QUANTUM eMOTION CORP.
(formerly Quantum Numbers Corp.)

Management's Discussion and Analysis

March 31, 2022

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, 2021. The unaudited condensed interim financial statements for the quarter ended March 31, 2022, 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

Further information regarding the Company and its operations are filed electronically on the System for Electronic Document Analysis and Retrieval ("SEDAR") in Canada and can be obtained from www.sedar.com

1.1 FORWARD LOOKING STATEMENTS

The sections of this management discussion and analysis ("MD&A") on the Company's strategy and action plan, its intellectual properties, development 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 about future events or results. Such forward-looking statements are subject to certain factors and involve some 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, possibility or not to obtain the patent, time required to obtain such patent, risks inherent in the hi-tech industry, and the time it will take for the industry to be ready to move to quantic solutions. These risks and uncertainties are described in this MD&A and also the annual information form filed on SEDAR.

1.2 INCORPORATION, NATURE OF OPERATIONS AND GOING CONCERN

Quantum eMotion Corp. was incorporated under the *Business Corporations Act* of Ontario on July 19, 2007. The Company changed its name on May 27, 2021 in a rebranding effort directed by management.

The head office, principal address and records office of the Company are located at 2300 Alfred Nobel, bureau 209, Montreal, Qc, H4S 2A4. The Company is a developer of a new generation of cryptographic solutions pursuant to the acquisition of intellectual property (See 1.8).

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 additional 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 assets.

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. For the three months ended March 31, 2022, the Company incurred a net loss of $691,801 (2021 - $438,124) and had negative cash flows from operations of $473,234 (2021 - $652,676). In addition, the Company had accumulated deficit of $8,660,141 as at March 31, 2022.

Management expects that the working capital (current assets in excess of current liabilities) available to the Company at March 31, 2022, including the $3,201,000 received, during the quarter, following the exercise of 21,240,000 warrants and 150,000 stock options will provide the Company with adequate funding to meet its short-term obligations for the next 12 months and to meet the timelines of its development programs and pay its overhead and administrative costs. However, the Company does not expect to generate revenue from product sales unless and until it successfully completes development of its cryptographic solutions, which may take a number of years and is subject to significant uncertainty.

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

The Company expects to incur significant development and commercialization expenses related to product development sales, marketing and distribution. As a result, the Company will need additional financing in the future to support its continuing operations. Until such time that it can generate significant revenue from product sales, if ever, the Company expects to finance its operations through a combination of public or private equity or debt financings or other sources.

The Company currently has no committed sources of financing available. While the Company has been successful in securing financing in the past, raising additional funds is dependent on a number of factors outside the Company's control, and as such there is no assurance that it will be able to do so in the future. The ability of the Company to meet its commitments and discharge its liabilities as they become due and become profitable is dependent on the completion of the development of its technology and its commercial production, and on its ability to raise additional funding to finance these activities. The conditions mentioned above indicate the existence of a material uncertainty that may cast a significant doubt as to the Company's ability to continue as a going concern.

The financial statements do not reflect the adjustments to the carrying values of assets and liabilities that would be necessary if the Company were unable to realize its assets or discharge its obligations in anything other than the ordinary course of operations.

In February 2022, Russia invaded Ukraine. The impact of this conflict remains difficult to assess but is adding to the challenges associated with the pandemic, including inflation and supply chain issues, and has created additional awareness on the CYBER Security threats and vulnerability, a field within the spere of great interest to Quantum e Motion Corp.

1.3 SENIOR MANAGEMENT CHANGES

On February 14, 2022, Tullio Panarello was appointed to the Board of Directors, replacing Marc Rousseau who will act as the Secretary of the Company and will remain the CFO of Quantum.

