

QUANTUM NUMBERS CORP.

Interim Management Discussion and Analysis

As at June 30, 2017

QUANTUM NUMBERS CORP.

1. **SCOPE OF MANAGEMENT'S FINANCIAL ANALYSIS**

The following analysis should be read in conjunction with the annual financial statements, including accompanying notes, of Quantum Numbers Corp. ("the Company") for the year ended December 31, 2016. The unaudited condensed interim financial statements for the quarter ended June 30, 2017, including comparative figures, have been prepared in accordance with IFRS applicable to the preparation of interim financial statements, including IAS 34, *Interim Financial Reporting*. All amounts are in Canadian dollars unless otherwise indicated.

1.1 **FORWARD LOOKING STATEMENTS**

The sections of this management discussion and analysis ("MD&A") on the Company's strategy and action plan, its technology activities and financial reporting reflecting Management's current expectations contain "forward looking statements". Such statements should be understood in context, particularly statements that reflect the Company's opinions, estimates and expectations with regard to future events or results. Such forward-looking statements are subject to certain factors and involve a number of risks and uncertainties. There can be no assurance that such statements will prove to be accurate. Factors that could cause future results, activities and events to differ materially from those expressed or implied by such forward-looking statements include, but not limited to, qualification under current regulations and protection of our technologies by way of patents and trademarks. These risks and uncertainties are described in this MD&A and in the annual information form filed on SEDAR.

1.2 **INCORPORATION, NATURE OF OPERATIONS AND GOING CONCERN**

Quantum Numbers Corp. was incorporated under the *Business Corporations Act* of Ontario on July 19, 2007. The Company's name was changed from Active Growth Capital Inc. on December 6, 2016.

The head office, principal address and records office of the Company are located at 3755 E Blvd Matte, suite 201, Brossard, Québec, J4Y 2P4. The Company is an advanced developer of a new generation of cryptographic solutions pursuant to the acquisition of intellectual property. Prior to the acquisition of intellectual property, the Company was a mining exploration company with exploration assets in Quebec.

The business of technology involves a high degree of risk and there can be no assurance that projects under research and development will proceed through to achieve commercialization. Risks related to the value of the Company's intangible assets, completing proof of concept studies, protecting intellectual property rights, the ability of the Company to raise alternative financing, and risks inherent to new technologies, such as risk of obsolescence, slow adoption and competing technological advances. Changes in future conditions could require material impairment of investments.

These financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") on a going concern basis, which contemplates that the Company will be able to realize its assets and discharge its liabilities in the normal course of business. Accordingly, these financial statements do not include any adjustments to the amounts and classifications of assets and liabilities that might be necessary should the Company be unable to continue as a going concern. The Company reported a net loss of \$457,514 (2016 - \$28,558) and has a deficit of \$3,792,841 (2016 - \$3,087,646) as at June 30, 2017.

1.2 INCORPORATION, NATURE OF OPERATIONS AND GOING CONCERN (Continued)

The Company's ability to continue as a going concern is dependent upon its ability to raise funds primarily through the issuance of shares or obtain profitable operations. The outcome of these matters cannot be predicted at this time. If the Company is unable to obtain additional financing, management may be required to curtail certain discretionary expenses. These material uncertainties may cast significant doubt about the Company's ability to continue as a going concern. These financial statements do not include any adjustments to the recoverability and classification of recorded asset amounts and classification of liabilities that might be necessary should the Company be unable to continue as a going concern. Such adjustments could be material.

If the going concern assumption were not appropriate for these financial statements, then adjustments would be necessary in the carrying value of assets and liabilities, the reported expenses and the statement of financial position classifications used. Such adjustments could be material.

1.3 OVERVIEW

As at June 30, 2017, the Company had a working capital of \$1,414,152 compared to a working capital of \$919,448 on December 31, 2016.

During the six-month period, the Company reported a net loss and comprehensive loss of \$457,514 in 2017 compared to \$28,558 in 2016.

During the six-month period, the Company issued 9,981,500 common shares at a price of \$0.10 per share for the exercise of warrants.

During the six-month period, the Company issued 200,000 common shares at a price of \$0.10 per share for the exercise of options.

