



**PYROGENESIS CANADA INC.**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**

For the three and twelve months ended December 31, 2014

(All figures are expressed in Canadian dollars unless otherwise noted.)

April 29, 2015

This management's discussion and analysis (MD&A) of PyroGenesis Canada Inc. ("PCI" or the "Company") has been prepared by management and should be read in conjunction with the audited financial statements and related notes thereto of the Company for the period ended December 31, 2014 which were prepared in accordance with International Financial Reporting Standards ("IFRS"). This MD&A is the responsibility of management and has been reviewed and approved by the Board of Directors of the Company. The Board of Directors is responsible for ensuring that the Company fulfills its responsibilities for financial reporting and is ultimately responsible for reviewing and approving the MD&A. The Board of Directors carries out this responsibility principally through its Audit Committee. The Audit Committee is appointed by the Board of Directors and is comprised of independent and financially literate directors. The Audit Committee reports its findings to the Board of Directors for its consideration when it approves the MD&A and financial statements for issuance to shareholders.

The MD&A was prepared as of April 29, 2015. Additional information regarding the Company is available on SEDAR ([www.sedar.com](http://www.sedar.com)).

**FORWARD-LOOKING STATEMENTS**

This MD&A contains forward-looking statements. All statements other than statements of historical fact contained in this MD&A are forward-looking statements, including, without limitation, the Company's: statements regarding its products and services; relations with suppliers and customers; future financial position; business strategies; potential acquisitions; potential business partnering; litigation; and plans and objectives. In certain cases, forward-looking statements can be identified by the use of words such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved" and similar words or the negative thereof. Although management of the Company believes that the expectations represented in such forward-looking statements are reasonable, there can be no assurance that such expectations will prove to be correct.



In particular, this MD&A contains forward-looking statements that relate, but are not limited, to:

- the business strategies of the Company;
- the capital resources of the Company;
- the ability of the Company to increase sales, including the results of the successful completion of the Company's current projects;
- management's expectation that the Company will achieve sustained annual growth and profitability, and that gross margins will increase as a result of a decrease in cost of sales as a percentage of revenue; and
- the Company's overall financial performance.

By their nature, forward-looking statements require assumptions and are subject to inherent risks and uncertainties including those discussed herein. In particular, forward-looking statements relating to future sales, growth and profitability are based on the assumption that current projects will be completed and the Company will be awarded certain anticipated contracts pursuant to recent negotiations with, and statements made by, third parties. There is significant risk that forecasts and other forward-looking statements will not prove to be accurate. Readers are cautioned to not place undue reliance on forward-looking statements made herein because a number of factors could cause actual future results, conditions, actions or events to differ materially from the targets, expectations, estimates or intentions expressed in the forward-looking statements.

The future outcomes that relate to forward-looking statements may be influenced by many factors, including, but not limited to, the strength of the Canadian and US economy; operational, funding, and liquidity risks; unforeseen engineering and environmental problems; delays or inability to obtain required financing and/or anticipated contracts; risks associated with licenses, permits and regulatory approvals; supply interruptions or labor disputes; foreign exchange fluctuations and collection risk; competition from other suppliers or alternate less capital intensive energy solutions; and the risk factors described under the heading "Risk Factors" in the Company's annual information report for the fiscal year ended December 31, 2014. We caution that the foregoing list of factors is not exhaustive, and that, when relying on forward-looking statements to make decisions with respect to the Company, investors and others should carefully consider these factors, as well as other uncertainties and potential events, and the inherent uncertainty of forward-looking statements.

Although the Company has attempted to identify significant factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements. Forward-looking statements are provided as of the date of this MD&A, and the Company assumes no obligation to update



or revise such forward-looking statements to reflect new events or circumstances except as required under applicable securities laws.

The forward-looking statements contained herein are expressly qualified in their entirety by this cautionary statement. The forward-looking statements included in this MD&A are made as of the date of this MD&A or such other date specified herein.

## OVERVIEW

PyroGenesis Canada, a TSX Venture 50® company, is the world leader in the design, development, manufacturing and commercialization of advanced plasma processes. The Company provides engineering and manufacturing expertise, cutting-edge contract research, as well as turnkey process equipment packages to the defense, metallurgical, mining, advanced materials (including 3D printing), oil & gas, and environmental industries. With a team of experienced engineers, scientists and technicians working from its Montreal office and its 3,800 m<sup>2</sup> production facility, PyroGenesis maintains its competitive advantage by remaining at the forefront of technology development and commercialization. PyroGenesis' core competencies allows the Company to be a leader in providing innovative plasma torches, plasma waste processes, high-temperature metallurgical processes, and engineering services to the global marketplace. PyroGenesis' operations are ISO 9001:2008 certified, and have been since 1997. PyroGenesis is a publicly-traded Canadian company on the TSX Venture Exchange (Ticker Symbol PYR.V).

