



**IBEX TECHNOLOGIES INC.**

**MANAGEMENT DISCUSSION AND ANALYSIS**

**FISCAL 2019**

**SIX MONTHS ENDED  
JANUARY 31, 2019**

**As at March 21, 2019**



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**MANAGEMENT DISCUSSION AND ANALYSIS  
FOR THE SIX MONTHS ENDED JANUARY 31, 2019**

**March 21, 2019**

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## MANAGEMENT DISCUSSION AND ANALYSIS

March 21, 2019

### 1 PREAMBLE

The following Management Discussion and Analysis (“MD&A”) and unaudited condensed interim consolidated financial statements (“interim financial statements”) of IBEX Technologies Inc. (“Company”) were approved by the Audit Committee and the Board of Directors on March 21, 2019. The MD&A provides a review of the developments and results of operations of the Company during the second quarter ended January 31, 2019 compared with the second quarter ended January 31, 2018.

The MD&A should be read in conjunction with the Company’s audited consolidated financial statements and notes thereto for the years ended July 31, 2018 and 2017.

The Company’s interim financial statements are prepared in accordance with International Financial Reporting Standards (“IFRS”). Additional information relating to the Company, including the Company’s Proxy Circular, can be found on SEDAR at [www.sedar.com](http://www.sedar.com).

Where “IBEX” or “the Company” is used, it refers to IBEX Technologies Inc. and its wholly owned subsidiaries, unless otherwise indicated. All amounts are in Canadian dollars, unless otherwise indicated.

### 2 FORWARD-LOOKING STATEMENTS

This document contains forward-looking statements that reflect the Company’s current expectations regarding future events. Any such statements are subject to risks and uncertainties that could cause actual results to differ materially from those projected in these forward-looking statements. For more information on the Company’s risks and uncertainties relating to these forward-looking statements, please refer to the risks and uncertainties section of the MD&A.

## **3 INTRODUCTION TO IBEX**

### **3.1 Enzymes**

The Company, through its wholly owned subsidiaries, IBEX Pharmaceuticals Inc. and Bio-Research Products Inc. (“BRP”), manufactures and markets enzymes for biomedical use.

These enzymes are sold directly by the Company to manufacturers of medical devices, quality control labs and academic research institutions.

Heparinase I is the most important of the IBEX enzymes. Its potential lies in its ability to cleave heparin and low molecular weight heparins and thereby neutralize the effects of heparin and heparinoids which are drugs commonly used in hospitals and which interfere with haemostasis tests. Heparinase I recognizes and cleaves a pentasaccharide sequence which occurs in both unfractionated heparin and the low molecular weight heparins, thereby neutralizing their anticoagulant activity and thus facilitating the accurate measurement of haemostasis.

IBEX heparinase I is made via a proprietary process and is the only heparinase I approved for use in clinical diagnostics in North America and Europe.

IBEX produces its enzymes at its sites in Montréal, Québec and in North Liberty, Iowa, as well as at third party manufacturing facilities monitored by IBEX personnel.

In addition to making and selling enzymes, IBEX also provides lyophilization services for the making of disposable medical devices components used in the hemostasis point-of-care market.

### **3.2 Arthritis Assays**

IBEX develops, manufactures and sells arthritis assay kits which enable the study of both the synthesis and degradation of cartilage components. These assays are powerful tools in the study of osteo and rheumatoid arthritis. These assays are a result of both internal research and development, and the in-licensing of technology from academic research institutions.

IBEX arthritis diagnostic kits and services are marketed and sold for research use only (“RUO”) to pharmaceutical companies, clinical research organizations and academic institutions. These diagnostic kits are marketed through distributors in Europe and Japan, and directly by IBEX in North American and the rest of the world. The kits are produced in IBEX facilities.

## 4 RESULTS OF OPERATIONS: Q2 FISCAL 2019

### 4.1 Summary of Quarterly Results

The following table is a summary of selected quarterly consolidated financial information of the Company for each of the eight most recently completed quarters.

