IBC ADVANCED ALLOYS CORP.

MANAGEMENT'S DISCUSSION AND ANALYSIS

YEAR ENDED JUNE 30, 2019

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The following is management's discussion and analysis ("MD&A") of IBC Advanced Alloys Corp., and its subsidiaries, prepared as of June 30, 2019. This MD&A should be read together with the audited consolidated financial statements and related notes for the year ended June 30, 2019. Financial amounts, other than amounts per share or per pound, are presented in thousands of United States dollars ("$") unless indicated otherwise. Canadian dollar amounts are denoted by "C$". The terms "IBC", "we", "us" and "our" refer to IBC Advanced Alloys Corp. and its subsidiaries, unless the context otherwise requires.

This MD&A contains "forward-looking information" or "forward-looking statements" within the meaning of applicable securities legislation, concerning future financial or operating performance of IBC and its business and operations. Forward-looking statements consist of statements that are not purely historical, including any statements regarding beliefs, plans, expectations or intentions regarding the future. Often, but not always, forward-looking statements can be identified by the use of words such as "plans", "expects", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "believes" or variations (including negative and grammatical variations) of such words and phrases or statements that certain actions, events or results "may", "could", "would", "should", "might" or "will" be taken, occur or be achieved. No assurance can be given that any of the events anticipated by the forward-looking statements will occur or, if they do occur, what benefits we will obtain from them. These forward-looking statements reflect management's current views and are based on certain assumptions and are effective only as of the date of this MD&A. These assumptions, which include management's current expectations, estimates and assumptions about certain projects and the markets we operate in, the global economic environment, interest rates, exchange rates and, our business strategy, plans, outlook and shareholder value, projections, targets and expectations and our ability to manage our assets and operating costs, may prove to be incorrect.

Forward-looking statements are subject to known and unknown risks, uncertainties and other factors that may cause our actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking statements, including: our estimates regarding capital requirements; future production, future cash and total costs of production for our manufacturing operations; our expectations with respect to transactions with third parties; changes in general economic conditions, the financial markets and the demand of our products; changes in, and the effects of, the laws, regulations and government policies affecting operations, particularly laws, regulations and policies; and uncertainties in the market price for minerals and metals, such as copper and beryllium, and exchange rates. Although we have attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in the forward-looking statements or information, there may be other factors that cause actual results, performances, achievements or events not to be anticipated, estimated or intended. Other factors that could cause actual results to differ materially include, but are not limited to, those set forth in our most recent Annual Information Form under "Risk Factors". Also, many of the factors are beyond our control. Accordingly, readers should not place undue reliance on forward-looking statements or information. We undertake no obligation to reissue or update forward-looking statements or information as a result of new information or events after the date hereof except as may be required by applicable securities laws. All forward-looking information and statements made in this MD&A are qualified by this cautionary statement.

Certain information in this MD&A may be considered a "financial outlook" within the meaning of applicable securities legislation. Any financial outlook set out in this MD&A is based on a number of significant assumptions. The purpose of this financial outlook is to provide readers with disclosure regarding the Company's reasonable expectations as to the anticipated results of its proposed business activities for the periods indicated. Readers are cautioned that the financial outlook may not be appropriate for other purposes.

The Company's audited consolidated financial statements for the year ended June 30, 2019 have been prepared in accordance with International Financial Reporting Standards ("IFRS"), as issued by *the International Accounting Standards Board ("IASB") using accounting policies consistent with IFRS as issued by the IASB and interpretations of the International Financial Reporting Interpretations Committee. Additional information relating to us is available for view on SEDAR at* www.sedar.com.

Executive Summary

Except as noted, all financial amounts are determined in accordance with IFRS and expressed in thousands of U.S. dollars, except per-share amount.

- In 2019, the Company experienced (1) lower-than-expected revenue in fiscal Q2 caused by an industry-wide reduction in demand in copper alloy products in the quarter, and (2) lower-than-normal demand throughout most of 2019 for beryllium-aluminum ("**BeAl**") alloy products used by semiconductor equipment manufacturers, which followed several consecutive record-breaking years of sales to that sector. However, customer demand for copper alloy products returned to more normal levels in fiscal Q3 and Q4. Demand for BeAl products used in commercial applications is also strengthening, as underscored by the Company's signing in October 2019 of a two-year supply agreement with a leading global manufacturer of semiconductor and electronics assembly equipment and by the fact that the Company has now moved to initial production of BeAl parts for a major satellite manufacturer.

- In our Engineered Materials Division, demand for BeAl products used in defense applications remained steady in 2019 but is expected to strengthen as rates of production for defense programs such as the F-35 Lightning II aircraft begin to accelerate beyond low rates of initial production. For example, according to Lockheed-Martin, the annual rate of production of the F-35 aircraft is expected to nearly double by 2022 from 2018 production levels.

- Consolidated revenue for Q4 2019 was $4.9 million, as compared to Q4 2018 revenue of $5.2 million, a decrease of 7.3%. Consolidated revenue for fiscal 2019 was $18.7 million, which compares to $19.4 million for 2018, which was lower by 3.9%.

- In the Copper Alloys Division, Q4 2019 revenue of $3.7 million compared to Q4 2018 revenue of $4.1 million, a decrease of 10.1%. Fiscal 2019 revenue of $13.5 million compared to 2018 revenue of $14.0 million, which was lower by 3.9%.

- In the Engineered Materials Division, Q4 2019 revenue of $1.2 million compared to Q4 2018 revenue of $1.1, an increase of 1.7%. Fiscal 2019 revenue for the segment of $5.2 million compared to 2018 revenue of $5.4 million, a decline of 4.0%.

- Capital improvements made in the Copper Alloys Division have expanded our ability to machine larger components, extending our capability and capacity to produce products used in both commercial and defense markets.

- IBC continues to focus on increasing production capacity, improving operational efficiencies, expanding our product offering, and growing gross margins.

Our Business

IBC is primarily engaged in developing and manufacturing advanced alloys, such as beryllium-aluminum alloys and specialty copper alloys, for a variety of customers in the defense and non-defense sectors, including those in aerospace, automotive, marine defense, electronics, industrial equipment, oil and gas, among others. With our headquarters in Franklin, Indiana, we operate four plants in the United States ("U.S.") that manufacture, heat-treat, machine, or market copper-beryllium, beryllium-aluminum, copper-based master alloys, and similar specialty alloy products including beryllium-aluminum castings.