## SELECTED FINANCIAL INFORMATION

	Three months ended Dec 31,			% Change	Twelve months ended Dec 31,			% Change
	2014	2013	2012	2014vs2013	2014	2013	2012	2014vs2013
<b>Revenue</b>	\$ 1,784,676	\$ 1,878,793	\$ 1,221,501	-5%	\$ 5,764,896	\$ 5,756,009	\$ 3,323,236	0%
Cost of sales and services before amortization of intangible assets	652,040	887,307	839,927		2,691,741	3,133,812	3,444,560	
Gross margin before amortization of intangible assets	1,132,636	991,486	381,574		3,073,155	2,622,197	(121,324)	
Amortization of intangible assets	349,269	349,268	349,268		1,397,074	1,397,073	1,397,073	
Gross margin	783,367	642,218	32,306		1,676,081	1,225,124	(1,518,397)	
Selling, general and administrative	1,423,918	1,029,572	738,185		4,533,280	4,051,354	3,832,087	
Research and development	43,737	81,773	-		208,539	210,977	-	
Financing charges	18,795	92,569	134,288		216,069	372,126	468,791	
	1,486,450	1,203,914	872,473		4,957,888	4,634,457	4,300,878	
<b>Loss from operations</b>	<b>(703,083)</b>	<b>(561,696)</b>	<b>(840,167)</b>	25%	<b>(3,281,807)</b>	<b>(3,409,333)</b>	<b>(5,819,275)</b>	-4%
Other income	2,049	25	2,032		3,197	2,894	12,147	
Loss on settlement of convertible debenture	-	-	(2,007)		-	-	(2,007)	
Impairment loss on property and equipment	-	(581,638)	-		-	(581,638)	-	
<b>Comprehensive loss</b>	<b>\$ (701,034)</b>	<b>\$ (1,143,309)</b>	<b>\$ (840,142)</b>	-39%	<b>\$ (3,278,610)</b>	<b>\$ (3,988,077)</b>	<b>\$ (5,809,135)</b>	-18%
Basic and diluted loss per share	\$ (0.01)	\$ (0.02)	\$ (0.01)		\$ (0.04)	\$ (0.06)	\$ (0.09)	
<b>Adjusted EBITDA (loss)</b>	<b>\$ (156,872)</b>	<b>\$ (473,864)</b>	<b>(202,959)</b>	-67%	<b>\$ (1,181,532)</b>	<b>\$ (1,406,024)</b>	<b>\$ (2,732,265)</b>	-16%

Adjusted EBITDA (loss) is not a performance measure defined under IFRS and it is not considered an alternative to Income (Loss) from operations or Comprehensive Earnings (Loss) in the context of measuring a Company's performance. Management believes that providing certain non-GAAP performance measures, in addition to IFRS measures provides users of the Company's financial statements with an enhanced understanding of their results and related trends, and as such increases transparency and clarity. Adjusted EBITDA is an important measure of operating performance because it allows management, investors and others to evaluate and compare the Company's core operating results, including return on capital and operating efficiencies, from period to



period, by removing the impact of its capital structure (interest expense to service outstanding debt), asset base (depreciation and amortization), tax consequences, and other non-operating items not requiring cash outlays, including share-based compensation.

**Extract from Statement of Financial Position at :**

	<b>Dec 31. 2014</b>	Dec 31. 2013	Dec 31. 2012
Current assets	<b>3,497,020</b>	2,247,261	2,795,128
Non-current assets	<b>3,438,312</b>	4,923,611	7,440,741
<b>Total assets</b>	<b>\$ 6,935,332</b>	\$ 7,170,872	\$ 10,235,869
Current liabilities	<b>1,994,218</b>	3,621,024	4,231,512
Non-current liabilities	<b>2,062,862</b>	8,159,862	8,458,668
<b>Total liabilities</b>	<b>\$ 4,057,080</b>	\$ 11,780,886	\$ 12,690,180
Shareholders' equity (deficiency)	<b>\$ 2,878,252</b>	\$ (4,610,014)	\$ (2,454,311)

## **RESULTS OF OPERATIONS**

### ***Revenues***

The Company posted revenues of \$5,764,896 in fiscal year 2014, an increase of 0.2% as compared to that posted in fiscal 2013 of \$5,756,009. 2014 revenues primarily resulted from progress achieved on (i) the reorder of the plasma waste destruction system to be installed on the next US Navy Ford-class aircraft carrier; the CVN-79, (ii) work completed under phase 1 of the tactical mobile plasma system for destruction of chemical warfare agents, (iii) the ongoing R&D projects incorporating novel plasma based technologies in the oil and gas industrial sector, and (iv) work completed on the Company's latest project to manufacture ten plasma based powder production systems for 3D printing.

Revenues posted in the fourth quarter ended December 31, 2014 (hereafter "2014-Q4") were \$1,784,676, a decrease of 5% compared to revenues of \$1,878,793 posted during the same period in the previous year. Revenues in 2014-Q4 posted a slight decrease year over year as a result of certain 2013 projects coming to completion which was further set back by customer originated delays with respect to projects in hand. Of note, these delays have since been normalized. Furthermore, the majority of revenues associated with 2014 signed backlog is expected to impact revenues only in the 2<sup>nd</sup> half of 2015.

2014 saw revenues being generated from a more diverse client, technology and industry base, which was a direct result of the strategic targeting of new high value niche markets by the Company.

### ***Cost of Sales and Services and Gross Margin***



#### Cost of Sales and Services

	Three months ended Dec 31,			Twelve months ended Dec 31,		
	2014	2013	% Change 2014vs2013	2014	2013	% Change 2014vs2013
Employee Compensation	\$ 381,940	\$ 80,559	374%	\$ 1,276,648	\$ 705,509	81%
Subcontracting	81,076	7,294	1012%	123,579	50,012	147%
Direct materials	137,659	735,538	-81%	906,830	2,139,308	-58%
Manufacturing overhead & other	131,624	131,756	0%	502,255	423,628	19%
Foreign exchange (gain) loss	118,632	(370)	-32163%	134,645	(14,934)	-1002%
Investment tax credits	(198,891)	(67,470)	195%	(252,216)	(169,711)	49%
Sub-total before amortization of intangible assets	652,040	887,307	-27%	2,691,741	3,133,812	-14%
Amortization of intangible assets	349,269	349,268	0%	1,397,074	1,397,073	0%
<b>Total Cost of Sales and Services</b>	<b>\$ 1,001,309</b>	<b>\$ 1,236,575</b>	<b>-19%</b>	<b>\$ 4,088,815</b>	<b>\$ 4,530,885</b>	<b>-10%</b>

