0.50%	0.50%	(5.02%)	(5.93%)	5.50%	6.58%
Salary growth rate	0.50%	0.50%	0.24%	-%	(0.23%)	-%
Pension growth rate	0.50%	0.50%	4.51%	5.28%	(4.18%)	(4.88%)

	Increase by 1 year in assumption		**Decrease by 1 year in assumption**	
	Unfunded	**Funded**	**Unfunded**	**Funded**
Life expectancy	4.05%	3.48%	(3.58%)	(3.11%)

The weighted average duration of the unfunded and funded defined benefit obligations are 10.51 years and 12.35 years (2022 – 10.29 years and 12.10 years).

Though its defined benefit pension plans, the Company is exposed to a number of risks, the most significant of which are detailed below:

Specific to employee benefit obligations, the Company is mainly exposed to economic and demographic risks such as salary inflation and changes in life expectancy. The plans' obligations are to provide benefits for the duration of the life of its members, therefore, increases in life expectancy will result in an increase in the plans' liabilities. In addition, the obligations are impacted by the discount rate.

Defined benefit pension plan assets are invested in order to meet funded pension obligations. The ability of the Company's fund assets to meet employee benefit obligations is subject to market risk such as foreign currency risk, interest rate risk, and other price risk. Credit risk also affects plan assets, as they are partially comprised of investments in bonds. The default of a bond issuer would decrease plan assets and the Company's corresponding ability to meet employee benefit obligations.

(in thousands of United States dollars)

Expected maturity analysis of undiscounted pension liability:

			2023			2022
	Unfunded	Funded	Total	Unfunded	Funded	Total
	$	$	$	$	$	$
Less than a year	710	198	908	676	186	862
Between 1 and 5 years	2,984	845	3,829	2,796	786	3,582
Over 5 years	14,553	5,537	20,090	14,140	5,378	19,518
Total	18,247	6,580	24,827	17,612	6,350	23,962

Expected contributions to pension benefit plans for the year ending December 31, 2024 are $908.

16. Deferred revenue

	2023	2022
	$	$
Prepayments from clients	11,591	9,409
Current portion of deferred revenue related to long-term contracts	1,846	2,321
Current portion of deferred revenue	13,437	11,730
Non-current portion of deferred revenue related to long-term contracts	5,629	2,354
Non-current portion of deferred revenue	5,629	2,354
Total deferred revenue	19,066	14,084

For the year ended December 31, 2023, $10,441 (2022 - $5,605) of revenue was realized in relation to the deferred revenue balance outstanding at the beginning of the year.

17. Other Liabilities

	2023	2022
	$	$
Beginning of year	2,141	1,255
Divestiture of subsidiary (Note 4)	-	(195)
Increase in liabilities	1,723	1,140
Utilized	(231)	-
Effect of foreign exchange	36	(59)
End of year	3,669	2,141

18. Income Taxes

	2023	2022
	$	$
Current tax:		
Current tax for the year	6,459	7,213
Adjustment in respect of prior years' estimates	215	(348)
Total current tax	6,674	6,865
Deferred tax:		
Recognition and reversal of temporary differences	(3,615)	(2,446)
Adjustment in respect of prior years' estimates	216	292
Total deferred tax	(3,399)	(2,154)
Income tax expense	3,275	4,711

(in thousands of United States dollars)

A reconciliation of income taxes at Canadian statutory rates with the reported income taxes is as follows:

	2023	2022
	$	$
Earnings (loss) before income tax	**18,674**	(18,288)
Canadian statutory income tax rates	**26.5%**	26.5%
Income tax on earnings (losses) at Canadian statutory rate	**4,949**	(4,846)
Increase (decrease) resulting from:		
Unrecorded losses carried forward	**911**	3,268
Non-deductible expense for tax purposes	**312**	3,670
Non-taxable litigation and restructuring income	**(2,341)**	-
(Non-taxable) non-deductible foreign exchange	**(1,354)**	1,868
Effect of difference of foreign tax rates compared to Canadian tax rates	**3**	299
Withholding tax on group dividend	**410**	522
Adjustment in respect of prior years' estimates	**431**	(56)
Other	**(46)**	(14)
Income tax expense	**3,275**	4,711

The Company's applicable tax rate is the Canadian combined rates applicable in the jurisdiction in which the Company operates.