1.4 COMPANY OVERVIEW AND STRATEGY

INTELLECTUAL ACTIVITIES

The primary management objective has been to strengthen the Company in the following three sectors of activities:

Technology

Our primary objective is to make our cryptographic solutions technology accessible as rapidly as possible to potential clients and partners, secure its effectiveness and ensure that the Intellectual Property is well protected. In order to stay focused on this objective, we are closely working with our partners to maximize the potential and security of our technology. The Company is developing complementary metal-oxide semiconductor ("CMOS") implementations with l'École de Technologie Supérieure ("ETS") to ensure greater competitiveness. During the first quarter of 2021, the Company and ETS were awarded a $250,000 grant from Prompt under its Quantum development program covering between 40% to 60% of eligible cost to develop three different CMOS implementations. The development work has begun under the elm of Dr Ghyslain Gagnon and his team at ETS.

In regard to our second patent "Method and System for creating a Random Bit Sample", this technology is a method that quantifies the randomness of our signal, a perfect complement to our cryptographic solutions technology.

1.4 COMPANY OVERVIEW AND STRATEGY (Continued)

INTELLECTUAL ACTIVITIES (Continued)

Technology (Continued)

On June 17, 2021, the Company chose Syntronic to finalize the design and prepare the manufacturing of its first commercial hardware product with a view of having a workable and marketable device prior to year end. On March 22, 2022, the Company issued a press release confirming the launch of its game changer QRNG2, a new quantum random number generator (QRNG) that delivers pure entropy at 1.5 Gb/s, the highest throughput available today in a marketable QRNG. This major breakthrough was achieved within our budget parameters despite challenges imposed by major supply chain issues. In a first phase, 10 devices have been produced and are currently at different testing stages.

Patents

As of today, the Company owns two patent families which have been filed in a number of countries, and which have led to the issuance of several patents.

The first patent family stems from work performed at Sherbrooke University, by the team of Professor Bertrand Reulet, and was acquired by the Company.

As the Company required its patent to pass the introduction level with potential clients, it was then decided to work with the Company's patent agent to assess the patentability of our technology. The Company received the final report that indicates that it should continue the National/Regional Phase as planned. By doing the legwork at the stage of the patentability report, the Company was able to respond rapidly to objections which were raised at the national/regional level, such as objections raised by the European Patent Office ("EPO") examiner. The general scope of the first patent family is related to the use of a monitored flow of electrons across a quantum tunnelling barrier as a quantum random signal source which is then used to produce random numbers.

The second patent family stems from work performed internally by the family and generally concerns technology which was developed to eliminate non-quantum noise from the quantum signal and therefore allow ensuring that the random numbers are purely random and entirely based on quantum processes.

In October 2021, the Company filed for a patent application covering a minimalistic circuit which utilizes the computer's hardware to both power an on-chip quantum entropy source and turn the resulting entropy signal into random numbers of quantum origin on the go. The product will eventually be a plug-and-play ultraportable QRNG module that provides easy-to-use hardware protection for consumer electronics.

On January 25, 2022, the Company announced that its first-generation patent on the quantum random number generation based on quantum tunnelling had now been issued in China. The Company believes this to be an important milestone in its permanent effort to protect its intellectual property. Subsequently the same patent was issued in South Korea on February 22nd 2022.

1.4 COMPANY OVERVIEW AND STRATEGY (Continued)

INTELLECTUAL ACTIVITIES (Continued)

Status of patents

First Patent Family Method for generating random numbers and associated random number generator

Country	Status
United States	Two patents were granted in the United States, including a first one granted on August 7, 2018 and a second granted on October 8, 2019.
Russia	Patent granted
European Patent Office	EPO granted the patent on February 19, 2020. The EPO process includes an opposition procedure by which third parties may oppose the grant. The opposition procedure expired November 19, 2020 and the European Patent has been validated in a number of countries: Germany, Spain, Finland, France, Great-Britain, Italy and the Netherlands.
Thailand, Canada, Brazil, India, Republic of Korea	Patent pending
Australia	Patent granted in June 2020
China	Patent granted

Second Patent Family Method and system for generating a random bit sample

Country	Status
European Patent Office	EPO granted the patent on October 23, 2019, and the opposition period ended on July 23, 2020. The European Patent has been validated in Germany, Spain, Finland, France, Italy, Sweden and the Netherlands.
United States	Two patents were granted.
Australia, Brazil, Indonesia, India, Japan, South Korea, Russia	Patent pending

1.4 COMPANY OVERVIEW AND STRATEGY (Continued)

INTELLECTUAL ACTIVITIES (Continued)

Market

Since 2016, the Company focused its resources in developing its key IP position to align a successful venture in the emerging Quantum Random Number Generator (“QNRG”) market. The National Institute of Standards and Technology Post Quantum Cryptography Standards Committee is still working on related protocols and we believe to have the right attributes to fulfill the future requirements for target markets.