(in thousands of dollars, excluding per share amounts)	January 31		October 31		July 31		April 30		4 Quarters	
	2019 \$	2018 \$	2018 \$	2017 \$	2018 \$	2017 \$	2018 \$	2017 \$	2019 \$	2018 \$
- Revenues	1,433	893	1,039	1,183	1,265	1,460	1,389	1,115	5,126	4,651
- Net earnings (loss)	43	(416)	(209)	130	(19)	2,359	210	1	25	2,074
- Earnings (loss) per common share	-	(0.02)	(0.01)	0.01	-	0.09	0.01	-	-	0.08
- Comprehensive income (loss)	44	(447)	(202)	151	(8)	2,289	238	49	72	2,042

### Net earnings for the Quarter

The Company recorded a net earnings of \$42,798 during the second quarter ended January 31, 2019 compared to a net loss of \$415,596 for the same period a year ago. This positive change of \$458,394 is related mainly to an increase in revenues of \$539,858 (see section 4.3), partially offset by an increase in expenses of \$81,464 (see section 4.4).

### 4.2 Foreign Exchange

The tables below show the fluctuation in the Canadian/US dollar exchange rates which can have a significant impact on Company's results. Average rates are used to translate revenues and expenses for the period mentioned; closing rates are used to translate assets and liabilities of foreign operations, as well as monetary assets and liabilities at the end of the reporting period.

Consolidated foreign exchange (gain) loss		
Quarter ended	January 31, 2019	January 31, 2018
Balance sheet revaluation		
• US cash	<b>\$9,026</b>	(\$66,902)
• US Trade receivables	<b>\$7,676</b>	(\$31,213)
• Other US accounts	<b>(\$7,700)</b>	\$198,890
Total gain on revaluation	<b>\$9,002</b>	\$100,775

Canadian/US dollar		
Quarter ended	January 31, 2019	January 31, 2018
Average rate	<b>1.3311</b>	1.2656
Closing rate	<b>1.3144</b>	1.2293

### 4.3 Revenues for the Quarter

*Note: While the Company reports in Canadian dollars, the US dollar is the Company's selling currency. As such, fluctuations in the Canadian/US dollar exchange rate can have a significant impact on the reported revenue figures.*

Revenues for the quarter ended January 31, 2019 totaled \$1,432,632, an increase of \$539,858 (60%) compared to the same period year ago. The increase in revenues traces mainly to the changes in quarterly purchasing patterns on the part of several of our major customers.

The net increase of \$539,858 in revenues vs. the same period year ago can be attributed to an actual increase in revenues of \$486,201 (US\$365,263) and a positive variance of \$53,657 due to the impact of currency exchange.

The positive variance of US\$365,263 vs. the same quarter in the previous year can be attributed to volume of US\$432,721, offset by a negative variance in product mix of US\$59,958 and in new products of US\$7,500.

Revenues Variations – Quarter ended	January 31, 2019 vs. January 31, 2018
Volume/mix/new products impact:	
• Increase due to volume USD	\$432,721
• Decrease due to product mix USD	(\$59,958)
• Decrease due to new products USD	(\$7,500)
Total increase due to volume/mix/new products USD	\$365,263
Currency impact:	
• Total increase due to volume/mix/new products CAD	\$486,201
• Currency positive effects in CAD	\$53,657
• Total increase in CAD	\$539,858

During second quarter ended January 31, 2019, the average currency rate was 1.3311 compared to 1.2656 in the same quarter last year. This translates to a gain for the Company since its sells in US dollars and reports in Canadian dollars.

### 4.4 Total Expenses for the Quarter

Total expenses in the second quarter of fiscal 2019 increased to \$1,389,834 compared to \$1,308,370 in the same quarter year ago.

Expense details		
Quarter ended	January 31, 2019	January 31, 2018
Cost of sales <sup>1</sup>	\$775,098	\$609,955
R&D expenses <sup>1</sup>	\$114,400	\$53,890
SG&A expenses <sup>1</sup>	\$417,476	\$471,478
Depreciation of PPE <sup>2</sup>	\$69,902	\$78,498
Foreign exchange loss	\$9,002	\$100,775
Financial expenses - net	\$3,956	\$8,774
Total expenses	\$1,389,834	\$1,323,370
Other gains	-	(\$15,000)
Total expenses after other gains	\$1,389,834	\$1,308,370

1- Excludes related depreciation expense for the purposes of this presentation.

