



A Critical Supplier to Critical Industries

Investor Presentation

5N+

Enabling
Performance

5N Plus: a seasoned leadership team with strong expertise

Executive Committee

Gervais Jacques

President and CEO

30+ years of international experience as CCO and Managing Director of Rio Tinto Aluminium, where he led over 6,000 employees in five countries.

Appointed CEO of 5N Plus in March 2022.

Richard Perron

CFO

25+ years of international experience in finance in the manufacturing and technology sector.

Previously CFO and Strategy Manager of Long Carbon Americas, an ArcelorMittal BU with \$12B in revenues

Roland Dubois

EVP, Speciality Semiconductors and CCO

30 years+ of international experience in sales, marketing and commercially strategy implementation with major industrial companies in aerospace, specialty chemicals and electronics.

Previously VP, Head of Sustainability at ABB (Electrification, Automation and Robotization).

Paul Tancell

EVP, Performance Materials

25+ years of experience international regions and industries, including automotive, chemical, minor and precious metals.

Previously Global GM of Umicore's Electro-Optic Materials Business Unit, a global materials technology and recycling group based in Belgium.

Business Development and R&D

Frederic Belanger

Corporate Director, R&D

Brock Alexander, PhD

VP, Government & Defense

Thomas Feldmann, PhD

Corporate Development Manager



Enabling
Performance

We develop, manufacture and sell speciality semiconductors and performance materials essential for critical industries.

Our Vision

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

Our Mission

Critical to our **Customers**

Valued by our **Employees**

Trusted by our **Shareholders**

Clear growth strategy supported by high-profile institutional investors

FY23 Revenue
\$242.4M USD

FY23 Adj. EBITDA¹
\$38.3M USD

From \$30.0M USD in FY22

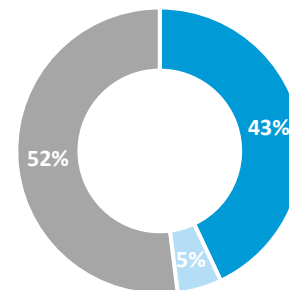
FY24 and FY25
Guidance

- > Adjusted EBITDA¹ range of \$45M to \$50M USD for **2024**.
- > Adjusted EBITDA range of \$50M to \$55M USD for **2025**.

- > Significant reduction in earnings volatility and margin expansion since FY16
- > Increased focus on higher added value products:
 - Advanced semiconductors for solar panels, space solar cells, imaging and sensing detectors
 - Performance materials for pharma compounds and feed additives
- > Ongoing focus on expansion into high-growth specialized semiconductors, as well as development and commercialization of wide band gap materials
- > Execution of this strategy has resulted in strong support from long-term institutional investors
- > Some institutional investors have consistently raised their shareholding

FY23
Share ownership

- 43%** Institutional
- 5%** Board and Management
- 52%** Other



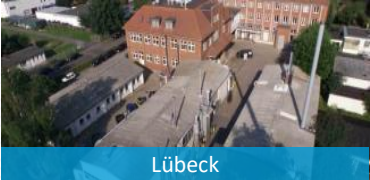
 **CDPQ**

 **Fidelity**
INVESTMENTS

Letko
Brousseau

 **Dimensional**

800 employees and operations on three continents




ST. GEORGE
(USA)

HEAD OFFICE
MONTREAL
(Canada)



BRIDGEPORT
(USA)

7
Commercial
Activities

HEILBRONN
(Germany)




LÜBECK
(Germany)


EISENHÜTTENSTADT
(Germany)

8
Manufacturing
Facilities

4
Research &
Development

VIENTIANE
(Laos)


SHANGYU (China)

HONG KONG (China)



Two operating segments focused on value-added products in growth sectors

HIGH GROWTH SECTORS

Specialty Semiconductors



Performance Materials



Sustainable business model

We buy degraded resources containing low grades of critical metals

- Sources:**
- Secondary streams
 - Smelters & refineries
 - Tailings from mines
 - Customer waste



Our suppliers

Degraded resources

OUR INPUT

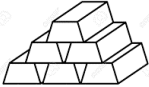
5N+

Upstream business
Extracts metals from degraded resources

Recycling and refining



Refined metals



NEXT PAGE

UPSTREAM

Our role in the supply chain

5N+

Downstream business
Develops and manufactures
engineered materials



Input from
upstream

Design, develop and
manufacture

Our products
are typically in the
shape of:

