

## IBC ADVANCED ALLOYS CORP.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

**NINE MONTHS ENDED MARCH 31, 2021** 

FISCAL THIRD QUARTER OF 2021

401 Arvin Road Franklin, IN 46131 Telephone: 317-738-2558

EMAIL: INFO@IBCADVANCEDALLOYS.COM

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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 May 13, 2021. This MD&A should be read together with the audited consolidated financial statements and related notes for the year ended June 30, 2020. Financial amounts, other than amounts per share or per pound, are presented in 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; commercial demand for our products; changes in, and the effects of, the laws, regulations, and government policies affecting operations; uncertainties in the market price for minerals and metals, such as copper, beryllium and other inputs we consume, and currency exchange rate fluctuations. 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 as 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 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 financial statements for the period ended March 31, 2021 have been prepared in accordance with IAS34 – Interim Financial Reporting using accounting policies consistent 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, including our most recent Annual Information Form, is available for view on SEDAR at <a href="https://www.sedar.com">www.sedar.com</a>.

#### **EXECUTIVE SUMMARY**

Except as noted, all financial amounts are determined in accordance with IFRS.

• We Generated Positive Adjusted EBITDA<sup>1</sup> in the Quarter and the Nine-Month Periods: Consolidated adjusted earnings before interest, taxes, depreciation, and amortization ("Adjusted EBITDA") for the quarter ending March 31, 2021, was a \$685,000, which compared to Adjusted EBITDA of \$825,000 for the prior-year period. Consolidated Adjusted EBITDA of \$838,000 in the nine-month period ended March 31, 2021 compared to \$906,000

We report non-IFRS measures such as "Adjusted EBITDA" and "Operating Income". Please see information on this and other non-IFRS measures in the "Non-IFRS Measures" section of this MD&A.

in the comparable prior year period.

- o The Engineered Materials ("EM") division, where we manufacture near-net-shaped beryllium-aluminum ("BeAl") cast alloy products for both commercial and defense markets, saw Adjusted EBITDA in the quarter rise by 66.7% and 74.2%, respectively, in the quarter and year-to-date periods over the comparable prior-year periods, driven largely by higher sales to commercial (non-defense) markets.
- The Copper Alloys ("CA") division, where we manufacture a variety of copper alloy products for both commercial and defense markets, posted Adjusted EBITDA of \$150,000 and \$106,000 respectively in the current quarter and year-to-date periods, as compared Adjusted EBITDA of \$322,000 and \$506,000 in the comparable prior year periods; the contraction is largely due to impacts from the COVID-19 pandemic. However, these declines in adjusted earnings were improvements over the comparable prior-year periods.

# • Gross Margin Improves:

Gross margins improved in both divisions relative to the comparative periods.

- CA gross margin improved mostly due to lower material costs 20.4% in the quarter and 16.4% in the nine-month period ended March 31, 2021 compared to the comparable prior-year periods.
- EM gross margin primarily improved due fixed costs being spread over 14.8% higher sales in the quarter and 13.8% higher sales in the nine-month period ended March 31, 2021 compared to the prior-year periods.

	Quarter Ended March 31		Nine Months Ende	ed March 31
	2021	2020	2021	2020
Copper	20.5%	14.1%	13.5%	12.8%
EM	45.6%	32.1%	32.8%	21.3%
Combined	30.5%	19.9%	20.6%	15.3%

