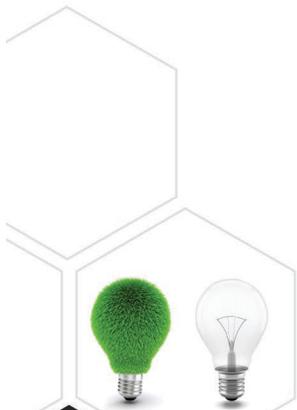


# Nano Plore

## ANNUAL INFORMATION FORM

SEPTEMBER 22, 2021

For the year ended June 30, 2021



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Except as otherwise indicated, and with the exception of information presented in the documents referred to in this Annual Information Form that were completed on another date, this Annual Information Form presents the results for the fiscal year ended June 30, 2021 and all amounts are expressed in Canadian dollars.

### **CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS**

Certain statements in this Annual Information Form constitute forward-looking statements. These statements relate to future events or future performance of the Corporation, business prospects or opportunities and product development. All statements other than statements of historical facts may be forward-looking statements. Forward-looking statements are often, but not always, identified by the use of words such as “seek”, “anticipate”, “plan”, “continue”, “estimate”, “expect”, “may”, “will”, “project”, “predict”, “potential”, “targeting”, “intend”, “could”, “might”, “should”, “believe” and similar expressions. These statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking statements.

The Corporation believes that the expectations reflected in these forward-looking statements are reasonable, but no assurance can be given that these expectations will prove to be correct. These statements speak only as of the date of this Annual Information Form. Such statements are based on a number of assumptions which may prove to be incorrect, including, but not limited to, assumptions about the ability for the Corporation to market and sell its products, the relationship with marketing partners and suppliers, the ability for the Corporation to attract capital and other financial risks, business and economic conditions, the ability to attract and retain skilled staff, competition, tax benefits and tax rates, as well as foreign currency exchange rates.

Actual results and developments are likely to differ, and may differ materially, from those expressed or implied by the forward-looking statements. Factors that could cause actual results to differ materially include, but are not limited to, the following risk factors described under the heading “RISK FACTORS” in this Annual Information Form, which reflect, to the Corporation’s knowledge, the material risks and uncertainties it faced as at June 30, 2021:

- Economic and Political Conditions;
- Revenue from Graphene Sales;
- Long and Complex Sales Cycle;
- Product Development and Technological Change;
- Market Development and Sustained Growth;
- Liquidity Concerns and Future Financing;
- Laws and Regulations, Licenses and Permits;
- Intellectual Property;
- Dependence on Management and Key Personnel;
- Qualified Employees;
- Competition;
- Cybersecurity Threats;
- Share Price Fluctuations;
- Cost Absorption and Purchase Orders;
- Acquisitions;
- Launch and Operational Costs;
- Cyclical Risks;
- Product Warranty, Recall and Liability Risk;
- Material and Commodity Prices;
- Quote/Pricing Assumptions;
- Uninsured Risks;
- Foreign Exchange; and
- Litigation.

Investors should not place undue reliance on forward-looking statements as the plans, intentions or expectations upon which they are based might not occur. The Corporation cautions that the foregoing list of risk factors is not exhaustive. Investors and others who base themselves on the Corporation's forward-looking statements should carefully consider the above factors as well as the uncertainties they represent and the risk they entail. The reader must not unduly rely upon the Corporation’s prospective statements.

Further, the Corporation does not intend, and does not assume any obligation, to update these forward-looking statements, except as may be required by applicable laws.