Refined
metals



SEMICONDUCTORS

SOLUTIONS

UP/HP METALS & ALLOYS

SPECIALTY CHEMICALS



DOWNSTREAM

Enabling materials
for critical industries



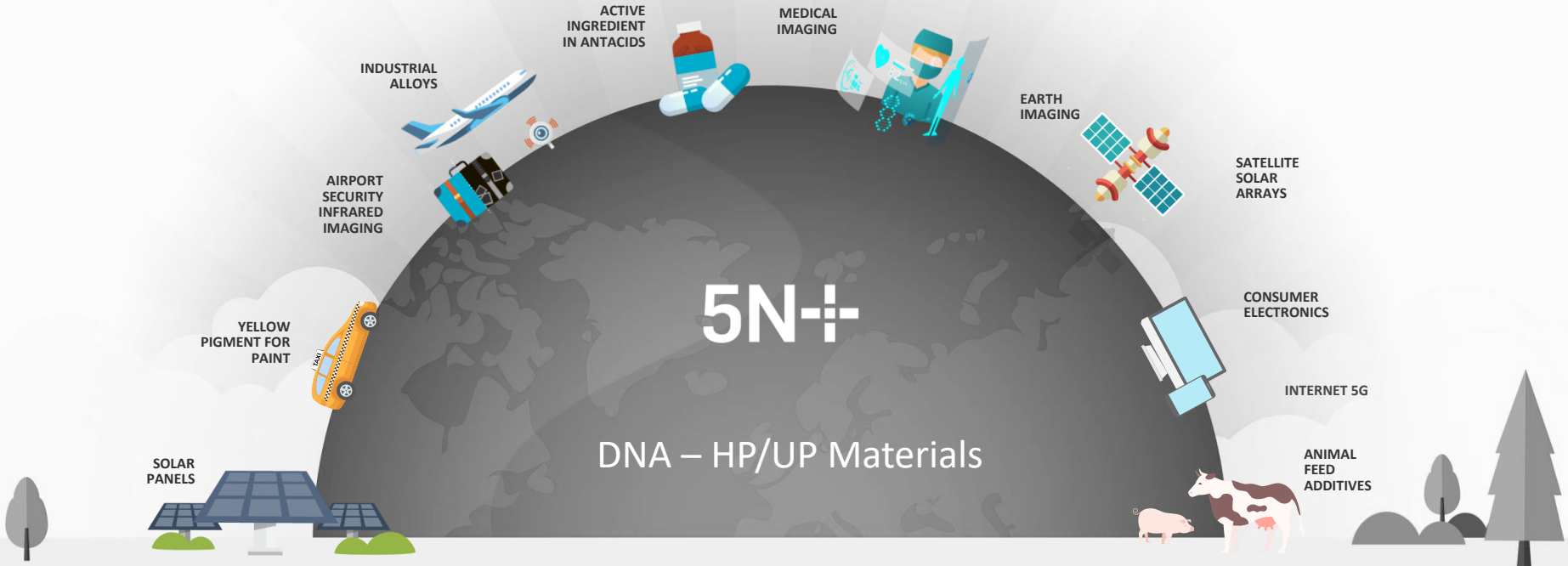
First Solar.



We create chemistry



Enabling essential products for critical industries



Enabling performance

Our building blocks

- + Transformation initiated in 2016 allowed us to extract more value from our footprint and improve earnings volatility through **a higher margin product mix**
- + Continue to be favourably positioned with First Solar under Renewable Energy with important **growth expected following renewed agreement to support their long-term growth plans**
- + Acquisition of AZUR adding specialty semiconductor capabilities and opportunities (space solar cells) at a critical time, **with unprecedented demand in North America and Europe, to which is AZUR uniquely positioned to supply**
- + **Only viable global supplier outside China** of ultra high purity semiconductor compounds used in a wide range of critical technologies
- + **Uniquely positioned** to take part in the new Photon Counting Detectors technology for CT Scans to revolutionize Medical Imaging
- + Health and Pharma products expected to continue providing **high profitability and recurrent cashflows**
- + Committed to implementation of **commercial excellence** program to expand margins and manage growth without sacrificing margins
- + Numerous **market opportunities** that can bring additional incremental benefits, like CZT applications for defence and security, critical minerals sourcing, opportunistic M&As and operations optimization initiatives

Commercial Excellence Program from operators to marketers

1. Prioritize Innovative Partnerships

- > Supply critical enablers in growing sectors as
 - only viable supplier outside China
 - essential to our customers' growth
- > Prioritize long-term predictable partnerships
- > Joint R&D effort (Barrier to Entry)

Example:
First Solar, Sierra Space, Samsung

2. Optimize Value In Use across our Product Offering

- > A critical enabler to our clients without being a critical cost
- > Realize the full value of our growth investments in the value chains in which we participate
- > Apply pricing elasticity approach

Example:
Semiconductors & Pharma (API)

3. Promote Co-Investment Initiatives

- > Accelerate go-to-market
- > Optimize capital deployment
- > De-risk
- > Integral part of our customers' solutions
- > Support long-term relationships
- > Enable disruptive technology

Example:
Space Power & GaN (HPE)

**Challenging conventional wisdom, looking beyond the industrial aspects
to deliver strategic and bottom-line impacts**

A critical enabler to our clients without being a critical cost (examples)



PV Modules

In September 2022, 5N Plus announced its multi-year supply agreement with First Solar, Inc. to supply semiconductor materials associated with the manufacturing of thin-film photovoltaic (PV) modules. While the agreement was the largest to date and represented growth in production of 35% in 2023 and 100% in 2024, 5N Plus's advanced specialty semiconductor materials imbedded in First Solar's Series 6 and 7 PV modules in a specialty semiconductor stack represent a very small portion of the total production cost.

5N Plus's thin film material represents approximately 5% of total production cost.



Solar Cell

The demand for space solar cells has never been so high. AZUR is uniquely positioned to supply both North America and Europe. In October 2022, 5N Plus announced an exclusive 10-year extension to its agreement with Sierra Space to produce and supply a solar cell exclusively for Sierra Space to use in the production of its unique and patented Space Solar Surface Mount Technology solar array systems.

5N Plus's space solar cells represent approximately 7% of the component cost of a satellite.



Active Pharma Ingredients

5N Plus's plant in Lubeck, Germany features state-of-the-art production capabilities for the manufacturing of a range of bismuth active pharmaceutical ingredients (APIs) and 5N Plus is the world's leading producer of APIs based on bismuth compounds. Bismuth APIs are essential to the creation of human care products, including wound therapy and gastrointestinal issues, as well as other applications such as x-ray protection.

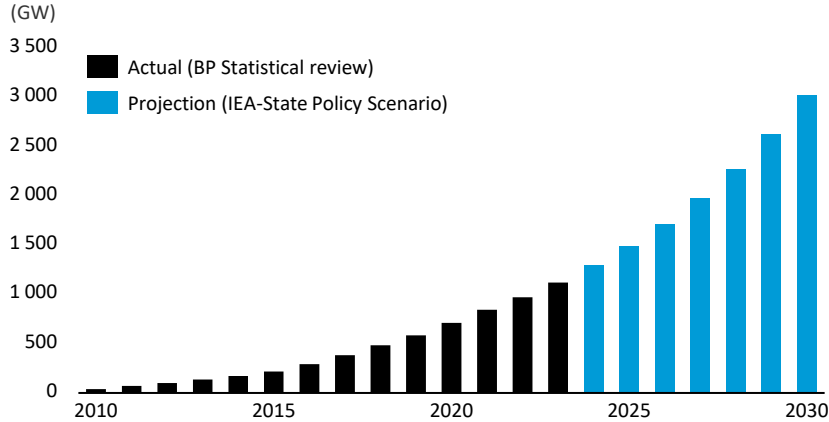
While essential to the creation of human care products, 5N Plus's bismuth APIs represent a very low proportion of total production costs.