IBC's manufacturing operations currently employ 69 people and comprise two divisions: Copper Alloys and Engineered Materials.

- **Copper Alloys** manufactures and distributes a wide variety of copper alloys as castings and forgings: beryllium copper; chrome copper; oxygen-free high conductivity copper and aluminum bronze as plate, block, bar, rings; and specialty copper alloy forgings. The industries we serve with these products include the industrial welding, oil and gas, plastic mold, metal melting, marine defense, electronic and industrial equipment markets.

- **Engineered Materials** manufactures and supplies high-performance, precision-cast beryllium-aluminum components to the aerospace and high-tech manufacturing sectors.

At present, IBC is engaged in research and development of scandium-containing alloys and their potential applications, and we are monitoring developments related to the potential use of beryllium oxide ("BeO") in enhanced nuclear fuels, which has been the subject of previous research by the Company.

IBC was formed by an amalgamation under the laws of British Columbia on November 23, 2007 and common shares of the Company are listed on the TSX Venture Exchange (the "**TSX-V**") under the symbol "IB" and on the OTCQB market under "**IAALF**".

Recent Corporate Developments, Business Initiatives, and Subsequent Events

- In October 2019, we had secured a renewal of our existing line of credit and term loan facility with BMO. The renewal of both the BMO line of credit and term loan facility extends until September 30, 2020. Approximately $3.0 million is available to the Company under the line of credit, and the term loan has a maximum of approximately $1.2 million.

- In October 2019, we signed a two-year supply agreement with a leading global manufacturer of semiconductor and electronics assembly equipment under which IBC will supply Beralcast® 363 cast components in multiple design configurations over a two-year period.

- In August 2019, we received new orders of high-performance beryllium-aluminum alloy parts made from IBC's proprietary Beralcast® material from a leading global manufacturer of semiconductor and electronics assembly equipment. Orders for calendar fourth quarter 2019, made under an existing exclusive supply agreement between IBC and the semiconductor assembly equipment manufacturer, were valued at approximately US$400,000.

- On July 22, 2019, we issued 737,059 common shares to debentures holders with an issue-date value of C$161 in satisfaction of the June 30, 2019 interest payment in lieu of cash.

- On July 7, 2019, we issued 304,671 common shares for services to directors of the Company, 101,557 common shares for services to a consultant and 185,000 common shares for options exercised by a director of the Company.

- On May 21, 2019, we announced that we had executed a convertible security funding agreement for the issue of a convertible security in the principal amount of C$750,000 to Lind Global Macro Fund LP., and on May 31, 2019, we announced that we had closed on that funding agreement.

- On May 14, 2019, we announced after completing a first article qualification, we were now moving to an initial production run for a major satellite manufacturer, taking an important step toward commercial-scale production of precision beryllium alloy parts for the satellite industry.

- On April 29, 2019, we announced that we had completed a non-brokered private placement, issuing 2,477,080 units at a price of C$0.22 per unit for gross proceeds of C$545,000. Certain directors of the Company subscribed for an aggregate of 682,047 units in the private placement for gross proceeds of C$151,000. The plan use of proceeds is for working capital and general corporate purposes.

- On April 17, 2019, we announced that, further to our press release dated April 12, 2019, our non-brokered private placement had been increased to a maximum of up to 2,500,000 units of the Company at a price of C$0.22 per unit for gross proceeds to the Company of up to C$550,000.

- On April 12, 2019, we announced that we intended to offer, on a non-brokered private placement basis, up to 1,818,181 units of the Company at a price of C$0.22 per unit for gross proceeds to the Company of up to C$400,000.

- On April 4, 2019, we announced that we had received notice of a decision by the U.S. District Court in the District of Massachusetts affirming a September 8, 2017 arbitration award made in favor of Gerald R. Hoolahan, the former co-owner of Beralcast Corporation, which IBC purchased in 2010. The arbitration award resulted from an alleged breach of contract relating to the sale and totals $1,395,434 plus accrued interest from the date of the arbitration decision. IBC vigorously disputes the allegations and has filed an appeal of the District Court's decision.

Board of Directors and Management Changes

- Toni Wendel was named Chief Financial Officer of the Company on June 10, 2019. Prior to her appointment as CFO and Corporate Secretary, Ms. Wendel served as IBC's Corporate Controller. Previously, she was Chief Financial Officer and Corporate Treasurer for North American operations for PMG Corp., a joint venture of the powder metal divisions of Plansee and Mitsubishi Materials Global. Prior to that, she spent 15 years in various positions overseeing the finance activities of Diamet Corporation, a privately held, wholly owned subsidiary of Mitsubishi Materials. Ms. Wendel replaces James Taylor, who has served as IBC's Interim CFO since January of 2018. Mr. Taylor will continue to provide IBC with services on a consulting basis over a transition period.

Manufacturing Operations

IBC currently has four manufacturing operations in the U.S. that, in total, employ a total of 69 people. These facilities are located in Franklin, IN; Royersford, PA; Wilmington, MA; and New Madrid, MO. Most of our management and administration are based at the Franklin, IN facility.

COPPER ALLOYS

We manufacture and distribute a wide variety of copper alloys as castings and forgings, including beryllium copper, chrome copper, oxygen-free high conductivity copper, and aluminum bronze as plate, block, bar, rings and specialty copper alloy forgings for various markets and applications. We sell directly to end users and serve various markets through a network of established dealers and distributors. The Copper Alloys' Division's operations are based in Franklin, IN, where IBC maintains forging (hammer, press and ring rolling), heat-treating, and machining operations. We cast billets at plants in Royersford, PA and New Madrid, MO. The Franklin plant sits on 4.8 hectares (12.0 acres) of land that has considerable room for expansion should economic conditions and business plans call for such expansion.

We source copper alloys as cast billet, slab, or ingot from mills in North America, Europe, and Asia and converts these into usable industrial products serving the industrial welding, oil and gas, plastic mold, metal melting, marine defense, electronic, and industrial equipment markets. We also provide tooling components for the North American automotive industry, the European and North American consumer plastic tooling producers, the global oil and gas service industry, the prime North American submarine and aircraft carrier producers and repair facilities including the U.S. Navy, electronics industries and general equipment manufacturers.