## CORPORATE STRUCTURE

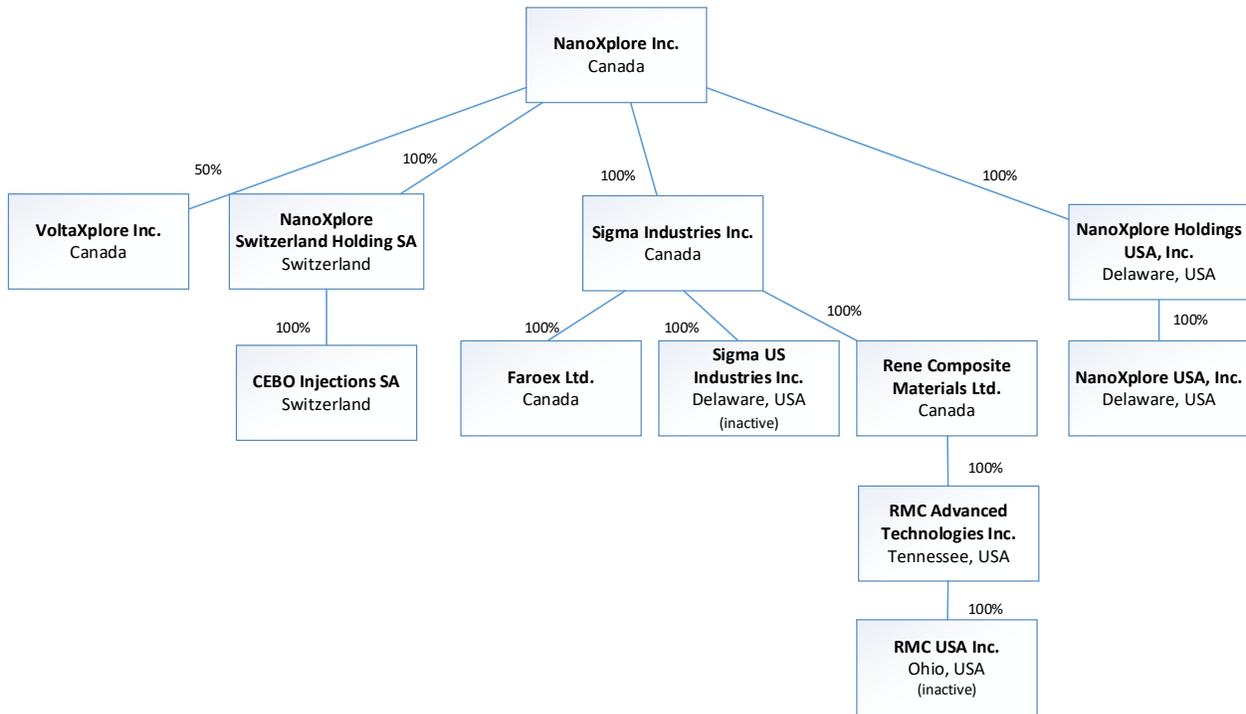
### Name, Address and Incorporation

NanoXplore Inc. (“**NanoXplore**” or the “**Corporation**”) was incorporated on May 5, 1995 under the *Business Corporations Act* (Alberta). On August 17, 2012, the Corporation, formerly known as Graniz Mondal Inc. (“**Graniz**”), was continued under the *Canada Business Corporations Act* (“**CBCA**”).

On August 29, 2017, the Corporation completed a three-cornered amalgamation involving Graniz, Group NanoXplore Inc. and 9363-0770 Québec Inc., which constituted a reverse takeover of Graniz by Group NanoXplore Inc. under the policies of the TSX Venture Exchange (the “**RTO**”). Pursuant to the RTO, Graniz changed its name to NanoXplore Inc., merged with Group NanoXplore Inc. and since then operates as “NanoXplore Inc.”

NanoXplore is now listed on the Toronto Stock Exchange (“**TSX**”) and is trading under the symbol “**GRA**”. It is also listed on the OTCQX and is trading under “**NNXPF**”. The Corporation’s head and registered office is located at 4500 Thimens Blvd., Montréal, Québec H4R 2P2.

### Intercorporate Relationships



## GENERAL DEVELOPMENT OF THE BUSINESS

NanoXplore is a graphene company, a manufacturer and supplier of high-volume graphene powder for use in industrial markets. The Corporation provides standard and custom graphene-enhanced plastic and composite products to various customers in transportation, packaging, electronics, and other industrial sectors. NanoXplore is headquartered in Montréal, Québec with manufacturing facilities in Canada, the United States and Europe.