The clean energy transition

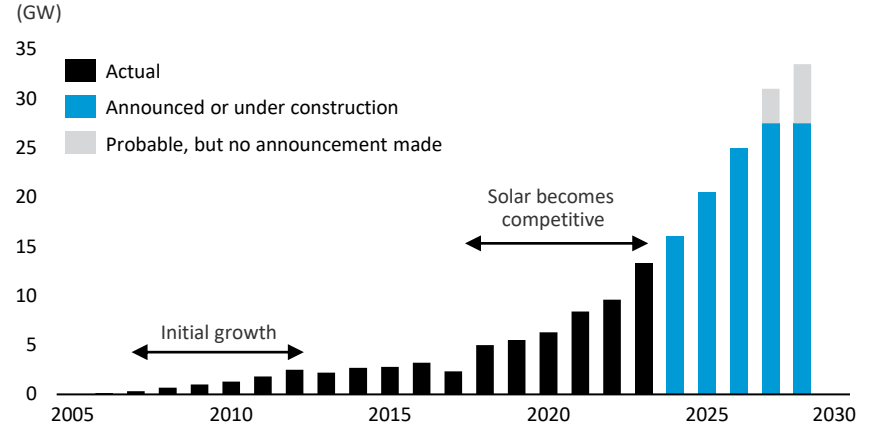
First Solar (FSLR) and 5N+ championing the change



Global installed solar capacity and forecast



Annual manufacturing capacity thin-film photovoltaics



First Solar

Over 20 years in business, with PV modules in more than 45 countries, FSLR is executing its growth plan supported by a strong balance sheet and differentiated CdTe thin-film technology with superior temperature coefficient and spectral response yielding an energy advantage in many climates. Commercial strategy focused on utilities sector, leveraging lower carbon footprint and fastest energy payback in the market.

5N+

From 2022 to 2024 volume supplied to FSLR has doubled. The most recent agreement covering 2025 and 2026 represents an increase of some 50% over 2024.

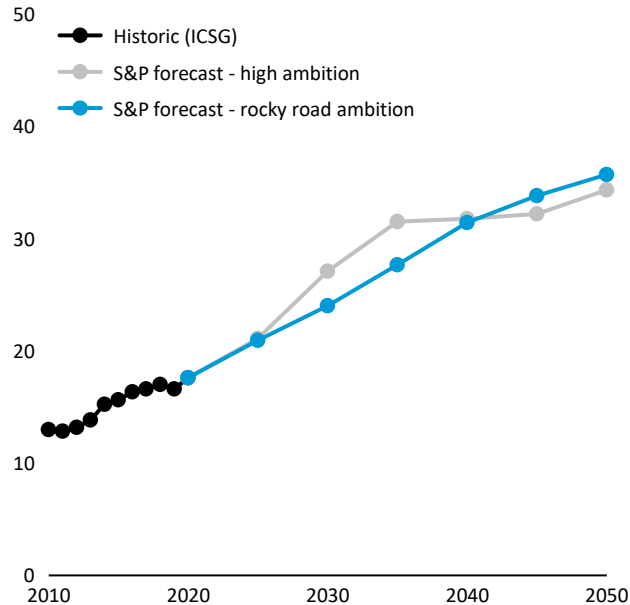
Growing copper production to support valorization and production of tellurium

Supply of tellurium will increase substantially driven by:

- > 20+ years of consistent and strong growth of copper smelter/refinery production needed to support electrification
- > As a minor metal associated with copper production, the availability of tellurium will increase in tandem with demand for electrification
- > Not all the tellurium is currently being valorized. An increase of valorization is expected as mining licenses are renewed and new properties are developed. More stringent environmental constraints encouraging full value recovery of elements contained in ore
- > New developments improving technological efficiency and the valorization of tellurium
- > Historic and current copper mine tailings containing significant amounts of tellurium which could become a more attractive source over time and untap tellurium sources around the world

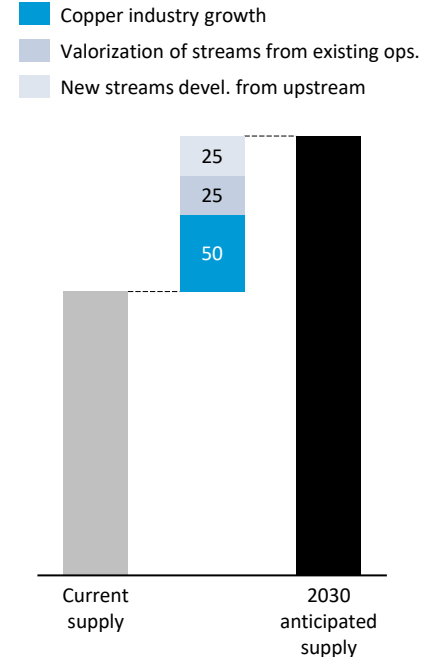
Global primary copper smelter production¹

(million metric ton)



Future tellurium supply

(percent)



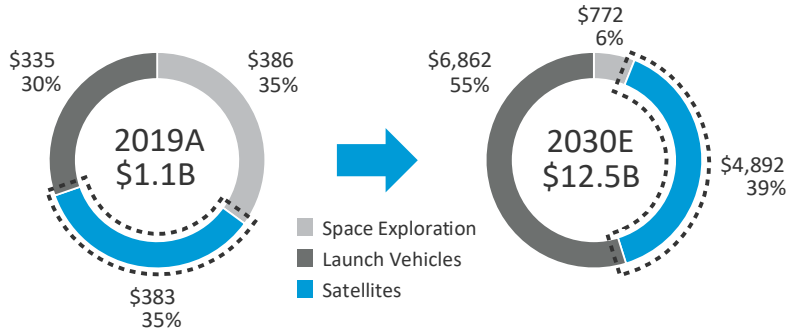
1) S&P "primary copper production" forecast was adjusted to the anode, blister production as reported by the ICSG

