

**BLACK SWAN GRAPHENE INC.**  
**Management's Discussion and Analysis**  
**For the period ended September 30, 2023**  
*(In Canadian dollars, unless otherwise noted)*

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**Date: November 27, 2023**

This Management's Discussion and Analysis ("MD&A") provides a discussion and analysis of the financial condition and results of the operations of Black Swan Graphene Inc. ("Black Swan" or the "Company"), to enable a reader to assess material changes in the financial condition and results of operations as at September 30, 2023 and for the period ended September 30, 2022. The MD&A should be read in conjunction with the unaudited condensed interim consolidated financial statements as at and for the periods ended September 30, 2023 and September 30, 2022. All amounts included in the MD&A are expressed in Canadian dollars, unless otherwise specified.

The Company's condensed interim consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as published by the International Accounting Standards Board. Please refer to Note 3 of the audited consolidated financial statements as at and for the year ended December 31, 2022 for disclosure of the Company's significant accounting policies.

The Directors of the Company have reviewed this MD&A and the condensed interim consolidated financial statements for the period ended September 30, 2023, and the Company's Board of Directors approved these documents prior to their release.

**Corporate Background**

Black Swan Graphene Inc., (formerly Dragonfly Capital Corp.) (the "Company", "Black Swan") is focused on the large scale production and commercialization of patented high-performance and low-cost graphene products aimed at several industrial sectors, including concrete, polymers, Li-ion batteries, and others, which are expected to require large volumes of graphene and, in turn, require large volumes of graphite.

The Company is listed on the TSXV as a Tier 2 Industrial Issuer under the name "Black Swan Graphene Inc." The Common Shares trade on the TSXV under the symbol "SWAN".

On August 2, 2022, Black Swan closed its Qualifying Transaction (as such term is defined in TSX Venture Exchange (the "TSXV") Policy 2.4 – Capital Pool Companies) with Black Swan Graphene Inc. ("PrivCo"), a private Ontario company, pursuant to the terms of a share exchange agreement dated January 17, 2022 as amended, with PrivCo and the shareholders of PrivCo (the "Transaction"). In connection with the Transaction, the Company changed its name from "Dragonfly Capital Corp." to "Black Swan Graphene Inc." The Transaction was completed by way of a share exchange whereby the Company acquired all of the outstanding common shares in the capital of PrivCo (each, a "PrivCo Share") from the shareholders of PrivCo (collectively, the "PrivCo Shareholders") in consideration for the issuance of an aggregate 210,230,343 common shares (each, a "Common Share") in the capital of the Company to the PrivCo Shareholders, at a deemed price of \$0.15 per Share. In addition, the 18,620,000 options to purchase PrivCo Shares (each, a "PrivCo Option") which were outstanding immediately prior to closing of the Transaction were cancelled and the holders thereof were granted an aggregate of 15,175,000 options to purchase Common Shares (each, an "Option") and 7,875,000 restricted share units (each, a "RSU") of the Company, under the terms of an omnibus equity incentive plan which was adopted by the board of directors of the Company immediately after closing the Transaction.

The Company acquired certain intangible assets related to a patented graphene processing technology from Thomas Swan, and a license from Trinity College Dublin for the production of exfoliated defect-free, non-oxidised 2-D materials in large quantities (the "TCD License"), which license was previously held by Thomas Swan. In addition, Black Swan Graphene and Thomas Swan have entered into a License Agreement and a Sub-License Agreement, pursuant to which Black Swan Graphene has granted Thomas Swan a license to graphene processing technology for production of up to 1,000 tonnes per year and Black Swan Graphene has sub-licensed the TCD License to Thomas Swan, respectively.

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The TCD License is subject to an incremental royalty rate ranging from 3.0% up to 9.0% of net sales when greater than €20,000,000 (\$27,345,000) and have lives of 15 or 20 years from the commencement of commercial sales related to such licenses.

To acquire the licenses, the Company paid Thomas Swan £3,000,000 (\$5,216,050) and issued 3,875,000 common shares of the Company valued at \$3,853,100, based on the value of the common shares in the previous private placement financing. Mason Graphite Inc., (Note 8) incurred transaction fees totaling \$390,128, which have been recorded within intangible assets and as a contribution from owner and presented within equity.

***Reverse Takeover Transaction and Financing***

On January 27, 2022 Dragonfly Capital Corp. ("Dragonfly") announced that Dragonfly, BSG, and the shareholders of BSG (collectively, the "Black Swan Shareholders") entered into a share exchange agreement (the "Share Exchange Agreement"), pursuant to which Dragonfly will acquire all of the issued and outstanding common shares (each, a "Black Swan Share") of BSG and grant certain options (each, a "Replacement Option") in exchange for those outstanding options (each, a "Black Swan Option") of BSG (the "Transaction"). It is expected that the Transaction will represent the reverse acquisition of Dragonfly by BSG for accounting purposes. There can be no assurance the Transaction will be completed as described or at all.

