



# MANAGEMENT REPORT

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Quarter ended  
September 30, 2016

## Management's Discussion and Analysis

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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", the "Group" or "5N Plus"), its business environment, strategies, performance and risk factors. This MD&A should be read in conjunction with the unaudited condensed interim consolidated financial statements of Q3 2016 and the audited consolidated financial statements and the accompanying notes for the year ended December 31, 2015. This MD&A has been prepared in accordance with the requirements of the Canadian Securities Administrators.

Information contained herein includes any significant developments to November 1, 2016, 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.

The "Q3 2016" and the "Q3 2015" refer to the three-month periods ended September 30, 2016 and 2015, and the "YTD 2016" and the "YTD 2015" refer to the nine-month periods ended September 30, 2016 and 2015 respectively. 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. All quarterly information disclosed in this MD&A is based on unaudited figures.

### **Non-IFRS Measures**

This MD&A also includes certain figures that are not performance measures consistent with IFRS. These measures are defined at the end of this MD&A under the heading Non-IFRS Measures.

### **Notice Regarding Forward-Looking Statements**

Certain statements in this MD&A may be forward-looking within the meaning of applicable securities laws. Forward-looking information and statements are based on the best estimates available to the Company at the time and involve known and unknown risks, uncertainties or other factors that may cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. A description of the risks affecting the Company's business and activities appears under the heading "Risk and Uncertainties" of 5N Plus' 2015 MD&A dated February 23, 2016 and notes 11 and 12 of the unaudited condensed interim consolidated financial statements for the three and nine-month periods ended September 30, 2016 and 2015, available on Sedar at [www.sedar.com](http://www.sedar.com). Forward-looking statements can generally be identified by the use of terms such as "may", "should", "would", "believe", "expect", the negative of these terms, variations of them or any similar terms. No assurance can be given that any events anticipated by the forward-looking information in this MD&A will transpire or occur, or if any of them do so, what benefits that 5N Plus will derive therefrom. In particular, no assurance can be given as to the future financial performance of 5N Plus. The forward-looking information contained in this MD&A is made as of the date hereof and the Company has no obligation to publicly update such forward-looking information to reflect new information, subsequent or otherwise, unless required by applicable securities laws. The reader is warned against placing undue reliance on these forward-looking statements.

## Overview

5N Plus is the leading producer of specialty metal and chemical products. Fully integrated with closed-loop recycling facilities, the Company is headquartered in Montreal, Quebec, Canada and operates manufacturing facilities and sales offices in several locations in Europe, the Americas and Asia. 5N Plus deploys a range of proprietary and proven technologies to produce products which are used in a number of advanced pharmaceutical, electronic and industrial applications. Typical products include purified metals such as bismuth, gallium, germanium, indium, selenium and tellurium, inorganic chemicals based on such metals and compound semiconductor wafers. Many of these are critical precursors and key enablers in markets such as solar, light-emitting diodes and eco-friendly materials.

## Reportable Segments

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

The Electronic Materials segment operates in North America, Europe and Asia. The Electronic Materials segment manufactures and sells refined metals, compounds and alloys which are primarily used in a number of electronic applications. Typical end-markets include photovoltaics (terrestrial and spatial solar energy), light emitting diodes (LED), displays, high-frequency electronics, medical imaging and thermoelectrics. Main products are associated with the following metals: cadmium, gallium, germanium, indium and tellurium. These are sold either in elemental or alloyed form as well as in the form of chemicals and compounds. Revenues and earnings associated with recycling services and activities provided to customers of the Electronic Materials segment are also included in the Electronic Materials segment and management of such activities is the responsibility of the Electronic Materials executive team.

The Eco-Friendly Materials segment is so labelled because it is mainly associated with bismuth, one of the very few heavy metals which have no detrimental effect on either human health or in the environment. As a result, bismuth is being increasingly used in a number of applications as a replacement for more harmful metals and chemicals. The Eco-Friendly Materials segment operates in North America, Europe and Asia. The Eco-Friendly Materials segment manufactures and sells refined bismuth and bismuth chemicals, low melting point alloys as well as refined selenium and selenium chemicals. These are used in the pharmaceutical and animal-feed industry as well as in a number of industrial applications including coatings, pigments, metallurgical alloys and electronics. Management of such activities is the responsibility of the Eco-Friendly Materials executive team.

Corporate expenses associated with the head office and unallocated selling, general and administrative expenses (SG&A) together with financial expenses (revenues) have been regrouped under the heading Corporate.