#### Gross Margin

	Three months ended Dec 31,		Twelve months ended Dec 31,	
	2014	2013	2014	2013
Revenue	\$ 1,784,676	\$ 1,878,793	\$ 5,764,896	\$ 5,756,009
Cost of Sales and Services before amortization of intangible assets	652,040	887,307	2,691,741	3,133,812
Gross Margin before amortization of intangible assets	1,132,636	991,486	3,073,155	2,622,197
Gross Margin % before amortization of intangible assets	63.5%	52.8%	53.3%	45.6%
Amortization of intangible assets	349,269	349,268	1,397,074	1,397,073
Gross Margin after amortization of intangible assets	\$ 783,367	\$ 642,218	\$ 1,676,081	\$ 1,225,124
Gross Margin % after amortization of intangible assets	43.9%	34.2%	29.1%	21.3%

Gross margin before amortization of intangible assets is not a performance measure defined under IFRS and it is not considered an alternative to gross margin in the context of measuring the Company's performance. Management believes that providing certain non-GAAP performance measures, in addition to IFRS measures provides users of the Company's financial statements with an enhanced understanding of its results and related trends, and increases transparency and clarity. Gross margin before amortization of intangible assets is an important measure of operating performance as it allows management, investors and others to evaluate and compare the Company's core operating results, including its return on capital and operating efficiencies, from period to period, by removing the impact of non-operating items not requiring cash outlays.

Cost of Sales and Services before the cost of amortization of intangible assets for fiscal year 2014 was \$2,691,741, a decrease of 14% compared to \$3,133,812 reported in fiscal year 2013. The cost of sales and services before amortization of intangible assets decreased 27% to \$652,040 during 2014-Q4 from \$887,307 reported during the same period in the prior year.

The type of contracts being executed and the nature of project activity during any given quarter has a significant impact on both the overall level of cost of sales and services reported in a period, as well as the composition of the cost of sales and services, as the mix between labour and materials and equipment may be significantly different.

Another development impacting gross margins is the implementation in fiscal 2013 of more stringent and effective project management methods which have resulted in a more efficient use of resources in engineering, procurement and manufacturing during the course of fiscal 2014. In-house labor costs recorded on projects are consistently at or below budgeted levels. Furthermore, in 2013, management undertook to invest more heavily in the development of internally funded R&D, and as such these costs are now reflected as a separate line item on the Statement of Comprehensive Loss. The Investment Tax Credits recorded against Cost of Sales are related to external client funded projects that qualify for tax credits.

The number of projects/contracts the Company is currently executing, and has under development, has increased significantly. Due to ongoing efforts to reduce fixed



manufacturing costs and streamlining its operating procedures, the Company is well positioned to address this higher business volume. As such, the Company has become more competitive as the majority of these cost containment measures are permanent and will have a long-term impact on the Company's profitability. All manufacturing overhead costs are fully applied against Cost of Sales and Services.

These initiatives have positively impacted the Company's gross margins in 2014, and the Company continues to focus on improvements in this area.

The amortization of intangible assets of \$1,397,074 in fiscal year 2014 (\$1,397,073 in fiscal year 2013) relates to licenses and know-how purchased in 2011 from a company under common control. This expense is a non-cash item and the underlying asset will be fully amortized by the end of 2016.

The Company posted strong Gross Margins before amortization of intangible assets of 53.3% in fiscal 2014 as it continued to improve this ratio year over year since 2012, and exceeded targeted levels for the period. 2014 Gross Margins before amortization of intangible assets was \$3,073,155 (53.3% of revenues), as compared to a Gross Margin of \$2,622,197 (45.6% of revenues) for 2013. These gross margins were primarily achieved through improved project management controls. However, it is important to note that despite these initiatives to improve gross margins, such may fluctuate due to the innovative nature of these projects. Furthermore, one-time events may also positively or negatively impact gross margins in any given fiscal year.

The gross margins achieved during fiscal years 2013 & 2014 are significantly higher than the 40% management has targeted. This is a result of an increased focus on operations and project execution which management expects to continue.

### *Selling, General and Administrative Expenses*

	Three months ended Dec 31,			Twelve months ended Dec 31,		
	2014	2013	% Change 2014vs2013	2014	2013	% Change 2014vs2013
Employee compensation	\$ 499,421	\$ 444,568	12%	\$ 2,173,138	\$ 2,061,938	5%
Professional fees	483,690	197,842	144%	1,086,068	527,771	106%
Office and general	93,162	63,282	47%	328,893	278,607	18%
Travel	115,721	31,164	271%	243,467	113,805	114%
Depreciation on property and equipment	51,679	66,128	-22%	181,016	205,966	-12%
Government grants	(30,766)	(1,111)	2669%	(51,609)	(1,111)	4545%
Other expenses	86,592	66,219	31%	269,388	257,490	5%
<b>Sub-total before Share-based payments</b>	<b>1,299,499</b>	<b>868,092</b>	<b>50%</b>	<b>4,230,361</b>	<b>3,444,466</b>	<b>23%</b>
Share-based payments	124,419	161,480	-23%	302,919	606,888	-50%
<b>Total selling, general and administrative</b>	<b>\$ 1,423,918</b>	<b>\$ 1,029,572</b>	<b>38%</b>	<b>\$ 4,533,280</b>	<b>\$ 4,051,354</b>	<b>12%</b>

Selling, general and administrative expenses ("SG&A") for fiscal 2014 were \$4,533,280, an increase of 12% as compared to \$4,051,354 reported during fiscal year 2013. The costs associated with share-based compensation (a non-cash item in which options vest over a four year period) commenced in 2011-Q3 when the stock option plan was put in



place. SG&A before share based payments increased by 23% in fiscal year 2014 as compared to fiscal year 2013.