We produce material at two IBC-owned foundries and buy other billet and slab from independent third-party foundries and mills. We have expertise in melting and casting beryllium-copper and other beryllium-containing alloys. Our casting operations are a primary producer/supplier of beryllium copper casting and master alloy ingot products in North America and markets around the world. IBC offers customers a full range of manufacturing and support services, including casting and master alloy products, cast and forged billet products, semi-continuous cast input billets, and wrought products. We also manufacture beryllium alloys utilizing certified beryllium-copper master alloy.

Our Royersford, PA facility has three furnaces that have been adapted to meet the specialized requirements of copper alloy manufacturing. IBC has strong technical and manufacturing engineering resources in the highly specialized copper alloy industry, including in the production of beryllium copper alloys. This gives us the capability of manufacturing large 21-inch diameter copper alloy billets weighing up to two tons.

Our New Madrid, MO plant is located on a 2.4-hectare (6.0 acres) site that is 265 kilometers (165 miles) south of St. Louis, MO. It has two furnaces and is capable of producing billets in a range of sizes and compositions. Because this facility is currently underutilized, there is room for significant expansion of plant operations at this location should economic conditions and business plans call for such expansion.

ENGINEERED MATERIALS

IBC's Engineered Materials Division supplies high-performance beryllium-aluminum components to defense, aerospace, high-tech manufacturing, and other sectors. It currently manufactures the Beralcast® family of metal matrices that are used in commercial and defense applications that require complex, lightweight, and/or high-stiffness parts. The division has additional, higher-performance products in development. Using IBC's proprietary manufacturing techniques, the EMC Division's objective is to make precision-cast beryllium-aluminum components more accessible and cost-effective for a wide range of industries and applications.

In general, Beralcast® alloys serve as a higher-performance or lower-cost replacement materials for cast aluminum, magnesium, titanium, metal matrix composites, non-metallic composites, and pure beryllium or powder metallurgy beryllium-aluminum. Some of their varied applications include automotive braking and structural components and aerospace and satellite system components.

The principal Beralcast® metal matrix is more than three times stiffer than aluminum, with 22% less weight, and it can be precision cast to both simple and complex configurations. This material is very lightweight, can be precision cast for three-dimensional stability, and delivers a high modulus of elasticity. As such, Beralcast® is ideally suited for certain demanding semiconductor manufacturing equipment, computer components, and other commercial and aerospace applications. IBC's ability to cast Beralcast® products in a near-net shape allows for manufacturing cost efficiencies.

Binary beryllium-aluminum composites were developed by a U.S. corporation, which was originally a metallurgical laboratory affiliated with the Massachusetts Institute of Technology (MIT), in cooperation with Lockheed Martin. We own the intellectual property relating to the more advanced development of this technology, which is a proprietary castable metal matrix composite beryllium-aluminum alloy now manufactured as Beralcast®. We believe that a competitor has sought to develop an alternative cast beryllium-aluminum product, which, if commercially viable, would be a direct competitor to Beralcast®.

Consolidated Financial Results and Outlook

Commodity Pricing for Copper

At IBC, we aim to pass the cost of copper through to our customers, and we do not hold large inventories of copper. Accordingly, profitability should not be affected by the price of copper in the long term, except to the extent that high copper prices discourage consumption or that competitors lower their margins to obtain business. In the short term, price fluctuations can have a bearing on our profitability as we realize gains or losses on inventories. Since copper is a significant component of products that we sell, the price of copper does materially affect revenues.

Recent indicative copper prices per pound are shown below:

	2018	**2017**
September 30	$2.81	$2.95
December 31	$2.65	$3.35
	2019	**2018**
March 29	$2.95	$3.09
June 30	$2.73	$2.99

RESULTS OF OPERATIONS – YEAR ENDED JUNE 30, 2019

We incurred a loss (net of tax) of $4,043 for the year ended June 30, 2019, compared to a loss (net of tax) of $702 in the comparative 2018 period. A summary of results of operations to operating income (loss) follows:

				Year Ended June 30, 2019				Year Ended June 30, 2018
	Copper Alloys $	Eng. Mat. $	Corp. $	Consol-idated $	Copper Alloys $	Eng. Mat. $	Corp. $	Consol-idated $
Revenue	13,513	5,155	-	18,668	14,040	5,359	-	19,399
Cost of Revenue								
Materials	7,866	929	-	8,795	6,923	313	-	7,236
Labor	2,322	1,542	-	3,864	2,169	1,251	-	3,420
Subcontract	273	280	-	553	287	183	-	470
Overhead	1,844	1,711	-	3,555	2,126	1,599	-	3,725
Depreciation	407	392	-	799	373	401	-	774
Change in finished goods	(256)	426	-	170	111	594	-	705
	12,456	5,280	-	17,736	11,989	4,341	-	16,330
Gross (Loss) Profit	1,057	(125)	-	932	2,051	1,018	-	3,069
SG&A Expenses	1,981	984	1,049	4,014	1,808	993	637	3,438
Loss Before Other Items	(924)	(1,109)	(1,049)	(3,082)	243	25	(637)	(369)
Gross Margin	8%	(2%)	-	5%	15%	19%	-	16%

SEGMENT ANALYSIS: FISCAL YEAR 2019

Factors affecting our financial performance in fiscal year 2019 include the following:

- In 2019, the Company experienced (1) lower-than-expected revenue in fiscal Q2 caused by an industry-wide reduction in demand in copper alloy products in the quarter, and (2) lower-than-normal demand throughout most of 2019 for beryllium-aluminum ("**BeAl**") alloy products used by semiconductor equipment manufacturers, which followed several consecutive record-breaking years of sales to that sector. However, customer demand for copper alloy products returned to more normal levels in fiscal Q3 and Q4. Demand for BeAl products used in commercial applications is also strengthening, as underscored by the Company's signing in October 2019 of a two-year supply agreement with a leading global manufacturer of semiconductor and electronics assembly equipment and by the fact that the Company has now moved to initial production of BeAl parts for a major satellite manufacturer.