- Sales Rise in our EM Division: EM sales rose by 14.8% in the quarter ended March 31, 2021, and by 13.8% in the Nine-month period ended March 31, 2021, as compared to the comparable prior-year periods. This was largely driven by increased sales into commercial markets related to semiconductor chip manufacturing. Copper Alloys sales decreased by 17.3% in the quarter ended March 31, 2021, and by 17.6% in the nine-month period ended March 31, 2021, as compared to the prior-year periods, primarily due to softer economic conditions driven by the COVID-19 pandemic.
- EM Division Awarded \$9.7 Million Multi-Year Contract from Lockheed Martin: Our EM Division was awarded new purchase orders totaling approximately \$9.7 million from Lockheed Martin to produce two aerospace-qualified BeAl components for the F-35 Lightning II aircraft over the next 26 months. The contract expanded our work for the F-35 platform to include a second part for the F-35 the gimbal mounting ring which was previously made by a competitor.
- Company Records Comprehensive Income in the Quarter: We recorded comprehensive income of \$139,000 in the quarter ended March 31, 2021 which compared to comprehensive income of \$171,000 in the prior-year period. In the nine-month period ended March 31, 2021 we recorded a comprehensive loss of \$1,119,000 or (\$.02) per share which compared to a comprehensive loss of \$1,149,000, or (\$0.03), in the prior-year period. The year-to-date loss was driven by lower sales and softened demand in copper alloy markets, primarily due to the COVID-19 pandemic. However, our EM division posted a sharply higher comprehensive income of \$579,000 in the nine months ended March 31, 2021, a 916% increase over comprehensive income in the prior-year period.

#### **OUR BUSINESS**

We are primarily engaged in developing and manufacturing advanced alloys, such as BeAl 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. Headquartered in Franklin, IN, we currently operate three plants in the United States ("U.S.") that manufacture, heat-treat, machine, or market copper-beryllium, BeAl, copper-based master alloys, and similar specialty alloy products including BeAl castings.

Our manufacturing operations currently employ 70 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 BeAl components to the aerospace and high-tech manufacturing sectors.

We were formed by an amalgamation under the laws of British Columbia on November 23, 2007 and our common shares 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

- On November 25, 2020, we announced that we had closed on a second funding under the previously announced convertible security funding agreement with Lind Global Macro Fund, LP, an entity managed by The Lind Partners, LLC, a New York based institutional fund manager. Lind advanced to us C\$1,400,000, less a closing fee of C\$70,000, in consideration for the issuance of a convertible security in the principal amount of C\$1,400,000 and an aggregate face value of C\$1,680,000. The convertible security has a 24-month term and is convertible into up to 9,172,413 common shares at a conversion price of C\$0.145 per share. Lind also received 9,172,413 common share purchase warrants, exercisable until November 25, 2022 with an exercise price of C\$0.145.
- On December 9, 2020, we announced that we had been awarded new purchase orders totaling approximately \$9.7 million from Lockheed Martin to produce two aerospace-qualified BeAl components for the F-35 Lightning II aircraft over the next 26 months. The contract expanded our work for the F-35 platform to include a second part for the F-35 the gimbal mounting ring which was previously made by a competitor. In March 2021, we began delivering the second part for the F-35- the gimbal mounting ring under this award.
- On April 8, 2021 we announced that we were awarded new purchases orders totaling \$1.0 million from Raytheon to produce for beryllium alloy parts that are used in Raytheon

Technologies (NYSE: RTX) Advanced Targeting Forward Looking Infrared (ATFLIR) system for the U.S. Navy's F/A-18 Super Hornet aircraft.

- On April 27, 2021 we satisfied our obligations under the first funding under the loan agreement with Lind Global Macro Fund per the convertible security agreement dated 05/21/2019. We remitted the final payment prior to the May 31, 2021 due date.
- On April 27, 2021 we submitted of an application to the TSX-V to amend the exercise price of 19,657,297 previously granted common share purchase warrants issued via a private placement of 19,893,670 units that closed on May 25, 2016. We expect to amend the exercise price of the warrants from C\$0.50 to C\$0.24 per warrant. The warrants are exercisable until May 24, 2021. To date 236,373 warrants have been exercised. The warrant repricing is subject to TSX-V approval.

#### COVID-19

Although COVID-19 has forced many businesses to close or significantly scale back, we have been able to continue manufacturing our strategic alloy products because of our essential role as part of the U.S. Defense Industrial Base. All three of our U.S. facilities have remained in operation since the start of the pandemic and are serving customers in both the defense and commercial sectors. However, demand for our Copper Alloys products slowed in the quarter and the nine-month period ended March 31, 2021, and customer payments have fallen behind schedule, as a result of the pandemic. Copper Alloys order intake has been increasing and we believe that the negative effects of the pandemic will continue to diminish over the balance of the calendar year 2021.