Within SG&A are costs associated with corporate administration, business development, proposals, operations administration, investor relations and employee training.

Of note, during 2013, management decided to dedicate business development resources to other high value niche markets other than those within the US military. It is expected that there will be a natural lag between incurring business development related expenses and the resulting increase in revenues. This commitment has resulted in record levels of signed backlog at Dec 31<sup>st</sup> 2014.

Total SG&A expenses before share based payments increased 23% to \$4,230,361 for the fiscal year ended December 31<sup>st</sup> 2014 as compared to \$3,444,466 for the fiscal year ended December 31<sup>st</sup>, 2013:

- Employee compensation increased 5%, due to the commitment in business development activities including additional employees in this area.
- Professional fees increased 106% due to increased levels of external investor relations services and business development services.
- Travel costs increased 114%, due to increased Business Development activities, as well as increased travel expenses related to Investor Relations activities.
- Other expenses decreased 15%, primarily due to government grants received during the year.

Separately, share based payments decreased 50% as a result of the vesting structure of the stock option plan. The majority of the stock options were fully vested by December 31, 2014.

### ***Research and Development (“R&D”) Costs***

In 2013, management made the strategic decision to increase the level of R&D, and to account and disclose the net costs incurred on these projects as a separate line item in the Statement of Comprehensive Loss. Management believes that internally funded R&D projects will potentially become a significant source of new business opportunities, and as such, this new reporting reflects management’s commitment to such. Prior to 2013, all of the Company’s R&D work was done as part of contract research services as well as with externally client funded projects, some of which were R&D tax credit expenditure eligible.





#### Internal R&D Project Costs

	Three months ended Dec 31,			Twelve months ended Dec 31,		
	2014	2013	% Change 2014vs2013	2014	2013	% Change 2014vs2013
Employee compensation	\$ 38,760	\$ 114,303	-66%	\$ 234,822	\$ 287,259	-18%
Subcontracting	18,120	13,069	39%	41,579	46,134	-10%
Materials and equipment	5,088	7,636	-33%	29,967	27,445	9%
Other expenses	420	463	-9%	3,151	1,003	214%
<b>Sub-total before government grants</b>	<b>62,388</b>	<b>135,471</b>	<b>-54%</b>	<b>309,519</b>	<b>361,841</b>	<b>-14%</b>
Government grants	(18,651)	(53,698)	-65%	(100,980)	(150,864)	-33%
<b>Total net R&amp;D costs</b>	<b>\$ 43,737</b>	<b>\$ 81,773</b>	<b>-47%</b>	<b>\$ 208,539</b>	<b>\$ 210,977</b>	<b>-1%</b>

During fiscal year 2014, the Company incurred \$208,539 in costs, net of grants, on internal R&D projects as compared to \$210,977 for the prior fiscal year, a decrease of 1% year- over-year.

In addition to internally funded R&D projects, the Company incurred R&D eligible expenditures on the execution of external client funded projects. R&D tax credits on external client funded projects were applied against Cost of Sales and Services (see below).

#### Investment Tax Credits

	Three months ended Dec 31,			Twelve months ended Dec 31,		
	2014	2013	% Change 2014vs2013	2014	2013	% Change 2014vs2013
Investment tax credits	\$ 198,891	\$ 67,470	195%	\$ 252,216	\$ 169,711	49%

Investment tax credits of \$252,216 were accrued in fiscal year 2014 as compared to \$169,711 for fiscal year 2013, an increase of 49% year-over-year. The increased level of investment tax credits in 2014 is in line with the level of qualifying costs on external R&D projects.

The Company continues to make investments in research and development projects incorporating strategic partners and government bodies.

#### Financing Charges

	Three months ended Dec 31,			Twelve months ended Dec 31,		
	2014	2013	% Change 2014vs2013	2014	2013	% Change 2014vs2013
Financing charges	\$ 18,795	\$ 92,569	-80%	\$ 216,069	\$ 372,126	-42%





Financing charges for fiscal year 2014 were \$216,069 as compared to \$372,126 for fiscal year 2013, a decrease of 42% year-over-year. Financing charges relate to the interest component of the Company's debt, due to a related party, that was paid during the period.

Financing charges decreased significantly in fiscal year 2014 due to the conversion of \$6,000,000 of debt to equity which took place in May 2014 (see note 15(i) of the 2014 Audited Financial Statements).

### ***Depreciation on Property and Equipment***

	Three months ended Dec 31, % Change			Twelve months ended Dec 31, % Change		
	2014	2013	2014vs2013	2014	2013	2014vs2013
Depreciation on property and equipment	\$ 51,679	\$ 66,128	-22%	\$ 181,016	\$ 205,966	-12%

Depreciation on property and equipment decreased by 12% to \$181,016 in fiscal year 2014, as compared to \$205,966 for fiscal year 2013. This decrease is primarily a result of decreased investments in machinery and equipment since 2010 when major acquisitions were made.

