



IBC Advanced Alloys

IBC ADVANCED ALLOYS CORP.

MANAGEMENT'S DISCUSSION AND ANALYSIS

YEAR ENDED JUNE 30, 2020

401 ARVIN ROAD
FRANKLIN, IN 46131

TELEPHONE: 317-738-2558
EMAIL: INFO@IBCADVANCEDALLOYS.COM

Table of Contents

Executive Summary.....	3
Our Business	4
Recent Corporate Developments Business Initiatives, and Subsequent Events	5
COVID-19.....	6
Manufacturing Operations	6
Copper Alloys	6
Engineered Materials	7
Financial Results and Outlook.....	8
Selected Annual Information.....	8
Selected Quarterly Information	9
Results of Operations: Fiscal 2020 Year	13
Changes in Financial Condition	16
Commodity Pricing for Copper.....	16
Liquidity and Capital Resources	17
Commitments.....	19
Related Party Transactions.....	19
Financial Instruments and Other Instruments.....	19
Non-IFRS Measures.....	21
Research Initiatives.....	23
Business Risks	24
Legal Matters	25
Environmental and Occupational Safety Issues.....	27
Shareholders' Equity.....	28
Private Placements.....	28
Share Issuances	28
Outstanding Share Data.....	29

The following is management's discussion and analysis ("MD&A") of IBC Advanced Alloys Corp. and its subsidiaries, prepared as of October 26, 2020. 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 year ended June 30, 2020 have been prepared in accordance with International Financial Reporting Standards ("IFRS"), as issued by the International Accounting Standards Board ("IASB"), using accounting policies consistent with IFRS as issued by the IASB and interpretations of the International Financial Reporting Interpretations Committee. Additional information relating to us, 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.

Net Profitability in the Quarter on Higher Revenue and Gross Margins: We recorded income, net of tax, of \$27,000 in the quarter, or \$0.00 per share, which compared to a loss, net of tax, of \$1.5 million, or (\$0.04), in the prior-year period. Profitability was driven by higher revenue and stronger gross margins, with consolidated sales up 4% in the quarter and higher by 13% in the year over the comparable prior year. Comprehensive gross margin also strengthened in the quarter and year, improving to 9.7% in the quarter from (7.1%) in the prior-year period, and rising to 14% for the year, from 5.0% the prior-year period. We recorded a loss of \$1.1 million for year, which compared favorably to a loss of \$4 million in the prior year.

- **YoY Sales Higher Across Both Operating Divisions:** Engineered Materials division sales rose by 79% in the quarter, and by 33% in the year, as compared to the comparable prior-year periods. Copper Alloys sales decreased by 20% in the quarter, primarily due to softer economic conditions related to the COVID-19 pandemic but increased by six percent in the year as compared to the comparable prior-year periods.
- **Positive YTD Adjusted EBITDA¹:** Consolidated adjusted earnings before interest, taxes, depreciation, and amortization ("Adjusted EBITDA") for the quarter was \$429,000, which compared to Adjusted EBITDA of (\$1.0 million) for the prior-year period. Adjusted EBITDA for the year ended June 30, 2020 was \$1.3 million, as compared to (\$1.9 million) in the prior year. Both operating divisions posted positive Adjusted EBITDA for the year.

OUR BUSINESS

We are primarily engaged in developing and manufacturing advanced alloys, such as beryllium-aluminum ("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 69 people and comprise two divisions: Copper Alloys and Engineered Materials.

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

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.

- **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 May 5, 2020, we received a U.S. Small Business Administration Loan (the "SBA Loan") from PNC Financial Services Group, Inc. under the Paycheck Protection Program established under the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act"), in the amount of \$776,700. The SBA Loan has a fixed interest rate of 1%, a maturity date of May 4, 2022, and no payments are due on the SBA Loan for six months. We expect to receive full forgiveness of the amount due on the SBA Loan. The maximum amount that is forgivable is generally the sum of the following costs incurred by us during the eight-week period beginning on the date of first disbursement of the SBA Loan: payroll costs, any payment of interest on a covered mortgage obligation, payment on a covered rent obligation, and any covered utility payment. The amount of SBA Loan forgiveness will be calculated in accordance with the requirements of the Paycheck Protection Program, including the provisions of Section 1106 of the CARES Act, although no more than 25% of the amount forgiven can be attributable to non-payroll costs.