We are still subject to material COVID-19-related risks:

- State or local governments may require that our facilities close or they may impose
  operating restrictions, such as physical distancing, that make opening our operations
  uneconomic.
- Our employees may contract COVID-19 and make it difficult or impossible for us to operate normally.
- The effect of COVID-19 on the economy as a whole and on our customers may lead to a reduction in order intake.
- Customers may continue to pay amounts due to us behind schedule, adversely affecting our liquidity.

 General economic concerns may make it difficult to obtain or renew debt facilities or raise equity funding on acceptable terms or at all.

#### MANUFACTURING OPERATIONS

We currently operate three manufacturing operations in the U.S. that, in total, employ 70 people. These facilities are located in Franklin, IN; Royersford, PA; and Wilmington, MA. Most of our management and administration are based at the Franklin, IN facility, which also serves as our corporate headquarters.

#### 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. Our Copper Alloys division's operations are based in Franklin, IN, where we maintain forging (hammer, press and ring rolling), heat-treating, and machining operations. We cast billets in Royersford, PA. The Franklin plant sits on 4.8 hectares (12.0 acres) of land that has sufficient room for consolidation of our existing operations and also to provide expansion of our production base to satisfy future revenue growth, as business dictates.

We source copper alloys as cast billet, slab, or ingot from mills in North America, Europe, and Asia, and we convert 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 a leased facility in Royersford, PA and we also buy other billets and slabs 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. We offer 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 furnaces and associated equipment that have been adapted to meet the specialized requirements of copper alloy manufacturing. We have 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.

#### ENGINEERED MATERIALS

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

In general, Beralcast<sup>®</sup> 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 BeAl. Some of their varied applications include automotive braking and structural components and aerospace and satellite system components.

The principal Beralcast<sup>®</sup> 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<sup>®</sup> is ideally suited for certain demanding semiconductor manufacturing equipment, computer components, and other commercial and aerospace applications. Our ability to cast Beralcast<sup>®</sup> products in a near-net shape allows for manufacturing cost efficiencies.

Binary BeAl 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 BeAl alloy now manufactured as Beralcast<sup>®</sup>. We believe that a competitor has sought to develop an alternative cast BeAl product, which, if commercially viable, would be a direct competitor to Beralcast<sup>®</sup>.

#### FINANCIAL RESULTS AND OUTLOOK

## SELECTED QUARTERLY INFORMATION

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

Quarter Ended	Revenue	Income (loss) for the period (net of tax)	Basic and diluted loss per share <sup>1</sup>
	(\$000s)	(\$000s)	\$
June 30, 2019	4,869	(1,552)	(0.04)
September 30, 2019	4,916	(550)	(0.01)
December 31, 2019	5,358	(770)	(0.02)
March 31, 2020	5,818	171	0.00
June 30, 2020	5,056	27	0.00
September 30, 2020	4,427	(955)	(0.02)
December 31, 2020	4,929	(304)	(0.00)
March 31, 2021	5,412	139	0.00

<sup>&</sup>lt;sup>1</sup> The sum of quarterly loss per share may not add to year-to-date totals due to rounding

Quarterly operating results are affected by trends in the various sectors that we serve, as well as by other factors such as the COVID-19 pandemic. Frequently, weak performance in one sector is offset by strength in another, but this is not always the case. Most operating costs other than materials, supplies, and energy are largely fixed, so small changes in sales volume can have a big effect on operating income or loss. Generally, EM division sales are slower in the second and third fiscal quarters when demand for non-aerospace components falls. The general trend from late 2018 has been for increasing margins to be realized as sales increased and we installed new machinery allowing us to manufacture more efficiently.

More recently, increased demand for BeAl products from customers in both the defense and nondefense sectors has driven higher sales revenue and margins.

In addition to these general trends the following factors have caused variation over the quarters presented:

 Sales have decreased in Copper Alloys in the current-year periods, as compared to the prior-year periods, primarily due to softer economic conditions driven by the COVID-19 pandemic.  Sales are stronger in the Engineered in the current-year periods, as compared to the prioryear periods, mostly due to increased demand in both the defense and commercial sectors.