- In our Engineered Materials Division, demand for BeAl products used in defense applications remained steady in 2019 but is expected to strengthen as rates of production for defense programs such as the F-35 Lightning II aircraft begin to accelerate beyond low rates of initial production. For example, according to Lockheed-Martin, the annual rate of production of the F-35 aircraft is expected to nearly double by 2022 from 2018 production levels.

- Our Engineered Materials Division recorded a gross loss because sales volume is low in relation to manufacturing expenses which, which the exception of materials and supplies, are largely fixed. We plan to address this by growing sales.

SELLING GENERAL AND ADMINISTRATIVE EXPENSES

SG&A expenses were higher in fiscal 2019 over fiscal 2018 due largely to higher legal, accounting, and audit expenses incurred in the year.

OTHER INCOME (EXPENSE)

The main component of other income (expense) is interest expense. Interest expense increased significantly in fiscal 2019 due to the debentures issued at the end of fiscal 2018.

RESULTS OF OPERATIONS - FISCAL Q4 2019

We incurred a loss (net of tax) of $1,550 for the three months ended June 30, 2019, compared to a profit (net of tax) of $240 in the comparative 2018 period. A summary of results of operations to loss before other items ("operating income (loss)") follows:

`	Three Months Ended June 30, 2019				Three Months Ended June 30, 2018			
	Copper Alloys	Eng. Mat.	Corp.	Consol-	Copper Alloys	Eng. Mat.	Corp.	Consol-
	$	$	$	$	$	$	$	$
Revenue	3,709	1,160	-	4,869	4,084	1,140	-	5,224
Cost of Revenue								
Materials	2,511	423	-	2,934	2,040	(526)	-	1,514
Labor	660	339	-	999	535	328	-	863
Subcontract	45	49	-	94	26	51	-	77
Overhead	418	472	-	890	522	361	-	883
Depreciation	114	107	-	221	92	102	-	194
Change in finished goods	(60)	137	-	77	118	387	-	505
	3,688	1,527	-	5,215	3,333	703	-	4,036
Gross (Loss) Profit	21	(367)	-	(346)	751	437	-	1,188
SG&A Expenses	532	206	213	951	471	279	93	843
Loss Before Other Items	(511)	(573)	(213)	(1,297)	280	158	(93)	345
Gross Margin	1%	(32%)	-	-7%	18%	38%	-	23%

SEGMENT ANALYSIS: Q4 2019

Factors affecting our financial performance in the quarter include the following:

- Copper Alloy sales in the fiscal fourth quarter continued to recover from the lower-than-expected sales revenue of fiscal Q2 2019 that was caused by an industry-wide reduction in demand in copper alloy products. Recent capital improvements have expanded our ability to machine larger components, which extends our capability and capacity to produce products used in both commercial and defense markets.

- Demand for BeAl products used in defense applications remained steady in 2019 but is expected to strengthen as rates of production for defense programs such as the F-35 Lightning II aircraft begin to accelerate beyond low rates of initial production. For example, according to Lockheed-Martin, the annual rate of production of the F-35 aircraft is expected to nearly double by 2022 from 2018 production levels.

CHANGES IN FINANCIAL CONDITION

Changes in our financial condition since June 30, 2018 are related to operations in the normal course of business. We raised cash from a convertible note offering in June 2018 and subsequently applied cash of about $1.5 million to working capital balances, increasing inventory and prepaid expenses and settling of trade accounts payable. We also continued to make equipment purchases as part of capital improvements to support more efficient and effective operations.

In May 2019, IBC executed a convertible security funding agreement for the issue of a convertible security in the principal amount of C$750,000 to Lind Global Macro Fund LP.

SELECTED ANNUAL INFORMATION

During the most recent fiscal years, we have not incurred any loss from discontinued operations or extraordinary items or declared any dividends.

	June 30		
	2019	2018	2017
Revenue ($000)	18,668	19,399	15,715
Loss for the year ($000)	(4,043)	(702)	(5,362)
Loss per share, basic and diluted ($/share)	(0.11)	(0.02)	(0.18)
Total assets ($000)	17,814	20,295	14,897
Long-term financial liabilities ($000)	1,847	1,769	213

Selected Quarterly Information

During the most recent eight quarters, we have not incurred any loss from discontinued operations.

Quarter Ended	Revenue $000	Income (loss) for the period (net of tax) $000	Basic and diluted loss per share [1] $
September 30, 2017	4,298	(602)	(0.02)
December 31, 2017	4,728	(402)	(0.01)
March 31, 2018	5,149	62	0.00
June 30, 2018	5,224	240	0.01
September 30, 2018	4,693	(761)	(0.02)
December 31, 2018	3,904	(1,088)	(0.03)
March 31, 2019	5,202	(639)	(0.02)
June 30, 2019	4,869	(1,552)	(0.04)

[1] The sum of quarterly loss per share may not add to year-to-date totals due to rounding

Business Risks

Some of the risks that the Company faces, which are specific to our operations, include the following:

Dependence on Ulba Metallurgical Plant and sole-source suppliers

IBC's proprietary Beralcast® castings and many of our copper alloys use beryllium, which is a specialty metal that produced by a limited number of companies globally. IBC is able to purchase beryllium from a U.S. producer, from the U.S. National Defense Stockpile, and from Ulba Metallurgical Plant ("Ulba"), owned by Kazatomprom of Kazakhstan. We currently source our vacuum-cast beryllium and beryllium copper master alloy from Ulba, and we have entered into long-term beryllium and beryllium copper master alloy supply agreements with Ulba lasting through 2021. Ulba's ability to honor its supply obligations will depend on its ability to source raw materials. IBC understands that production uses long-term stockpiles; however, any disruptions in Ulba's ability to manufacture beryllium or CTMA (Carbothermic Master Alloy) to IBC's specifications would have a materially adverse effect on our business. IBC's ability to purchase those supplies also is contingent upon a continuation of current U.S. laws and regulation governing such purchases.

We are dependent upon several suppliers of base materials and alloying agents as sole-source suppliers. Approximately 80% of materials purchased, including Ulba Metallurgical Plant as described above, are primarily from these sole-source suppliers. Any disruptions in these suppliers' ability to manufacture base materials and alloying agents needed by us could have a materially adverse effect on short-term revenue, while we seek to engage alternative sources.