2- PPE = Property, plant and equipment.

#### 4.4.1 Cost of Sales

The Company uses the actual-cost method of recording its production costs rather than a standard-cost method (because of the practicalities of the Company's production, the standard-cost method is unsuitable). While the actual-cost method is most suitable to the Company's processes, it does result in the wide swings from quarter to quarter in the cost of sales due to the "inventory allocation" effect (if more goods are produced in a quarter than are sold, there is a positive effect on the results; the reverse is true if more goods are sold than are produced).

Cost of sales consists principally of the costs of supplies, royalties, manufacturing labour and the allocation of fixed overheads.

Cost of sales		
Quarter ended	January 31, 2019	January 31, 2018
Revenues	\$1,432,632	\$892,774
Cost of sales <sup>3</sup>	\$834,155	\$671,690
Gross margin %	42%	25%

3- Includes related depreciation expense for the purposes of this presentation.

The increase in gross margin traces to cost allocation (the level of transfer of salaries, supplies, royalties and overhead to inventory) rather than to a decrease in the costs of materials or labour.

#### 4.4.2 Research and Development Expenses

Research and development (R&D) expenses consisted primarily of personnel expenses, laboratory supplies and external service providers. During the quarter ended January 31, 2019, research and development expenses totaled \$114,400 compared to \$53,890 in the same period year ago. The increase of \$60,510 traces mainly to the one-time costs of getting regulatory approval for the transfer of production from Iowa to Canada.

#### 4.4.3 Selling, General and Administrative Expenses

During the quarter ended January 31, 2019, selling, general and administrative (SG&A) expenses totaled \$417,476 compared to \$471,478 in the same period year ago.

## 5 RESULTS OF OPERATIONS FOR THE SIX MONTHS ENDED JANUARY 31, 2019

### 5.1 Summary of Results

The Company recorded a net loss of \$165,943 for the six months ended January 31, 2019 compared to a net loss of \$285,737 for the same period year ago. This positive change of \$119,794 is primarily attributable to the increase in revenues of \$396,318 (see section 5.3), partially offset by an increase in expenses of \$276,524 (see section 5.4).

Net loss		
Year-to-date	Fiscal 2019	Fiscal 2018
Revenues	\$2,472,105	\$2,075,787
Net expenses	\$2,638,048	\$2,361,524
Net loss	(\$165,943)	(\$285,737)
Loss per share, basic and diluted	(\$0.01)	(\$0.01)

### 5.2 Foreign Exchange

The table below shows the fluctuation in the Canadian/US exchange rates which can have a significant impact on the Company's results. As mentioned in section 4.2, average rates are used to translate revenues and expenses for the period mentioned; closing rates are used to translate assets and liabilities of foreign operations, as well as and monetary assets and liabilities at the end of the reporting period.

Consolidated cumulative foreign exchange (gain) loss		
Year-to-date	Fiscal 2019	Fiscal 2018
Balance sheet revaluation		
• US Cash	(\$1,827)	(\$121,907)
• US Trade receivables	(\$74)	(\$78,868)
• Other US accounts	(\$12,104)	\$219,452
Total (gain) loss on revaluation	(\$14,005)	\$18,677

Canadian/US dollar rates		
Year ended	January 31, 2019	January 31, 2018
Average rate	1.3170	1.2577
Closing rate	1.3144	1.2293

### 5.3 Revenues

Revenues for the six months ended January 31, 2019 totaled \$2,472,105 compared to \$2,075,787 for the same period year ago. The increase in revenues traces mainly to the changes in purchasing patterns on the part of several of our major customers.

The net increase in revenues vs. the same period year ago was \$396,318, of which \$300,149 (US\$222,469) can be attributed to an actual increase in revenues and the balance of \$96,169 to the positive currency impact.