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

### Highlights of Q3 2016 – Best Adjusted EBITDA quarterly performance since end of 2014

- Adjusted EBITDA<sup>1</sup> and EBITDA<sup>1</sup> reached \$6.8 million and \$2.1 million in Q3 2016 compared to \$1.1 million and (\$26.1) million in Q3 2015. The Adjusted EBITDA demonstrates improved profitability from the last six quarters accommodated by moderately stable commodity prices, and continued progress at improving the Company's sales mix and reducing operating expenses.
- On September 12, 2016, the Company unveiled its strategic plan, dubbed "5N21", with emphasis on significant improvement in profitability and reduction of earnings volatility. The newly designed plan utilizes three main pillars to achieve this goal: Optimizing balance of contribution from upstream and downstream activities; Extracting more value from core businesses and global assets; and Delivering quality growth from both existing and future M&A opportunities.
- In support of 5N21 and specifically in line with extracting more value from core businesses and global assets, on September 29, 2016, the Company announced its intention to consolidate its operations at Wellingborough, U.K. with other sites within the Group. Moreover, the Company announced consolidation of its operations at DeForest-Wisconsin and Fairfield-Connecticut in the first half of 2017 into a newly updated and scaled facility. These initiatives will improve plant capacity utilization, reduce structural inventory, address marginal businesses, and increase share of value-added business. A provision of \$3.5 million associated with these initiatives was recorded during the third quarter with an expected EBITDA payback of two years, and an accelerated depreciation charge of \$1.8 million.
- Net debt<sup>1</sup> was further reduced during the quarter standing at \$20.1 million as at September 30, 2016 down from \$46.7 million one year earlier, following reduction of working capital<sup>1</sup> requirements and overall better performance.
- Revenue for Q3 2016 reached \$55.5 million compared to \$68.7 million for the same quarter of 2015, impacted by significant decrease of underlying commodity prices over the course of 2015, while gross margin<sup>1</sup> for Q3 2016 improved to 26.2% compared to negative gross margin for the same period last year.
- Backlog<sup>1</sup> reached as at September 30, 2016 a level of 148 days of sales outstanding, lower than previous quarter following the renewal pattern of most contracts which generally occurs in the fourth quarter or the first quarter of the year. Bookings<sup>1</sup> in Q3 2016 reached 77 days compared to 86 days in Q2 2016 and 50 days in Q3 2015.
- On October 5, 2016, the Toronto Stock Exchange approved the Company's Normal Course Issuer Bid, enabling it to purchase for cancellation shares equal to 1.35% of the Company's public float.

After improvements in profitability in the first half of 2016, the Company continued to improve its operating performance in the third quarter of 2016 resulting in the best Adjusted EBITDA quarterly performance since end of 2014. The performance during this period was supported by healthy demand across various products and favorable sales mix in an environment of moderate price stability with respect to the basket of metals utilized by the Company in its products.

During the aforementioned quarter, the demand for gallium based products showed a notable improvement after two quarters of lackluster performance, while the demand for nearly all other products remained at or above the same level as compared to the same period last year. The Company continued to exercise selectivity as the tenet of its business development which contributed to the favorable mix and improvement in gross margin as compared to last year. In addition, the Company continued to manage cash diligently, reaching its highest level of liquidity since early 2012 and lowest net debt position since the acquisition of MCP Group in 2011, ending the quarter once again with a solid balance sheet and no usage of its credit facility.

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

## Management's Discussion and Analysis

### Summary of Results

	Q3 2016	Q3 2015	YTD 2016	YTD 2015
	\$	\$	\$	\$
Revenue	55,491	68,732	176,794	251,645
Operating expenses*	(48,675)	(67,680)	(161,014)	(248,360)
Adjusted EBITDA <sup>1</sup>	6,816	1,052	15,780	3,285
Impairment of inventory	-	(27,245)	-	(33,745)
Allowance for a doubtful note receivable from a related party	-	(2,447)	-	(2,447)
Litigation and restructuring costs	(4,915)	(500)	(5,945)	(500)
Change in fair value of debenture conversion option	258	194	6	1,840
Foreign exchange and derivative gain (loss)	(93)	2,810	467	2,871
EBITDA <sup>1</sup>	2,066	(26,136)	10,308	(28,696)
Interest on long-term debt, imputed interest and other interest expense	1,826	2,125	6,390	6,955
Depreciation and amortization	3,693	2,422	8,619	19,879
Loss before income taxes	(3,453)	(30,683)	(4,701)	(55,530)
Income tax expense (recovery)				
Current	539	(417)	1,585	(389)
Deferred	240	1,905	(232)	(555)
	779	1,488	1,353	(944)
Net loss	(4,232)	(32,171)	(6,054)	(54,586)
Basic loss per share	(\$0.05)	(\$0.38)	(\$0.07)	(\$0.65)
Diluted loss per share	(\$0.05)	(\$0.38)	(\$0.07)	(\$0.65)

\*Excluding litigation and restructuring costs and depreciation and amortization.