1.4 SENIOR MANAGEMENT CHANGES

On June 6, 2017, Mr. Ted Colivas was appointed as a Director and Executive Chairman for the Corporation. Mr. Luc Paquet has stepped down from the Chairman role and will remain as Director.

On February 6, 2017, Mr. Jean-Charles Phaneuf was appointed as the new acting President and Chief Executive Officer. Mr. Pierre C. Miron resigned from his position as President and Chief Executive Officer and was appointed as the new CFO in replacement of Mr. Patrick J. Power. Marc Labrecque and Maxime Lemieux remained on the Board and Pierre C. Miron, Dr. Bertrand Reulet and Luc Paquet were appointed to the Board.

- Jean-Charles Phaneuf, President and Chief Executive Officer
- Pierre C. Miron, Chief Financial Officer
- Marc Labrecque, Secretary

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1.5 INTANGIBLE ASSETS

The carrying amount can be analyzed as follows :

	Balance as at December 31 2016	Additions	Balance as at June 30 2017
	\$	\$	\$
Gross carrying amount	446,112	-	446,112
Additions	-	130,092	130,092
	<u>446,112</u>	<u>130,092</u>	<u>576,204</u>
Accumulated depreciation	-	-	-
Depreciation	-	-	-
	<u>-</u>	<u>-</u>	<u>-</u>
Carrying amount	<u>446,112</u>	<u>130,092</u>	<u>576,204</u>

1.6 SELECTED FINANCIAL INFORMATION AND OPERATING RESULTS

	Three-month periods ended June 30		Six-month periods ended June 30	
	2017	2016	2017	2016
	\$	\$	\$	\$
Expenses				
Salaries	85,827	-	142,765	-
Consulting fees	25,300	-	100,091	-
Travel expenses	49,677	-	73,573	-
Share-based payments	65,860	-	65,860	-
Professional fees	21,624	9,887	42,420	19,936
Filing and listing fees	6,481	5,359	16,945	8,505
Net loss and comprehensive loss for the period	<u>(264,883)</u>	<u>(15,332)</u>	<u>(457,514)</u>	<u>(28,558)</u>
Basic and diluted loss per share	<u>(0.005)</u>	<u>(0.001)</u>	<u>(0.009)</u>	<u>(0.002)</u>
Weighted average number of common shares outstanding	<u>51,359,865</u>	<u>11,388,338</u>	<u>49,308,388</u>	<u>11,388,338</u>

1.7 BALANCE SHEET

	June 30, 2017	December 31, 2016
	\$	\$
Total assets	2,087,723	1,472,708
Total liabilities	94,717	106,198
Total equity	1,993,006	1,366,510

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1.8 SUMMARY OF QUARTER RESULTS

The following table sets forth selected quarterly financial information for each of the eight most recently completed quarters.

<u>Three-month period ended</u>	<u>Net loss and comprehensive loss for the period</u>	<u>Basic and diluted loss per share</u>
	\$	\$
June 30, 2017	(264,883)	(0.005)
March 31, 2017	(192,631)	(0.004)
December 31, 2016	(283,534)	(0.01)
September 30, 2016	(32,147)	(0.003)
June 30, 2016	(15,332)	(0.001)
March 31, 2016	(13,226)	(0.001)
December 31, 2015	(309,067)	(0.027)
September 30, 2015	(10,675)	(0.001)

1.9 FINANCIAL SITUATION

LIQUIDITY

As of June 30, 2017, the Company had a working capital of \$1,414,152 compared to a working capital of \$919,448 on December 31, 2016.

CASH FLOWS

The Company's operating activities used \$179,914 in the three-month period ended June 30, 2017 and used \$16,119 for the same period in 2016. The increase in cash flows used results mainly from the increase in net loss.

The Company's investing activities used \$71,422 in the three-month period ended June 30, 2017 and used \$2,538 for the same period in 2016. The increase in cash flows used results from the intellectual property additions.

The Company's financing activities generated \$374,150 in the three-month period ended June 30, 2017 and \$11,717 for the same period in 2016. The increase in cash flows results from the exercise of warrants.