# **Results of Operations: Fiscal 2021 Q3**

We incurred comprehensive income of \$139,000 for the three months ended March 31, 2021, compared to comprehensive income of \$171,000 in the prior-year period. A summary of results of operations, and a reconciliation of income (loss) to Adjusted EBITDA, follows:

		Th	ree Mont	hs Ended		Thr	ee Month	ns Ended
			March	31, 2021			March	31, 2020
	Copper	Eng.	Corp.	Consol-	Copper	Eng.	Corp.	Consol-
	Alloys	Mat.		idated	Alloys	Mat.		idated
	(\$000s)							
Revenue	3,261	2,151	-	5,412	3,945	1,873	-	5,818
Cost of revenue								
Materials	1,711	696	-	2,407	2,149	418	-	2,567
Labor	545	482	-	1,027	561	350	-	911
Subcontract	53	19	-	72	84	45	-	129
Overhead	361	441	-	802	497	252	-	749
Depreciation	(93)	190	-	97	141	198	-	339
Change in								
finished goods	14	(657)	-	(643)	(45)	9	-	(36)
	2,591	1,171	-	3,762	3,387	1,272	-	4,659
Gross profit	670	980	-	1,650	558	601	-	1,159
Gross margin	20.5%	45.6%		30.5%	14.1%	32.1%		19.9%
SG&A expenses	439	375	359	1,173	385	328	312	1,025
Income (loss) before other items	231	605	(359)	477	173	273	(312)	134
Other income (expense)	(26)	(115)	(197)	(338)	(75)	(8)	120	37
Income (loss) for the period, net of tax Adjusted EBITDA:	205	490	(556)	139	98	265	(192)	171
Add back (deduct):								
Tax expense (recovery)	_	_	_	_	_	_	_	_
Interest expense	25	121	207	353	71	12	168	251
Depreciation,								
amortization, & impairment	(85)	221	-	136	149	221	-	370
Stock-based compensation	. ,							
expense (non-cash)	5	3	49	57	4	3	26	33
Adjusted EBITDA	150	835	(300)	685	322	501	2	825

# Results of Operations: Fiscal 2021 Year-to-Date

We incurred a loss (net of tax) of \$1,120,000 for the nine months ended March 31, 2021, compared to a loss (net of tax) of \$1,149,000 in the comparative period ended March 31, 2020. A summary of results of the operations to adjusted EBITDA follows:

		l	Nine Mont	hs Ended		١	line Mont	ns Ended
			March	31, 2021			March	31, 2020
	Copper	Eng.	Corp.	Consol-	Copper	Eng.		Consol-
	Alloys	Mat.	·	idated	Alloys	Mat.	•	idated
	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)	(\$000s)
Revenue	9,324	5,443	-	14,767	11,309	4,783	-	16,092
Cost of revenue								
Materials	5,017	1,476	-	6,493	5,999	1,124	-	7,123
Labor	1,698	1,189	-	2,887	1,721	949	-	2,670
Subcontract	127	95	-	222	235	172	-	407
Overhead	1,223	1,036	-	2,259	1,499	589	-	2,088
Depreciation	156	541	-	697	390	618	-	1,008
Change in	-	-	-		-	-	-	
finished goods	(159)	(681)	-	(840)	16	311	-	327
	8,062	3,656	-	11,718	9,860	3,763	-	13,623
Gross profit	1,262	1,787	-	3,049	1,449	1,020	-	2,469
Gross margin	13.5%	32.8%		20.6%	12.8%	21.3%		15.3%
SG&A expenses	1,362	1,037	891	3,290	1,399	936	771	3,106
Income (loss) before other items	(100)	750	(891)	(241)	50	84	(771)	(637)
Other income (expense)	(199)	(171)	(508)	(878)	(256)	(27)	(229)	(512)
Income (loss) for the period, net of tax Adjusted EBITDA:	(299)	579	(1,399)	(1,119)	(206)	57	(1,000)	(1,149)
Add back (deduct):								
Tax expense (recovery)	3	-	17	20	2	3	2	7
Interest expense	207	186	531	924	249	41	515	805
Depreciation,								
amortization, & impairment	179	610	-	789	449	687	-	1,136
Stock-based compensation								
expense (non-cash)	18	11	195	224	12	8	87	107
Adjusted EBITDA	108	1,386	(656)	838	506	796	(396)	906