In connection with the Transaction, on August 2, 2022, Dragonfly completed a subscription receipt financing (the "Subscription Receipt Financing") for gross proceeds of approximately \$7,000,500. Dragonfly completed the Subscription Receipt Financing pursuant to the terms of a Subscription Receipt Agreement (the "Subscription Receipt Agreement") among Dragonfly, BSG, and Endeavour Trust Corporation, as Subscription Receipt Agent, and, in connection therewith, issued an aggregate of 46,669,665 subscription receipts (each, a "Subscription Receipt") at a price of \$0.15 per Subscription Receipt. Each Subscription Receipt, subject to the fulfillment of the Escrow Release Condition (as defined below), entitles the holder thereof to receive one common share in the capital of Dragonfly.

The gross proceeds from the Subscription Receipt Financing (collectively, the "Escrowed Funds"), less the reasonable expenses of the Subscription Receipt Agent incurred in connection with the Subscription Receipt Financing, will be held in escrow pursuant to the terms of the Subscription Receipt Agreement and shall be released immediately prior to completion of the Transaction (as defined below) upon the satisfaction, amongst other things, of (collectively, the "Escrow Release Condition"): (i) all conditions to the completion of the Transaction, other than the release of the Escrowed Funds; (ii) the receipt of all shareholder and regulatory approvals required for the Transaction; and (iii) the conditional approval for listing of the common shares of the issuer resulting from the Transaction (the "Resulting Issuer") having been received from the TSX Venture Exchange ("TSXV"). In the event the Escrow Release Condition is not satisfied on or before 5:00 p.m. (Vancouver time) on July 31, 2022, subject to extension at the request of Dragonfly and BSG, the Subscription Receipt Agent shall return to the holders of the Subscription Receipts their pro rata share of the Escrowed Funds plus any accrued interest earned thereon (less applicable withholding tax) and the Subscription Receipts will be cancelled and of no further force and effect. The Company also paid aggregate cash finder's fees of \$110,100 to certain eligible finders in connection with the closing of the Subscription Receipt Financing. The finder's fees will be held by the Escrow Agent in trust and released to the finders following the satisfaction of the Escrow Release Condition.

### ***Corporate Highlights and Overview***

- The completion of its listing process with Dragonfly Capital Corp., and the conversion of the subscription receipts into common shares for gross proceeds of approximately \$7.0 million, which was upsized from the original \$5.0 million due to high demand. Following the closing of the RTO Transaction, Black Swan Graphene had a cash position of approximately \$9M.
- The execution of a multi-year Master Distributorship Agreement with Gerdau Grafeno Ltda ("Gerdau Graphene"), a wholly owned subsidiary of Gerdau S. A. focused on the development of chemical additives, mineral additives and masterbatches with graphene, which will buy products from Black Swan Graphene in order to market, promote and resell in the Americas Region;
- The execution of a non-binding letter of intent with Nouveau Monde Graphite Inc., whereby Black Swan Graphene would agree to establish graphene production capacity within Nouveau Monde's graphite processing plant, which has a design throughput of 3.5 tonnes of ore per hour (tph), the equivalent nameplate production capacity of approximately 1,000 tonnes of graphite concentrate per annum, using NMG's ore grading an average of 4.5% graphitic carbon, in Saint-Michel-des-Saints, Québec, Canada, in order to create a fully-integrated producing facility from graphite ore, through graphite concentrate, and to graphene finished products. This proposed agreement falls within the proposed joint venture to be formed between Mason Graphite and Nouveau Monde; see the joint press release issued by Mason Graphite and Nouveau Monde on May 16, 2022;
- The execution of a binding collaboration agreement with a key equipment supplier, which includes commercial details and minimum commitments for the procurement of longlead items required for large scale production of graphene;
- The grant by the Chinese Authorities of a Certificate of Invention Patent to Black Swan Graphene for apparatus and method for bulk production of atomically thin 2-dimensional materials including graphene, increasing the portfolio of patents and patent applications to 20 in 9 countries;
- The execution of a Tier-2 Membership Agreement with the Graphene Engineering Innovation Center ("GEIC") of the University of Manchester, a world-class centre which promotes, assists and carries out applied research, commercialisation, and manufacture of graphene;
- The launch of a new website, which includes a corporate video, which will be used for various industry events and furthering the brand awareness of Black Swan Graphene: [www.blackswangraphene.com](http://www.blackswangraphene.com);
- The appointment of Mr. Michael Edwards as Black Swan Graphene's Chief Operating Officer ("COO"). Mr. Edwards joins Black Swan Graphene from Thomas Swan & Co. Ltd., where he was the head of the Advanced Materials Division, where the company's graphene processing technology was originally developed;
- The appointment of Mr. Henri Wilhelm, as Black Swan Graphene's Vice-President Technology. Mr. Wilhelm has more than 15 years of experience in R&D, characterization and development of graphite-based products for energy storage applications. His career included working within Imerys Graphite & Carbon and SGL;