Source: USGS, BGS, ICSG, S&P Global - The Future of Copper Will the looming supply gap short-circuit the energy transition? (Jul 2022), 5N Plus Analysis

AZUR SPACE – The market

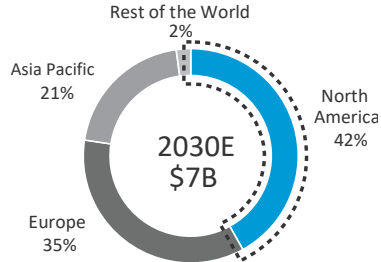
Global Space Power Market by Application

(\$M)



Global Solar Market

(\$B)

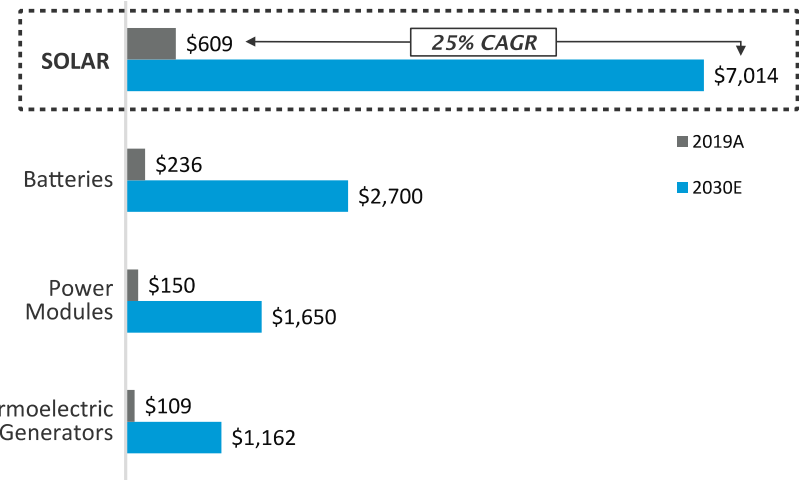


Engineered substrates based on epitaxy technology – Only 3 players outside Asia

Solar energy demand for space applications is expected to explode in the coming years.

Global Space Power Market 10yr Revenue Growth Outlook

(\$M)



AZUR Space – Key customers



NORTHROP GRUMMAN

AIRBUS

LEONARDO DRS

**ThalesAlenia
Space**

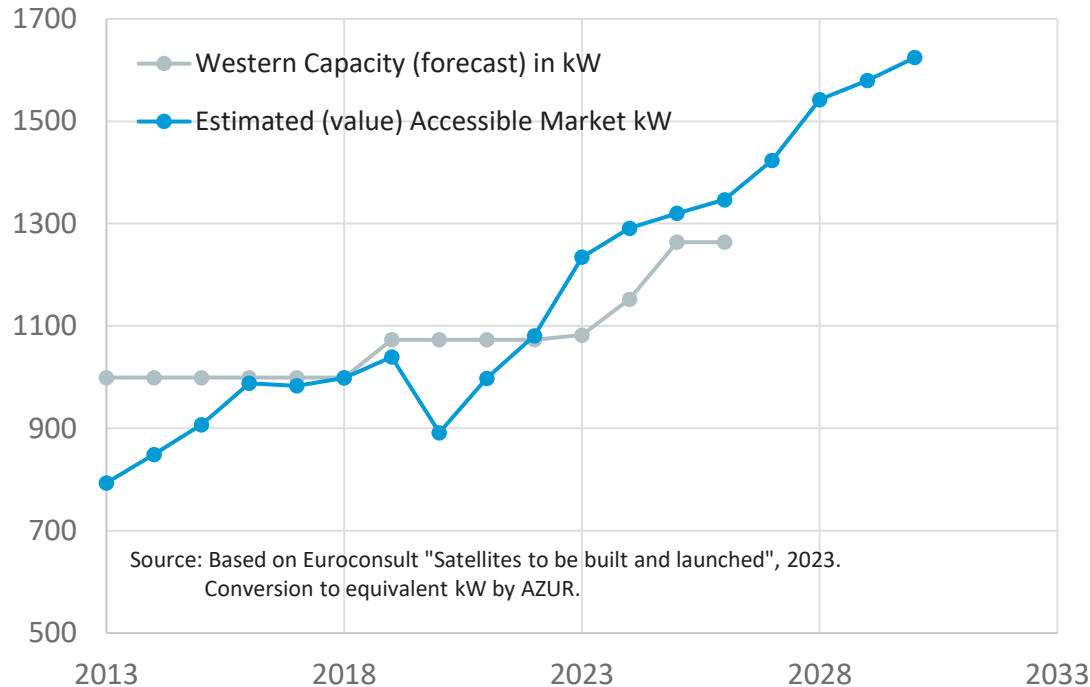


LOCKHEED MARTIN



MAXAR

Outlook of Addressable Space Power Market*



* Addressable space market is defined as total satellite manufacturing market excluding Silicon based Mega-constellations, Chinese and Russian market future demand.