Disruptions of Manufacturing Operations

From time to time, our operations are adversely affected by disruptions caused by such things as water line failures, power outages, labor turnover, equipment failures, and adverse weather. These issues normally only cause short-term interruptions but can affect our ability to meet quarterly revenue and profitability objectives.

Need to Meet Product Specifications

Most of the products that we manufacture are required to conform to a specification. Some of these specifications are very exacting. Small variations in process can cause our products to fall short of the required standards. In addition, customer requirements can change from time to time. If IBC is unable to address these specification issues in a timely manner, we are at risk of losing short-term revenue and even long-term production contracts.

LEGAL MATTERS

In the normal course of business operations, we and our subsidiaries are parties, from time to time, to various civil and administrative proceedings. These may include product liability claims, health and safety claims, environmental claims and employee-related matters.

As more fully discussed below, we are involved in a variety of claims, lawsuits, investigations and proceedings concerning securities law, intellectual property law, environmental law, employment law and the Employee Retirement Income Security Act ("ERISA"). We determine whether an estimated loss from a contingency should be accrued by assessing whether a loss is deemed probable and can be reasonably estimated. We assess our potential liability by analyzing our litigation and regulatory matters using available information. We develop our views on estimated losses in consultation with outside counsel handling our defense in these matters, which involves an analysis of potential results, assuming a combination of litigation and settlement strategies. Should developments in any of these matters cause a change in our determination as to an unfavorable outcome and result in the need to recognize a material accrual, or should any of these matters result in a final adverse judgment or be settled for significant amounts, they could have a material adverse effect on our results of operations, cash flows and financial position in the period or periods in which such change in determination, judgment or settlement occurs.

On September 8, 2017, an Award was issued in favor of Claimant Gerald Hoolahan against IBC Advanced Alloys Corp. The Award, in the amount of $1,240 plus attorney's fees, costs, and expenses in the amount of $155, was granted by the American Arbitration Association's International Centre for Dispute Resolution. The amount has been accrued and the matter was under appeal. On March 27, 2019, the Company received notice of the Court affirming the September 8, 2017 arbitration award made in favor of Gerald R. Hoolahan. IBC has filed an appeal of the District Court's decision.

On January 21, 2014, a subsidiary in the Copper Alloys Division, Nonferrous Products, Inc. ("Nonferrous Products") received a "Special Notice Letter of Potential Liability" from the U.S. Environmental Protection Agency ("EPA"). The letter references the EPA's determination that a release of hazardous materials had occurred at the Chemetco Superfund Site located in Hartford, Illinois. Chemetco, Inc. operated a secondary smelting operation for recycling and after-market processing of copper-bearing scrap and manufacturing by-products. The EPA has identified Nonferrous Products as a potentially responsible party ("PRP") under the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"). Nonferrous Products was identified as a PRP due to the EPA's review of Chemetco's records indicating that Nonferrous Products shipped more than 150,000 pounds of material to the Superfund Site. Nonferrous Products has joined a defense group of other PRPs. The presumed amount of shipped material from Nonferrous Products classifies it as a Tier 3 Group member of four tiers, with Tier 1 consisting of PRP's that shipped the highest volume of material to Chemetco. By joining the PRP Group, Nonferrous Products entered into an Amended Cost Sharing Agreement which requires certain assessments based on an interim allocation according to Tier Group. To date, Nonferrous Products has paid immaterial amounts related to these assessments and member fees. These assessments will be used to fund further site investigation to determine the amount of materials sent to Chemetco by each party and the best clean-up method. On

September 27, 2017, it was brought to the attention of IBC Counsel that the EPA Special Notice Letter was delivered to the Company's subsidiary Specialloy Copper, LLC identifying "Specialloy Metals Company" as a Potentially Responsible Party to the Chemetco Superfund Site. The entity noticed (Specialloy Metals Company) sold assets to Company's subsidiary and was subsequently dissolved. Company's subsidiary is covered under Nonferrous' insurance policies, and other than the asset purchase transaction has no connection to the entity that was noticed. The Company is evaluating its options regarding notifying its insurers of potentially increased liability should the EPA and/or Chemetco PRP Group contribution lawsuit attempt to name Company's subsidiary as a Defendant. Specialloy Metals Company was allocated with over 4 million pounds of material shipped to the Chemetco site, or more than ten times the amount allocated to Nonferrous. Should the EPA and/or PRP Group contribution lawsuit pursue alter ego theories and allege the Company's subsidiary Company, then IBC potentially faces significantly more liability requiring further defensive action.

On April 7, 2015, a subsidiary in the Copper Alloys Division, Freedom Alloys, Inc. ("Freedom Alloys") was named as a defendant in a suit filed in the Superior Court of the State of California, Los Angeles County entitled *Godoy et al. v The Argen Corporation et al.* BC578085. This Complaint for Survival and Wrongful Death from Toxic Injuries alleges Freedom Alloys, along with five other defendants, supplied beryllium-containing materials causing fatal chronic beryllium disease to the plaintiffs' deceased father. The complaint alleges the decedent was exposed to beryllium alloys through his employment as a foundry worker at H. Kramer & Co. and also as a dental lab technician at various dental labs in the Los Angeles area. The claim was dismissed in September 2015 but was reinstated on the plaintiffs' appeal in June 2016. A trial date was set in the matter for April 2019; however, prior to the trial date all parties filed Motions for Summary Judgment, which were heard by the Court on February 6, 2019. The Court entered its ruling on Summary Judgment on February 7, 2019, and Freedom Alloys lnc.'s motion for summary judgment was granted. Plaintiffs have until June 17, 2019 to appeal the grant of Summary Judgment in favor of Freedom. On September 12, the Court entered a final judgment in favor of Freedom Alloys and ordered plaintiffs to pay legal costs incurred by Freedom Alloys in the matter.