### Revenue by Segment and Gross Margin

	Q3 2016	Q3 2015	Change	YTD 2016	YTD 2015	Change
	\$	\$		\$	\$	
Electronic Materials	20,431	24,999	(18%)	59,705	85,432	(30%)
Eco-Friendly Materials	35,060	43,733	(20%)	117,089	166,213	(30%)
<b>Total revenue</b>	<b>55,491</b>	<b>68,732</b>	<b>(19%)</b>	<b>176,794</b>	<b>251,645</b>	<b>(30%)</b>
Cost of sales	(44,583)	(88,923)	(50%)	(145,235)	(265,469)	(45%)
Depreciation on property, plant and equipment	3,606	2,341	54%	8,307	6,318	31%
<b>Gross margin<sup>1</sup></b>	<b>14,514</b>	<b>(17,850)</b>	<b>(181%)</b>	<b>39,866</b>	<b>(7,506)</b>	<b>631%</b>
<b>Gross margin percentage<sup>1</sup></b>	<b>26.2%</b>	<b>(26.0%)</b>		<b>22.5%</b>	<b>(3.0%)</b>	

During the three and nine-month periods ended September 30, 2016, revenue decreased by 19% and 30% compared to the corresponding periods of 2015. These decreases were mainly due to an important decline in underlying commodity prices initiated over the course of 2015 in both segments. Although, sales volume was slightly lower for the nine-month period ended September 30, 2016, gross margin<sup>1</sup> has substantially improved reflecting the moderate price stability in metals supported by our selective approach focused on better margin products.

### EBITDA and Adjusted EBITDA

	Q3 2016	Q3 2015	Change	YTD 2016	YTD 2015	Change
	\$	\$		\$	\$	
Electronic Materials	6,313	2,884	119%	14,713	10,676	38%
Eco-Friendly Materials	3,360	804	318%	10,923	(538)	2,130%
Corporate	(2,857)	(2,636)	8%	(9,856)	(6,853)	(44%)
<b>Adjusted EBITDA<sup>1</sup></b>	<b>6,816</b>	<b>1,052</b>	<b>548%</b>	<b>15,780</b>	<b>3,285</b>	<b>380%</b>
<b>EBITDA<sup>1</sup></b>	<b>2,066</b>	<b>(26,136)</b>	<b>108%</b>	<b>10,308</b>	<b>(28,696)</b>	<b>136%</b>

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

## Management's Discussion and Analysis

In Q3 2016, EBITDA<sup>1</sup> reached \$2.1 million compared to negative EBITDA of \$26.1 million in Q3 2015. EBITDA margin<sup>1</sup> was positively impacted by moderate price stability for most metals, and absence of impairment charge on inventory, mitigated by litigation and restructuring costs. In Q3 2015, an inventory impairment charge of \$27.2 million was recorded and a foreign exchange gain of \$3.5 million was recognized on the convertible debenture nominated in Canadian dollars which has been hedged by a cross-currency swap contract since December 7, 2015. For the same reasons mentioned above, YTD 2016 EBITDA reached \$10.3 million compared to negative EBITDA of \$28.7 million for the same period of last year.

In Q3 2016, Adjusted EBITDA<sup>1</sup> rose by \$5.7 million to \$6.8 million compared to \$1.1 million in Q3 2015, driven by better realized margins and lower operating costs. Adjusted EBITDA for the Electronic Materials segment increased by \$3.4 million to \$6.3 million representing an Adjusted EBITDA margin<sup>1</sup> of 31% compared to 12% for the prior year quarter. Adjusted EBITDA for the Eco-Friendly Materials segment increased by \$2.6 million to \$3.4 million compared to \$0.8 million in Q3 2015. The Adjusted EBITDA under Corporate for Q3 2016 when compared to the same period of last year was impacted by short and long term incentive plans provisions.

For the same reasons mentioned above, Adjusted EBITDA for YTD 2016 increased by \$12.5 million to \$15.8 million compared to \$3.3 million for the corresponding period last year. Adjusted EBITDA for the Electronic Materials segment increased by \$4.0 million to \$14.7 million representing an Adjusted EBITDA margin of 25% compared to 12% for the prior year. Adjusted EBITDA for the Eco-Friendly Materials segment increased by \$11.5 million to \$10.9 million compared to negative Adjusted EBITDA of \$0.5 million in 2015. The Adjusted EBITDA under Corporate for YTD 2016 decreased compared to YTD 2015 due to recognition timing of R&D tax credits, as well as short and long term incentive plans provisions. Proceeds from an insurance claim was also recorded in Q2 2015.

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

	Q3 2016	Q3 2015	YTD 2016	YTD 2015
	\$	\$	\$	\$
Net loss	(4,232)	(32,171)	(6,054)	(54,586)
Basic loss per share	(\$0.05)	(\$0.38)	(\$0.07)	(\$0.65)
Reconciling items:				
Impairment of inventory	-	27,245	-	33,745
Accelerated amortization of intangibles assets	-	-	-	11,834
Accelerated depreciation of tangible assets	1,804	-	1,804	-
Allowance for a doubtful note receivable from a related party	-	2,447	-	2,447
Litigation and restructuring costs	4,915	500	5,945	500
Change in fair value of debenture conversion option	(258)	(194)	(6)	(1,840)
Income taxes on taxable items above	69	(3,479)	1	(6,349)
<b>Adjusted net earnings (loss)<sup>1</sup></b>	<b>2,298</b>	<b>(5,652)</b>	<b>1,690</b>	<b>(14,249)</b>
<b>Basic adjusted net earnings (loss) per share<sup>1</sup></b>	<b>\$0.03</b>	<b>(\$0.07)</b>	<b>\$0.02</b>	<b>(\$0.17)</b>

Net loss reached \$4.2 million in Q3 2016 compared to \$32.2 million in Q3 2015. In Q3 2016, Adjusted net earnings<sup>1</sup> increased by \$8.0 million and reached \$2.3 million compared to Adjusted net loss<sup>1</sup> of \$5.7 million in Q3 2015. The main items (excluding Income taxes) reconciling the Adjusted net earnings of Q3 2016 are the accelerated depreciation charge of tangible assets and the litigation and restructuring costs following the Company's most recent announcement to optimize its footprint.