Movement in the deferred income tax amounts is as follows:

	2023	2022
	$	$
Beginning of year	**(957)**	(638)
Business combination	**-**	(1,071)
Tax charge relating to components of other comprehensive income (loss)	**492**	(1,300)
Credited to consolidated statement of earnings	**3,399**	2,154
Impact of foreign exchange	**43**	(102)
End of year	**2,977**	(957)

(in thousands of United States dollars)

The movement in deferred income tax assets and liabilities during the year, without taking into consideration the offsetting of balances within the same jurisdiction, is as follows:

Deferred tax assets	Property, plant and equipment	Inventories	Intangible assets	Loss carry forward	Retirement benefit obligation	Others	Total	Offset by jurisdiction	Total
	$	$	$	$	$	$	$	$	$
As at December 31, 2021	908	424	307	3,876	4,459	833	10,807	(3,800)	7,007
Divestiture of subsidiary (Note 4)	-	-	-	(274)	-	(49)	(323)		
(Charged) credited to consolidated statements of earnings	(120)	969	-	(789)	(379)	264	(55)		
Credited to comprehensive income	-	-	-	-	(1,300)	-	(1,300)		
Effect of foreign exchange	-	-	-	-	-	(102)	(102)		
As at December 31, 2022	788	1,393	307	2,813	2,780	946	9,027	(3,025)	6,002
(Charged) credited to consolidated statements of earnings	**(180)**	**(388)**	**160**	**3,932**	**400**	**461**	**4,385**		
Credited to comprehensive income	**-**	**-**	**-**	**-**	**492**	**-**	**492**		
Effect of foreign exchange	**-**	**-**	**-**	**-**	**-**	**43**	**43**		
As at December 31, 2023	**608**	**1005**	**467**	**6,745**	**3,672**	**1,450**	**13,947**	**(5,686)**	**8,261**

Deferred tax liabilities	Property, plant and equipment	Inventories	Intangible assets	Others	Total	Offset by jurisdiction	Total
	$	$	$	$	$	$	$
As at December 31, 2021	885	426	10,068	66	11,445	(3,800)	7,645
Business combination	-	-	1,071	-	1,071		
Divestiture of subsidiary (Note 4)	(257)	(66)	-	-	(323)		
Charged (credited) to consolidated statements of earnings	198	(347)	(2,155)	95	(2,209)		
As at December 31, 2022	826	13	8,984	161	9,984	(3,025)	6,959
Charged (credited) to consolidated statements of earnings	**1,609**	**(13)**	**(697)**	**87**	**986**		
As at December 31, 2023	**2,435**	**-**	**8,287**	**248**	**10,970**	**(5,686)**	**5,284**

(in thousands of United States dollars)

Deferred income tax liabilities have not been recognized for the withholding tax and taxes that would be payable on the unremitted earnings of certain subsidiaries. Such amounts are permanently reinvested. Unremitted earnings totalled $60,089 as at December 31, 2023 (2022 - $43,260).

As at December 31, 2023, the Company had the following operating tax losses available for carry forward for which no deferred tax benefit has been recorded in the accounts:

	$	Expiry
Belgium	15,631	No limit
United States	36,736	No limit
Hong Kong	10,014	No limit

As at December 31, 2023, the Company had other deductible temporary differences of $323 for which no deferred tax benefit has been recorded (2022 – $440).

19. Fair Value of Financial Instruments

The fair value of a financial instrument is determined by reference to the available market information at the reporting date. When no active market exists for a financial instrument, the Company determines the fair value of that instrument based on valuation methodologies as discussed below. In determining assumptions required under a valuation model, the Company primarily uses external, readily observable market data inputs. Assumptions or inputs that are not based on observable market data incorporate the Company's best estimates of market participant assumptions, and are used when external data is not available. Counterparty credit risk and the Company's own credit risk are taken into account in estimating the fair value of all financial assets and financial liabilities.

The following assumptions and valuation methodologies have been used to measure fair value of financial instruments:

- The fair value of its short-term financial assets and financial liabilities, including cash and cash equivalents, accounts receivable, cash held in escrow and trade and accrued liabilities approximates their carrying value due to the short-term maturities of these instruments;
- The fair value of its investment in equity is determined using significant unobservable inputs such as the best information available.
- The fair value of its restricted investment is determined using the expected mortality of life, present value of the estimated future cash flows and estimated discount rates. Assumptions are based on market conditions prevailing at each reporting date.
- The fair value of derivative instruments, which include the total return swap and the indexed deposit agreement, is calculated as the present value of the estimated future cash flows using an appropriate interest rate yield curve, foreign exchange rate and the stock price. Assumptions are based on market conditions prevailing at each reporting date. Derivative instruments reflect the estimated amount that the Company would receive or pay to settle the contracts at the reporting date; and
- The fair value of long-term debt is estimated based on discounted cash flows using current interest rate for instruments with similar terms and remaining maturities.