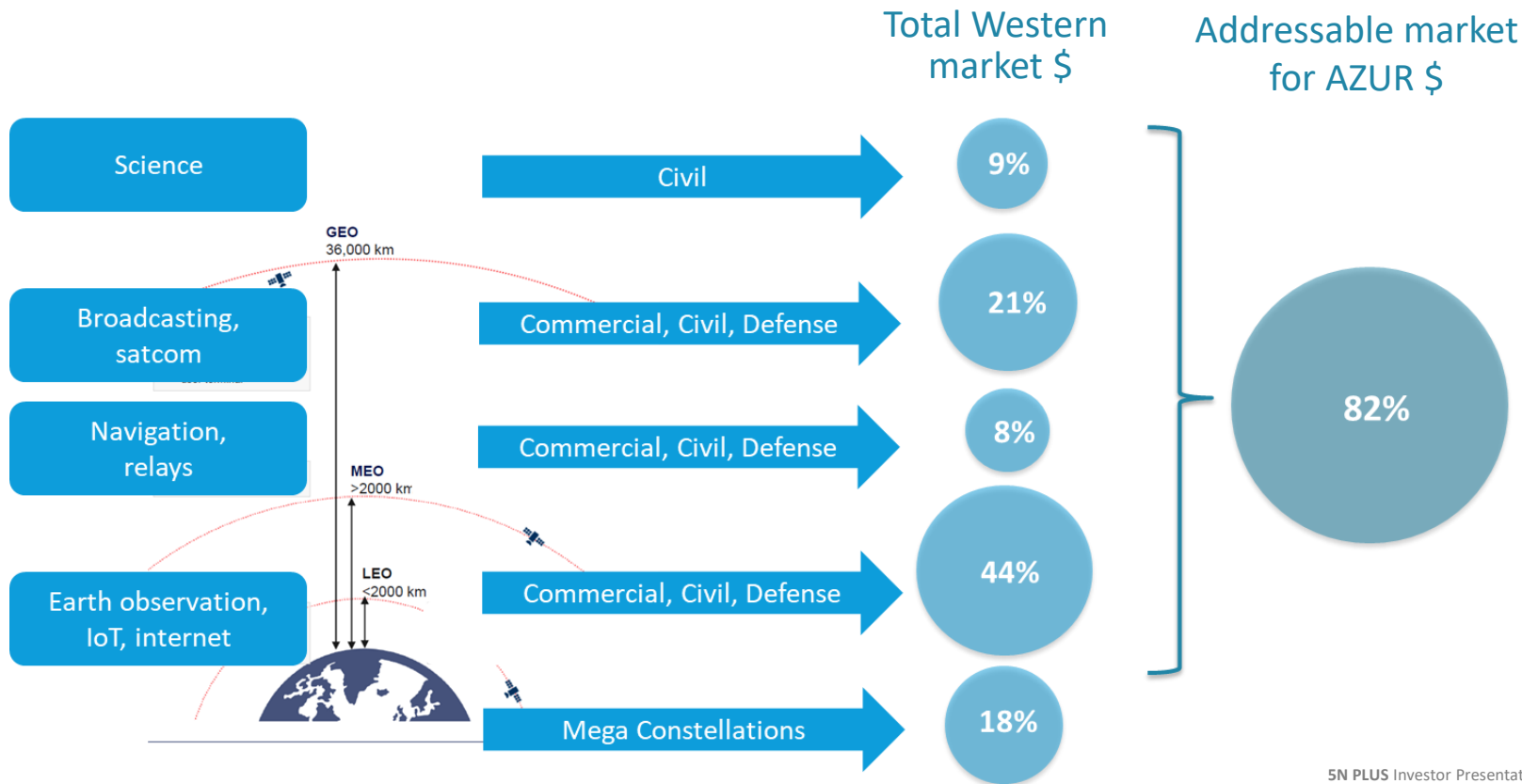
The Market:

- > Addressable Space Power Market has surged by 50% over the last decade and the momentum shows an equally impressive trajectory of growth.
- > The escalating deficit in production capacity is compounding each year, amplifying the backlog to unprecedented levels.

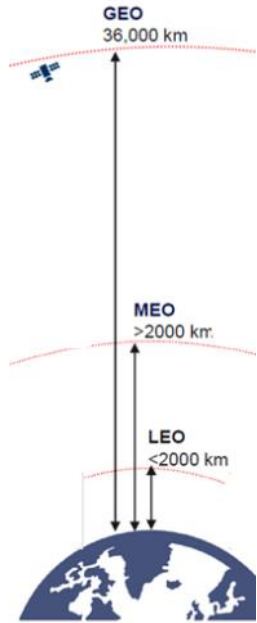
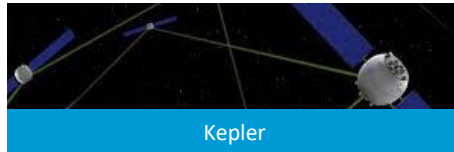
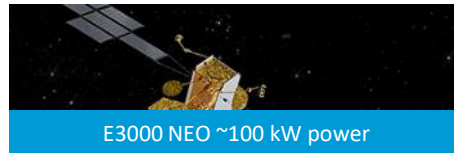
5N+ actions:

- > AZUR's production capacity program of +30% by 2025 (including additional shifts plus front and back-end production equipment).
- > Assessing further AZUR's capacity increase in line with market growth and opportunities within current production facility.

Western Market per value in \$ and addressable market for Azur (2024-2032)



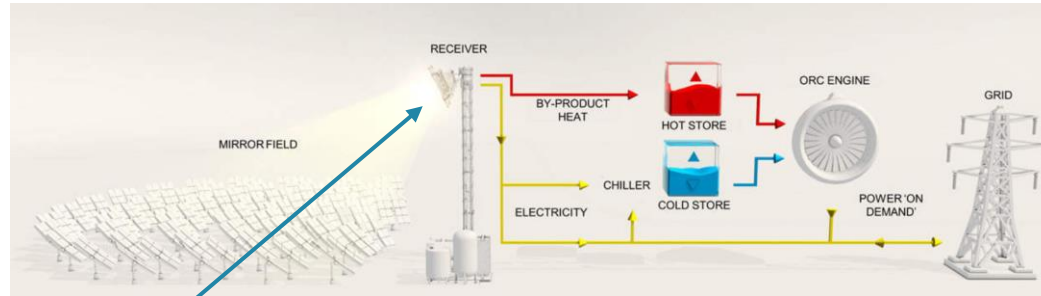
Upcoming Addressable Space Projects



Azur Space (Terrestrial Applications) - Concentrator Photovoltaic (CPV) Solar Cells