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- Master Distributorship Agreement with Gerdau Graphene Gerdau Graphene will collaborate with Black Swan Graphene in order to introduce graphene products and accelerate the adoption of graphene in different industrial applications in the Americas market, including concrete and polymers where Gerdau Graphene will serve as a distributor, working with its customers in the integration of the graphene products, and support the development of existing and new applications;
- On April 6, 2023, the Company and Nationwide Engineering Research and Development Ltd ("NERD") announced the closing of the Equity Swap and the entering into of the Supply Agreement announced on March 27, 2023, creating a strategic partnership being embedded in a fully integrated supply chain which will include Arup Group Limited ("Arup"), a multinational engineering consultancy headquartered in London, United Kingdom, with 18,000 experts working across 140 countries; and
- On September 14, 2023, the Company announced the results of the Scoping Study. The Scoping Study provides an initial evaluation, including processing plant specifications as well as conceptual mechanical, civil, structural, and electrical designs, for its proposed 40,000 square-foot first large-scale production facility, based on the same processing technology currently being used in the facility located in the United Kingdom. The annual production and self-sustaining ramp up of its industry-ready products have been established by taking into consideration customers and distributors' expected demand, as well as strategic partnerships, including the partnerships with Nationwide Engineering Research & Development ("NERD") and the Arup Group ("Arup"). The Scoping Study also established capital and operating cost estimates, as well as financial analysis based on its strategy to build such facility in Québec, Canada, where the Company aims to leverage the emergence of a world class graphite industry as a raw material source and the province's low-cost renewable hydroelectricity. While the initial capacity target stands at 9,868 tonnes per annum in accordance with the Company's initial strategy, expansion beyond this figure will be driven by market dynamics and raw material access.

### **Liquidity and Capital Resources**

As at September 30, 2023, the Company had working capital of \$6,098,342 (December 31, 2022 - \$8,527,388) which included a cash balance of \$6,030,879 (December 31, 2022 - \$8,874,657), including amounts receivable of \$470,442 and prepaid expenses of \$7,027 offset by accounts payable and accrued liabilities of \$410,006.

In connection with the reverse acquisition transaction completed on August 2, 2022, 16,311,000 shares were issued to the former shareholders of Dragonfly Capital Corp. valued at a price of \$0.15 which was the value of common shares issued as part of the subscription receipt financing that closed as part of the closing of the reverse takeover transaction.

On August 2, 2022, the Company completed a non-brokered financing ("the Subscription Receipt Financing") of 46,669,665 subscription receipts at a price of \$0.15 per Subscription Receipt to raise gross proceeds of \$7,000,450. Each Subscription Receipt has been exchanged for one Common Share.

On November 8 2021, the Company completed a private placement financing by issuing 33,530,349 common shares at a price of \$0.09 per share for gross proceeds of \$3,000,083. Directors and or officers subscribed for 220,589 common shares for gross proceeds of \$300,000.

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On August 26, 2021, the Company acquired a portfolio of patents from Thomas Swan through the issuance of 3,875,000 common shares valued at \$3,853,100 based on the value of the common shares in the previous private placement financing.

On July 21, 2021, the Company issued 117,799,985 common shares to Mason Graphite Inc. (Note 8) for gross proceeds of \$7,706,200.

**Results of Operations**

Quarterly information:

|                                             | <b>2023<br/>Third</b> | <b>2023<br/>Second</b> | <b>2023<br/>First</b> | <b>2022<br/>Fourth</b> |
|---------------------------------------------|-----------------------|------------------------|-----------------------|------------------------|
| Revenues                                    | Nil                   | Nil                    | Nil                   | Nil                    |
| Net comprehensive income (loss)             | \$(3,329,604)         | \$(1,479,794)          | \$(877,317)           | \$(1,716,109)          |
| Basic and diluted loss per Black Swan Share | \$(0.01)              | \$(0.00)               | \$(0.00)              | \$(0.04)               |
|                                             | <b>2022<br/>Third</b> | <b>2022<br/>Second</b> | <b>2022<br/>First</b> | <b>2021<br/>Fourth</b> |
| Revenues                                    | Nil                   | Nil                    | Nil                   | Nil                    |
| Net comprehensive income (loss)             | \$(5,561,154)         | \$(667,962)            | \$(546,093)           | \$(1,865,185)          |
| Basic and diluted loss per Black Swan Share | \$(0.02)              | \$(0.05)               | \$(0.4)               | \$(0.14)               |

For the period ended September 30, 2023:

During the period ended September 30, 2023, the Company recorded a loss of \$3,329,604 or \$0.01 per share (September 30, 2022 - \$6,775,209 or \$0.03 per share). Expenses incurred during the period ended September 30, 2023 included \$206,247 in professional fees (September 30, 2022 - \$723,317), comprised of legal fees for services in connection with the transactions discussed, as well as audit fees and listing and filing fees.