On March 7, 2016, Maxum Indemnity Company filed a Complaint for Declaratory Judgment against Freedom Alloys in the U.S. District Court for the Eastern District of Pennsylvania, seeking a judgment that it owes Freedom Alloys no duty to defend or indemnify Freedom Alloys for the underlying *Godoy et al. v The Argen Corporation et al.* lawsuit described above. The matter is pending as *Maxum Indemnity Company v Freedom Alloys Inc.*, case number 2:16-CV-01077-AB. The matter was stayed by agreement based on the status of *Godoy et al. v The Argen Corporation et al.* However, because *Godoy et al. v The Argen Corporation et al.* has resumed proceedings in the trial court in California, Maxum's counsel has threatened to lift the Stay of Proceedings if Freedom Alloys does not commit to giving up its claim for indemnity if it does not prevail in its defense of the matter. The Court issued a ruling granting Defendants' Summary Judgment Motion on the survival claims. At this point, the remaining claims are the wrongful death claims of decedent's heirs for which defense counsel has asked Plaintiff counsel to voluntarily dismiss Freedom Alloys from the case, emphasizing that Plaintiffs have not produced any evidence that Freedom supplied any beryllium that came into contact with the decedent. Murchison and Cummings, LLP remains Company's defense counsel in this matter, having been engaged by Erie Insurance, who has assumed Company's defense under a reservation of rights.

Liquidity and Capital Resources

At June 30, 2019, IBC had working capital deficiency of $1,259 including cash and short-term investments of $720, as compared to working capital deficiency of $2,192 including cash and short-term investments of $4,527 at June 30, 2018. Factors affecting liquidity include:

- We have not yet achieved sustained profitable operations.
- The Company was successful in closing a private placement in April 2019 that raised gross proceeds of C$151,000, and we announced on May 21, 2019 a definitive funding agreement with The Lind Partners ("Lind") for an initial amount of C$750,000.
- IBC successfully renewed its credit facility with BMO Harris, in October 2019, but may have to seek further financing.
- Current liabilities include an accrual of $1,395 related to the arbitration award discussed in *Legal Matters* above. IBC is appealing the award.
- The Company raised $375, of which $175 has been repaid ($75 in July 2016, $100 in April 2019). Notes payable to related parties with monthly accrued interest at 10% per year, principal due February 4, 2020 and March 27, 2020; monthly accrued interest at 12% per year, principal due February 28, 2020 and March 13, 2020, secured by accounts receivable and inventory of our Engineered Materials Division.
- In August 2019 we were notified that we had breached certain covenants associated with the line of credit and term loan. In October 2019, the Company received a waiver from the bank for breach of covenants, and the bank renewed the line of credit and term loan facility until September 30, 2020 with certain modifications to the debt covenants, and otherwise on substantially the same terms as the previous extension.
- We have the option of settling interest on convertible debentures through the issuance of common shares. In fiscal 2019, doing so benefited our cash flow by C$341,742.
- Resource prices, particularly for copper, have a bearing on our manufacturing costs and selling prices, as copper is a large component of most of its products.
- IBC may be obliged to incur material expenditures on purchases of and repairs to property, plant and equipment to maintain productive capacity or to service customers.
- We manage liquidity risk associated with trade receivables by trading with recognized creditworthy third parties and insuring trade receivables. All revenue is conducted in U.S. dollars. In addition, receivable balances are monitored on an on-going basis with the result that the Company's exposure to impaired receivables is not significant.
- The Company also manages its liquidity risk by investing its cash only in obligations of Canada or the U.S. or their respective agencies, obligations of enterprises sponsored by any of the above governments; bankers' acceptances purchased in the secondary market and having received the highest credit rating from a recognized rating agency in Canada or the U.S., with a term of less than 180 days; and bank term deposits and bearer deposit notes, with a term of less than 180 days.

- IBC is contractually committed to purchase, at June 30, 2019 prices, an aggregate of $1,843 in raw materials prior to June 30, 2020.

- We have entered into commercial property leases. These leases have an average remaining life of 1.7 years, with no renewal options. The future minimum rental payments under non-cancellable operating leases are $573 for fiscal 2020 and $408 for subsequent fiscal years.

IBC believes that we may need to raise additional funds in the short-term to finance working capital and additional growth initiatives. The Company may be able to generate additional cash through short-term debt or by issuing shares, but there can be no assurance that it will be successful in obtaining such funds.

COMMITMENTS

At June 30, 2019, IBC had commitments to lease premises over the next three years with an aggregate payment obligation of $981. IBC is also committed to raw materials purchases over next year aggregating $1,843.

RELATED PARTY TRANSACTIONS

Except as described below, IBC does not have any contractual relationships with directors or officers other than employment contracts in the ordinary course of business. The employment contracts are not financially material to its business.

Non-executive directors are paid $36 per year but the directors have agreed to receive the bulk of this amount in common shares. In fiscal 2019, the Company issued 556,797 common shares for services to the non-executive directors and paid $56 in cash. As of the end of the fourth quarter of fiscal 2019, non-executive directors' compensation of $121 was not paid but has been accrued or recorded in payables.

FINANCIAL INSTRUMENTS AND OTHER INSTRUMENTS

The Company's activities expose it to a variety of financial risks, including foreign exchange risk, interest rate risk, commodity price risk and credit risk. IBC does not have a practice of trading derivatives, and it attempts to employ a natural hedge for foreign currency by holding funds in the currency in which it expects to spend the monies.

Foreign Exchange Risk

While the majority of our administrative and manufacturing activities occur in the U.S., we incur some corporate administration costs in Canada and raises equity proceeds in Canadian dollars. We manage exchange risk on equity capital by converting expected U.S. expenditures to U.S. dollars at the time the money is raised.

Interest Rate Risk

IBC's interest rate risk mainly arises from interest expense on the BMO Harris Bank line of credit. The term loan has a fixed interest rate and is not exposed to short-term interest rate risk.

Commodity Price Risk

The Company's profitability and long-term viability depend, in some measure, on the market prices of copper, aluminum, and beryllium. The prices for metals can be volatile and are affected by factors beyond our control, including the following: global or regional consumption patterns; the supply of, and demand for, these metals; speculative activities; the availability and costs of metal substitutes; expectations for inflation; and political and economic conditions, including interest rates and currency values. IBC cannot predict the effect of these factors on metal prices. We do not engage in hedging but, where possible, structure selling arrangements in a way that passes commodity price risk through to our customer.

Credit Risk

IBC manages credit risk by trading with recognized creditworthy third parties and by insuring all trade receivables. In addition, we monitor receivable balances with the result that our Company's exposure to impaired receivables is generally not significant.