Raygen Project – World’s largest and highest efficiency solar energy storage

Raygen CPV+storage system overview



6" wafer with 150 CPV cells



Azur (now 5N Plus) has a long history of working with Raygen

- > Over 10 years of common development
- > The 4 MW Carwarp Pilot plant is operational since May 2023
- > Raygen has just commissioned a 170 MW module factory

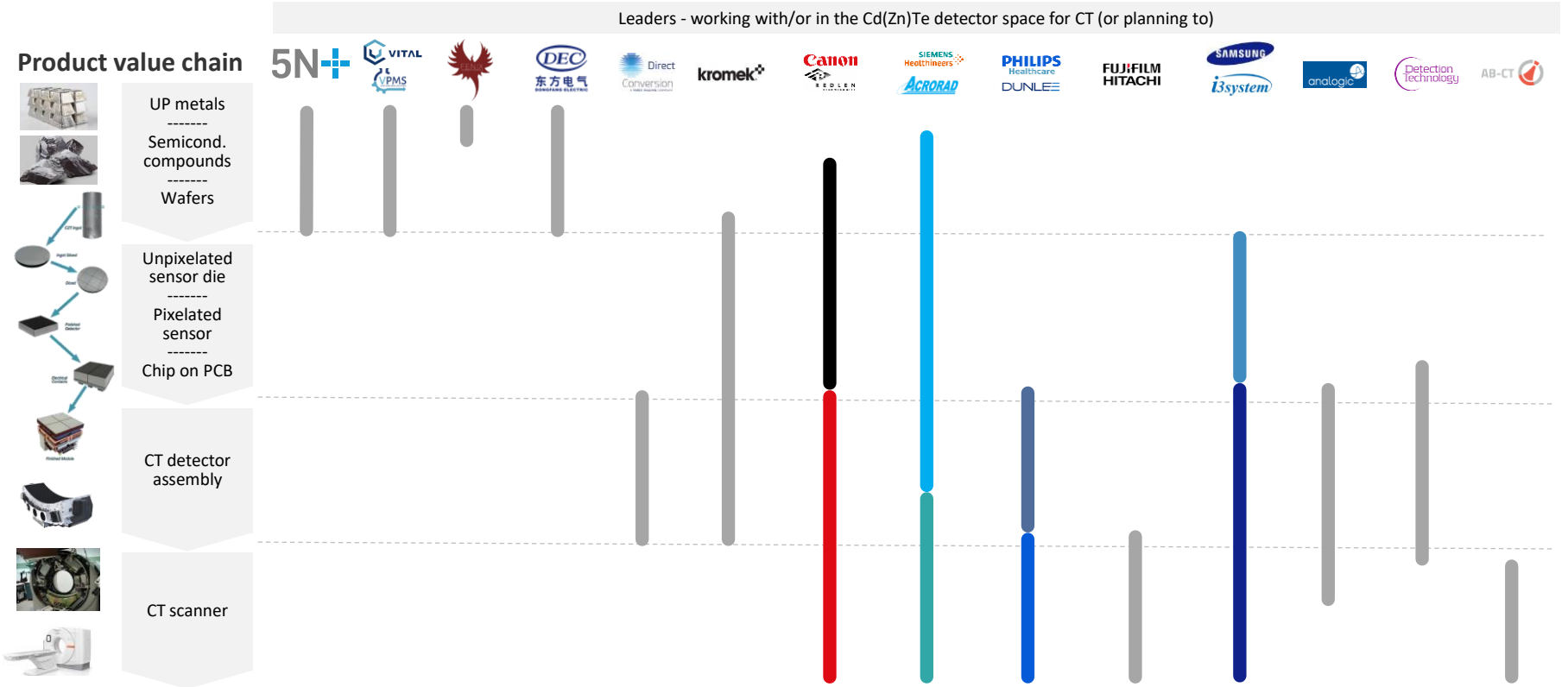
Future Outlook

- > 300 MW project with 3.6 GWh /24 hours of storage in Yadnarie (Australia)
- > This will be the world’s largest non-pumped hydro storage site



Vertical integration landscape for medical – New X-ray CT devices

Photon Counting Detectors technology to replace scintillator detectors



PC-technology: photon counting CT imaging technology, Vital Pure Metal Solutions is the former PPM site in Germany
 Source: 5N Plus analysis

Investment highlights

- 1. Strong Industry Position** – market leader in the majority of markets served
- 2. Supplier to Critical Growth Industries** – Provider of critical components to key growth industries – renewable energy, security, space power, pharmaceuticals, medical imaging and industrials
- 3. Competitive Advantage** – Based in Canada with operations across North America, Europe and Asia, only viable supplier outside China of ultra high purity semiconductor compounds used in a wide range of critical technologies
- 4. Clear Strategy for Growth and Commercial Excellence**
 - > Reduction in earnings volatility with long-term contracts
 - > Margin expansion with focus on higher added value products
 - > Expansion into high-growth specialized semiconductors, as well as development and commercialization of wide-band gap materials
- 5. Seasoned Leadership with Strong Expertise** – over 100 years of combined experience with strong skills in technology, manufacturing and finance



Financial Overview

Q1 2024

Key Financial Figures

Forward Looking Statement

Certain statements in this presentation 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. A description of the risks affecting the Company's business and activities appears under the heading "Risk and Uncertainties" of 5N+'s 2023 MD&A dated February 27, 2024 and note 10 of the unaudited condensed interim consolidated financial statements for the three-month periods ended March 31, 2024 and March 31, 2023 available on SEDAR+ at www.sedarplus.ca.

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 presentation 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 presentation 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.