**Cash flows**

During the period ended September 30, 2023, the Company had a decrease of \$2,843,778 (September 30, 2022 - \$1,692,207) in cash flows from operating activities during the period.

During the period ended September 30, 2023, the Company generated \$nil (September 30, 2022 - \$15,141) in cash flow from investing activities as a result of the acquisition of the patents.

During the period ended September 30, 2023, the Company generated \$nil (September 30, 2022 - \$6,893,350) in cash flow from financing activities, by proceeds from private placements.

## **CAPITAL MANAGEMENT**

The Company is focused on the large-scale production and commercialization of patented high-performance and low-cost graphene products aimed at several industrial sectors. The Company manages its capital structure and adjusts its capital structure based on available funds in order to support these activities. The Board does not establish quantitative return on capital criteria for management, but rather relies on the expertise of the Company's management to sustain future development of the business. The Company considers its capital to consist of common shares.

Management reviews its capital management approach on an ongoing basis and believes that this approach, given the relative size of the Company, is reasonable. There were no significant changes in the Company's approach to capital management during the periods ended September 30, 2023 and 2022.

The Company is not subject to any capital requirements imposed by a lending institution or regulatory body.

## **FINANCIAL INSTRUMENTS**

Financial instruments recorded at fair value on the statement of financial position are classified using a fair value hierarchy that reflects the significance of the inputs used in making the measurements. The fair value hierarchy has the following levels:

- a) Level 1 - Unadjusted quoted prices in active markets for identical assets or liabilities;
- b) Level 2 - Inputs other than quoted prices that are observable for assets or liabilities, either directly or indirectly; and
- c) Level 3 - Inputs for assets and liabilities that are not based on observable market data.

The fair value hierarchy requires the use of observable market inputs whenever such inputs exist. A financial instrument is classified to the lowest level of the hierarchy for which a significant input has been considered in measuring fair value.

The Company's financial instruments include cash, amounts receivable, and accounts payable and accrued liabilities. The carrying values of these financial instruments reported in the statement of financial position approximate their respective fair values due to the relatively short-term nature of these instruments. As at September 30, 2023 and 2022, the Company had no instruments to classify in the fair value hierarchy. The Company's risk exposures and the impact on the Company's financial instruments are summarized below:

(a) *Credit risk*

Counterparty credit risk is the risk that the financial benefits of contracts with a specific counterparty will be lost if a counterparty defaults on its obligations under the contract. This includes any cash amounts owed to the Company by those counterparties, less any amounts owed to the counterparty by the Company where a legal right of set-off exists and also includes the fair values of contracts with individual counterparties which are recorded in the condensed interim consolidated financial statements.

a. *Trade credit risk*

The Company is not exposed to significant trade credit risk.

b. *Cash*

In order to manage credit and liquidity risk the Company's policy is to invest only in highly rated investment grade instruments that have maturities of three months or less. Limits are also established based on the type of investment, the counterparty and the credit rating.

*(b) Currency risk*

Currency risk is the risk that the fair value of, or future cash flows from, the Company's financial instruments will fluctuate because of changes in foreign exchange rates. The Company's foreign currency risk arises primarily with respect to UK sterling and US dollars from operations. Fluctuations in the exchange rates between these currencies and the Canadian dollar could have a material effect on the Company's business, financial condition and results of operations. The Company does not engage in any hedging activity to mitigate this risk.

*(c) Liquidity risk*

Liquidity risk is the risk that an entity will encounter difficulty in meeting obligations associated with financial liabilities. The Company's approach to managing liquidity risk is to ensure that it will have sufficient liquidity to meet liabilities when due. At September 30, 2023, the Company had a cash balance of \$6,030,879 to settle current liabilities of \$410,006. The Company's trade payables have contractual maturities of less than 30 days and are subject to normal trade terms.

***Compensation of key management personnel of the Company***

In accordance with IAS 24, key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Company directly or indirectly, including any directors (executive and non-executive) of the Company. During the period ended September 30, 2023, the remuneration of directors and other key management personnel was \$482,994 (September 30, 2022 - \$229,500). A total of \$nil was recorded in share-based payments expense for stock options and RSU's issued to directors and officers.

***Management Contracts***

The Company is party to certain management contracts. These contracts require payments of \$1,475,000 upon the occurrence of a change in control of the Company, as defined by each officer's respective consulting agreement. The Company is also committed to payments upon termination of \$680,000 pursuant to the terms of these contracts. As a triggering event has not taken place, the contingent payments have not been reflected in these condensed interim consolidated financial statements.