(in thousands of United States dollars)

The carrying values which approximate the fair values of financial instruments, by class, are as follows as at December 31, 2023 and 2022:

As at December 31, 2023				**Carrying value**
	At fair value through profit or loss	**At amortized cost**	**Financial liabilities at amortized cost**	**Total**
	$	**$**	**$**	**$**
Financial assets				
Cash and cash equivalents	**-**	**34,706**	**-**	**34,706**
Accounts receivable	**-**	**33,437**	**-**	**33,437**
Derivative financial assets	**591**	**-**	**-**	**591**
Other current assets	**-**	**2,212**	**-**	**2,212**
Other non-current assets	**3,603**	**-**	**-**	**3,603**
Total	**4,194**	**70,355**	**-**	**74,549**
Financial liabilities				
Trade and accrued liabilities	**-**	**-**	**37,024**	**37,024**
Long-term debt	**-**	**-**	**108,500**	**108,500**
Total	**-**	**-**	**145,524**	**145,524**

As at December 31, 2022				Carrying value
	At fair value through profit or loss	At amortized cost	Financial liabilities at amortized cost	Total
	$	$	$	$
Financial assets				
Cash and cash equivalents	-	42,691	-	42,691
Accounts receivable	-	32,872	-	32,872
Other current assets	5,517	10,613	-	16,130
Other non-current assets	2,620	-	-	2,620
Total	8,137	86,176	-	94,313
Financial liabilities				
Trade and accrued liabilities	-	-	40,200	40,200
Long-term debt	-	-	121,000	121,000
Total	-	-	161,200	161,200

(in thousands of United States dollars)

Fair value hierarchy

The fair value hierarchy reflects the significance of the inputs used in making the measurements and has the following levels:

- Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices); and
- Level 3: Inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The following table presents the financial instruments, by level, which are recognized at fair value in the consolidated statements of financial position:

As at December 31, 2023	**Level 1**	**Level 2**	**Level 3**
	$	**$**	**$**
Financial assets			
At fair value through profit or loss			
Total return swap (Note 7)	**-**	**591**	**-**
Investment in equity instruments (Note 12)	**-**	**-**	**3,000**
Restricted investment (Note 12)	**-**	**-**	**603**
Total	**-**	**591**	**3,603**

As at December 31, 2022	Level 1	Level 2	Level 3
	$	$	$
Financial assets			
At fair value through profit or loss			
Indexed deposit agreement (Note 7)	-	5,517	-
Investment in equity instruments (Note 12)	-	-	2,000
Restricted investment (Note 12)	-	-	620
Total	-	5,517	2,620

(in thousands of United States dollars)

20. Operating Segments

The following tables summarize the information reviewed by the entity's chief operating decision maker when measuring performance:

	2023	2022
	$	$
Specialty Semiconductors	**156,479**	121,918
Performance Materials	**85,892**	142,305
Total revenue	**242,371**	264,223
Specialty Semiconductors	**27,544**	24,318
Performance Materials	**21,948**	17,277
Corporate and unallocated	**(11,169)**	(11,567)
Adjusted EBITDA[1]	**38,323**	30,028
Interest on long-term debt, imputed interest and other interest expense	**8,834**	5,192
Depreciation and amortization	**16,110**	17,732
Share-based compensation expense	**1,432**	999
Foreign exchange and derivative (gain) loss	**(136)**	42
Impairment of non-current assets (Note 29)	**672**	12,478
Loss on divestiture of subsidiary (Notes 4 and 29)	**-**	7,834
Loss on disposal of property, plant and equipment (Note 8 and 29)	**1,051**	-
Loss on disposal of assets held for sale (Note 8 and 29)	**-**	216
Litigation and restructuring (income) costs (Note 29)	**(8,314)**	3,823
Earnings (loss) before income tax	**18,674**	(18,288)

(1) Earnings (loss) before income tax, depreciation and amortization, share-based compensation expense, impairment of non-current assets, loss on divestiture of subsidiary, loss on disposal of property, plant and equipment, loss on disposal of assets held for sale, litigation and restructuring (income) costs and financial expense.