RESULTS OF OPERATION

The main expenses for the three-month and six-month periods ended June 30, 2017 were salaries for amount of \$85,827 and \$142,765, consulting fees for \$25,300 and \$100,091, travel expenses for an amount of \$49,677 and \$73,573, share-based payments for \$65,860 and \$65,860 and professional fees for an amount of \$21,624 and \$42,420. For the three-month and six-month periods ended June 30, 2016 the main expenses were professional fees for \$9,887 and \$19,936 and filing and listing fees for \$5,359 and \$8,505.

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1.10 POST-REPORTING DATE EVENTS

Subsequent to June 30, 2017, a total of 100,000 warrants with an exercise price of \$0.10 per warrant were exercised for gross proceeds of \$10,000.

Subsequent to June 30, 2017, a total of 1,000,000 stock options were issued to a member of key management of the Company. The options expire 10 years from the grant date and have an exercise price of \$0.15 per share. The options are subject to by-annually vesting over a period of 24 months.

1.11. SHARE CAPITAL

During the period, the Company issued 9,981,500 common shares at a price of \$0.10 per share for the exercise of warrants.

During the period, the Company issued 200,000 common shares at a price of \$0.10 per share for the exercise of options.

1.12 STOCK OPTIONS

The Company's share options are as follows for the reporting periods:

	<u>June 30, 2017</u>		<u>December 31, 2016</u>	
	<u>Number</u>	<u>Weighted</u>	<u>Number</u>	<u>Weighted</u>
	<u>of options</u>	<u>average</u>	<u>of options</u>	<u>average</u>
		<u>exercise</u>		<u>exercise</u>
		<u>price</u>		<u>price</u>
		<u>\$</u>		<u>\$</u>
Balance outstanding, beginning of period	1,430,000	0.10	320,000	0.31
Granted	3,000,000	0.25	1,250,000	0.10
Expired	-	-	(90,000)	0.80
Cancelled	-	-	(50,000)	0.125
Exercised	<u>(200,000)</u>	0.10	<u>-</u>	-
Balance outstanding, end of period	<u>4,230,000</u>	0.21	<u>1,430,000</u>	0.10

The weighted average remaining contractual life for options outstanding at June 30, 2017 is 8.06 (2016 - 4.62) years.

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1.12 STOCK OPTIONS (Continued)

The weighted average fair value of the granted options of \$65,860 (2016 - \$nil) was determined using the Black-Scholes option pricing model and based on the following weighed average assumptions:

	<u>2017</u>	<u>2016</u>
Average share price at date of grant	\$0.15	N/A
Dividends yield	-	N/A
Expected weighted volatility	125%	N/A
Risk-free interest rate	1.39%	N/A
Expected average life	10 years	N/A
Average exercise price at date of grant	\$0.30	N/A

During the period, the Company issued 200,000 common shares at a price of \$0.10 per share for the exercise of options. The fair value for an amount of \$9,546 was transferred to share capital.

Outstanding and exercisable options are as follows:

Expiry Date	Exercise Price	Number of shares		Remaining life (years)
		Outstanding	Exercisable	
	\$			
September 30, 2019	0.125	180,000	180,000	2.25
November 22, 2021	0.10	1,050,000	1,250,000	4.40
January 26, 2027	0.30	2,000,000	-	9.58
June 5, 2027	0.15	1,000,000	-	9.93
		<u>4,230,000</u>	<u>1,430,000</u>	

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1.13 SHARE PURCHASE WARRANTS

The changes in warrants are as follows:

	2017		2016	
	Number of warrants	Weighted average exercise price	Number of warrants	Weighted average exercise price
		\$		\$
Balance outstanding, beginning of period	30,940,500	0.10	5,000,000	0.10
Exercised	(9,981,500)	0.10	-	0.10
Balance outstanding, end of period	20,959,000	0.10	5,000,000	0.10

During the period, the Company issued 9,981,500 common shares at a price of \$0.10 per share for the exercise of warrants.

Outstanding warrants are as follows:

Expiry date	Exercise price	2017	2016
		Number	Number
	\$		
February 23, 2017	0.10	-	4,840,000
November 23, 2017	0.10	20,204,000	23,845,500
February 3, 2018	0.10	755,000	2,255,000
		<u>20,959,000</u>	<u>30,940,500</u>

The weighted average contractual life of warrants outstanding is 0.41 (2016 - 0.79) years.