In April 2021, the Company received a third-party valuation that concluded that the assessment of management on its target market was credible. As the Covid-19 situation remains present, the Company keeps a very tight monitoring on all news pertaining to the Quantum environment, and has, amongst other initiatives, joined the Quantum Alliance established by Hudson Institute to ensure a clear presence in the quantum ecosystem. Moreover, the CEO of the Company is now a valued panelist on the subject, bringing actionable intelligence in the Company with the newly established networks, both local and international.

The Company specifically intends to target the highly valued medical devices and Healthcare Services industries while ensuring its technology is also relevant and applicable to others, such as Datacenters, Blockchain technologies, Financial Services, Cloud-Based IT Security Infrastructure, Classified Government Networks and Communication Systems, Secure Device Keying (IOT, Automotive, Consumer Electronics) and Quantum computing and the gaming industry.

1.5 HIGHLIGHTS

During the three months ended March 31, 2022, 21,240,000 warrants and 150,000 stock options were exercised for total proceeds of $3,201,000.

For the three months ended March 31, 2022, the Company incurred a net loss of $691,801 compared to a net loss and comprehensive loss of $438,124 in 2021.

As at March 31, 2022, the Company had a net working capital (current assets in excess of current liabilities) of $4,650,622 compared to a net working capital of $1,809,871 in December 31, 2021.

1.6 SELECTED PERIODIC INFORMATION

	Three months ended March 31		
	2022	2021	2020
	$	$	$
Net loss and comprehensive loss	(691,801)	(438,124)	(157,848)
Basic and diluted loss per share	(0.005)	(0.005)	(0.003)

	Balance as at	
	March 31, 2022	December 2021
	$	$
Cash	3,274,712	1,021,552
Total assets	5,848,581	3,100,850
Total liabilities	295,221	389,431
Equity	5,553,360	2,711,419

1.7 OPERATING ACTIVITIES

The three months ended March 31, 2022 net loss and comprehensive loss increased to $691,801 from a net loss and comprehensive loss of $438,124 in 2021 mainly due to an increase in share-based payments for an amount of $158,402, management fees for an amount of $88,973, information technology for an amount of $66,611, investor relations for an amount of $39,204 offset by a decrease of consulting fees for an amount of $73,131.

1.8 INTELLECTUAL PROPERTY

The carrying amount of the intellectual property consists of:

	Balance as at December 31, 2021	Additions	Balance as at March 31, 2022
	$	$	
Cost			
SOCPRA license [1]	446,112	-	446,112
Development costs [2]	560,853	7,725	568,578
	1,006,965	7,725	1,014,690
Amortization			
SOCPRA license	49,804	5,500	55,304
Carrying amount			
SOCPRA license	396,308		390,808
Development costs	560,853		568,578
	957,161		959,386

	Balance as at December 31, 2020	Additions	Balance as at March 31, 2021
	$	$	$
Cost			
SOCPRA license [1]	446,112	-	446,112
Development costs [2]	220,967	-	220,967
	667,079	-	667,079
Amortization			
SOCPRA license	27,499	5,500	32,999
Carrying amount			
SOCPRA license	418,613		413,113
Development costs	220,967		220,967
	639,580		634,080

(1) On August 3, 2016, the Company entered into an intellectual assignment agreement (“IP agreement”) with Societe de Commerciliaisation des Produits de la recherché appliquee SOCPRA Sciences et Genie SEC (“SOCPRA”) and its investors. Until the expiry of the last patent rights, which is expected in May 2035, the Company will pay to SOCPRA a royalty of 5% calculated on the net sales price of products sold by the Company. The Company may have an option to buy back the royalties in the future at terms and conditions to be agreed upon by both parties.

