

**QUANTUM NUMBERS CORP.**

**Interim Management Discussion and Analysis**

**As at September 30, 2017**

# QUANTUM NUMBERS CORP.

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## 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 September 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 \$837,531 (2016 - \$60,705) and has a deficit of \$4,139,097 (2016 - \$3,119,793) as at September 30, 2017.

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### **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 September 30, 2017, the Company had a working capital of \$1,121,953 compared to a working capital of \$919,448 on December 31, 2016.

During the nine-month period, the Company reported a net loss and comprehensive loss of \$837,531 in 2017 compared to \$60,705 in 2016.

During the nine-month period, the Company issued 10,050,000 common shares at a price of \$0.10 per share for the exercise of warrants.

During the nine-month period, the Company issued 31,500 common shares at a price of \$0.10 per share for the exercise of finder warrants.

During the nine-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 September 7, 2017, Mr. Jean-Charles Phaneuf, Pascal Fortin, Marc Rousseau and Pierre Paul Samson were appointed to the Board. Mr. Bertrand Reulet, Maxime Lemieux and Ted Colivas stepped down from the Board. Mr. Maxime Lemieux was re-appointed Corporate Secretary.

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 September 30 2017
	\$	\$	\$
<b>Gross carrying amount</b>	446,112	-	446,112
Additions	-	161,013	161,013
	<u>446,112</u>	<u>161,013</u>	<u>607,125</u>
<b>Accumulated depreciation</b>	-	-	-
Depreciation	-	-	-
<b>Carrying amount</b>	<u>446,112</u>	<u>161,013</u>	<u>607,125</u>

### 1.6 INTANGIBLE ACTIVITIES

Since Quantum Numbers Corp. inception, the main management objective was to strengthen the Company in the following three sectors of activities:

#### **Patent**

We bought a Patent Cooperation Treaty ("PCT") and converted it in a patent pending in Canada, USA, European Community and ten other strategic countries. It was then decided to work with our Patent Agent and to the best of their abilities, have then reviewed all patents requests issued in our field to assess the patentability of our technology. Starting from over four hundred documents, this amount was finally reduced to slightly over ten. Although scheduled to be completed by mid-August, the extent of work required was more intensive than anticipated, we expect the final report to be in our hands shortly.

#### **Technology**

In April, we entered into an agreement with the École de Technologie Supérieure ("ÉTS"), to collaborate on certain aspects of the Company's technology to maximise its overall potentiality. The first phase of this collaboration is mainly focused on facilitating the integration in the vertical market of the Company's technology and to facilitate the migration of our technology in potential client equipment. The combined knowledge of the ÉTS and Bertrand Reulet help us in our approach towards the Market. The collaboration is still ongoing.

#### **Market**

For the first nine months, our resources and energy was focused on developing a strategic plan to best position the Company for success in an emerging QRNG market. The intelligence gathered, through our recent participation in numerous trade shows, combined with a series of meetings with potential customers and partners, have reaffirmed our conviction of a real potential niche on the market for our technology. Although we plan to reduce our presence to trade shows, we will strategically attend the ones where potential partners and clients will be present.

In a nutshell, we have over the last few months worked very closely with our patent agent to establish the patentability possibility of our technology and with the ETS in regards to the technology. We have also strengthened our Board of Directors by bringing in four new members with diversified fields of expertise, but that can help to bring the Company forward.

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### 1.7 SELECTED FINANCIAL INFORMATION AND OPERATING RESULTS

	Three-month periods ended September 30		Nine-month periods ended September 30	
	2017	2016	2017	2016
	\$	\$	\$	\$
<b>Expenses</b>				
Salaries	161,699	-	304,464	-
Share-based payments	108,739	-	174,599	-
Consulting fees	40,409	-	140,500	-
Travel expenses	17,831	-	91,404	-
Professional fees	29,074	7,204	71,494	27,140
Filing and listing fees	10,144	3,434	27,089	11,939
Transaction fees	-	21,130	-	21,130
<b>Net loss and comprehensive loss for the</b>	<b>(380,017)</b>	<b>(32,147)</b>	<b>(837,531)</b>	<b>(60,705)</b>
<b>Basic and diluted loss per share</b>	<b>(0.007)</b>	<b>(0.003)</b>	<b>(0.016)</b>	<b>(0.005)</b>
<b>Weighted average number of common shares outstanding</b>	<b>53,650,838</b>	<b>12,834,789</b>	<b>50,762,986</b>	<b>11,875,682</b>

### 1.8 BALANCE SHEET

	September 30, 2017	December 31, 2016
	\$	\$
Total assets	1,860,498	1,472,708
Total liabilities	128,770	106,198
Total equity	1,731,728	1,366,510

### 1.9 SUMMARY OF QUARTER RESULTS

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

Three-month period ended	Net loss and comprehensive loss for the period	Basic and diluted loss per share
	\$	\$
September 30, 2017	(380,017)	(0.01)
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)

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### **1.10 FINANCIAL SITUATION**

#### **LIQUIDITY**

As of September 30, 2017, the Company had a working capital of \$1,121,953 compared to a working capital of \$919,448 on December 31, 2016.

#### **CASH FLOWS**

The Company's operating activities used \$243,799 in the three-month period ended September 30, 2017 and used \$49,049 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 \$30,921 in the three-month period ended September 30, 2017 and generated \$1 for the same period in 2016. The increase in cash flows used results from the increase in the addition to intellectual property.