Segment Analysis: Three and Nine months ended March 31, 2021

In the nine months ended March 31, 2021, the main factors affecting our financial performance were (1) decreased copper alloy demand due to covid-19; and (2) increased Be-Al production for both defense and commercial sectors. Since many of our operating costs are fixed, these trends resulted in significantly stronger performance in our EM division and somewhat weaker performance in our CA division. Overall, we generated an 8% decrease in Adjusted EBITDA. We are progressing with our plans to consolidate our copper alloy operations in Franklin, IN and believe that we will be able to generate cost savings as a result.

# • Copper Alloys Sales Division Results:

Sales	Demand for all our Copper Alloys product lines decreased due to the impact of Covid-19, although this was partially offset by increased demand from customers in the electronics sector who are manufacturing products related to the transition to 5G networks.
Gross profit	We recorded a gross margin of 20.5% in the quarter despite an 18% reduction in sales. Gross margin improved due to lower variable and fixed costs from the reduction in operating costs primarily resulting from consolidating our two CA casting operations. We also reversed an over-accrual of depreciation expense recorded in prior periods.
	Gross margin of 13.5% in the nine-month period ended March 31, 2020 increased from the 12.8% averaged gross margin in the prior-year period despite 17% reduction in sales.
SG&A expenses	SG&A expenses increased 14% in the quarter over the prior-year period. SG&A expenses decreased 3% in the nine-month period ended March 31, 2021 compared to the prior-year period. The change was mostly due to a prior-year one-time charge of \$140,000 which reimbursed a customer for out-of-specification material that was supplied to IBC by another company.
Other income (expense)	Other income (expense) is primarily comprised of interest expense. Interest expense primarily decreased because we had a lower line of credit balance.

# • Engineered Materials Division Results:

Sales	Sales increased due largely to demand for BeAl products in commercial markets, which itself is being driven largely by increased demand for semiconductor chips used in 5G network buildouts and upgrades.
	Production of our BeAl products used in defense applications is expected to strengthen due to the award of the gimbal mounting ring for the F-35 described above. Also, we received new purchase orders for beryllium alloy parts totaling more than US\$1.0 million that are used in Raytheon Technologies Advanced Targeting Forward looking Infrared ("ATFLIR") system for the U.S. Navy's F/A-18 Super Hornet aircraft.
	We are continuing to pursue additional contracts for high- performance BeAl products in defense-sector platforms.
Gross profit	Gross margin of 46% in the quarter improved from 32% in the prior-year period with fixed costs being spread over higher sales volume.
	Gross margin of 33% in the nine-month period ended March 31, 2021 improved from 21% in the prior-year period due to fixed costs being spread over higher sales volume.
SG&A expenses	SG&A expenses increased 14% in quarter ended March 31, 2021 compared to the prior-year period.
	SG&A expenses increased 11% in the nine-month period ended March 31, 2021 over the prior-year period. The change was mostly due to higher share-based compensation expense with the amortization of options awarded in July and October 2020.
Other income (loss)	Other income (expense) is primarily comprised of interest expense which increased due to higher factory rental payments pursuant to the factory lease extension effective February 1, 2021 and an accrual of interest expense related to the arbitration award liability.

## Corporate

SG&A expenses	SG&A expenses increased 15% in the quarter over the prior-year period. SG&A expenses increased 16% in the nine-month period ended March 31, 2021 over the prior-year period. SG&A expenses increased mostly due to an increase in information technology consulting costs to maintain compliance with federal regulations. Also, share-based compensation is higher due to the amortization of the options awarded in July and October 2020.
Other income (expense)	The main components of other income (expense) are typically interest expense and foreign exchange gain (loss).  Other income (expense) is 32% higher in the quarter ended March 31, 2021 than in the prior-year period.
	Other income (expense) is 23% higher in the nine-month period ended March 31, 2021 than in the prior-year period.
	Interest expense increased due to higher debt with the closing of the second Lind funding in November 2020.