### ***Comprehensive Loss***

	Three months ended Dec 31, % Change			Twelve months ended Dec 31, % Change		
	2014	2013	2014vs2013	2014	2013	2014vs2013
Loss from operations	\$ (703,083)	\$ (561,696)	25%	\$ (3,281,807)	\$ (3,409,333)	-4%
Comprehensive loss	\$ (701,034)	\$ (1,143,309)	-39%	\$ (3,278,610)	\$ (3,988,077)	-18%

The Loss from operations for fiscal year 2014 was \$3,281,807 as compared to a Loss of \$3,409,333 in fiscal year 2013, a decrease of 4% year-over-year. The 2014-Q4 Loss from operations increased 25% as compared to the same period in the prior year (\$703,083 compared to \$561,696).

The total Comprehensive loss for fiscal year 2014 was \$3,278,610 as compared to a Comprehensive loss of \$3,988,077 in fiscal year 2013, a decrease of 18% year-over-year. The 2014-Q4 Comprehensive loss has decreased 39% over the same period in the prior year (2014-Q4 of \$701,034, as compared to 2013-Q4 of \$1,143,309).

The 18% decrease in the Comprehensive loss in 2014 as compared to 2013 is primarily a result of: (i) greater efficiencies achieved in cost of sales through initiatives implemented in 2013; (ii) recognition of \$754,000 of Billings in excess of costs and profits on uncompleted contracts to Revenues due to the cancellation of a contract, and (iii) reductions in General & Administrative expenses.



## **EBITDA**

	Three months ended Dec 31,			Twelve months ended Dec 31,		
	2014	2013	% Change 2014vs2013	2014	2013	% Change 2014vs2013
Comprehensive loss	\$ (701,034)	\$ (1,143,309)	-39%	\$ (3,278,610)	\$ (3,988,077)	-18%
Depreciation on property and equipment	51,679	66,128		181,016	205,966	
Amortization of intangible assets	349,269	349,268		1,397,074	1,397,073	
Financing charges	18,795	92,569		216,069	372,126	
<b>EBITDA (loss)</b>	<b>\$ (281,291)</b>	<b>\$ (635,344)</b>	<b>-56%</b>	<b>\$ (1,484,451)</b>	<b>\$ (2,012,912)</b>	<b>-26%</b>
Other non-cash items:						
Share-based payments	124,419	161,480		302,919	606,888	
<b>Adjusted EBITDA (loss)</b>	<b>\$ (156,872)</b>	<b>\$ (473,864)</b>	<b>-67%</b>	<b>\$ (1,181,532)</b>	<b>\$ (1,406,024)</b>	<b>-16%</b>

The Company reports on its EBITDA (earnings from operations before interest, taxes, depreciation and amortization) and Adjusted EBITDA (earnings from operations before interest, taxes, depreciation, amortization and other non-cash items including share-based payment costs).

EBITDA and Adjusted EBITDA are not performance measures defined under IFRS and they are not considered an alternative to income (loss) from operations or Comprehensive earnings (loss) in the context of measuring a Company's performance. Management believes that providing certain non-GAAP performance measures, in addition to IFRS measures provides users of the Company's financial statements with an enhanced understanding of its results and related trends and increases transparency and clarity. Management believes Adjusted EBITDA is an important measure of operating performance because it allows management, investors and others to evaluate and compare the Company's operating results, including its return on capital and operating efficiencies, from period-to-period by removing the impact of the capital structure (interest expense to service outstanding debt), asset base (depreciation and amortization), tax consequences, and other non-operating items not requiring cash outlays including share-based compensation.

Other companies may calculate Adjusted EBITDA differently, and therefore the Company's Adjusted EBITDA may not be comparable to similarly titled measures of other companies.

EBITDA (loss) for 2014-Q4 was (\$281,291) as compared to a loss of (\$635,344) for the same period last year, an improvement of 56%. For fiscal year 2014, EBITDA (loss) was (\$1,484,451) as compared to a loss of (\$2,012,912) for fiscal year 2013, an improvement of 26% year-over-year. The decrease in the EBITDA (loss) in the quarter is due primarily to improved gross margins both in 2014-Q4 and in 2014 as a whole. EBITDA in 2014 was negatively impacted by the increased investment in business development with the goal to increase backlog and future revenues.

Adjusted EBITDA (loss) for 2014-Q4 was (\$156,872) as compared to (\$473,864) for the same period last year, an improvement of 67%. For fiscal year 2014, Adjusted EBITDA (loss) was (\$1,181,532) as compared to a loss of (\$1,406,024) for fiscal year 2013, an improvement of 16% year-over-year.



## SUMMARY OF QUARTERLY RESULTS

	2014				2013			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Revenues	\$ 1,784,676	\$ 1,215,261	\$ 1,958,534	\$ 806,425	\$ 1,878,793	\$ 1,394,255	\$ 1,341,818	\$ 1,141,143
Gross margin before amortization of intangible assets	1,132,635	492,401	1,124,834	323,285	991,486	575,462	544,689	510,560
gross margin %	63.5%	40.5%	57.4%	40.1%	52.8%	41.3%	40.6%	44.7%
Loss from operations	(703,083)	(995,742)	(418,219)	(1,164,763)	(561,696)	(916,604)	(976,894)	(954,139)
Comprehensive loss	(701,034)	(995,695)	(417,153)	(1,164,728)	(1,143,309)	(915,156)	(975,473)	(954,139)
Net loss per share - basic and diluted	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.01)	(0.02)	(0.02)

Although the revenues and losses from operations have varied from quarter to quarter, the trend has been towards increasing revenues, sustained strong gross margin before amortization of intangible assets, and lower losses. The decrease in revenues in 2014-Q1 was a temporary variation due to delays in commencement and continuation of previously reported projects. Revenues are recognized based on a percentage of completion basis, and are dependent on the timing of project initiation and execution, including project engineering, manufacturing, and testing.