The Company's financing activities generated \$10,000 in the three-month period ended September 30, 2017 and \$107,336 for the same period in 2016. The decrease in cash flows generated results from the decrease in the exercise of warrants.

#### **RESULTS OF OPERATION**

The main expenses for the three-month and nine-month periods ended September 30, 2017 were salaries for an amount of \$161,699 and \$304,464, share-based payments for \$108,739 and \$174,599, consulting fees for \$40,409 and \$140,500, travel expenses for an amount of \$17,831 and \$91,404, and professional fees for an amount of \$29,074 and \$71,494. For the three-month and six-month periods ended September 30, 2016, the main expenses were professional fees for \$7,204 and \$27,140, transaction fees for \$21,130 and \$21,130 and filing and listing fees for \$3,434 and \$11,939.

### **1.11 POST-REPORTING DATE EVENTS**

On November 14, 2017, the TSX Venture Exchange has conditionally accepted the extension of the expiry date of 19,256,000 warrants from November 23, 2017 to March 31, 2018.

On November 10, 2017, the Company sold the Saguenay Property in counterpart of \$2,500 in cash, a 1.5% NSR of which 1% is redeemable for \$1.5 million and the issuance of 500,000 common shares of St-Georges Platinum & Base Metals Ltd.

### **1.12 SHARE CAPITAL**

During the period, the Company issued 10,050,000 common shares at a price of \$0.10 per share for the exercise of warrants.

During the period, the Company issued 31,500 common shares at a price of \$0.10 per share for the exercise of finder warrants.

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

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### 1.13 STOCK OPTIONS

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

	September 30, 2017		December 31, 2016	
	Number of options	Weighted average exercise price \$	Number of options	Weighted average exercise price \$
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	(1,000,000)	0.15	(90,000)	0.80
Cancelled	-	-	(50,000)	0.125
Exercised	(200,000)	0.10	-	-
Balance outstanding, end of period	<u>3,230,000</u>	0.23	<u>1,430,000</u>	0.10

The weighted average remaining contractual life for options outstanding at September 30, 2017 is 7.23 (2016 – 3.0) years.

The weighted average fair value of the granted options of \$174,599 (2016 - \$nil) was determined using the Black-Scholes option pricing model and based on the following weighed average assumptions:

	2017	2016
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	\$0.25	N/A

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	2.0
November 22, 2021	0.10	1,050,000	1,250,000	4.15
January 26, 2027	0.30	<u>2,000,000</u>	-	9.32
		<u>3,230,000</u>	<u>1,430,000</u>	

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### 1.14 SHARE PURCHASE WARRANTS

The changes in warrants are as follows:

	2017		2016	
	Number of options	Weighted average exercise price \$	Number of options	Weighted average exercise price \$
Balance outstanding, beginning of period	30,061,000	0.10	5,000,000	0.10
Exercised	<u>(10,050,000)</u>	0.10	-	-
Balance outstanding, end of period	<u>20,011,000</u>	0.10	<u>5,000,000</u>	0.10

The changes in finder warrants during the period ended September 30, 2017 are as follows:

	September 30, 2017		December 31, 2016	
	Number of options	Weighted average exercise price \$	Number of options	Weighted average exercise price \$
Balance outstanding, beginning of period	879,500	0.10	-	0.10
Granted	-		879,500	0.10
Exercised	<u>(31,500)</u>	0.10	-	-
Balance outstanding, end of period	<u>848,000</u>	0.10	<u>879,500</u>	0.10

Outstanding warrants are as follows:

Expiry date	Exercise price	2017 Number	2016 Number
	\$		
February 23, 2017	0.10	-	4,840,000
November 23, 2017	0.10	19,256,000	23,845,500
February 3, 2018	0.10	755,000	2,255,000
		<u>20,011,000</u>	<u>30,940,500</u>

Outstanding finder warrants are as follows:

Expiry date	Exercise price	2017 Number	2016 Number
	\$		
November 23, 2017	0.10	848,000	879,500
		<u>848,000</u>	<u>879,500</u>

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### 1.15 OUTSTANDING SHARE DATA

	<u>November 28, 2017</u>
Common shares	53,650,838
Stock options	3,230,000
Warrants	20,011,000
Broker warrants	848,000
	<u>77,739,838</u>

### 1.16 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 very shortly, 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.

### 1.17 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.

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### 1.18 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 nine-month period ended September 30, 2017, that had or could reasonably be expected to materially affect the internal control over financial reporting ("ICFR").

### 1.19 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.

#### 1.19.1 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	22,350	-
Salaries	304,370	-
Professional fees	<u>37,434</u>	-
	<u>364,154</u>	<u>-</u>

As at September 30, 2017, and 2016, trade and other payables include an amount payable to key management, respectively of \$23,159 and \$nil.

An amount respectively of \$7,450 and \$15,709 (2016 - \$nil and \$nil) is due to a director for unpaid consulting fees and professional fees and is included in accounts payable and accrued liabilities.

**1.20 ADDITIONAL INFORMATION AND CONTINUOUS DISCLOSURE**

This MD&A is dated November 28, 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](http://www.quantumnumberscorp.com)), and SEDAR ([www.sedar.com](http://www.sedar.com)) websites.

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

(s) Pierre Miron, Chief Financial Officer

Montreal (Quebec), November 28, 2017