#### CHANGES IN FINANCIAL CONDITION

Changes in our financial condition since June 30, 2020 are related to operations in the normal course of business. In addition:

- We repaid notes payable, related parties principal of \$20,000 are due February 4, 2021 in October 2020, principal of \$20,000 due February 28, 2021 in and principal \$70,000 are due March 27, 2020 and related accrued interest of \$4,000 in total. We satisfied these obligations respectively in October 2020; September 2020 and December 2020. These notes were secured by accounts receivable and inventory of our EM division.
- In November 2020, we raised cash from the second funding from Lind Global Macro Fund LP for the issuance of a convertible security in the principal amount of C\$1,400,000 according to the May 2019 convertible security funding agreement.
- In December 2020, we received \$2,425,000 prebuy payment from Lockheed Martin, which is a 25% of the material up-front payment related to the new purchase orders

totaling approximately \$9.7million to facilitate the purchase of the long-lead BeAl raw material for the length of this contract.

#### COMMODITY PRICING FOR COPPER

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:

	2021	2020
March 31	\$4.00	\$2.24
	2020	2019
December 31 September 30 June 30	\$3.54 \$3.03 \$2.73	\$2.83 \$2.57 \$2.73

Source: COMEX

#### LIQUIDITY AND CAPITAL RESOURCES

On March 31, 2021, we had working capital surplus of \$515,000, including cash of \$2,291,000, as compared to working capital surplus of \$852,000, including cash of \$509,000 on June 30, 2020. Factors affecting liquidity include:

- We have not yet achieved sustained profitable operations.
- Under the terms of our loan agreement with Lind Partners, we must make monthly payments of C\$45,000 according to the first funding. Lind has the option to require the issuance of common shares in lieu of cash.
- Our credit facility with BMO Harris comes due on September 30, 2021.
- In order to complete the consolidation of our copper casting facility in Royersford, PA into our Franklin, IN facility, we will need to raise approximately \$5.4 million.
- Current liabilities include an accrual of \$1.5 million (including accrued interest) related to the arbitration award discussed in *Legal Matters* below.

- We have the option of settling interest on convertible debentures through the issuance of common shares. In fiscal 2021, doing so benefited our cash flow by \$117,000.
- Under the terms of our loan agreement with Lind Partners, we must make monthly payments of C\$84,000 commencing March 31, 2021 according to the second funding. Lind has the option to require the issuance of common shares in lieu of cash.
- Changes in resource prices can have a short-term impact on our manufacturing costs, selling prices, and profitability.
- We 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 sales are conducted in U.S. dollars. In addition, receivable balances are monitored on an on-going basis with the result that our exposure to impaired receivables is not significant.
- We also manage liquidity risk by investing our cash only in obligations of Canada or the
  U.S. or their respective agencies or 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.
- We are contractually committed to purchase, at March 31, 2021 prices, an aggregate of \$1,540,000 in raw materials prior to June 30, 2021.
- We have entered into commercial property and equipment leases. These leases have a weighted average remaining life of 4.7 years, with a certain lease having a renewal option at 95% of fair market value. The future minimum rental payments under non-cancellable operating leases are \$247,000 in the next 12 months and \$4.1 million in subsequent periods.
- There are signs that some customers may delay payment of trade receivables due to us as a result of their liquidity problems caused by the COVID-19 pandemic. We are unable to determine the magnitude or extent, if any, of such delays.

We may need to raise additional funds in the short-term to finance working capital and additional growth initiatives, such as our Copper Alloys facilities consolidation. We may be able to generate additional cash flow through the use of equity markets for raising capital, in addition to adjusting spending, disposing of assets and obtaining other non-equity sources of financing. However, there can be no assurance that we will be successful in obtaining such funds.

#### **COMMITMENTS**

On March 31, 2021, we had commitments to lease premises and equipment over the next five years with an aggregate payment obligation of \$4.3 million. We are also committed to raw materials purchases over the next year aggregating \$1,540,000. We may need to raise additional funds to meet our commitments in the same manner as noted above to meet our working capital needs and additional growth initiatives.