## LIQUIDITY AND CAPITAL RESOURCES

During fiscal year 2014, the primary sources of funding for the Company have been cash generated from projects and private placements. In May 2014, the Company completed a private placement which resulted in the net proceeds (gross proceeds minus cash commissions and share issue costs) of \$3,123,817. In November 2014, the Company completed a private placement which resulted in the net proceeds of \$1,370,140. The proceeds from these offerings have been used to fund operations and strengthen the Company's working capital position.

At December 31, 2014, the Company had cash on hand of \$362,183 and positive working capital of \$1,502,802 (cash balance of \$1,182,835 and negative working capital of \$1,373,763 at December 31, 2013).

Although the Company has significantly increased its backlog of new projects, this will not impact cash flow until the 2<sup>nd</sup> half of 2015; the active projects in 2014 were not producing sufficient positive cash flow to fund operations. Based on current backlog and known pipeline of prospective new projects, cash flows from operations are expected to be positive in the near future.

The conversion of \$6,000,000 of long-term debt to equity in May 2014, strengthened the balance sheet of the Company and resulted in a decrease of \$156,000 in interest expense in fiscal year 2014. This conversion and subsequent reduction of interest expense will



continue to benefit the Company for the remaining term of the loan. The Loan is expected to be fully paid by the end of 2017.

There is no debt owing to unrelated third parties at December 31<sup>st</sup> 2014.

On March 30, 2015, the Company raised an additional \$4 million through an issuance of convertible debentures which mature in 3 years from the date of issuance and bear interest at 7.5% per annum. As part of this offering, \$755,000 of existing debt was converted to convertible debentures, thereby further strengthening the balance sheet.

Since the Company went public in July 2011, the primary source of funding has been the issuance of shares via public offerings. The Company's ability to raise additional funds from the equity markets will largely depend upon general market conditions and the Company's ability to secure contracts.

In July 2014, the Company announced that it has signed a \$12.5 million contract with a major international manufacturer to supply ten plasma-based, powder production systems for 3D printing. Work is currently underway; this contract will be executed over the next 15 months.

In April of 2015, the Company substantially completed the final phase of the \$5.6 million reorder from Newport News Shipbuilding for a plasma waste destruction system to be installed in a new US Navy air craft carrier.

The Company is also working on several other strategic mandates in the oil and gas industry as well as on military related contracts.

These orders provide the Company with a solid foundation of contracted backlog throughout 2014 and into 2015. At April 29, 2015, the current backlog of signed contracts stands at \$16,523,636.

Cash collections during 2014 have been strong with the exception of an outstanding receivable of \$250,000 relating to the invoiced deposit on a contracted project.

## SUMMARY OF CASH FLOWS

	Three months ended Dec 31,		Twelve months ended Dec 31,	
	2014	2013	2014	2013
Cash provided by (used in) operating activities	\$ (836,098)	\$ (123,632)	\$ (4,956,471)	\$ (1,579,743)
Cash provided by (used in) investing activities	(9,376)	(173,169)	(92,791)	(325,734)
Cash provided by (used in) financing activities	1,129,654	885,246	4,228,610	892,741
Increase (decrease) in cash	284,180	588,445	(820,652)	(1,012,736)
Cash - end of period	362,183	1,182,835	362,183	1,182,835



For the twelve months ended December 31, 2014, cash flows from operating activities resulted in a net use of cash of \$4,956,471 compared to a net use of cash from operating activities of \$1,579,743 for the same period in the prior year. Despite the reduction in the Comprehensive loss in fiscal year 2014 versus fiscal year 2013 (a reduction of \$709,467), 2014 had an adjusted net use of cash from operating activities of \$1,259,053, plus a net change in non-cash operating working capital items of \$3,697,418.

For the three months ended December 31, 2014, cash flows from operating activities resulted in a net use of cash of \$836,098 as compared to a net use of cash from operating activities of \$123,632 for the same period in the prior year.

The cash flows used in operating activities were negatively impacted by the following items:

- Increase in Accounts receivable, Sales tax receivable, Investment tax credits receivable, and Prepaid expenses and Deposits of \$1,264,367 (increase of \$1,455,278 in 2014 versus an increase of \$190,911 in 2013).
- Increase in Costs and profits in excess of billings on uncompleted contracts of \$797,801 (increase of \$647,801 in 2014 versus a decrease of \$150,000 in 2013).
- Decrease in Billings in excess of costs and profits on uncompleted contracts of \$1,931,116 (decrease of \$1,737,952 in 2014 versus an increase of \$193,164 in 2013).

Investing activities in fiscal year 2014 resulted in use of cash of \$92,791 as compared to \$325,734 in fiscal year 2013. Cash used for investment activities in 2014 was related to property and equipment. It was required to upgrade computer hardware and software used in the operations of the Company and also for the acquisition of automobiles.

Financing activities in fiscal year 2014 resulted in a source of funds of \$4,228,610 as compared to a source of funds \$892,741 in fiscal year 2013. In May 2014 and November 2014, the Company completed private placements through which gross proceeds of \$3,487,419 and \$1,500,000 were raised for general working capital purposes.

The details of these variances in cash flows from financing activities are outlined in detail in Note 16 of the Company's 2014 Audited Financial Statements.