Net loss reached \$6.1 million in YTD 2016 compared to \$54.6 million in YTD 2015. Adjusted net loss decreased by \$15.9 million, from \$14.2 million to an Adjusted net earnings of \$1.7 million compared to YTD 2015. The main items (excluding Income taxes) reconciling the Adjusted net earnings for YTD 2016 are non-recurring costs for the closure of an administrative office in Europe, the settlement of unfavorable supply contracts, as well as the accelerated depreciation charge of tangible assets and the restructuring costs following the Company's most recent announcement to optimize its footprint.

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

## Management's Discussion and Analysis

### Inventory Impairment Charge

	Q3 2016	Q3 2015	YTD 2016	YTD 2015
	\$	\$	\$	\$
Electronic Materials	-	16,616	-	16,616
Eco-Friendly Materials	-	10,629	-	17,129
<b>Total</b>	-	27,245	-	33,745

No inventory impairment charge was recorded in Q3 2016 and YTD 2016 reflecting the expected net realized value analysis as at September 30, 2016 compared to an inventory impairment charge of \$27.2 million and \$33.7 million recorded in Q3 and YTD 2015, mainly on selenium and some bismuth products.

### Bookings and Backlog

	BACKLOG <sup>1</sup>			BOOKINGS <sup>1</sup>		
	Q3 2016	Q2 2016	Q3 2015	Q3 2016	Q2 2016	Q3 2015
	\$	\$	\$	\$	\$	\$
Electronic Materials	40,929	49,790	54,965	11,570	21,015	11,596
Eco-Friendly Materials	49,046	48,825	45,603	35,281	33,362	26,355
<b>Total</b>	<b>89,975</b>	<b>98,615</b>	<b>100,568</b>	<b>46,851</b>	<b>54,377</b>	<b>37,951</b>

(number of days based on annualized revenues) *	BACKLOG <sup>1</sup>			BOOKINGS <sup>1</sup>		
	Q3 2016	Q2 2016	Q3 2015	Q3 2016	Q2 2016	Q3 2015
Electronic Materials	183	231	201	52	97	42
Eco-Friendly Materials	128	118	95	92	81	55
Weighted average	148	157	134	77	86	50

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

#### Q3 2016 vs Q2 2016

Overall the backlog<sup>1</sup> as at September 30, 2016 represented 148 days of annualized revenues compared to 157 days as at June 30, 2016, lower than previous quarter following the renewal pattern of most contracts which generally occurs in the fourth quarter or the first quarter of the year. It also reflects two very strong quarters in terms of shipments.

Backlog as at September 30, 2016, for the Electronic Materials segment represented 183 days of annualized segment revenues decreasing by 48 days, or 21%, over the backlog of Q2 2016, explained by two factors: The renewal pattern of most contracts and very strong quarters in terms of shipments, especially for the Company's solar sector. The backlog for the Eco-Friendly Materials segment represented 128 days of annualized segment revenues, an increase of 10 days or 8%, over the backlog of Q2 2016.

Bookings<sup>1</sup> for the Electronic Materials segment decreased<sup>1</sup> by 45 days compared to Q2 2016, lower than previous quarter also reflecting the renewal pattern of most contracts which generally occurs in the fourth quarter or the first quarter of the year. Bookings for the Eco-Friendly Materials segment increased by 11 days, from 81 days in Q2 2016 to 92 days in Q3 2016.

#### Q3 2016 vs Q3 2015

Backlog as at September 30, 2016 for the Electronic Materials segment decreased by 18 days and increased by 33 days for the Eco-Friendly Materials segment compared to September 30, 2015.

Bookings increased by 10 days for the Electronic Materials segment and by 37 days for the Eco-Friendly Materials segment compared to the previous year quarter.

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

## Management's Discussion and Analysis

### Expenses

	Q3 2016	Q3 2015	YTD 2016	YTD 2015
	\$	\$	\$	\$
Depreciation and amortization	3,693	2,422	8,619	19,879
SG&A	6,640	7,443	19,791	21,186
Litigation and restructuring costs	4,915	500	5,945	500
Allowance for a doubtful note receivable from a related party	-	2,447	-	2,447
Financial expenses (revenues)	1,661	(879)	5,917	2,244
Income tax expense (recovery)	779	1,488	1,353	(944)
<b>Total expenses</b>	<b>17,688</b>	<b>13,421</b>	<b>41,625</b>	<b>45,312</b>

### Depreciation and Amortization

Depreciation and amortization expenses in Q3 2016 and YTD 2016 amounted to \$3.7 million and \$8.6 million respectively, compared to \$2.4 million and \$19.9 million for the same periods of 2015. The increase in Q3 2016 is mainly attributable to an accelerated depreciation charge of selected tangible assets of \$1.8 million following the Company's most recent announcement in September 2016 to optimize its footprint. The decrease in YTD 2016 is mainly attributable to an accelerated amortization charge of selected intangible assets of \$11.8 million recorded in Q2 2015.