The positive variance in revenues came from a volume variance of US\$293,967, offset by a negative variance in product mix of US\$48,643 and in new products of US\$22,855.

Revenues Variations – Year-to-date	Fiscal 2019 vs. Fiscal 2018
Volume/mix/new products impact:	
• Increase due to volume USD	\$293,967
• Decrease due to product mix USD	(\$48,643)
• Decrease due to new products USD	(\$22,855)
Total increase due to volume/mix/new products USD	\$222,469
Currency impact:	
• Total increase due to volume/mix/new products CAD	\$300,149
• Currency positive effects CAD	\$96,169
• Total increase in CAD	\$396,318

### 5.4 Total Expenses

Total expenses for the six months ended January 31, 2019 totaled \$2,638,048 compared to \$2,361,524 for the same period year ago. The increase of \$276,524 traces mainly to an increase in salaries and benefits expense due to new hires.

Expense details		
Year-to-date	Fiscal 2019	Fiscal 2018
Cost of sales <sup>4</sup>	<b>\$1,460,585</b>	\$1,283,076
R&D expenses <sup>4</sup>	<b>\$173,148</b>	\$100,955
SG&A expenses <sup>4</sup>	<b>\$878,249</b>	\$830,588
Depreciation of PPE	<b>\$141,069</b>	\$139,406
Foreign exchange (gain) loss	<b>(\$14,005)</b>	\$18,677
Financial expenses - net	<b>\$9,002</b>	\$18,822
Total expenses	<b>\$2,648,048</b>	\$2,391,524
Other gains	<b>(\$10,000)</b>	(\$30,000)
Total expenses after other gains	<b>\$2,638,048</b>	\$2,361,524

4- Excludes related depreciation expense for the purposes of this presentation.

#### 5.4.1 Cost of Sales

Cost of Sales consists principally of the costs of supplies, royalties, manufacturing labour and the allocation of fixed overheads. For further explanation on the determination of the cost of sales, see section 4.4.1 above.

Cost of sales		
Year-to-date	Fiscal 2019	Fiscal 2018
Revenues	<b>\$2,472,105</b>	\$2,075,787
Cost of sales <sup>5</sup>	<b>\$1,579,733</b>	\$1,392,203
Gross margin %	<b>36%</b>	33%

5- Includes related depreciation expense for the purposes of this presentation.

The increase in gross margin traces to cost allocation (the level of transfer of salaries, supplies, royalties and overheads to inventory) rather than to a decrease in the costs of materials or labour.

#### 5.4.2 Research and Development Expenses

Research and development (R&D) expenses for the six months ended January 31, 2019 totaled \$173,148 compared to \$100,955 for the same period year ago. The increase of \$72,193 traces mainly to the one-time costs of getting regulatory approval for the transfer of production from Iowa to Canada.

#### 5.4.3 Selling, General and Administrative Expenses

Selling, general and administrative (SG&A) expenses for the six months ended January 31, 2019 totaled \$878,249 compared to \$830,588 for the same period year ago.

## 6 LIQUIDITY AND CAPITAL RESOURCES

Liquidity risk is the potential risk that the Company will not be able to meet its financial liabilities when due. The Company's financial liabilities include its accounts payable and accrued liabilities presented on the consolidated statement of financial position, which are due within the next 12 months. The Company manages liquidity risk by maintaining adequate cash balances to discharge its liabilities when due.

As at January 31, 2019, the Company had net working capital of \$3,556,616 compared to net working capital of \$3,619,456 as at July 31, 2018. Cash and cash equivalents increased by \$187,030 to \$3,327,402 compared to \$3,140,372 as at July 31, 2018.

As at:	January 31, 2019	October 31, 2018	July 31, 2018	April 30, 2018	January 31, 2018
Cash and cash equivalents	<b>\$3,327,402</b>	\$2,858,008	\$3,140,372	\$2,696,404	\$2,708,984
Net working capital	<b>\$3,556,616</b>	\$3,447,689	\$3,619,456	\$3,512,390	\$3,216,453

Management believes that the Company has sufficient funds to meet its obligations and planned expenditures for the ensuing twelve months as they fall due. In assessing whether the going concern assumption is appropriate, management takes into account all available information about the future, which is at least, but not limited to, twelve months from the end of the reporting period.