On December 16, 2013, the Company signed an amending agreement to amend the terms and conditions of the balance of sale with a company under common control. Based on the amending agreement payments starting on October 1, 2013 and ending May 1, 2014 plus other past due payments were deferred until April 1, 2015, except for a payment of \$178,175 to be made on or before December 31, 2013 and for a payment of \$30,000 to be made on or before January 31, 2014. As per the terms of the amending agreement, as the Company concluded a financing in excess of \$3,000,000 before April 1, 2015, all deferred amounts became immediately due and payable on the closing date of the financing.



On December 1, 2014, the Company signed an additional amending agreement to amend the terms and conditions of the deferred payments, whereby the balance of the deferred payments as at December 31, 2014 is completely deferred until June 30, 2016. However, in the event of any change within the Company that would be considered material by the holder of the balance of sale, such as a significant financial development, any and all amounts outstanding will become immediately due and payable on the date of the material change.

On December 1, 2014, the Company signed an additional amending agreement to amend the terms and conditions of the payments, whereby the complete balance of the amounts payable – trust beneficially owned by a shareholder as at December 31, 2014 is completely deferred until June 30, 2016. These deferrals of payment have been granted in order to provide the Company with additional short-term financing.

For the fiscal year ended December 31, 2014, the net cash position of the Company decreased by \$820,652 as compared to a net decrease of \$1,012,736 for the same period in the prior year. For the three month period ended December 31, 2014, the net cash position of the Company increased by \$284,180 as compared to an increase of \$588,445 for the same period in the prior year.

Over the last two fiscal years the Company has stabilized its revenues and significantly reduced losses from operations, increased gross margins, and improved its cash position through private placements and tightly managed cash flows on project and corporate expenditures. These initiatives have been critical in providing needed working capital in 2014.

Despite the growth in revenues, strong improvements in gross margins and decreasing the level of the operating loss, the Company remains committed to raising additional cash from operations and or to seek additional cash from equity issuances as it continues to further increase its business volume and improve its technical offerings.

### CAPITAL STOCK INFORMATION

The Authorized share capital of the Company consists of an unlimited number of Class A common shares without par value. As at December 31, 2014, PCI had 84,796,729 Class A common shares issued and at April 29, 2015 had 84,831,729 Class A common shares issued. As at December 31, 2014, PCI had 13,758,793 warrants issued and at April 29, 2015 had 9,604,655 warrants issued. As at December 31, 2014, PCI had 3,916,000 outstanding options issued and 3,464,600 exercisable options and at April 29, 2015 had 6,051,000 outstanding options issued and 3,761,100 exercisable options.



## GOING CONCERN

Cash generated from projects has historically not been sufficient to meet the overall cash requirements of the Company to cover operating costs. For the Company to generate sufficient positive cash flows from operations and meet current cash requirements, the level of business must exceed that recorded at December 31<sup>st</sup> 2014. Management expects that the benefits of previously announced steps to reduce fixed operating expenses, increase revenues and improve gross margins, will continue to improve the Company's cash position, and recent investments in business development activities will continue to improve the Company's backlog.

In the future, it may be necessary for the Company to raise additional capital to fund its operations and the continued development and introduction of new lines to its family of products. To date, the Company has raised financing through successive issuances of equity. There is no certainty that the Company will continue to be able to raise additional financing or expand its sales to fund its operations, although management is confident that it will be able to do so.

The December 31, 2014 financial statements have been prepared using International Financial Reporting Standards ("IFRS") applicable to a going concern, which contemplates the realization of assets and settlement of liabilities in the normal course of business as they become due.

## RELATED PARTY TRANSACTIONS

On March 30, 2015, the Company closed a private placement of \$4,000,000 principal amount unsecured subordinated convertible debentures of the Company ("the Debentures"). As part of the private placement of \$4,000,000, \$755,000 of the Debentures were purchased from the settlement of \$755,000 of the carrying value of a loan made by a related party (the Balance of Sale).

In 2014, the Company completed a share for debt transaction by issuing 7,500,000 common shares at a deemed price of \$0.80 per common share to settle \$6,000,000 of the carrying value of the Balance of Sale, being the last two-hundred and eight-five and a half monthly payments owed by the Company under the purchase agreement. Note 15 (i) and Note 19 of the Company's Audited Financial Statement, more fully describe the nature of this conversion as well as the related party involved.

Office rent was charged by a trust beneficially owned by a shareholder of the Company in the amount of \$132,855 (2013 - \$107,903). A balance due of \$16,609 (2013 - \$104,132) is included in accounts payable and accrued liabilities. The lease term is ending January 31, 2017.

Interest on amounts payable was charged by a trust beneficially owned by a shareholder of the Company in the amount of \$23,442 (2013 - \$22,113). The balance of interest that has not been paid of \$125,384 (2013 - \$101,942) is included in loans - other. The loan





bears interest at 6% and payments have been completely deferred until June 30, 2016. Also, a balance of \$7,943 (2013 - \$Nil) is included in accounts receivable.

Interest on balance of sale was charged by a company under common control in the amount of \$192,627 (2013 – \$350,012). An unpaid amount of interest was added to the Balance of Sale in the amount of \$115,105 (2013 - \$11,826). Balance of sale – company under common control (“Balance of Sale”) arose from the purchase of the intangible assets in March 2011. It bears an implicit interest rate of 4.753% per annum. The implicit rate of interest was based on the present value of cash flows having the same value as the intangible assets at the time of sale. All payments have been completely deferred until June 30, 2016.

Fees of \$53,000 were charged for services rendered by the independent directors who are members of the Company’s Board of Directors (2013 - \$60,673). A balance of \$Nil (2013 - \$22,167) is included in accounts payable and accrued liabilities.