#### RELATED PARTY TRANSACTIONS

Except as described below, we do 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 \$36,000 per year but the directors have agreed to receive the bulk of this amount in common shares. In fiscal 2020, we issued 406,228 common shares for services to the non-executive directors and paid \$6,000 in cash. For the period ended March 31, 2021, non-executive directors' compensation of \$102,000 was not paid but has been accrued. In November 2020, we issued 813,615 common shares for services to directors, and also 12,364 common shares to a consultant.

For additional information on related party transactions among us and certain of our directors, see *Shareholders' Equity* below.

#### FINANCIAL INSTRUMENTS AND OTHER INSTRUMENTS

Our activities expose us to a variety of financial risks, including foreign exchange risk, interest rate risk, commodity price risk, and credit risk. We do not have a practice of trading derivatives, and we attempt 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 raise 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

Our 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

Our profitability and long-term viability depend, in some measure, on the market prices of copper, aluminium, 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. We 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

We manage 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 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 our fiscal years beginning on or after July 1, 2020 or are required to be adopted in future periods. There were no pronouncements relevant to the condensed consolidated interim financial statements.

There are no pending IFRSs or IFRIC interpretations that are expected to be relevant to our financial statements.

#### NON-IFRS MEASURES

To supplement our consolidated financial statements, which are prepared and presented in accordance with IFRS, we use "operating income (loss)" and "Adjusted EBITDA", which are a non-IFRS financial measure.

We believe that operating income (loss) help 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. We further believe 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.

We believe that Adjusted EBITDA is a useful indicator for cash flow generated by our business that is independent of our capital structure.

Operating income (loss) and Adjusted EBITDA 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 our operating performance. Operating income (loss) and Adjusted EBITDA 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)

Operating income (loss) represents loss for the period, excluding foreign exchange loss, interest expense, interest income, other income (expense) and income taxes that we do not believe are reflective of our core operating performance during the periods presented. A reconciliation of our second fiscal quarter and nine-month period ended March 31, 2021 loss to operating loss follows:

Quarter ended March 31	2021	2020
	(\$000s)	(\$000s)
Income for the period	139	171
Foreign exchange (gain) loss	-	(288)
Interest expense	353	251
Loss on disposal of assets	-	5
Interest income	-	-
Other income	(15)	(5)
Income tax expense (recovery)	-	-
Operating income	477	134
Nine months ended March 31	2021	2020
	(\$000s)	(\$000s)
Loss for the period	(1,119)	(1,149)
Foreign exchange (gain) loss	(24)	(288)
Interest expense	924	805
Loss on disposal of assets	(3)	5
Interest income	-	-
Other income	(39)	(17)
Income tax expense (recovery)	20	7
Operating loss	(241)	(637)

# Adjusted EBITDA

Adjusted EBITDA represents our income (loss) for the period before interest, income taxes, depreciation, amortization, and share-based compensation. A reconciliation of our second quarter and nine-month period ended March 31, 2021 loss to Adjusted EBITDA follows:

Quarter ended March 31	2021	2020
	(\$000s)	(\$000s)
Income for the period	139	171
Income tax expense (recovery)	-	-
Interest expense	353	251
Depreciation, & amortization,	136	370
Stock-based compensation expense (non-cash)	57	33
Adjusted EBITDA	685	825
Nine months ended March 31	2021	2020
Nine months ended March 31	2021	2020
	(\$000s)	(\$000s
Loss for the period	(1,119)	(1,149
Income tax expense (recovery)	20	7
Interest expense	924	805
Depreciation, & amortization,	789	1,136
Stock-based compensation expense (non-cash)	224	107
Adjusted EBITDA	838	906

## **RESEARCH INITIATIVES**

From time to time, we sponsor and assist in research and development ("R&D") initiatives to create new market opportunities. Our current R&D focus is on developing scandium-doped aluminum alloys. We do not expect to spend significant sums on R&D in the foreseeable future.