On July 8, 2020, our Board of Directors appointed Mark A. Smith to serve as CEO of the Company. Mr. Smith has served on the IBC Board Directors since May 2016 and will continue to serve in his current capacity as Board Chairman.

We recently consolidated our two copper alloy casting plants to cut production costs and improve production efficiencies, closing our New Madrid, MO plant and shifting its operations to our casting facility in Royersford, PA.

Further, as a result of the expiration of the lease on our Royersford, PA facility at the end of 2021, we are working toward an additional consolidation in our Copper Alloys Division, in which we plan to move our copper casting operations from Royersford, PA to our Franklin, IN facility. We anticipate that this consolidation will help us cut production costs, improve efficiencies, and improve our competitiveness in copper alloy product markets.

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 remain in operation and are serving customers in both the defense and commercial sectors. Demand for our products has slowed somewhat as a result of the COVID-19 pandemic, and we are continuing to feel the effects of decreased market demand in Q1 of fiscal 2021.

While the pandemic appears to be easing, 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 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.
- 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 69 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 is also 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 Engineered Materials ("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 ANNUAL INFORMATION

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

Year ended	June 30		
	2020	2019	2018
Revenue (\$000)	21,148	18,668	19,399
Loss, net of tax (\$000)	(1,122)	(4,043)	(702)
Loss per share, basic and diluted (\$/share)	(0.02)	(0.11)	(0.02)
Total assets (\$000)	19,282	17,814	20,295
Long-term financial liabilities (\$000)	3,990	1,847	1,769

Annual operating results are affected by trends in the various sectors that the company serves. 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 was to increasing margins as sales increased and the Company installed new machinery allowing it to manufacture more efficiently.

In addition to these general trends the following factors have caused variation over the fiscal years 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.
- General economic concerns may make it difficult to obtain or renew debt facilities or raise equity funding on acceptable terms or at all.

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)	\$
September 30, 2018	4,693	(761)	(0.02)
December 31, 2018	3,904	(1,088)	(0.03)
March 31, 2019	5,202	(639)	(0.02)
June 30, 2019	4,869	(1,552)	(0.04)
September 30, 2019	4,916	(543)	(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

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. 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 was to increasing margins as sales increased and the Company installed new machinery allowing it to manufacture more efficiently.

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

IBC Advanced Alloys Corp.
Management's Discussion and Analysis
Year Ended June 30, 2020

Results of Operations: Fiscal 2020 Q4

We earned income, net of tax of \$27,000 for the three months ended June 30, 2020, compared to a loss, net of tax of \$1.5 million in the prior-year period. A summary of results of operations, and a reconciliation of income (loss) to Adjusted EBITDA, follows:

	Three Months Ended June 30, 2020				Three Months Ended June 30, 2019			
	Copper Alloys (\$000s)	Eng. Mat. (\$000s)	Corp. (\$000s)	Consol- idated (\$000s)	Copper Alloys (\$000s)	Eng. Mat. (\$000s)	Corp. (\$000s)	Consol- idated (\$000s)
Revenue	2,975	2,081	-	5,056	3,709	1,160	-	4,869
Cost of revenue								
Materials	2,014	558	-	2,572	2,511	423	-	2,934
Labor	561	341	-	902	660	339	-	999
Subcontract	55	21	-	76	45	49	-	94
Overhead	417	489	-	906	418	472	-	890
Depreciation	137	14	-	151	114	107	-	221
Change in finished goods	(37)	(5)	-	(42)	(60)	137	-	77
	3,147	1,418	-	4,565	3,688	1,527	-	5,215
Gross profit	(172)	663	-	491	21	(367)	-	(346)
Gross margin	-5.8%	31.9%		9.7%	0.6%	-31.6%		-7.1%
SG&A expenses	241	260	123	624	532	206	213	951
Income (loss) before other items	(413)	403	(123)	(133)	(511)	(573)	(213)	(1,297)
Other income (expense)	(60)	(95)	315	160	(71)	6	(187)	(252)
Income (loss) for the period, net of tax	(473)	308	192	27	(582)	(567)	(400)	(1,549)
Adjusted EBITDA:								
Add back (deduct):								
Tax expense (recovery)	4	-	9	13	(6)	-	(4)	(10)
Interest expense	50	102	154	306	79	5	133	217
Depreciation, amortization, & impairment	145	21	-	166	127	110	-	237
Stock-based compensation expense (non-cash)	(4)	(27)	(26)	(57)	10	7	62	79
Adjusted EBITDA	(278)	404	329	455	(372)	(445)	(209)	(1,026)

