



IBC Advanced Alloys

IBC ADVANCED ALLOYS CORP.

MANAGEMENT'S DISCUSSION AND ANALYSIS

SIX MONTHS ENDED DECEMBER 31, 2020

FISCAL SECOND QUARTER OF 2021

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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 February 17, 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 December 31, 2020 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 www.sedar.com.

EXECUTIVE SUMMARY

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

- **We Generated Positive Adjusted EBITDA¹ in the Quarter and the Six-Month Periods:** Consolidated adjusted earnings before interest, taxes, depreciation, and amortization ("Adjusted EBITDA") for the quarter ending December 31, 2021, was a \$273,000, which compared to a negative Adjusted EBITDA of \$52,000 for the prior-year period. Consolidated Adjusted EBITDA of \$152,000 in the six-month period ended December 31,

¹ 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.

2020 compared favorably to \$81,000 in the comparable prior year period.

- The Engineered Materials (“EM”) division saw Adjusted EBITDA in the quarter rise by 29.9% and 86.2%, 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 posted negative Adjusted EBITDA in the quarter and year-to-date periods, as compared to the comparable prior-year periods, due largely to impacts from the COVID-19 pandemic. However, these declines in adjusted earnings were improvements over the comparable prior-year periods.
- **Gross Margin Improves:** Consolidated gross margin improved in the quarter to 17.0% from 15.2% in the prior-year quarter, and likewise improved in the six-month period ended December 31, 2020 to 15% from 12.8% in comparable prior-year period. Gross margin for the EM division increased to 26% in the quarter ended December 31, 2020 from gross margin of 24.0% in the comparable prior year period and rose sharply to 24.5% in the six-month period ended December 31, 2020, from 14.5% in the comparable prior-year period. CA’s gross margin remained steady in the quarter ended December 31, 2020, as compared to the prior-year period, while it declined in the year-to-date period as compared to the comparable prior-year period.
- **Sales Rise in our EM Division:** EM sales rose by 12.8% in the quarter ended December 31, 2020, and by 13.1% in the six-month period ended December 31, 2020, 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 18.8% in the quarter ended December 31, 2020, and by 17.7% in the six-month period ended December 31, 2020, 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 beryllium-aluminum (“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 Loss:** We recorded a comprehensive loss of \$1,259,000 in the six-month period ended December 31, 2020, or (\$0.02) per share, which compared to a loss of \$1,320,000, or (\$0.03), in the prior-year period. The 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 \$173,000 in the quarter ended December 31, 2020, a 253% increase over comprehensive income in the prior-year quarter.

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 of the Company at a conversion price of C\$0.145 per share. Lind also received 9,172,413 common share purchase warrants, exercisable for 24-months from the date of issue 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.

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 customer payments have fallen behind schedule, as a result of the pandemic. We expect to feel the effects of decreased market demand and other impacts from the pandemic in 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[®] 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[®] 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[®] 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. Our ability to cast Beralcast[®] 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[®]. 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[®].

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 ¹
	(\$000s)	(\$000s)	\$
March 31, 2019	5,202	(639)	(0.02)
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	(954)	(0.02)
December 31, 2020	4,929	(304)	0.00

¹ 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 the company serves, 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 the Company installed new machinery allowing it to manufacture more efficiently.

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

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

- State or local governments may require that our facilities close or they may impose operating restrictions, such as physical distancing, that make opening our plants 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 pay amounts due to us behind schedule, adversely affecting our liquidity.

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

Results of Operations: Fiscal 2021 Q2

We incurred a loss, net of tax of \$304,000 for the three months ended December 31, 2020, compared to a loss, net of tax of \$770,000 in the prior-year period. A summary of results of operations, and a reconciliation of income (loss) to Adjusted EBITDA, follows:

	Three Months Ended December 31, 2020				Three Months Ended December 31, 2019			
	Copper Alloys (\$000s)	Eng. Mat. (\$000s)	Corp. (\$000s)	Consol- idated (\$000s)	Copper Alloys (\$000s)	Eng. Mat. (\$000s)	Corp. (\$000s)	Consol- idated (\$000s)
Revenue	2,873	2,056	-	4,929	3,536	1,822	-	5,358
Cost of revenue								
Materials	1,580	497	-	2,077	1,905	449	-	2,354
Labor	534	348	-	882	563	297	-	860
Subcontract	32	43	-	75	40	48	-	88
Overhead	431	311	-	742	489	89	-	578
Depreciation	122	164	-	286	101	216	-	317
Change in finished goods	(130)	159	-	29	64	285	-	349
	2,569	1,522	-	4,091	3,162	1,384	-	4,546
Gross profit	304	534	-	838	374	438	-	812
Gross margin	10.6%	26.0%		17.0%	10.6%	24.0%		15.2%
SG&A expenses	506	336	210	1,052	647	404	208	1,259
Income (loss) before other items	(202)	198	(210)	(214)	(273)	34	(208)	(447)
Other income (expense)	(78)	(25)	13	(90)	(93)	15	(245)	(323)
Income (loss) for the period, net of tax	(280)	173	(197)	(304)	(366)	49	(453)	(770)
Adjusted EBITDA:								
Add back (deduct):								
Tax expense (recovery)	1	-	22	23	-	1	-	1
Interest expense	84	31	57	172	92	(9)	188	271
Depreciation, amortization, & impairment	130	183	-	313	150	260	-	410
Stock-based compensation expense (non-cash)	11	8	50	69	4	3	29	36
Adjusted EBITDA	(54)	395	(68)	273	(120)	304	(236)	(52)

Segment Analysis: Fiscal Q2 2021

Factors affecting our financial performance in the quarter ended December 31, 2020 include the following:

- **Copper Alloys Sales Division Results:**

- The division posted a comprehensive loss of \$280,000 in the quarter, compared to loss of \$366,000 in the prior-year period.
- Copper Alloys division sales of \$2,873,000 in the quarter were 18.8% lower than sales of \$3,536,000 in fiscal Q2 of 2020.
- Gross margin of 10.6% in the quarter equaled the averaged gross margin in the prior-year period despite an 18.8% reduction in sales, as lower variable and fixed costs were spread over lower sales volume. The reduction in operating costs was primarily due to the cost savings resulting from consolidation of our two CA casting operations.
- Adjusted EBITDA for the division was (\$54,000) in the quarter, a 55.0% improvement over Adjusted EBITDA of (\$120,000) in the prior-year period.
- 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 responding to increased demand for products related to the transition to 5G networks.

- **Engineered Materials Division Results:**

- Our EM division posted a sharply higher comprehensive income of \$173,000 in the quarter ended December 31, 2020, a 253% increase over comprehensive income in the prior-year quarter.
- In our EM division, sales in the quarter of \$2,056,000 were 12.8% higher than sales of \$1,822,000 in the prior-year period. This increase was due largely to increased 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.

- Adjusted EBITDA for the division of \$395,000 in the quarter compared favorably to Adjusted EBITDA of \$304,000 in the prior-year period.
- Demand for our BeAl products used in defense applications are expected to strengthen for one of our customers (Lockheed Martin) as rates of production for F-35 Lightning II aircraft begin to accelerate beyond Low Rates of Initial Production (“LRIP”). In addition, we were awarded new purchase orders in the quarter 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.

Selling General and Administrative (“SG&A”) Expenses

SG&A expenses decreased 16% in the quarter over 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. SG&A expenses would be 6% less than the prior-year period were it not for the prior-year one-time charge note above.

Other Income (Expense)

The main components of other income (expense) are typically interest expense and foreign exchange gain (loss).

Results of Operations: Fiscal 2021 Year-to-Date

The Company incurred a loss (net of tax) of \$1,259,000 for the six months ended December 31, 2020, compared to a loss (net of tax) of \$1,320,000 in the comparative period ended December 31, 2019. A summary of results of the operations to adjusted EBITDA follows:

	Six Months Ended December 31, 2020				Six Months Ended December 31, 2019			
	Copper Alloys (\$000s)	Eng. Mat. (\$000s)	Corp. (\$000s)	Consol- idated (\$000s)	Copper Alloys (\$000s)	Eng. Mat. (\$000s)	Corp. (\$000s)	Consol- idated (\$000s)
Revenue	6,064	3,292	-	9,356	7,364	2,910	-	10,274
Cost of revenue								
Materials	3,306	780	-	4,086	3,850	707	-	4,557
Labor	1,154	707	-	1,861	1,160	598	-	1,758
Subcontract	74	77	-	151	151	125	-	276
Overhead	863	595	-	1,458	1,002	337	-	1,339
Depreciation	248	351	-	599	249	421	-	670
Change in finished goods	(174)	(24)	-	(198)	62	301	-	363
	5,471	2,486	-	7,957	6,474	2,489	-	8,963
Gross profit	593	806	-	1,399	890	421	-	1,311
Gross margin	9.8%	24.5%		15.0%	12.1%	14.5%		12.8%
SG&A expenses	923	662	533	2,118	1,014	608	460	2,082
Income (loss) before other items	(330)	144	(533)	(719)	(124)	(187)	(460)	(771)
Other income (expense)	(176)	(54)	(310)	(540)	(180)	(22)	(347)	(549)
Income (loss) for the period, net of tax	(506)	90	(843)	(1,259)	(304)	(209)	(807)	(1,320)
Adjusted EBITDA:								
Add back (deduct):								
Tax expense (recovery)	4	-	16	20	2	4	1	7
Interest expense	182	65	324	571	178	30	346	554
Depreciation, amortization, & impairment	264	389	-	653	300	466	-	766
Stock-based compensation expense (non-cash)	13	9	145	167	9	6	59	74
Adjusted EBITDA	(43)	553	(358)	152	185	297	(401)	81

Segment Analysis: Six months ended December 31, 2020

- **Copper Alloys Sales Division Results:**

- The division posted a comprehensive loss of \$506,000 in the six-month period ended December 31, 2020, compared to loss of \$304,000 in the prior-year period.
- Copper Alloys division sales of \$6,064,000 in the six-month period ended December 31, 2020 were 17.7% lower than sales of \$7,364,000 in the comparable prior year period.
- Gross margin of 9.8% in the six-month period ended December 31, 2020 decreased from the 12.1% averaged gross margin in the prior-year period due to fixed costs being spread over lower sales volume.
- Adjusted EBITDA for the division was (\$43,000) in the six-month period ended December 31, 2020, which was lower than Adjusted EBITDA of \$185,000 in the prior-year period.
- 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 responding to increased demand for copper alloy products related to the transition to 5G networks.

- **Engineered Materials Division Results:**

- The EM division posted a comprehensive income of \$90,000 in the six-month period ended December 31, 2020, reversing a comprehensive loss of \$209,000 in the prior-year period.
- In our EM division, sales in the six-month period ended December 31, 2020 of \$3,292,000 were 13.1% higher than sales of \$2,910,000 in the prior-year period. This increase was due largely to increased demand for BeAl products from customers in the electronics sector who are responding to increased demand for products related to the transition to 5G networks.
- Adjusted EBITDA for the division in the six-month period ended December 31, 2020, was of \$553,000, an 86.2% increase over Adjusted EBITDA of \$297,000 in the prior-year period.

- Demand for our BeAl products used in defense applications are expected to strengthen for one of our customers (Lockheed Martin) as rates of production for F-35 Lightning II aircraft begin to accelerate beyond Low Rates of Initial Production (“LRIP”). In addition, we were awarded new purchase orders in the quarter 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.
- We are continuing to pursue additional contracts for high-performance BeAl products in defense-sector platforms.

Selling General and Administrative (“SG&A”) Expenses

SG&A expenses increased 2% in the six-month period ended December 31, 2020 over the prior-year period. The change was mostly due to increase in information technology consulting costs to maintain compliance with federal regulations.

Other Income (Expense)

The main component of other income (expense) is typically interest expense which increased 3% in the six-month period ended December 31, 2020 while we received a \$7,000 reimbursement of payroll for employees while out with COVID-19.

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:

	<u>2020</u>	<u>2019</u>
December 31	\$3.54	\$2.83
September 30	\$3.03	\$2.57
June 30	\$2.73	\$2.73
March 31	\$2.24	\$2.95

Source: COMEX

LIQUIDITY AND CAPITAL RESOURCES

On December 31, 2020, we had working capital surplus of \$963,000, including cash of \$2,604,000, 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.
- We successfully renewed our credit facility with BMO Harris in October 2020 for another 12 months.
- If we execute on our planned consolidation of our copper casting facility in Royersford, PA into our Franklin, IN facility, we will need to raise between \$4.8 million and \$5.0 million.
- Current liabilities include an accrual of \$1.4 million 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 the Company's exposure to impaired receivables is not significant.
- We also manage liquidity risk by investing the Company's 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 December 31, 2020 prices, an aggregate of \$2,260,000 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 4.8 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 \$459,000 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 December 31, 2020, we had commitments to lease premises and equipment over the next five years with an aggregate payment obligation of \$4.5 million. We are also committed to raw materials purchases over the next year aggregating \$2,260,000. 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 December 31, 2020, non-executive directors' compensation of \$147,000 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 the Company and certain of its 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 the Company's 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 six-month period ended December 31, 2020 loss to operating loss follows:

Quarter ended December 31	2020	2019
	(\$000s)	(\$000s)
Loss for the period	(304)	(770)
Foreign exchange (gain) loss	(86)	57
Interest expense	172	271
Loss on disposal of assets	-	-
Interest income	-	-
Other income	(19)	(6)
Arbitration award liability	-	-
Income tax expense (recovery)	23	1
Operating loss	(214)	(447)

Six months ended December 31	2020	2019
	(\$000s)	(\$000s)
Loss for the period	(1,259)	(1,320)
Foreign exchange (gain) loss	(24)	1
Interest expense	571	554
Loss on disposal of assets	(3)	-
Interest income	-	-
Other income	(24)	(13)
Arbitration award liability	-	-
Income tax expense (recovery)	20	7
Operating loss	(719)	(771)

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 six-month period ended December 31, 2020 loss to Adjusted EBITDA follows:

Quarter ended December 31	2020	2019
	(\$000s)	(\$000s)
Loss for the period	(304)	(770)
Income tax expense (recovery)	23	1
Interest expense	172	271
Depreciation, amortization, & impairment	313	410
Stock-based compensation expense (non-cash)	69	36
Adjusted EBITDA	273	(52)

Six months ended December 31	2020	2019
	(\$000s)	(\$000s)
Loss for the period	(1,259)	(1,320)
Income tax expense (recovery)	20	7
Interest expense	571	554
Depreciation, amortization, & impairment	653	766
Stock-based compensation expense (non-cash)	167	74
Adjusted EBITDA	152	81

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 the Company faces, 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 planning 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, Ind., 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, the Company and its 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, the Company 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. The Company is

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 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's attempt to name the Company's 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 the Company's 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

PRIVATE PLACEMENTS

On November 25, 2019, we announced a non-brokered private placement to issue up to 17.1 million common shares at a price of C\$0.117 per common share for gross proceeds of approximately C\$2.0 million. There was no minimum offering amount. This private placement was closed on December 13, 2019, at which time a second non-brokered private placement was announced for an additional 2.1 million common shares at a price of C\$0.135 per common share for gross proceeds of approximately C\$284,000. The second private placement was closed on December 23, 2019.

SHARE ISSUANCES

- In July 2019, we issued 304,671 common shares for services to our directors, 101,557 common shares for services to a consultant, and 185,000 common shares for options exercised by a director.
- In July 2019, we issued 737,059 common shares to debentures holders with an issue-date value of C\$161,000 in satisfaction of the June 30, 2019 interest payment in lieu of cash.
- In July 2019, 16,129 common shares were issued upon the conversion of C\$5,000 of the 8.25% convertible debentures to common stock.
- In October 2019, 36,013 common shares and 230,000 warrants were returned to treasury upon the cancellation of C\$100,000 8.25% convertible debentures.
- In December 2019, 17,094,010 and 2,104,540 common shares were issued respectively with the closure of the first and second tranches of the non-brokered private placements closed in December 2019.
- In December 2019, 873,023 common shares were issued to debentures with an issue-date value of C\$157,000 in satisfaction of the December 31, 2019 interest payment in lieu of cash.
- In December 2019, 633,827 common shares were issued upon the exercise of options and 169,408 common shares upon the exercise of financing warrants.

- In January 2020, 161,290 common shares were issued upon the conversion of C\$100,000 of the 8.25% convertible debentures to common stock.
- In June 2020, 227,275 shares were issued upon the exercise of broker warrants and 66,965 shares were issued upon the exercise of financing warrants.
- In June 2020, 919,797 common shares were issued to debenture holders with an issue date value of C\$153,000 in satisfaction of the June 30, 2020 interest payment in lieu of cash.
- In August 2020, 80,645 common shares were issued upon the conversion of C\$50,000 of 8.25% convertible debentures to common stock.
- In November 2020, 813,615 common shares were for services to directors and 12,364 common shares were issued for services to a consultant.
- In December 2020, 775,704 common shares were issued to debentures with an issue-date value of C\$154,000 in satisfaction of the December 31, 2020 interest payment in lieu of cash.

OUTSTANDING SHARE DATA

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

- A total of 64,090,625 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 115,290,189.