(2) No amortization was taken on the development costs as these assets are not yet available for use.

1.9 SELECTED FINANCIAL INFORMATION AND OPERATING RESULTS

	Three months ended March 31	
	2022	2021
	$	$
Expenses		
Share-based payments	332,402	174,000
Management fees	155,500	66,527
Information technology	66,611	-
Investor relations	39,204	-
Research and development	25,960	-
Travel	22,635	-
Salaries	18,866	5,787
Professional fees	18,464	63,332
Office	13,415	26,121
Financial expenses	6,573	1,885
Filing and listing fees	5,913	12,798
Consulting fees	5,760	78,891
Amortization	5,500	5,500
Other	3,689	-
Insurance	-	3,551
	720,492	438,392
Net loss and comprehensive loss for the year	691,801	438,124
Basic and diluted loss per share	0.005	0.005
Weighted average number of common shares	131,536,949	94,974,505

1.10 SUMMARY OF QUARTERLY RESULTS

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

Three-month period ended	Net loss and comprehensive loss for the period	Basic and diluted loss per share
	$	$
March 31, 2022	(691,801)	(0.005)
December 31, 2021	(270,993)	(0.002)
September 30, 2021	(441,798)	(0.004)
June 30, 2021	(411,733)	(0.004)
March 31, 2021	(438,124)	(0.005)
December 31, 2020	(389,272)	(0.006)
September 30, 2020	(132,789)	(0.002)
June 30, 2020	(119,342)	(0.002)
March 31, 2020	(157,848)	(0.003)
December 31, 2019	(161,265)	(0.003)
September 30, 2019	(140,307)	(0.002)
June 30, 2019	(176,690)	(0.003)

1.11 LIQUIDITY

As at March 31, 2022, the Company had a net working capital (current assets in excess of current liabilities) of $4,650,622 compared to a net working capital of $1,809,871 as at December 31, 2021.

1.12 CASH FLOWS

The Company's operating activities used $473,234 for the three months ended March 31, 2022, compared to $652,676 in 2021. The decrease in cash flow used resulted mainly from payments executed for prior period expenses.

The Company's investing activities used $474,946 for the three months ended March 31, 2022, compared to $- generated in 2021. The decrease in cash flows used resulted mainly from the additions to intellectual property and the acquisition of investments offset by the proceeds from sale of investments.

The Company's financing activities generated $3,201,340 for the three months ended March 31, 2022, compared to $2,039,550 in 2021. The increase in cash flows is mainly due to an increase in proceeds from exercise of warrants.

1.13 STOCK OPTIONS

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

	March 31, 2022		December 31, 2021	
	Number of options	Weighted average exercise price	Number of options	Weighted average exercise price
		$		$
Balance outstanding, beginning of year	10,930,000	0.13	6,650,000	0.07
Granted	500,000	0.23	5,880,000	0.18
Exercised	(150,000)	0.10	(1,600,000)	0.06
Expired	-	-	-	-
Balance outstanding, end of year	11,280,000	0.13	10,930,000	0.13
Balance exercisable, end of year	8,857,000	0.12	7,046,875	0.11

The weighted average remaining contractual life for options outstanding at March 31, 2022 is 2.36 (December 31, 2021 – 2.64) years.

During the year, the Company recognized share-based compensation expense for an amount of $332,402 (2021 - $174,000).