Segment Analysis: Fiscal Q4 2020

Factors affecting our financial performance in the quarter ended June 30, 2020 include the following:

- **Copper Alloys Sales Division Results:**
 - The division posted a loss, net of tax of \$473,000 in the quarter, which narrowed a loss, net of tax of \$582,000 in the prior-year period.
 - Copper Alloys division sales of \$3.0 million in the quarter were 20% lower than sales of \$3.7 million in fiscal Q4 of 2019.
 - Averaged gross margin in the quarter declined to a negative 5.8%, from a 1% gross margin in the prior-year period. The decline is due to less sales.
 - Adjusted EBITDA for the division was (\$278,000) in the quarter, which compared favorably to Adjusted EBITDA of (\$372,000) in the prior-year period.
 - Demand for our products increased to marine defense, electronics and industrial equipment markets while seeing declines in oil and gas, plastic mold and metal melting. Declines were associated to markets mostly impacted by Covid 19.

- **Engineered Materials Division Results:**
 - The EM division swung to profitability in the quarter ended June 30, 2020, posting income, net of tax of \$308,000 as compared to a loss, net of tax of \$567,000 in the prior-year period.
 - In our EM division, sales in the quarter of \$2.1 million were 79% higher than sales of \$1.2 million in the prior-year period. This increase was due largely to increased demand for BeAl products in commercial markets.
 - Adjusted EBITDA for the division of \$404,000 also swung to the positive in the quarter, as compared to Adjusted EBITDA of (\$445,000) in the prior-year period.
 - Demand for our BeAl products used in defense applications remained steady in calendar year 2019 and increased in 2020, but is expected to strengthen further 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"). For example, according to data released publicly by our customer Lockheed-Martin, the annual rate of production of the F-35 aircraft is expected to nearly double by 2022 from 2018 production levels.

- We are continuing to pursue additional contracts for high-performance BeAl products in defense-sector platforms. As we announced on August 31, 2020, we were awarded \$1.9 million in new orders for investment-cast BeAl components from a major U.S. defense contractor.

Selling General and Administrative ("SG&A") Expenses

SG&A expenses declined 34% in the quarter over the prior-year period. The change was mostly due to a \$114,000 decrease in share-based compensation in the quarter with the recognition of the forfeiture of stock options upon stock optionees' terminations.

Other Income (Expense)

The main component of other income (expense) is typically interest expense. Additionally, the forgiveness of the SBA loan per the Paycheck Protection Program is recorded in Other Income (expense) in accordance with IAS 20; this is grant income.

RESULTS OF OPERATIONS: FISCAL 2020 YEAR

The Company posted a loss, net of tax of \$1.1 million for the year ended June 30, 2020, compared to a loss, net of tax of \$4.0 million in the comparative period ended June 30, 2019. A summary of results of the operations to adjusted EBITDA follows:

IBC Advanced Alloys Corp.
Management's Discussion and Analysis
Year Ended June 30, 2020