### SG&A

For Q3 2016 and YTD 2016, SG&A expenses were \$6.6 million and \$19.8 million respectively, compared to \$7.4 million and \$21.2 million for the same periods of 2015. Variation is mostly explained by lower wages and other expenses as well as favourable exchange rates across most local currency denominated expenses in 2016.

### Litigation and Restructuring Costs

The Company recorded a provision for litigation and restructuring costs of \$4.9 million and \$5.9 million for Q3 2016 and YTD 2016 respectively compared to \$0.5 for the same periods a year ago. Following the Company's most recent announcement to consolidate its operations at Wellingborough, U.K. with other sites within the Group, and its operations at DeForest-Wisconsin, U.S.A. and Fairfield-Connecticut, U.S.A. during the first half of 2017 into a newly updated and scaled facility, the Company recorded restructuring and severance costs and other facility closure costs of \$3.5 million. The Company also recorded in Q3 2016 litigation costs of \$1.0 million following initiatives to renegotiate unfavourable purchasing contracts. In addition, in Q1 2016, the Company had recorded non-recurring costs of \$1.0 million for the closure of an administrative office in Europe as well as for the settlement of unfavorable supply contracts.

### Allowance for a Doubtful Note Receivable from a Related Party

The Company assessed during fiscal year 2015 that under the gallium low-market price, its note receivable from Ingal Stade GmbH, a 50% joint venture, was not likely to be reimbursed, therefore the Company recorded an allowance for a doubtful note receivable from a related party of \$2.4 million in Q3 2015 and YTD 2015.

### Financial Expenses and Revenues

Financial expenses for Q3 2016 amounted to \$1.7 million compared to financial revenue of \$0.9 million for the same period last year. The increase in financial expenses of \$2.5 million is mainly due to lower unrealized foreign exchange and derivative gain. The full value of the convertible debenture is currently covered by a cross-currency swap contract and accounted for as a cash flow hedge since December 7, 2015.

Financial expenses for YTD 2016 amounted to \$5.9 million compared to \$2.2 million for the same period last year. The increase in financial expenses of \$3.7 million is mainly due to a lower gain related the fair value of the debenture conversion option and by lower unrealized foreign exchange and derivative gain partially mitigated by lower interest on long-term debt.



## Management's Discussion and Analysis

### Income Taxes

The Company reported net loss before income taxes of \$3.5 million in Q3 2016 and \$4.7 million for YTD 2016. Income tax expense for Q3 2016 and YTD 2016 were \$0.8 million and \$1.4 million respectively, compared to \$1.5 million and an income tax recovery of \$0.9 million for the same periods of last year. The tax expense for Q3 2016 and YTD 2016 were higher due to losses carried forward for which no deferred tax asset was recognized at that time.

### Liquidity and Capital Resources

	Q3 2016	Q3 2015	YTD 2016	YTD 2015
	\$	\$	\$	\$
Funds from (used in) operations <sup>1</sup>	238	(620)	7,230	(4,117)
Net changes in non-cash working capital items	9,160	14,460	13,026	51,994
Operating activities	9,398	13,840	20,256	47,877
Investing activities	(1,368)	(5,094)	(4,911)	(14,645)
Financing activities	(10)	(17,156)	(947)	(37,593)
Effect of foreign exchange rate changes on cash and cash equivalents related to operations	2	(84)	33	(391)
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>8,022</b>	<b>(8,494)</b>	<b>14,431</b>	<b>(4,752)</b>

Cash provided by operating activities amounted to \$9.4 million for Q3 2016 compared to \$13.8 million for Q3 2015. Although the Company continues to better manage non-cash working capital, especially inventory expressed in days, the lower impact on cash provided by operating activities is mainly due to the lower commodity pricing and its effect on the value of the Company's products on a unit basis, with similar impact on accounts receivable. For YTD 2016, cash provided by operating activities amounted to \$20.3 million compared to \$47.9 million for the same period last year. Better management of non-cash working capital led to a further reduction of \$6.6 million in inventory and \$6.8 million in trade accounts receivable further improved by higher accounts payable of \$1.1 million.

Cash used in investing activities totalled \$1.4 million for Q3 2016 and \$4.9 million for YTD 2016 compared to \$5.1 million and \$14.6 million for the corresponding periods of 2015 respectively. This decrease is explained by lower acquisition of property, plant and equipment and intangible assets.

Cash used by financing activities amounted to nil for Q3 2016 and \$0.9 million for YTD 2016 compared to \$17.2 million and \$37.6 million for the corresponding periods of 2015 respectively. These decreases are mainly associated with a net reduction in the amounts drawn under the revolving facility following a better management of non-cash working capital.