The weighted average fair value of the granted options was determined using the Black-Scholes option pricing model and based on the following weighted average assumptions:

1.13 STOCK OPTIONS (Continued)

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

Outstanding and exercisable options are as follows:

Expiry date	Exercise price	March 31, 2022 Outstanding	Exercisable
	$		
April 1, 2022	0.15	150,000	150,000
June 30, 2022	0.23	300,000	300,000
December 9, 2022	0.12	900,000	900,000
June 6, 2023	0.205	350,000	350,000
November 22, 2023	0.1	200,000	200,000
December 17, 2023	0.05	2,500,000	2,500,000
December 22, 2023	0.065	750,000	750,000
February 2, 2024	0.14	2,500,000	2,500,000
December 9, 2024	0.12	250,000	250,000
March 31, 2025	0.1	150,000	150,000
March 31, 2025	0.18	650,000	162,500
October 25, 2025	0.24	80,000	5,000
April 21, 2026	0.24	500,000	500,000
January 26, 2028	0.14	500,000	14,500
March 12, 2028	0.215	500,000	125,000
August 23, 2028	0.265	500,000	-
February 14, 2029	0.225	500,000	-
		11,280,000	8,857,000

1.14 SHARE PURCHASE WARRANTS

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

	March 31, 2022		December 31, 2021	
	Number of warrants	Weighted average exercise price	Number of warrants	Weighted average exercise price
		$		$
Balance outstanding, beginning of year	28,115,000	0.15	-	-
Granted	-	-	40,000,000	0.15
Exercised	(21,240,000)	0.15	(11,885,000)	0.15
Expired	(6,875,000)	0.15	-	-
Balance outstanding, end of year	-	-	28,115,000	0.15

1.15 OFF-BALANCE SHEET ARRANGEMENTS

The Company does not have any off-balance sheet arrangements.

1.16 FINANCIAL INSTRUMENTS

All financial instruments are recognized when the Company becomes a party to the contractual provisions of the financial instrument and are initially measured at fair value plus transaction costs, except for financial assets and financial liabilities carried at fair value through profit or loss, which are measured initially at fair value. Financial assets are derecognized when the contractual right to the cash flows from the financial assets expire, or when the financial asset and all substantial risks and rewards are transferred. Refer to Note 11 of the annual financial statements for the year ended December 31, 2021 for additional information on the Company's financial instruments.

1.17 FINANCIAL RISK MANAGEMENT

In the normal course of operations, the Company is exposed to various financial risks. Refer to Note 11 of the annual financial statements for the year ended December 31, 2021 for additional information on the Company's main financial risks.

1.18 MANAGEMENT OF CAPITAL

The capital structure of the Company consists of equity attributable to common shareholders, comprising issued share capital, reserves and deficit. The Company's objectives when managing capital are to: (i) preserve capital; (ii) obtain the best available net return; and (iii) maintain liquidity.

The Company manages the capital structure and makes adjustments to it in light of changes in economic conditions and the risk characteristics of the underlying assets. To maintain or adjust the capital structure, the Company may attempt to issue new shares. There were no changes to the Company's approach to capital management during the three months ended March 31, 2022, nor during the year ended December 31, 2021.

The Company is not subject to externally imposed capital requirements.

1.19 RELATED PARTY TRANSACTIONS

The Company's related parties include insiders, 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.

Transactions with key management

The key management of the Company are the members of senior management and the Board. The remuneration for the year of key management (including the amount above) is as follows:

	2022	2021
	$	$
Management fees	155,500	62,201
Share-based payments	262,606	174,000
	418,106	236,201

As at March 31, 2022, an amount of $13,845 is due to key management and is included in accounts payable and accrued liabilities (December 31, 2021 - $72,564).

1.20 CRITICAL ACCOUNTING ESTIMATES

The critical accounting estimates are described in Note 2 of the annual financial statements for the year ended December 31, 2021.

1.21 SIGNIFICANT ACCOUNTING POLICIES

The accounting policies used are those described in the Company's annual financial statements in Note 3 for the year ended December 31, 2021 and have been applied throughout the period unless otherwise stated.

1.22 OTHER

Disclosure of Outstanding Securities as at May 30th, 2022.

Outstanding common shares: **135,202,838**
Outstanding options: **11,280,000**
Outstanding share purchase warrants: **nil**

(s) Francis Bellido Chief Executive Officer

(s) Marc Rousseau, Chief Financial Officer

Montreal (Quebec), May 30th, 2022