Capital expenditures	**2023**	2022
	$	$
Specialty Semiconductors	**12,838**	10,038
Performance Materials	**4,458**	5,944
Corporate and unallocated	**45**	80
Total	**17,341**	16,062

Assets excluding the deferred tax assets	**2023**	2022
	$	$
Specialty Semiconductors	**195,087**	180,473
Performance Materials	**131,570**	129,901
Corporate and unallocated	**15,284**	31,609
Total	**341,941**	341,983

(in thousands of United States dollars)

The geographic distribution of the Company's revenues based on the location of the customers for the years ended December 31, 2023 and 2022, and the identifiable non-current assets as at December 31, 2023 and 2022 are summarized as follows:

Revenues	**2023**	2022
	$	$
Asia		
China	**12,846**	10,815
Japan	**4,270**	4,453
Other[1]	**20,211**	27,139
Americas		
United States	**107,158**	95,517
Other	**9,128**	19,911
Europe		
Germany	**43,284**	41,314
Belgium	**5,334**	7,276
Netherlands	**3,425**	9,604
France	**9,426**	13,831
Other[1]	**23,709**	29,587
Other	**3,580**	4,776
Total	**242,371**	264,223

[1] None exceeding 10%

For the year ended December 31, 2023, one customer represented approximately 23% (2022 – 17%) of revenues of which 23% (2022 – 14%) is within the Specialty Semiconductors segment and nil (2022 – 3%) is within the Performance Materials Segment.

Non-current assets (other than deferred tax assets and financial instruments)	**2023**	2022
	$	$
Asia	**3,132**	3,411
United States	**12,382**	13,590
Canada	**31,566**	27,156
Germany	**109,295**	108,044
Total	**156,375**	152,201

21. Supplemental Cash Flow Information

a) Net change in non-cash working capital balances related to operations consists of the following:

	2023	2022
	$	$
Decrease (increase) in assets:		
Accounts receivable	**74**	5,364
Inventories	**(18,844)**	2,435
Income tax receivable	**3,811**	(437)
Other current assets	**7,838**	(427)
(Decrease) increase in liabilities:		
Trade and accrued liabilities	**(7,774)**	(1,691)
Income tax payable	**(4,245)**	3,169
Deferred revenue	**4,340**	1,830
Net change	**(14,800)**	10,243

(in thousands of United States dollars)

b) The reconciliation of assets/liabilities arising from financing activities consists of the following:

			Non-Cash changes				
	December 31 2022	Cash flows	Imputed interest	Foreign exchange movement	Fair value changes	Non-cash working capital	**December 31 2023**
	$	$	$	$	$	$	**$**
Long-term debt	121,000	(12,500)	-	-	-	-	**108,500**
Lease liabilities	30,402	(2,858)	690	779	-	1,126	**30,139**
Total net liabilities from financing liabilities	151,402	(15,358)	690	779	-	1,126	**138,639**

			Non-Cash changes				
	December 31 2021	Cash flows	Imputed interest	Foreign exchange movement	Fair value changes	Non-cash working capital	December 31 2022
	$	$	$	$	$	$	$
Long-term debt	116,000	5,000	-	-	-	-	121,000
Interest rate swap	109	-	-	-	(109)	-	-
Lease liabilities	32,640	(2,999)	605	(1,617)	-	1,773	30,402
Total net liabilities from financing liabilities	148,749	2,001	605	(1,617)	(109)	1,773	151,402

c) The consolidated statements of cash flows exclude or include the following transactions:

	2023	2022
	$	$
Excluded additions unpaid at end of the year: Additions to property, plant and equipment	**2,826**	2,329
Included additions unpaid at beginning of year: Additions to property, plant and equipment	**2,329**	3,095
Excluded non-cash proceeds on the disposal of Property, plant and equipment (Note 29)	**2,515**	-

d) Additions to property, plant and equipment consist of the following:

	2023	2022
	$	$
Additions to property, plant and equipment before prepayments	**17,387**	12,193
Prepayments for construction in progress	**2,469**	3,869
Less: Non-cash deposits for construction in progress	**(2,515)**	-
Additions to property, plant and equipment	**17,341**	16,062

22. Share Capital

Authorized:

- An unlimited number of common shares, participating, with no par value, entitling the holder to one vote per share; and
- An unlimited number of preferred shares, issuable in one or more series with specific terms, privileges and restrictions to be determined for each class by the Board of Directors. As at December 31, 2023 and 2022, no preferred shares were issued.