1.14 OUTSTANDING SHARE DATA

	August 29, 2017
Common shares	53,650,838
Stock options	4,230,000
Warrants	<u>20,859,000</u>
	<u>78,739,838</u>

1.15 **INTELLECTUAL PROPERTY**

“Our technology involves detailed proprietary and engineering knowledge and specific customer adoption criteria. If the Company is not able to effectively protect its intellectual property or cater to specific customer adoption criteria, our business may suffer a material negative impact and could fail.”

The success of our company will be dependent on our ability to successfully develop; qualify under current regulations and protect our technologies by way of patents and trademarks. The Company has its Patent Pending in Canada, United States, European Union and in 10 other countries. If we are unable to secure trademarks and patent protection for our intellectual property in the future, or that protection is inadequate for future products, our business may be materially adversely affected.

Further, there is no assurance that our technology does not or will not infringe upon patents, copyrights or other intellectual property rights held by third parties. The Company has mandated its Patent Agent to perform an exhaustive analysis of the Patent and Patent Pending deposited prior to ours, findings should be available by the latest mid-November but all efforts are being made to obtain it sooner. However, we may become subject to legal proceedings and claims from time to time relating to the intellectual property of others in the ordinary course of our business. If we are found to have violated the intellectual property rights of others, we may be enjoined from using such intellectual property, and we may incur licensing fees or be forced to develop alternatives. In addition, we may incur substantial expenses and diversion of management time in defending against these third-party infringement claims, regardless of their merit. Successful infringement or licensing claims against us may result in substantial monetary liabilities, which may materially and adversely disrupt our business.

“The Company may be unable to secure or maintain regulatory qualifications for its Technology.”

The Company may be unable to secure or maintain regulatory qualifications for its products for some sector of our market. This would limit the ability of the Company to procure patent or other intellectual property protection for its technology and to license or enforce such patents if any.

1.16 **RISK AND UNCERTAINTIES**

Risk factors are discussed in detail in the Company’s Financial Statements and MD&A contained in the annual report for the year ended December 31, 2016.

1.17 **EVALUATION OF INTERNAL CONTROL OVER FINANCIAL REPORTING**

Management maintains a system of internal control over financial reporting to provide reasonable assurance that assets are safeguarded from any loss or unauthorized use and that financial information is reliable and available in a timely manner. They have also designed or had designed internal controls over financial reporting to provide reasonable assurance that financial reporting is reliable and that the financial statements are designed to report financial information in accordance with IFRS.

There were no important changes in the internal control over financial reporting during the six-month period ended June 30, 2017, that had or could reasonably be expected to materially affect the internal control over financial reporting (“ICFR”).

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1.18 RELATED PARTY TRANSACTIONS

The Company's related parties include companies under common control and joint key management, as described below.

Unless otherwise stated, none of the transactions incorporate special terms and conditions and no guarantees were given or received. Outstanding balances are usually settled in cash.

1.18.1 Transactions with key management

The key management of the Company are the members of senior management and the Board. The remuneration for the period of key management include the following expenses:

	<u>2017</u>	<u>2016</u>
	\$	\$
Consulting fees	39,900	-
Salaries	142,838	-
Professional fees	<u>21,726</u>	<u>-</u>
	<u>204,464</u>	<u>-</u>

As at June 30, 2017 and 2016, trade and other payables include an amount payable to key management, respectively of \$nil and \$7,683.

An amount of \$1,700 (2016 - \$nil) is due to a director for unpaid consulting fees and is included in accounts payable and accrued liabilities.

1.19 ADDITIONAL INFORMATION AND CONTINUOUS DISCLOSURE

This MD&A is dated August 29, 2017, and complies with Canadian Securities Administrators' *Regulation 51-102 respecting continuous disclosure obligations, c. V-1.1, r. 24*. The purpose of this MD&A is to help the reader understand and assess the material changes and trends in the Company's results and financial position. It presents Management's perspective on the Company's current and past activities and financial results, as well as an outlook of activities planned for the coming months. The Company regularly discloses additional information through press releases and other reports filed on the Company (www.quantumnumberscorp.com), and SEDAR (www.sedar.com) websites.

(s) Jean-Charles Phaneuf, President and Chief Executive Officer

(s) Pierre Miron, Chief Financial Officer

Montreal (Quebec), August 29, 2017