	Year Ended June 30, 2020				Year Ended June 30, 2019			
	Copper Alloys (\$000s)	Eng. Mat. (\$000s)	Corp. (\$000s)	Consol- idated (\$000s)	Copper Alloys (\$000s)	Eng. Mat. (\$000s)	Corp. (\$000s)	Consol- idated (\$000s)
Revenue	14,284	6,864	-	21,148	13,513	5,155	-	18,668
Cost of revenue								
Materials	8,013	1,682	-	9,695	7,866	929	-	8,795
Labor	2,282	1,290	-	3,572	2,322	1,542	-	3,864
Subcontract	290	193	-	483	273	280	-	553
Overhead	1,916	1,078	-	2,994	1,844	1,711	-	3,555
Depreciation	527	631	-	1,158	407	392	-	799
Change in finished goods	(21)	306	-	285	(256)	426	-	170
	13,007	5,180	-	18,187	12,456	5,280	-	17,736
Gross profit	1,277	1,684	-	2,961	1,057	(125)	-	932
Gross margin	8.9%	24.5%		14.0%	7.8%	-2.4%		5.0%
SG&A expenses	1,640	1,196	894	3,730	1,981	984	1,049	4,014
Income (loss) before other items	(363)	488	(894)	(769)	(924)	(1,109)	(1,049)	(3,082)
Other income (expense)	(316)	(123)	86	(353)	(328)	(9)	(624)	(961)
Income (loss) for the period, net of tax	(679)	365	(808)	(1,122)	(1,252)	(1,118)	(1,673)	(4,043)
Adjusted EBITDA:								
Add back (deduct):								
Tax expense (recovery)	6	3	11	20	(6)	6	(4)	(4)
Interest expense	299	144	668	1,111	310	30	585	925
Depreciation, amortization, & impairment	594	707	-	1,301	424	396	-	820
Stock-based compensation expense (non-cash)	9	(19)	61	51	71	48	278	397
Adjusted EBITDA	229	1,200	(68)	1,361	(453)	(638)	(814)	(1,905)

Segment Analysis: Year Ended June 30, 2020:

- Copper Alloys Sales Division Results:
 - Our Copper Alloys division posted a loss, net of tax of \$679,000 in the year ended June 30, 2020, which compared favorably to a loss, net of tax of \$1.3 million in the prior year.
 - Fiscal Year 2020 Copper Alloys division sales were \$14.3 million, a 6% increase over sales of \$13.5 million in the prior year.

- Adjusted EBITDA was \$229,000 for the year, which compared to Adjusted EBITDA of (\$453,000) in the prior year.
- Demand for copper alloy products continued to improve well into our 2020 Fiscal year. This growth has been driven primarily by strong demand in electronics, marine defense and power generation markets. Growth has also accelerated due in part to the division's ability to produce more value-added products as a result of several strategic capital equipment upgrades made in fiscal year 2019. However, demand for copper alloy products began to slow in the last 3 months of fiscal 2020 year in markets affected by COVID-19.
- Engineered Materials Division Results:
 - The EM division posted income, net of tax of \$365,000 in the year ended June 30, 2020, which reversed a loss, net of tax of \$1.1 million in the prior year.
 - EM sales grew to \$6.9 million, a 33% increase over \$5.2 million in sales in the prior year. This change was largely driven by increased demand for BeAl products in commercial markets.
 - Adjusted EBITDA of \$1.2 million for the current year compared favorably to Adjusted EBITDA of (\$638,000) in the prior year.
 - As noted above, demand for our BeAl products used in defense applications remained steady in calendar year 2019, but is 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 Rate Initial Production ("LRIP"). For example, according to data released publicly by our customer Lockheed-Martin, the annual rate of production of the F-35 aircraft is expected to nearly double by 2022 from 2018 production levels.
 - We are continuing to pursue additional contracts for high-performance BeAl products in defense-sector platforms. As we announced on August 31, 2020, we were awarded \$1.9 million in new orders for investment-cast, BeAl components from a major U.S. defense contractor.

Selling, General and Administrative Expenses

SG&A expenses are 7% lower in the current year than in the prior year, due to an 85% decrease in share-based compensation with an adjustment to recognize the forfeitures of stock options with the stock optionees' terminations.

Other Income (Expense)

The main component of other income (expense) is interest expense.

CHANGES IN FINANCIAL CONDITION

Changes in our financial condition since June 30, 2019 are related to operations in the normal course of business. In addition:

- With the adoption of IFRS 16, on July 1, 2019, we recorded a right of use asset of \$2.5 million and a corresponding lease liability of \$2.6 million.
- In November and December 2019, we completed two private placements that raised gross proceeds of C\$2.29 million.
- In June 2020, we signed an extension a commercial property lease and recorded a right-of-use asset of \$160,000 and a corresponding lease liability of \$160,000 according to IFRS 16.