(in thousands of United States dollars)

23. Earnings per Share

The following table reconciles the numerators and denominators used for the computation of basic and diluted earnings (loss) per share:

Numerators	2023	2022
	$	$
Net earnings (loss) for the year	15,399	(22,999)

Denominators	2023	2022
Basic weighted average number of shares	88,533,263	88,330,236
Dilutive effect:		
Stock options	517,120	-
Diluted weighted average number of shares	89,050,383	88,330,236

As at December 31, 2023, a total number of 219,864 stock options was excluded from the diluted weighted average number of shares due to their anti-dilutive effect.

As at December 31, 2022, a total number of 1,598,938 stock options was excluded from the diluted weighted average number of shares due to their anti-dilutive effect due to net loss for the year.

24. Share-Based Compensation

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, for the purpose of enhancing the Company's ability to attract and retain talented individuals to serve as employees, officers and executives of the Company and its affiliates and promoting a greater alignment of interests between such employees, officers and executives and the shareholders of the Company. 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 the case of a participant’s termination by the Company for cause or as a result of a voluntary resignation by the participant before the end of a performance cycle, all RSUs and PSUs will be forfeited immediately as of the date on which the participant is advised of his termination or resigns.

In the case of a participant’s termination by the Company other than for cause, if such participant is deemed to be on long-term disability or if such participant retires before the end of a performance cycle, the number of RSUs which will vest at such event will be prorated based on the number of months worked at the end of the performance cycle and all PSUs will be forfeited immediately.

In the case of a participant’s death before the end of a performance cycle, the number of RSUs which will vest will be prorated based on the number of months worked at the end of the fiscal year preceding the participant’s death and all PSUs will be forfeited immediately.

The maximum number of common shares which may be issued under the RSU & PSU Plan is 5,000,000. Common shares in respect of RSUs or PSUs to be settled through the issuance of common shares but that have been forfeited, cancelled or settled in cash shall be available for RSUs or PSUs to be granted thereafter pursuant to this plan. No RSUs or PSUs to be settled through the issuance of common shares may be granted to any participant unless the number of common shares: (a) issued to "Insiders" within any one-year period; and (b) issuable to "Insiders" at any time, under the plan, or when combined with all of the Company's other security-based compensation arrangements, could not exceed 10% of the total number of issued and outstanding common shares, respectively.

For the year ended December 31, 2023, the Company granted 155,873 RSUs (2022 – 95,881), 111,458 RSUs were paid (2022 – 146,549) and 3,000 RSUs were forfeited (2022 – 13,110). As at December 31, 2023, 319,896 RSUs were outstanding (2022 – 278,481).

For the year ended December 31, 2023, the Company granted nil PSUs (2022 – nil), nil PSUs were paid (2022 – nil) and nil PSUs were cancelled (2022 – 200,000). As at December 31, 2023, nil PSUs were outstanding (2022 – nil).

Stock Appreciation Rights Plan

On June 7, 2010, the Company adopted a Restricted Share Unit for Foreign Employees Plan (the “RSUFE Plan”) which was slightly amended on November 7, 2012 by the Company to become the Stock Appreciation Rights plan (the “SAR Plan”) which replaced the RSUFE Plan. The SAR Plan enables the Company to award eligible participants phantom stock options to foreign directors, officers and employees. SARs usually have a six-year term and vest equally over a four-year period at an annual rate of 25% per year beginning one year following the SARs grant date. The amount of cash payout is equal to the sum of the positive differences between the volume weighted average trading price of the common shares of the Company on the TSX in the last twenty (20) trading days immediately preceding the exercise date and the grant price of each SAR redeemed.

At the end of each financial period, changes in the Company’s payment obligations due to changes in the market value of the common shares on the TSX are recorded as an expense. For the year ended December 31, 2023, the Company granted 63,839 SARs (2022 – 171,025), 127,874 SARs were paid (2022 – 200,000) and 16,250 SARs were forfeited (2022 – 377,500). As at December 31, 2023, 843,872 SARs were outstanding (2022 – 924,157).

Deferred Share Unit Plan

On May 7, 2014, the Company adopted a Deferred Share Unit (“DSU”) Plan (the “DSU Plan”) which enables the Company to provide Board directors and key officers and employees designated by the Board with phantom share units to enhance the Company's ability to attract and retain individuals with the right combination of skills and experience to serve on the Company’s Board or as Company’s executives. Unless the Board of Directors decides otherwise at its sole discretion, DSUs vest entirely at their date of grant and become payable in cash upon termination of services of a director, or termination of employment of an officer or employee. The amount of cash payout is equal to the volume weighted average trading price of the common shares of the Company on the TSX of the twenty (20) trading days immediately preceding the date of payment of the DSU.