#### **BUSINESS RISKS**

Some of the risks that we face, which are specific to our operations, include the following:

Dependence on Ulba Metallurgical Plant and Sole-source Suppliers

Our 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. We are 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. We understand that production uses long-term stockpiles; however, any disruptions in Ulba's ability to manufacture beryllium or CTMA (Carbothermic Master Alloy) to our specifications would have a materially adverse effect on our business. Our 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 those from Ulba, 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 Relocate Royersford Foundry

The Royersford, PA landlord has indicated that it will not renew the lease beyond its current term of December 2021. We are currently working to relocate the Royersford, PA production capacity to our Franklin, IN facility. If we are not able to maintain this production capacity, find other supply options in a timely basis, or satisfactorily complete our plans to consolidate our Royersford operations with our current operations in Franklin, IN., it will have a material adverse impact on our ability to produce sufficient alloy material for current customer demand.

## 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 we are 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 from time to time 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 \$1.2 million plus attorney's fees, costs, and expenses in the amount of \$155,000 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, we received notice of the U.S. District Court for the District Massachusetts affirming the September 8, 2017 arbitration award made in favor of Gerald Hoolahan. We appealed this decision. Subsequently, on January 22, 2020, the U.S. Court of Appeals for the First Circuit affirmed the judgment of the U.S. District Court for the District of Massachusetts, which found in favor of Mr. Hoolahan. We are evaluating its payment options with

respect to the award granted to Mr. Hoolahan.

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. ("Chemetco") 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 Product was identified as 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 ("Chemetco PRP Group"). 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 the 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 our 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. We are evaluating its options regarding notifying its insurers of potentially increased liability should the EPA and/or Chemetco PRP Group contribution lawsuit's attempt to name our subsidiary, Nonferrous Products 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 Products. Should the EPA and/or Chemetco PRP Group contribution lawsuit pursue alter ego theories and name our subsidiary Company, Nonferrous Products, as a defendant, then IBC potentially faces significantly more liability requiring further defensive action.

### ENVIRONMENTAL AND OCCUPATIONAL SAFETY ISSUES

We melt and machine 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, we:

- employ a full-time health and safety manager to administer and monitor our safety programs;
- employ manufacturing practices to minimize and eliminate dispersal of fumes and dust;
- use trap basins and fluid reservoirs to capture and retrieve possible overages;
- use active exhaust vents and hoods located in equipment areas to capture and filter air;
- regularly schedule assessments and maintenance of in-house ventilation systems;
- require 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;
- conduct beryllium lymphocyte proliferation tests (BeLPT) to determine employees' potential for sensitivity to beryllium prior to possible exposure;
- undertake ongoing air quality monitoring and perform periodic employee health exams as per occupational health guidelines; and
- limit access to areas that may have a potential exposure to beryllium dust particles.

Despite these procedures, we remain subject to risk in this regard.

As with all industry, we 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, we 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

#### SHARE ISSUANCES

- In August 2020, we issued 80,645 common shares upon the conversion of C\$50,000 of 8.25% convertible debentures to common stock.
- In November 2020, we issued 813,615 common shares for services to directors and 12,364 common shares were issued for services to a consultant.
- In December 2020, we issued 775,704 common shares to debenture-holders with an issue-date value of C\$154,000 in satisfaction of the December 31, 2020 interest payment in lieu of cash.
- In March 2021, we issued 689,655 common shares to Lind Global Macro Fund LP with an issue-date value of C\$100,000 in satisfaction of the March 31, 2021 payment of C\$84, 000 for principal and interest and a partial payment of the April 30, 2021 payment of C\$16,000 in lieu of cash.
- In April 2021, we issued 468,966 common shares to Lind Global Macro Fund LP with an issue-date value of C\$68,000 in satisfaction of the remaining portion due of the April 30, 2021 payment for principal and interest in lieu of cash.

#### **OUTSTANDING SHARE DATA**

As at the date of this MD&A, we have issued:

- A total of 64,780,280 common shares.
- Warrants to purchase 46,111,314 common shares.
- Share options to purchase 5,088,250 common shares.

The maximum number of shares potentially issuable together with the issued shares is therefore 115,979,844.