### Working Capital

	As at September 30, 2016	As at December 31, 2015
	\$	\$
Inventories	82,893	89,052
Other current assets	57,763	50,593
Current liabilities	(63,758)	(45,777)
Working capital <sup>1</sup>	76,898	93,868
Working capital current ratio <sup>1</sup>	2.21	3.05

The decrease in working capital<sup>1</sup> compared to December 31, 2015 is mainly due to a better alignment between material usage and purchase in an effort to reduce inventory and lower average commodity pricing as well as a reclassification from long-term other liabilities to current liabilities.

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

## Management's Discussion and Analysis

### Net Debt

	As at September 30, 2016	As at December 31, 2015
	\$	\$
Bank indebtedness	-	-
Long-term debt including current portion	338	1,947
Convertible debentures	44,078	40,288
Cross-currency swap	(1,042)	1,443
<b>Total Debt</b>	<b>43,374</b>	<b>43,678</b>
Cash and cash equivalents	(23,247)	(8,816)
<b>Net Debt<sup>1</sup></b>	<b>20,127</b>	<b>34,862</b>

Total debt, including the cross-currency swap decreased by \$0.3 million to \$43.4 million as at September 30, 2016, compared to \$43.7 million as at December 31, 2015.

Net debt<sup>1</sup> after taking into account cash and cash equivalents decreased by \$14.7 million, from \$34.9 million as at December 31, 2015 to \$20.1 million as at September 30, 2016.

On December 7, 2015, the Company entered into a cross-currency swap to hedge the convertible debenture denominated in Canadian dollars to US dollars.

### Funds from Operations

	Q3 2016	Q3 2015	YTD 2016	YTD 2015
	\$	\$	\$	\$
<b>Funds from (used in) operations<sup>1</sup></b>	<b>238</b>	<b>(620)</b>	<b>7,230</b>	<b>(4,117)</b>
Net acquisition of PPE and intangible assets	(1,368)	(5,081)	(4,811)	(16,648)
Working capital changes	9,160	14,460	13,026	51,994
Others	(691)	2,930	(710)	6,086
	<b>7,101</b>	<b>12,309</b>	<b>7,505</b>	<b>41,432</b>
<b>Total movement in net debt<sup>1</sup></b>	<b>7,339</b>	<b>11,689</b>	<b>14,735</b>	<b>37,315</b>
Net debt <sup>1</sup> , beginning of period	(27,466)	(58,381)	(34,862)	(84,007)
<b>Net debt<sup>1</sup>, end of period</b>	<b>(20,127)</b>	<b>(46,692)</b>	<b>(20,127)</b>	<b>(46,692)</b>

Funds from operations<sup>1</sup> increased by \$0.9 million to \$0.2 million in Q3 2016 and by \$11.3 million to \$7.2 million in YTD 2016 compared to funds used in operations<sup>1</sup> of \$0.6 million and \$4.1 million for the corresponding periods of 2015 respectively. This increase was further supported by lower acquisition of PPE and intangible assets, offsetting the negative variance from the lower positive impact in working capital changes compared to the same periods last year.

### Share Information

	As at November 1, 2016	As at September 30, 2016
Issued and outstanding shares	83,979,657	83,979,657
Stock options potentially issuable	2,860,648	2,860,648
Convertible debentures potentially issuable	9,777,777	9,777,777

### Off-Balance Sheet Arrangements

The Company has certain off-balance sheet arrangements, consisting of leasing certain premises and equipment under the terms of operating leases and contractual obligations in the normal course of business.

The Company is exposed to currency risk on sales in Euro and other currencies and therefore periodically enters into foreign currency forward contracts to protect itself against currency fluctuation. The reader will find more details related to these contracts in Notes 17 and 25 of the audited consolidated financial statements for the year ended December 31, 2015.

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

### **Commitments**

As at September 30, 2016, in the normal course of business, the Company contracted letters of credit for an amount of up to \$0.8 million (\$0.5 million as at December 31, 2015).

### **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.

### **Governance**

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

### **Disclosure Controls and Procedures**

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

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

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

### **Internal Control over Financial Reporting**

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

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

### **Changes in Internal Control over Financial Reporting**

No changes were made to our ICFR during the nine-month period ended September 30, 2016 that have materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting.

### **Accounting Policies and Changes**

The Company established its accounting policies and methods used in the preparation of its audited consolidated financial statements for the fiscal year 2015 in accordance with IFRS. The Company's significant accounting policies are described in Note 2 of the December 31, 2015 audited consolidated financial statements. The key assumptions and basis for estimates that management has made under IFRS, and their impact on the amounts reported in the consolidated financial statements and notes, remain substantially unchanged from those described in the Company's audited consolidated financial statements for the fiscal year ended December 31, 2015.

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

### **Future Changes in Accounting Policies**

The following standards have been issued but are not yet effective:

In May 2014, the IASB issued IFRS 15, "Revenues from Contracts with Customers", to specify how and when to recognize revenue as well as requiring the provision of more information and relevant disclosure. IFRS 15 supersedes IAS 18, "Revenue", IAS 11, "Construction Contracts", and other revenue-related interpretations. The standard will be mandatory on January 1, 2018 for the Company with earlier adoption permitted. The Company is currently evaluating the impact of this standard on its consolidated financial statements.