Financial Highlights

- > Revenue in Q1 2024 increased by 18% to \$65.0 million, compared to \$55.3 million in Q1 2023, primarily driven by strong growth from terrestrial renewable energy and space solar power sectors under Specialty Semiconductors, more than mitigating the decrease under Performance Materials.
- > Net earnings in Q1 2024 were \$2.5 million, compared to \$1.5 million in Q1 2023.
- > Adjusted EBITDA¹ in Q1 2024 increased by 33% to \$11.7 million, representing 18.1% of revenue compared to \$8.8 million or 15.9% of revenue in Q1 2023.
- > Adjusted gross margin¹ in Q1 2024 was 30.9%, compared to 29.8% in Q1 2023.
- > Backlog¹ represented 288 days of annualized revenue as at March 31, 2024, 4 days lower than the previous quarter and 18 days lower than the same period last year, primarily due to the timing of contract signings and renewals.
- > Net debt¹ was \$84.2 million as at March 31, 2024, compared to \$73.8 million as at December 31, 2023, reflecting an increase in working capital¹ and planned capital expenditures under Specialty Semiconductors, whereas net debt to EBITDA ratio¹ remained stable at 1.81x as at March 31, 2024 compared to 1.69x as at December 31, 2023.

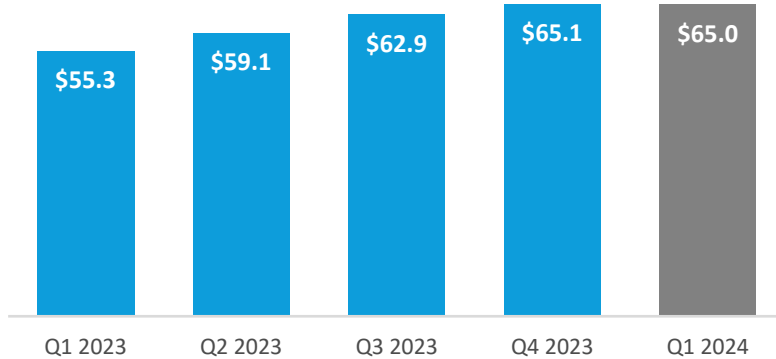
¹ These measures are not recognized measures under IFRS and do not have standardized meanings prescribed by IFRS and therefore may not be comparable to similar measures presented by other companies. See Non-IFRS Measures for more information.

Revenue

Quarter ended March 31, 2024

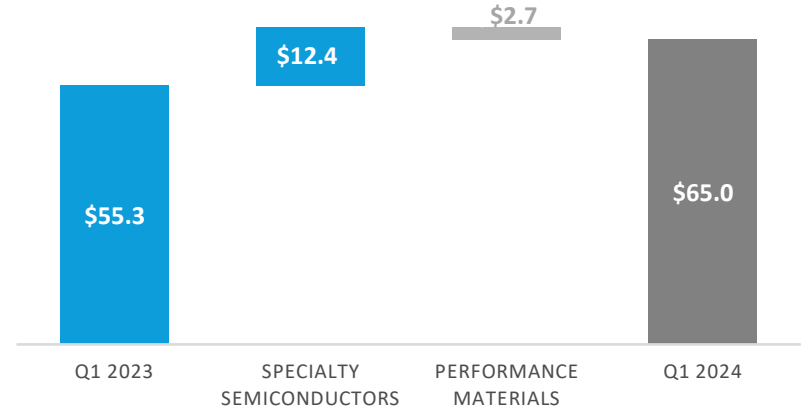
Revenue

(IN MILLIONS OF USD)



Revenue – Quarterly Comparison

(IN MILLIONS OF USD)



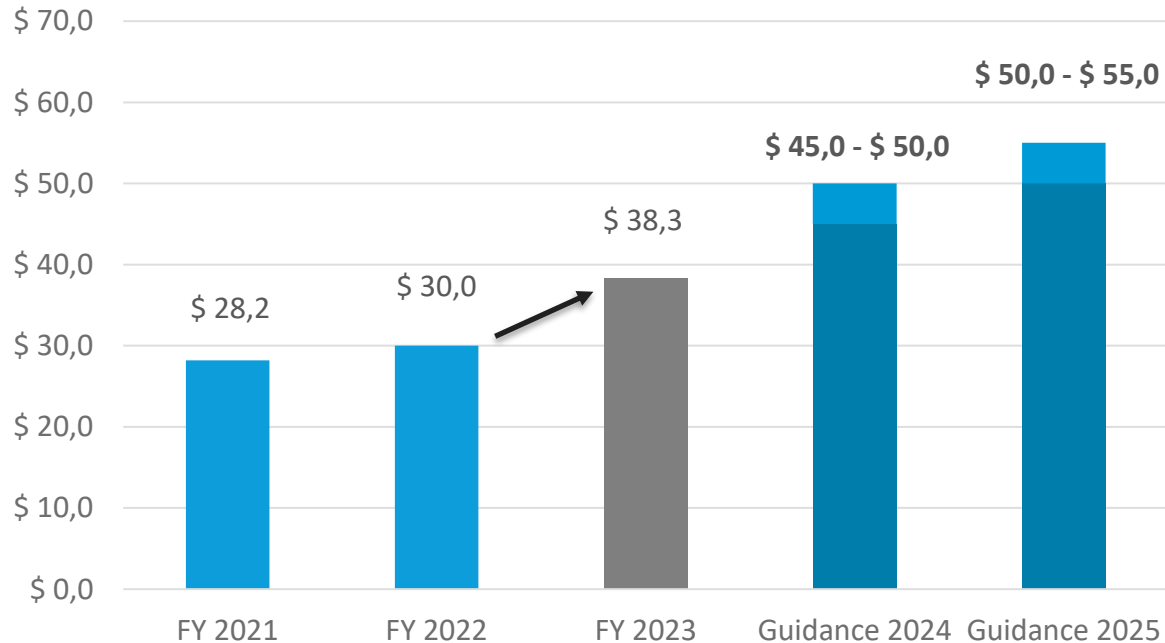
Revenue in Q1 2024 increased by 18% to \$65.0 million, compared to \$55.3 million in Q1 2023, primarily driven by strong growth from terrestrial renewable energy and space solar power sectors under Specialty Semiconductors, more than mitigating the decrease under Performance Materials.