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:

	2020	2019
June 30	\$2.73	\$2.73
March 31	\$2.24	\$2.95
	2019	2018
December 31	\$2.83	\$2.65
September 30	\$2.57	\$2.81

Source: COMEX

LIQUIDITY AND CAPITAL RESOURCES

On June 30, 2020, we had working capital surplus of \$852,000 including cash of \$509,000 as compared to working capital deficiency of \$1.3 million including cash of \$720,000 on June 30, 2019. 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. 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.
- The Company must repay these notes payable: principal and interest of \$21,000 are due August 4, 2020, principal and interest of \$70,000 are due September 27, 2020, and principal and interest of \$21,000 are due August 28, 2020. These notes are secured by accounts receivable and inventory of our EM division.
- We have the option of settling interest on convertible debentures through the issuance of common shares. In fiscal 2020, doing so benefited our cash flow by \$341,000.

- 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, on June 30, 2020 prices, an aggregate of \$1.8 million 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 5.4 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 \$754,000 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 June 30, 2020, we had commitments to lease premises and equipment over the next six years with an aggregate payment obligation of \$4.8 million. We are also committed to raw materials purchases over the next year aggregating \$1.8 million. 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 year ended June 30, 2020, non-executive directors' compensation of \$184,000 was not paid but has been accrued.

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, 2019 or are required to be adopted in future periods. The following pronouncement is relevant to the condensed consolidated interim financial statements:

IFRS 16 - Leases

IFRS 16 - Leases specifies how to recognize, measure, present and disclose leases. The standard provides a single lessee accounting model, requiring that lessees recognize assets and liabilities for all leases unless the lease term is 12 months or less or the underlying asset has an insignificant value. Lessors continue to classify leases as operating or finance, with IFRS 16's approach to lessor accounting substantially unchanged from its predecessor, IAS 17. IFRS 16 was issued in January 2016 and is applicable to our fiscal year that began on July 1, 2019. Adoption of IFRS 16 resulted in our recording a right-of-use asset of \$2.5 million and a corresponding lease liability of \$2.6 million in our statement of financial

position. In June 2020, we signed an extension of a commercial property lease and recorded a right-of-use asset and a corresponding lease liability of \$160,000 in our statement of financial position according to IFRS 16. Although the related interest and depreciation expenses will not be the same as the monthly lease payments, the differences are not material.

There are no other 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.

IBC Advanced Alloys Corp.
Management's Discussion and Analysis
Year Ended June 30, 2020

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 fourth quarter loss and the year ended June 30, 2020 income (loss) to operating income follows:

Quarter ended June 30	2020	2019
	(\$000s)	(\$000s)
Income (loss) for the period	27	(1,549)
Foreign exchange (gain) loss	299	55
Interest expense	306	217
Loss on disposal of assets	6	-
Interest income	-	-
Other income	(784)	(10)
Income tax expense (recovery)	13	(10)
Operating income (loss)	(133)	(1,297)

Year ended June 30	2020	2019
	(\$000s)	(\$000s)
Loss for the period	(1,122)	(4,043)
Foreign exchange (gain) loss	11	49
Interest expense	1,111	925
Loss on disposal of assets	11	20
Interest income	-	(7)
Other income	(800)	(22)
Income tax expense (recovery)	20	(4)
Operating loss	(769)	(3,082)

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 fourth quarter and the year ended June 30, 2020 income (loss) to Adjusted EBITDA follows:

Quarter ended June 30	2020	2019
	(\$000s)	(\$000s)
Income (loss) for the period	27	(1,549)
Income tax expense (recovery)	13	(10)
Interest expense	306	217
Depreciation, & amortization,	166	237
Stock-based compensation expense (non-cash)	(57)	79
Adjusted EBITDA	455	(1,026)
Year ended June 30	2020	2019
	(\$000s)	(\$000s)
Loss for the period	(1,122)	(4,043)
Income tax expense (recovery)	20	(4)
Interest expense	1,111	925
Depreciation, & amortization,	1,301	820
Stock-based compensation expense (non-cash)	51	397
Adjusted EBITDA	1,361	(1,905)

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

or to find other supply options in a timely basis, 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.

OUTSTANDING SHARE DATA

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

- A total of 62,488,942 common shares.
- Warrants to purchase 36,938,901 common shares.
- Share options to purchase 4,168,250 common shares.

The maximum number of shares potentially issuable together with the issued shares is therefore 103,596,093.