For the year ended December 31, 2023, the Company granted 156,701 DSUs (2022 – 476,152) and nil DSUs were paid (2022 – 348,277). As at December 31, 2023, 1,859,544 DSUs were outstanding (2022 – 1,702,843).

(in thousands of United States dollars)

Stock Option Plan

On April 11, 2011, the Company adopted a new stock option plan (the "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, 2023, may be exercised during a period not exceeding six years from their date of grant. Unless the Board of Directors decides otherwise at its sole discretion, 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 (collectively the "optionee") and one year after the optionee's death, retirement or permanent disability, as the case may be, or prior to the expiration of the term of the option, whichever occurs earlier.

The following table presents information concerning all outstanding stock options:

		2023		2022
	Number of options	**Weighted average exercise price**	Number of options	Weighted average exercise price
		CA$		CA$
Outstanding, beginning of year	**1,598,938**	**1.91**	825,968	2.46
Granted	**140,712**	**2.74**	772,970	1.33
Exercised	**(374,488)**	**2.28**	-	-
Outstanding, end of year	**1,365,162**	**1.90**	1,598,938	1.91
Exercisable, end of year	**458,454**	**2.10**	457,749	2.41

The outstanding stock options as at December 31, 2023 are as follows:

	Exercise price		Number of options		Weighted average remaining contractual life
	Low	High	Exercisable	Outstanding	
	CA$	CA$			(in years)
February 2024	2.71	2.71	35,165	35,165	0.15
March 2025	3.43	3.43	30,940	30,940	1.17
March 2026	2.10	2.10	-	12,163	2.17
May 2027	3.38	3.38	24,106	48,212	3.36
December 2027	2.42	2.42	175,000	325,000	3.92
March 2028	2.27	2.27	18,243	72,970	4.18
May 2028	1.23	1.23	175,000	700,000	4.39
February 2029	2.74	2.74	-	140,712	5.15
			458,454	1,365,162	4.10

The fair value of stock options at the grant date was measured using the Black-Scholes option pricing model. The historical share price of the Company's common shares is used to estimate expected volatility, and government bond rates are used to estimate the risk-free interest rate.

The following table illustrates the inputs used in the average measurement of the fair values of the stock options at the grant date granted during the years ended December 31, 2023 and 2022:

	2023	2022
Expected stock price volatility	**60%**	53%
Dividend	**None**	None
Risk-free interest rate	**3.81%**	2.59%
Expected option life	**4 years**	4 years
Fair value – weighted average of options issued	**CA$1.36**	CA$0.57

(in thousands of United States dollars)

The following table shows the share-based compensation expense recorded in the consolidated statements of earnings for the years ended December 31, 2023 and 2022:

Expense	2023	2022
	$	$
RSUs	304	202
SARs	528	244
DSUs	1,662	1,121
Stock options	274	326
Total return swap (Note 7)	(1,336)	(894)
Total	1,432	999

The following amounts were recorded:

Liability	2023	2022
	$	$
RSUs	474	375
SARs	1,007	562
DSUs	5,051	3,906
Total	6,532	4,843
Intrinsic value of vested units	6,046	4,015

25. Commitments and Contingencies

Commitments

As at December 31, 2023, in the normal course of business, the Company contracted letters of credit for an amount of $551 (2022 – $883).

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.

26. Related Party Transactions

The Company's related parties are its directors and executive members.

Unless otherwise stated, none of the transactions incorporated special terms and conditions and no guarantees were given or received. Outstanding balances are settled in cash.

Key management compensation

Key management includes directors (executive and non-executive) and certain senior management. The compensation expense paid or payable to key management for employee services is as follows:

	2023	2022
	$	$
Wages and salaries	2,160	1,995
Share-based compensation and others (Note 24)	2,563	1,677
Total	4,723	3,672

(in thousands of United States dollars)

27. Financial Risk Management

In the normal course of operations, the Company is exposed to various financial risks. These risk factors include market risk (foreign currency risk, interest rate risk and other price risk), credit risk and liquidity risk.

Market risk

Market risk is the risk that changes in market price, such as foreign exchange rates, equity prices and interest rates, will affect the Company's net earnings or the value of financial instruments.