Adjusted EBITDA - FY

Quarter ended December 31, 2023

Adjusted EBITDA

(IN MILLIONS OF USD)



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 28% in FY 2023, compared to FY 2022.

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 that end, management is maintaining its previously disclosed projected Adjusted EBITDA range for FY 2024 to be between \$45 million and \$50 million and expects Adjusted EBITDA for FY 2025 to be between \$50 million and \$55 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.

Adjusted EBITDA & EBITDA

Quarter ended March 31, 2024

Adjusted EBITDA

(IN MILLIONS OF USD)



EBITDA¹

(IN MILLIONS OF USD)



Adjusted EBITDA in Q1 2024 increased by 33% to \$11.7 million, representing 18.1% of revenue compared to \$8.8 million or 15.9% of revenue in Q1 2023.

In Q1 2024, EBITDA reached \$11.8 million, compared to \$8.8 million in Q1 2023. The increase of \$3.0 million is mainly explained by the increase in Adjusted EBITDA of \$2.9 million.

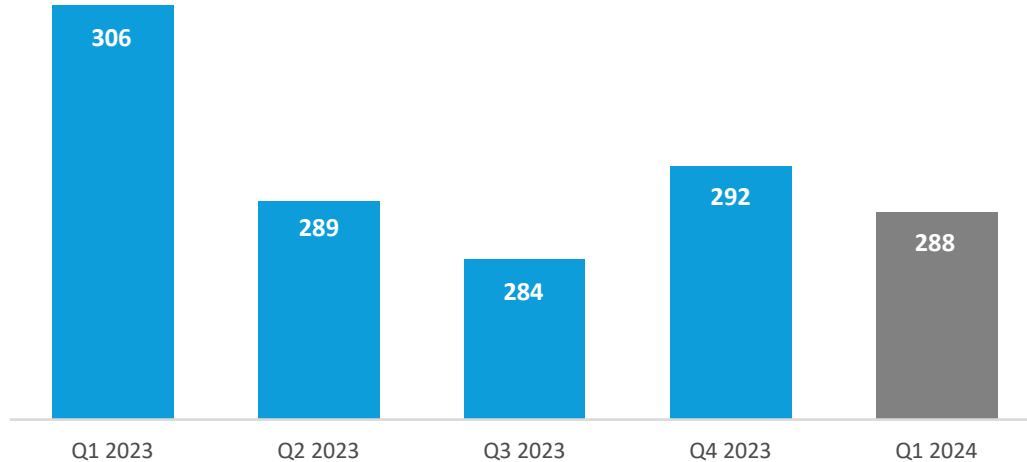
¹ These measures are not recognized measures under IFRS and do not have standardized meanings prescribed by IFRS and therefore may not be comparable to similar measures presented by other companies. See Non-IFRS Measures for more information.

Backlog

Quarter ended March 31, 2024

Backlog

(IN NUMBER OF DAYS)



Backlog represented 288 days of annualized revenue as at March 31, 2024, 4 days lower than the previous quarter and 18 days lower than the same period last year, primarily due to the timing of contract signings and renewals.

Bookings¹ for Specialty Semiconductors decreased by 18 days, from 106 days in Q4 2023 to 88 days in Q1 2024. Bookings for Performance Materials decreased by 32 days, from 115 days in Q4 2023 to 83 days in Q1 2024.

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.

Non-IFRS Measures

Quarter ended March 31, 2024

Adjusted EBITDA

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 (gain) on disposal of property, plant and equipment, 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.

EBITDA

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.

(in thousands of U.S. dollars)	Q1 2024 \$	Q1 2023 \$
Revenues	65,019	55,287
Operating expenses	(57,587)	(50,561)
Operating earnings (loss)	7,432	4,726
Share-based compensation expense (recovery)	360	12
Depreciation and amortization	3,945	4,059
Adjusted EBITDA	11,737	8,797

(in thousands of U.S. dollars)	Q1 2024 \$	Q1 2023 \$
Net earnings	2,507	1,454
Interest on long-term debt, imputed interest and other interest expense	2,206	2,260
Income tax expense	3,106	997
Depreciation and amortization	3,945	4,059
EBITDA	11,764	8,770

Non-IFRS Measures

Quarter ended March 31, 2024

Adjusted gross margin

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.

(in thousands of U.S. dollars)	Q1 2024 \$	Q1 2023 \$
Total revenue	65,019	55,287
Cost of sales	(48,020)	(42,002)
Gross margin	16,999	13,285
Depreciation included in cost of sales	3,076	3,202
Adjusted gross margin	20,075	16,487
Adjusted gross margin percentage	30.9%	29.8%

Backlog

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.

Non-IFRS Measures

Quarter ended March 31, 2024

Net debt

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.

Net debt to EBITDA ratio

The net debt to EBITDA ratio is defined as net debt divided by the trailing 12 months EBITDA.

Working capital

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.

(in thousands of U.S. dollars)	As at March 31, 2024 \$	As at December 31, 2023 \$
Bank indebtedness	-	-
Long-term debt including current portion	118,169	108,500
Lease liabilities including current portion	31,635	30,139
Subtotal debt	149,804	138,639
Lease liabilities including current portion	(31,635)	(30,139)
Total debt	118,169	108,500
Cash and cash equivalents	(33,929)	(34,706)
Net debt	84,240	73,794

(in thousands of U.S. dollars)	As at March 31, 2024 \$	As at December 31, 2023 \$
Inventories	113,521	105,850
Other current assets excluding inventories	79,192	76,113
Current assets	192,713	181,963
Current liabilities	(59,943)	(81,807)
Working capital	132,770	100,156
Working capital current ratio	3.21	2.22



5N+

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Performance