In July 2014, the IASB amended IFRS 9, "Financial Instruments", to bring together the classification and measurement, impairment and hedge accounting phases of the IASB's project to replace IAS 39, "Financial Instruments: Recognition and Measurement". The standard supersedes all previous versions of IFRS 9 and will be mandatory on January 1, 2018 for the Company with earlier application permitted. The Company is currently evaluating the impact of this standard on its consolidated financial statements.

In January 2016, IASB issued IFRS 16, "Leases", which specifies how an IFRS reporter will recognize, measure, present and disclose leases. The standard provides a single lessee accounting model, requiring lessees to recognise assets and liabilities for all leases unless the lease term is 12 months or less or the underlying asset has a low value. Lessors continue to classify leases as operating or finance, with IFRS 16's approach to lessor accounting substantially unchanged from its predecessor, IAS 17. The standard will be mandatory for annual periods beginning on or after January 1, 2019. The Company is currently evaluating the impact of this standard on its consolidated financial statements.

In January 2016, IASB amended IAS 7, "Statement of Cash Flows", The amendments require that the following changes in liabilities arising from financing activities are disclosed (to the extent necessary): (i) changes from financing cash flows; (ii) changes arising from obtaining or losing control of subsidiaries or other businesses; (iii) the effect of changes in foreign exchange rates; (iv) changes in fair values; and (v) other changes. One way to fulfil the new disclosure requirement is to provide a reconciliation between the opening and closing balances in the statement of financial position for liabilities arising from financing activities. Finally, the amendments state that changes in liabilities arising from financing activities must be disclosed separately from changes in other assets and liabilities. This amendment will be mandatory for reporting periods beginning on or after January 1, 2017. The Company is currently evaluating the impact of this standard on its consolidated financial statements.

### **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 financial instruments and their fair value are discussed in Note 17 – Fair Value of Financial Instruments in the 2015 consolidated financial statements of the Company.

#### **Financial Risk Management**

For a detailed description of nature and extent of risks arising from financial instruments, and their related risk management, refer to Note 11 of the unaudited condensed interim consolidated financial statements for the three and nine-month periods ended September 30, 2016 and 2015. The Company is not aware of any significant changes to its risks factors from those disclosed at that time.

### **Risk and Uncertainties**

For a detailed description of risk factors associated with 5N Plus and its business, refer to "Risk and Uncertainties" of 5N Plus' 2015 MD&A dated February 23, 2016. Factors of uncertainty and risks that might result in such differences include the risks related to the possible failure to realize anticipated benefits of acquisitions and investments, additional indebtedness, credit, interest rates, inventory pricing, currency fluctuation, fair value, commodity price, source of supplies, environmental regulations, competition, dependence on key personnel, business interruptions, protection of intellectual property, international operations, collective agreements and those associated with public issuer status. The company is not aware of any significant changes to its risks factors disclosed at that time.

### **Non-IFRS Measures**

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

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

EBITDA means net earnings (loss) before interest expenses (revenues), income taxes, depreciation and amortization. We use EBITDA because we believe it is a meaningful measure of the operating performance of our ongoing business without the effects of certain expenses. The definition of this non-IFRS measure used by the Company may differ from that used by other companies.

EBITDA margin is defined as EBITDA divided by revenues.

Adjusted EBITDA means EBITDA as defined above before impairment of inventories, allowance for doubtful of a receivable from a related party, litigation and restructuring costs, gain on disposal of property, plant and equipment, change in fair value of debenture conversion option, foreign exchange and derivatives loss (gain). We use adjusted EBITDA because we believe it is a meaningful measure of the operating performance of our ongoing business without the effects of inventory write-downs. 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 net earnings (loss) means the net earnings (loss) before the effect of charge of impairment related to inventory, PPE and intangible assets, impairment of goodwill, allowance for doubtful of a note receivable from a related party, litigation and restructuring costs, change in fair value of debenture conversion option net of the related income tax. We use adjusted net earnings (loss) because we believe it is a meaningful measure of the operating performance of our ongoing business without the effects of unusual inventory write-downs and property plant and equipment, intangible asset impairment charges, allowance for doubtful of a receivable from a related party, litigation and restructuring costs and change in fair value of debenture conversion option. The definition of this non-IFRS measure used by the Company may differ from that used by other companies.

Basic adjusted net earnings (loss) per share means adjusted net earnings (loss) divided by the weighted average number of outstanding shares. We use basic adjusted net earnings (loss) per share because we believe it is a meaningful measure of the operating performance of our ongoing business without the effects of unusual inventory write-downs and property plant and equipment and intangible asset impairment charges, allowance for doubtful of a receivable from a related party, litigation and restructuring costs and change in fair value of debenture conversion option per share. The definition of this non-IFRS measure used by the Company may differ from that used by other companies.