The objective of market risk management is to mitigate exposures within acceptable limits, while maximizing returns.

a) Foreign currency risk

Foreign currency risk is defined as the Company's exposure to a gain or a loss in the value of its financial instruments as a result of fluctuations in foreign exchange rates. The Company is exposed to foreign exchange rate variability primarily in relation to certain sales commitments, expected purchase transactions, certain local operating expenses and debt denominated in a foreign currency. In addition, these operations have exposure to foreign exchange rates primarily through cash and cash equivalents and other working capital accounts denominated in currencies other than their functional currencies.

The following table summarizes in US dollar equivalents the Company's major currency exposures as at December 31, 2023:

						2023
	CA$	EUR	GBP	HKD	MYR	Other
	$	$	$	$	$	$
Cash and cash equivalents	489	1,999	67	34	36	9
Accounts receivable	1,662	6,594	-	-	1	-
Derivative financial assets	591	-	-	-	-	-
Other current assets	-	2,212	-	-	-	-
Other non current assets	-	603	-	-	-	-
Trade and accrued liabilities	(12,987)	(9,349)	(436)	(116)	(166)	(55)
Lease liabilities	(6,360)	(297)	-	(69)	-	-
Net financial assets (liabilities)	(16,605)	1,762	(369)	(151)	(129)	(46)

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 $10,401 and $496 respectively with a net position of $9,905. A strengthening or weakening in the exchange rate between the functional currencies of these subsidiaries and the US dollar of five-percentage points results in a decrease or increase of $495 to earnings before income tax.

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, 2023 for the Company's financial instruments denominated in non-functional currencies:

	CA$	EUR	GBP	HKD	MYR	Other
	$	$	$	$	$	$
5% Strengthening	(830)	88	(18)	(8)	(6)	(2)
5% Weakening	830	(88)	18	8	6	2

(in thousands of United States dollars)

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, 2023, the Company has no foreign exchange contracts outstanding.

b) Interest rate risk

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 is 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 $835 on the Company's earnings before income tax on a twelve-month horizon based on the balance outstanding on December 31, 2023.

c) Other price risk

Other price risk is the risk that fair value or future cash flows will fluctuate because of changes in market prices, other than those arising from interest rate risk or currency risk.

Credit risk

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 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.

The past due receivables are as follows:

	2023	2022
	$	$
Current	**23,889**	24,152
More than 30 days past due	**71**	192
More than 60 days past due	**1,195**	1,911
Gross carrying amount	**25,155**	26,255
Loss allowance	**(38)**	(152)
Total trade receivables	**25,117**	26,103

(in thousands of United States dollars)

The following table summarizes the changes in the loss allowance for trade receivables:

	2023	2022
	$	$
Beginning of year	**152**	149
Increase during the year	**2**	3
Unused amounts reversed	**(116)**	-
End of year	**38**	152

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.

Amounts charged to the loss allowance account are generally written off when there is no reasonable expectation of recovery.

Counterparties to financial instruments may also expose the Company to credit losses in the event of non-performance. Counterparties for derivative and cash transactions are limited to high credit quality financial institutions, which are monitored on an ongoing basis. Counterparty credit assessments are based on the financial health of the institutions and their credit ratings from external agencies, therefore no impairment loss was identified as at December 31, 2023.

Liquidity risk

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.

The following table reflects the contractual cash flows of the Company's financial liabilities as at December 31, 2023:

							2023
	Carrying amount	**1 year**	**2 years**	**3 years**	**4 years**	**Over 5 years**	**Total**
	$	**$**	**$**	**$**	**$**	**$**	**$**
Trade and accrued liabilities	**37,024**	**37,024**	**-**	**-**	**-**	**-**	**37,024**
Long-term debt	**108,500**	**31,184**	**5,766**	**85,422**	**-**	**-**	**122,372**
Lease liabilities	**30,139**	**2,761**	**2,642**	**2,558**	**2,534**	**26,803**	**37,298**
Total	**175,663**	**70,969**	**8,408**	**87,980**	**2,534**	**26,803**	**196,694**

28. Capital Management

The Company's objective when managing capital is to safeguard its ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

The Company requires the approval of its lenders on some of the capital transactions such as the payment of dividends and capital expenditures over a certain level.

The Company monitors capital on the basis of the debt-to-equity ratio. This ratio is calculated as net debt divided by total equity. Net debt is calculated as total borrowings (comprising long-term debt in the consolidated statement of financial position) less cash and cash equivalents. Any introduced IFRS 16 reporting measures in reference to lease liabilities are excluded from the calculation.