## 7 LOOKING FORWARD

As always, the future financial results of the Company are difficult to predict as the Company's customers have significant variations in their purchasing patterns.

As previously reported, we expect to see lower revenues in the second half of Fiscal 2019 vs. Fiscal 2018 due to a combination of customer order volumes and timing, and a reduction in orders on the part of one customer tracing to their excess inventory.

These two factors point to a significant reduction in net earnings in for the second half and full-year Fiscal 2019 vs. Fiscal 2018.

On the positive side, the previously announced closure of the Iowa facility will produce operational savings of approximately \$800,000 annually starting in Fiscal 2020 and an additional \$200,000 annually when the facility is sold, however the Company will incur approximately \$150,000 in one-time severance and other related costs in the fourth quarter of this fiscal year.

The Company continues to work on a number of heparinase-containing clinical device projects with its key customers, some of which may result in additional revenues in Fiscal 2020 and beyond; however, as with all developmental projects, we cannot give any assurances that any of these customer-driven projects will come to market and produce significant revenues.

## **8 RISKS AND UNCERTAINTIES**

The results of operations and financial condition of the Company are subject to a number of risks and uncertainties and are affected by a number of factors outside the control of Management.

For more information, and for a complete description of the risk factors that could materially affect the business, please refer to the corresponding sections in the Company's July 31, 2018 MD&A, as they are the same for the six months ended January 31, 2019.

## **9 RELATED PARTY TRANSACTIONS**

During the six months ended January 31, 2019 and 2018, other than the transactions and amounts described in *Note 9* in our interim financial statements, the Company did not have any other related party transactions.

## **10 CRITICAL ACCOUNTING ESTIMATES**

Please refer to *Note 2* of the Company's July 31, 2018 audited consolidated financial statements and the corresponding section of the July 31, 2018 MD&A to review the Company's critical accounting estimates. They were the same as those used in the interim financial statements for the six months ended January 31, 2019.

## **11 ACCOUNTING STANDARDS AND AMENDMENTS**

Please refer to *Note 2* of the Company's January 31, 2019 interim financial statements.

## **12 OUTSTANDING SHARE DATA**

### **12.1 Common Shares**

As at March 21, 2019, the Company has 24,773,244 common shares outstanding.

### **12.2 Stock Options**

As at March 21, 2019, the Company has 1,805,000 stock options outstanding with exercise prices ranging from \$0.05 to \$0.24 and expiry dates ranging from December 2019 to December 2028.

As at March 21, 2019, on an if-converted basis, these stock options would result in the issuance of 1,805,000 common shares at an aggregate exercise price of \$355,875.

## **13 SUBSEQUENT EVENT**

On March 12, 2019, IBEX reported that it plans to close its Iowa production facility as of July 31, 2019.

The Iowa production facility came with the 2013 acquisition of Bio-Research Products Inc. ("BRP") a company based in North Liberty, Iowa. BRP produces, among other things, a series of enzymes used in clinical diagnostics which complements the IBEX enzyme product line. The production of the BRP clinical diagnostics enzymes will be transferred to the IBEX Montréal production facility.

The North Liberty facility will be put up for sale as a functioning enzyme production facility with all the equipment required for the production of clinical diagnostic enzymes and botanical extracts. The property consists of a fermentation suite with a 300 litre bio-reactor, 2,200 square feet of wet-

lab space, 1,200 square feet of production space for downstream production and 4,450 square feet of warehouse space. The facility sits on 5.43 acres of land, of which 3.54 acres is available for future expansion.

The Company will book approximately \$150,000 in shut-down related costs in the fourth quarter of this fiscal year.

The initial operating benefit from the closure of the site will begin to flow into the financial results in the second quarter of Fiscal 2020 (the quarter ending January 31, 2020). The subsequent operating benefit will be realized when the property is sold.

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