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

# Management's Discussion and Analysis

Gross margin is a measure we use to monitor the sales contribution after paying cost of sales excluding depreciation of property, plant and equipment. We also expressed this measure in percentage of revenues by dividing the gross margin value by the total revenue.

Net debt or net cash is a measure we use to monitor how much debt we have after taking into account cash and cash equivalents. We use it as an indicator of our overall financial position, and calculate it by taking our total debt, including the current portion and the cross-currency swap related to the convertible debenture, and subtracting cash and cash equivalents.

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, we use it as an indicator of our financial efficiency and aim to maintain it at the lowest possible level.

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

## Additional Information

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

## Metal Prices

(in U.S. dollars per kilo)



Source: Low Metal Bulletin

# Management's Discussion and Analysis

## Selected Data Information

The following table provides selected quarterly financial information for the years 2014 through to 2016.

(in thousands of United States dollars except per share amounts)	Q1	Q2	Q3	Q4	
<b>Fiscal 2016</b>					<b>Year to date</b>
Revenues	63,868	57,435	55,491	<sup>2</sup>	176,794
EBITDA <sup>1</sup>	2,884	5,358	2,066	<sup>2</sup>	10,308
Adjusted EBITDA <sup>1</sup>	4,250	4,714	6,816	<sup>2</sup>	15,780
Net (loss) earnings attributable to equity holders of 5N Plus	(1,907)	86	(4,232)	<sup>2</sup>	(6,053)
Basic loss per share attributable to equity holders of 5N Plus	(\$0.02)	\$-	(\$0.05)	<sup>2</sup>	(\$0.07)
Net (loss) earnings	(1,909)	87	(4,232)	<sup>2</sup>	(6,054)
Basic loss per share	(\$0.02)	\$-	(\$0.05)	<sup>2</sup>	(\$0.07)
Diluted loss per share	(\$0.02)	\$-	(\$0.05)	<sup>2</sup>	(\$0.07)
Adjusted net (loss) earnings <sup>1</sup>	(653)	45	2,298	<sup>2</sup>	1,690
Basic adjusted net loss per share <sup>1</sup>	(\$0.01)	\$-	\$0.03	<sup>2</sup>	\$0.02
Funds from operations <sup>1</sup>	2,471	4,521	238	<sup>2</sup>	7,230
Backlog <sup>1</sup>	145 days	157 days	148 days	<sup>2</sup>	148 days
<b>Fiscal 2015</b>					<b>Total</b>
Revenues	95,663	87,250	68,732	59,367	311,012
EBITDA <sup>1</sup>	3,406	(5,966)	(26,136)	(26,000)	(54,696)
Adjusted EBITDA <sup>1</sup>	270	1,963	1,052	674	3,959
Net loss attributable to equity holders of 5N Plus	(1,949)	(20,463)	(32,171)	(42,615)	(97,198)
Basic loss per share attributable to equity holders of 5N Plus	(\$0.02)	(\$0.24)	(\$0.38)	(\$0.51)	(\$1.16)
Net loss	(1,951)	(20,464)	(32,171)	(42,615)	(97,201)
Basic loss per share	(\$0.02)	(\$0.24)	(\$0.38)	(\$0.51)	(\$1.16)
Diluted loss per share	(\$0.05)	(\$0.24)	(\$0.38)	(\$0.51)	(\$1.16)
Adjusted net loss <sup>1</sup>	(2,472)	(6,125)	(5,652)	(12,966)	(27,215)
Basic adjusted net loss per share <sup>1</sup>	(\$0.03)	(\$0.07)	(\$0.07)	(\$0.15)	(\$0.32)
Funds used in operations <sup>1</sup>	(2,015)	(1,482)	(620)	(5,734)	(9,851)
Backlog <sup>1</sup>	142 days	137 days	134 days	158 days	158 days
<b>Fiscal 2014</b>					<b>Total</b>
Revenues	142,379	136,597	114,438	114,781	508,195
EBITDA <sup>1</sup>	11,178	11,524	12,721	4,021	39,444
Adjusted EBITDA <sup>1</sup>	10,501	10,816	8,071	5,657	35,045
Net earnings (loss) attributable to equity holders of 5N Plus	4,655	4,436	4,172	(2,451)	10,812
Basic earnings (loss) per share attributable to equity holders of 5N Plus	\$0.06	\$0.05	\$0.05	(\$0.03)	\$0.13
Net earnings (loss)	4,519	4,436	4,171	(2,453)	10,673
Basic earnings (loss) per share	\$0.05	\$0.05	\$0.05	(\$0.03)	\$0.13
Diluted earnings (loss) per share	\$0.05	\$0.05	(\$0.01)	(\$0.04)	\$0.05
Adjusted net earnings <sup>1</sup>	4,916	4,303	170	1,247	10,636
Basic adjusted net earnings (loss) per share <sup>1</sup>	\$0.06	\$0.05	\$-	\$0.01	\$0.13
Funds from operations <sup>1</sup>	6,806	5,774	982	4,030	17,592
Backlog <sup>1</sup>	120 days	100 days	109 days	122 days	122 days

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

<sup>2</sup> Not available