(in thousands of United States dollars)

Debt-to-equity ratios as at December 31, 2023 and 2022 are as follows:

	2023	2022
	$	$
Long-term debt including current portion	108,500	121,000
Total debt	108,500	121,000
Less: Cash and cash equivalents	(34,706)	(42,691)
Net debt	73,794	78,309
Shareholders' equity	128,592	112,776
Debt-to-equity ratio	57%	69%

29. Expenses by Nature

Expenses by nature include the following:

	2023	2022
	$	$
Wages and salaries	54,772	55,107
Depreciation of property, plant and equipment (Note 8)	10,297	11,717
Depreciation of right-of-use assets (Note 9)	2,538	2,702
Amortization of other assets (Note 12)	258	260
Other expenses (income), net		
Amortization of intangible assets (Note 10)	3,275	3,313
Share-based compensation expense (Note 24)	1,432	999
Loss (gain) on disposal of property, plant and equipment(1)	973	(13)
Loss on disposal of assets held for sale (Note 8)(2)	-	216
Loss on divestiture of subsidiary (Note 4)	-	7,834
Impairment of non-current assets (Notes 4, 8 and 10)	672	12,478
Research and development, net of tax credits(3)	2,890	4,638
Litigation and restructuring (income) costs, net(4)	(8,314)	3,823
Other income	(172)	(291)

(1) Includes a loss on disposal of $1,051 on production equipment following a change of technical requirements and functionalities by the Company. The Company disposed this production equipment in a non-monetary transaction with the supplier in exchange for a credit to be applied against future purchases of production equipment.

(2) A loss of $216 on the disposal of assets held for sale was recorded in 2022 within "Other expenses (income), net" within the consolidated statement of earnings (loss). The asset, which was previously presented as held for sale within the Specialty Semiconductors segment, pertains to a reclassification from buildings for an amount of $3,032 in 2022. The reclassification relates to the planned relocation of operations from Canada of one of the Company's subsidiaries situated in Asia, announced in the third quarter of 2020.

(3) Reduced research and development, net of tax credits by an amount of $4,060 for the year ended December 31, 2023 resulting from research and development subsidies. There is an outstanding receivable related to these grants as at December 31, 2023 for an amount of $2,045 included within Accounts receivable.

Reduced research and development, net of tax credits by an amount of $3,667 for the year ended December 31, 2022 resulting from research and development subsidies. There is an outstanding receivable related to these grants as at December 31, 2022 for an amount of $1,460 included within Accounts receivable.

(4) In 2023, the Company recorded litigation and restructuring costs. The main costs are as follows:
- Income of $8,974 received from the previous shareholder of AZUR. The income was received as per stipulations in the share purchase agreement and is not related to AZUR's performance post-acquisition;
- Costs related to site closure in Asia for an amount of $131;
- Changes in senior management for an amount of $158; and
- Charge related to a non-trade receivable which became non recoverable during the year for an amount of $228.

In 2022, the Company recorded litigation and restructuring costs. The main costs are as follows:
- Costs related to the divestiture of a subsidiary of $2,594 (Note 4);
- Change in senior executive management for an amount of $241;
- Settlement of a contract by mutual agreement for an amount of $372; and
- Costs related to site closure in Asia for an amount of $358.

30. Subsequent Event

In January 2024, the Company increased its minority equity stake in Microbion Corporation (Microbion) for an amount of $1,000. As at December 31, 2023, the Company's stake in Microbion was valued at $3,000 (Note 12).

Corporate Information

Stock Exchange

5N Plus is listed on the Toronto Stock Exchange, under the symbol VNP.

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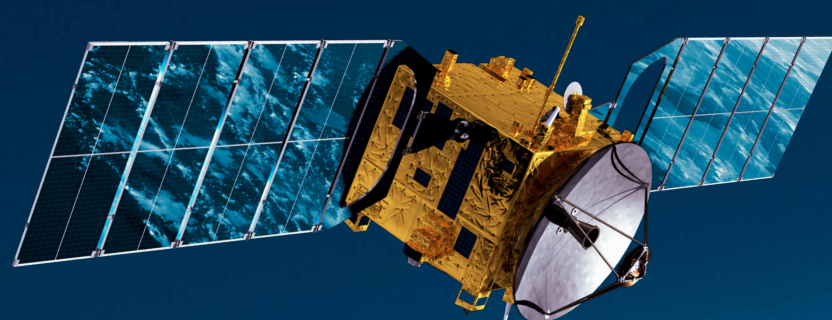

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