Adoption of New Accounting Pronouncements and Recent Developments

Certain pronouncements, issued by the IASB or the IFRS Interpretations Committee, were adopted during the year, or were mandatory for the Company's fiscal years beginning on or after July 1, 2015 or are required to be adopted in future periods. The following pronouncements are relevant to the condensed consolidated interim financial statements, although none of these are expected to have a material effect on financial statement presentation:

New standards, effective in the current fiscal year:

- IFRS 9 - Financial Instruments

  On July 1, 2018, the Company adopted, retrospectively without restatement, IFRS 9 - Financial Instruments ("IFRS 9") which replaced IAS 39 - Financial Instruments: Recognition and Measurement ("IAS 39"). IFRS 9 provides a revised model for recognition and measurement of financial instruments with a single, forward-looking 'expected loss' impairment model and significant changes to hedge accounting. The standard is effective for annual periods beginning on or after January 1, 2018. There was no impact from IFRS 9 on the Company's classification and measurement of financial assets and liabilities.

  Under IFRS 9, subsequent to initial recognition, financial assets are classified and measured at either: amortized cost, FVTOCI or at FVTPL. The approach in IFRS 9 is based on how an entity manages its financial instruments in the context of its business model and the contractual cash flow characteristics of the financial assets.

  IFRS 9 introduced a single expected credit loss impairment model for financial assets measured at amortized cost and for debt instruments at FVTOCI, which is based on changes in credit quality since initial recognition. The adoption of the expected credit loss impairment model did not have a significant impact on the Company's financial statements.

  IFRS 9 changed the requirements for hedge effectiveness and consequently for the application of hedge accounting which did not impact the Company. As the Company does not apply hedge accounting, either under IAS 39 or IFRS 9, the adoption of IFRS 9 with regards to hedge accounting did not impact the Company or its accounting policies.

  The Company's financial instrument policy in accordance with IFRS 9 is disclosed in Note 23(h) of the 2019 Financial Statements.

- IFRS 15 - Revenue Recognition

  The Company adopted IFRS 15 which replaced IAS 11 - Construction Contracts; IAS 18 - Revenue, and other revenue interpretations.

  IFRS 15 requires either a full retrospective application, whereby comparative information is restated in accordance with IFRS 15, or a modified retrospective application, whereby the cumulative impact of adoption is recognized in opening retained earnings, as of July 1, 2018, and comparative period balances are not restated. The Company elected to apply the modified retrospective approach, though the new standard had no cumulative impact as at July 1, 2018.

  IFRS 15 establishes a single five-step model framework for determining the nature, amount, timing and uncertainty of revenue and cash flows arising from a contract with a customer, and introduces a revenue recognition model under which an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. This new framework did not result in a change in the way the Company recognizes or measures revenue. The Company's revenue recognition policy in accordance with IFRS 15 is disclosed in note 23(d) of the 2019 Financial Statements.

New standards, interpretations and amendments not yet effective:

- IFRS 16 - Leases

  IFRS 16 - Leases specifies how to recognize, measure, present and disclose leases. The standard provides a single lessee accounting model, requiring that lessees recognize assets and liabilities for all leases unless the lease term is 12 months or less or the underlying asset has an insignificant 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. IFRS 16 was issued in January 2016 and are applicable to the Company's fiscal year that began July 1, 2019. Adoption of IFRS 16 will result in the Company recording a right-of-use asset and a corresponding lease liability estimated at between $2 million and $3 million on its statement of financial position. Although the related interest and amortization expenses will not be the same as the monthly lease payments, the differences will not be material.

There are no other pending IFRSs or IFRIC interpretations that are expected to be relevant to the Company's financial statements.

Non-IFRS Measures

To supplement our consolidated financial statements, which are prepared and presented in accordance with IFRS, IBC uses "operating income (loss)", which is a non-IFRS financial measure. IBC believes that operating income (loss) helps identify underlying trends in our business that could otherwise be distorted by the effect of certain income or expenses that we include in loss for the period. IBC further believes that operating income (loss) provides useful information about core operating results, enhances the overall understanding of our past performance and future prospects, and allows for greater visibility with respect to key metrics used by management in our financial and operational decision-making. Operating income (loss) should not be considered in isolation or construed as an alternative to loss for the period or any other measure of performance or as an indicator of IBC's operating performance. Operating income (loss) presented here may not be comparable to similarly titled measures presented by other companies. Other companies may calculate similarly titled measures differently, limiting their usefulness as comparative measures to our data.

Operating income (loss) represents loss for the period, excluding foreign exchange loss, interest expense, interest income, other income (expense) and income taxes that IBC does not believe are reflective of our core operating performance during the periods presented.

Operating income (loss)

A reconciliation of the income (loss) for the three and twelve months ended June 30, 2019 and 2018 to operating income (loss) follows:

Quarter ended June 30	2019 $	2018 $
Income (loss) for the period	(1,550)	240
Foreign exchange loss	56	3
Interest expense	217	110
Loss on disposal of assets	-	-
Interest income	-	(1)
Other income	(10)	(6)
Income taxes (recovery) expense	(10)	(1)
Operating income (loss)[1]	(1,297)	345

[1]Difference in operating loss for fourth quarter 2019 is due to rounding.

Year ended June 30	2019 $	2018 $
Loss for the year	(4,043)	(702)
Foreign exchange loss	49	52
Interest expense	925	286
Loss on disposal of assets	20	-
Interest income	(7)	(2)
Other income (expense)	(22)	(14)
Income taxes (recovery) expense	(4)	11
Operating loss	(3,082)	(369)

Research Initiatives

From time to time, IBC sponsors and assists in research and development ("R&D") initiatives to create new market opportunities. The Company's current R&D focus is on developing scandium-doped aluminum alloys.

Environmental and Occupational Safety Issues

IBC melts and machines materials that have the potential, if not controlled and handled appropriately, to have a negative effect on an individual's health and the environment. In addition, our operations use materials such as cutting and hydraulic fluids, which have the capacity to cause environmental contamination if left uncontained.