Total compensation to key management consisted of salaries of \$856,607 (2013 - \$831,473), bonuses of \$25,000 (2013 - \$Nil), pension contributions of \$8,905 (2013 - \$8,527) and other benefits of \$23,453 (2013 - \$15,364). A balance of \$164,782 (2013 - \$44,264) is included in accounts payable and accrued liabilities.

### SUBSEQUENT EVENTS

On January 9, 2015, March 30, 2015, and April 6, 2015, the Company made three payments of \$40,000, \$120,000 and \$40,000 respectively to Phoenix Haute Technology Inc., a related party. Although payments of \$100,000 per month were to begin in June 2016, management agreed to make these payments prior to this date. No additional payments are expected until June 2016.

On March 31, 2015, the Company made payments to a trust beneficially owned by a shareholder, for an amount of \$405,467 (Note 15 (ii)). Payments were initially to be made in June 2016, however management agreed to make these payments early. This loan is now fully paid.

On March 30, 2015, the Company closed a private placement of \$4,000,000 principal amount unsecured subordinated convertible debentures of the Company (“the Debentures”). The Debentures mature three years from the date of issue and bear interest at rate of 7.5% per annum, paid quarterly in cash. The Debentures are subject to a statutory hold period of four months and one day from the closing date.

The principal amount of the Debentures shall be convertible at any time at the option of the holder into common shares of the Company at a price of \$0.80 per common share (the “Conversion Price”), and upon giving effect to such conversion, all accrued and unpaid interest will be paid in full within 60 days. The Company may redeem the Debentures at any time prior to the maturity date by paying to the holder a redemption price equal to: (i) the entirety of the principal amount, (ii) any interest accrued thereon as of the redemption



date, and (iii) any interest to be accrued (but not yet accrued as of the redemption date) thereon up until maturity date. In the event that the average market price of the common shares over the course of the 20 trading days immediately preceding the date of the redemption notice is equal to or greater than \$1.20, then the redemption price shall be calculated as comprising (i) the entirety of the principal amount and (ii) any interest accrued thereon as of the redemption date only.

As part of the private placement of \$4,000,000, \$755,000 of the Debentures were purchased from the settlement of \$755,000 of the carrying value of the Balance of Sale (Note 15 (i)) of the 2014 Audited Financial Statements.

On closing, the agent received a cash commission totalling \$218,475, and was also granted 270,417 broker warrants. Each broker warrant is exercisable for one common share at a price of \$0.60 for a period of 24 months from the closing of the transaction.

On February 12, 2015, the Company has approved the grant of up to 2,680,000 incentive stock options to its directors, officers and certain employees of the Company with an exercise price of \$0.30 per share. Of these options, 2,190,000 vest as follows: 25 percent as of the date of grant, 25 percent at the first anniversary of the date of the grant, 25 percent at the second anniversary of the date of grant and 25 percent at the third anniversary of the date of the grant. The remaining 490,000 options vest as follows: 10 percent as of the date of grant, 20 percent at the first anniversary of the date of the grant, 30 percent at the second anniversary of the date of grant and 40 percent at the third anniversary of the date of the grant.

## OUTLOOK

Fiscal 2014 was a watershed year for the Company where many initiatives implemented in fiscal 2012 and 2013 took root.

2014 success has largely been due to the Company's successful implementation of key initiatives and its focus on continuous improvement in its Business Development, Operations, and Capital Structure.

Under the direction of the Board, the Company has successfully transitioned from being a company predominately supplying waste management plasma processes to the US military to one that is supplying plasma processes to not only the military but also to the oil and gas as well as the mining & metallurgical and 3D printing industries. In each case, the Company has targeted high margin niche businesses with the potential for significant repeat orders. PyroGenesis' recent success within the 3D printing industry, wherein the Company announced that they had signed a \$12.5 million contract to provide 10 plasma based systems to produce the smallest, and most uniform spherical Titanium powders to the industry, is just one of the many successes of this repositioning strategy.

The Company considers these initiatives to be critical to its success and has made significant strides to date. These key initiatives are:



- Continued investment in Business Development – a healthy pipeline of new business ensures the Company’s ability to continue to grow top-line revenue and create critical mass in its key sectors of operation. The Company continues to implement measures to strengthen and focus its business development department, which includes, amongst other measures, hiring additional strategically focused professionals.
- Diversification by sector – over 18 months ago the Company began to strategically explore the applicability of its patented technology to sectors outside of defense, and which had not yet had the opportunity to consider plasma as an option to current procedures. This sector diversification has been successful to date with new clients and signed contracts in the metallurgical, mining, advanced materials (including 3D printing), and oil & gas industries.
- Diversification by geography – traditionally the Company focused on sales in the North American market; this exposed the Company to the market volatility of North America without the offsetting benefit of more robust markets in other parts of the world. The Company has now launched business development initiatives in Europe and Asia, and has successfully signed contracts in these markets.
- Improved order structure – In prior years, the Company’s sales were exclusively one-off systems that required significant engineering resources that were specific to that order. Currently, the Company has moved to orders of multiple systems for the same client which allows for more efficient and cost effective manufacturing to be applied, thereby reducing resources necessary and improving margins.

Further to these initiatives, the Company continues to de-risk its business model by starting to require recurring revenue features within sales agreements. Management believes that this recurring revenue base will grow substantially over the next few years and the Company has targeted to be profitable from recurring revenues alone by 2017.

Additional information regarding the Company can be found on SEDAR at [www.sedar.com](http://www.sedar.com).