To mitigate these potential risks, the Company:

- employs a full-time health and safety manager to administer and monitor our safety programs;
- employs manufacturing practices to minimize and eliminate dispersal of fumes and dust;
- uses trap basins and fluid reservoirs to capture and retrieve possible overages;
- uses active exhaust vents/hoods located in equipment areas to capture and filter air;
- regularly schedules assessments and maintenance of in-house ventilation systems;
- requires our employees to use appropriate personal protective equipment (such as respirators, outer garments, gloves, etc.) selected to limit and protect them from any potential exposures;
- conducts beryllium lymphocyte proliferation tests (BeLPT) to determine employees' potential for sensitivity to beryllium prior to possible exposure;
- undertakes ongoing air quality monitoring and performs periodic employee health exams as per occupational health guidelines; and
- limits access to areas that may have a potential exposure to beryllium dust particles.

Despite these procedures, the Company remains subject to risk in this regard.

As with all industry, the Company is are subject to periodic inspection by state and local safety, health and environmental authorities. If during an inspection a failing was noted in our systems, the potential for the temporary or permanent closure of the facilities could exist. If during the periodic employee health screening, an employee displays elevated exposure to metals, it could require us to place the employee on sick leave, which would have the potential to impact both direct and indirect costs and cause a disruption of production. There is also the potential that an inherent safety or environmental exposure, if uncontrolled, could initialize legal action by employees, neighbors or those who visit our facilities.

To minimize the risks arising from pre-acquisition activities, IBC commissioned phase one environmental reviews prior to acquiring our copper alloys businesses. It is possible that environmental problems remain at our facilities that these phase-one assessments did not uncover.

Shareholders' Equity

Definitive Funding Agreement

In May 2019, the Company executed a convertible security funding agreement for the issue of a convertible security in the principal amount of C$750,000 to Lind Global Macro Fund LP, managed by The Lind Partners, LLC, a New York-based institutional fund manager.

Pursuant to the terms of the agreement, the convertible security has a principal amount of C$750,000 with a pre-paid interest amount of C$150,000, for an aggregate face value of C$900,000 and a 24-month term. The principal amount, less a C$37,500 closing fee, is convertible into common shares at a fixed conversion price per share of C$0.195, being the last closing price of our common shares on the TSX Venture prior to execution of the agreement. Subject to certain conditions, including the approval of the Exchange, at any time during the term, the investor may increase the amount of funding advanced under the convertible security by up to C$750,000 with an additional interest amount of up to C$150,000 pro-rated to the actual amount of increased funding advanced under the convertible security by the investor.

Under the agreement, IBC is required to make repayments on the face value of the convertible security in the amount of C$45,000 monthly after the first four months and until the face value is repaid, which repayment amount will be reduced by the amount converted to common shares.

The issuance of the convertible security was completed under private placement rules with a four-month-plus-one-day hold period. Pre-paid interest accrues monthly and, subject to the approval of the Exchange, the investor has the option, once every 90 days, to convert accrued interest into common shares at 90% of the last closing price of the Company's common shares on the day prior to conversion.

In connection with the issuance of the convertible security, the investor received 3,653,846 common share purchase warrants with an exercise price equal to C$0.195 which expire 24 months from their date of issue. Additionally, the Investor will receive additional warrants if and when the investor elects to proceed with the re-investment option with an exercise price equal to 100% of the closing price of the Company's shares immediately prior to the date the investor elects to proceed with the re-investment option which will expire 24 months from their date of issue.

IBC has the right to buy-back the amount outstanding under the convertible security at any time. In the event of a change of control of IBC, or if we exercise our buy-back right, the investor may convert 100% of the prepaid interest (both accrued and not yet accrued) into common shares. Additionally, the Investor may also convert up to 33% of the Principal Amount in the event we exercise its buy-back right.

Under the agreement, if IBC arranges or obtains any debt funding (including convertible debt), or sells a metal stream or royalty, or issues any preferred equity securities, then the Investor will have the right to require that the such proceeds be used to repay any of the outstanding amount under the convertible security. Upon the occurrence of certain events of default, including the failure of the Company to close an equity capital raise of a minimum of C$455,000 in net proceeds within 90 days of the closing, the investor may declare that all outstanding amounts under the convertible security will become immediately due and payable and/or the investor may terminate the agreement.

Pursuant to the terms and conditions of the Agreement, IBC may, subject to Exchange approval, also issue a second senior secured convertible security with the mutual agreement of the Investor. The second convertible security will comprise a principal amount of up to C$2,500,000, with warrants to be issuable to the investor, all on similar terms and conditions as the initial investment.

Private Placement

In April 2019, we completed a non-brokered private placement for gross proceeds of C$545,000.

In connection with the closing of the offering, we issued 2,477,080 units at a price of C$0.22 per Unit for gross proceeds of C$545,000. Each Unit consists of one common share and a one common share purchase warrant. Each warrant entitles the holder to acquire one common share at a price of C$0.28 until April 29, 2022. All of the securities issued pursuant to the offering are subject to a four-month hold period in accordance with applicable Canadian securities laws.

Certain of our directors subscribed for an aggregate of 682,047 Units in the offering for gross proceeds of C$151,000. The Offering constitutes a related party transaction under Multilateral Instrument 61-101 - Protection of Minority Security Holders in Special Transactions ("MI 61-101"). The transaction is exempt from the formal valuation and minority shareholder approval requirements of MI 61-101 pursuant to sections 5.5(a) and 5.7(1)(a) of MI 61-101 as neither the fair market value of any securities issued to nor the consideration paid by such persons would exceed 25% of the Company's market capitalization.

SHARE ISSUANCE

In August 2018, we issued 556,797 common shares for services to directors of the Company, 40,529 common shares for services to a consultant, 43,710 to a non-executive employee and 188,173 common shares for options exercised by a director of the Company.

In December 2018, the Company issued 665,135 common shares to debentures holders with an issue-date value of C$183 in satisfaction of the December 31, 2018 interest payment in lieu of cash.

In June 2019, the Company issued 737,059 common shares to debentures holders with an issue-date value of C$161 in satisfaction of the June 30, 2019 interest payment in lieu of cash.

OUTSTANDING SHARE DATA

As at the date of this MD&A, IBC has issued:

- A total of 38,833,630 common shares.
- Warrants to purchase 35,639,296 common shares.
- Share options to purchase 3,329,577 common shares.

The maximum number of shares potentially issuable together with the issued shares is therefore 77,802,503.