## **FISCAL YEAR ENDED JUNE 30, 2019**

### ***Acquisition of Sigma Industries Inc.***

In September 2018, the Corporation and Sigma Industries Inc. (“**Sigma**”) completed an arrangement under the CBCA, pursuant to which the Corporation, through its wholly-owned subsidiary 10854611 Canada Inc., acquired all of the issued and outstanding common shares of Sigma, for a total amount of \$8,793,581. Such payment was made through the issuance of 4,579,988 Common Shares of its share capital to all existing shareholders of Sigma. The Corporation also acquired all the outstanding debentures of Sigma for a total amount of \$9,993,500, of which \$9,011,000 was paid in cash and \$982,500 was paid by the issuance of 511,719 shares of its share capital to the debenture holders.

Sigma is a manufacturing company specializing in the manufacture of composite products. It operates in the markets for heavy trucks, buses, public transit, machinery and wind energy. Sigma sells its products to original equipment manufacturers and distributors in the United States, Canada and Europe.

Sigma has two active wholly-owned subsidiaries: Faroex Ltd., based in Manitoba and Rene Composite Materials Ltd., based in Québec. Sigma has one inactive wholly-owned subsidiary: Sigma US Industries Inc. Rene Composite Materials Ltd. has one active wholly-owned subsidiary, RMC Advanced Technologies Inc. based in North Carolina, United States. RMC Advanced Technologies Inc. has one inactive wholly-owned subsidiary: RMC USA Inc.

### ***Feasibility Report***

In August 2018, the Corporation published a feasibility report relating to its graphene production plant (the “**Feasibility Report**”) prepared by Duro Felguera Mining & Handling at the request of the Corporation. The Feasibility Report dated August 3, 2018 is available on the Corporation’s profile on SEDAR at [www.sedar.com](http://www.sedar.com).

### ***Sale of Rada Industries Ltd.’s main asset***

On April 8, 2019, the Corporation made the strategic decision to sell the main operating assets of Rada Industries Ltd. for an amount of \$800,000. The Corporation decided to focus on higher value-add graphene and graphene-enhanced plastic products. Rada Industries Ltd. was dissolved on December 31, 2019.

### ***Memorandum of Understanding with Martinrea International Inc.***

In December 2018, NanoXplore entered into an Amended and Restated Memorandum of Understanding (“**MOU**”) with Martinrea International Inc. (“**Martinrea**”) to further develop the commercial relationships between the companies. The MOU provides for increased collaborations between NanoXplore and Martinrea, including commitments by NanoXplore to provide graphene to Martinrea and to assist in the development of graphene-related products and technologies. Martinrea will also assist NanoXplore in the future development of its operations. The MOU also provides for Martinrea’s right to approve NanoXplore’s Chief Operating Officer and to designate one candidate for election to the Board of Directors of NanoXplore.

### ***Financing Activities***

In January 2019, the Corporation completed a “bought deal” private placement for total gross proceeds of \$30,988,240, by the issuance of 16,144,800 Common Shares of the Corporation at a price of \$1.30 per share, for gross proceeds of \$20,988,240 (the “**Equity Offering**”) and \$10,000,000 aggregate principal amount of convertible unsecured subordinated debentures with an interest rate of 8% per annum, due December 31, 2023. Martinrea subscribed for approximately \$15 million as part of the Equity Offering. BDC Capital Inc. (“**BDC**”) subscribed for the debentures.

The debentures were converted in December 2020 at a price of \$1.84 per common share, resulting in the issuance of 5,434,782 Common Shares of the Corporation to BDC. Upon the conversion, BDC owned 10,819,397 Common Shares of NanoXplore, then representing 7.41% of the Corporation's total outstanding shares.

### ***New stock option plan***

On October 12, 2018, NanoXplore adopted a new "fixed number" stock option plan (the "**Plan**") for the benefit of its directors, officers, employees and consultants providing ongoing services to the Corporation. The Corporation terminated its previous "rolling 10%" stock option plan. The purpose of the Plan is to advance the interests of the Corporation by providing optionees with additional performance incentive, and to allow the Corporation to attract and retain competent personnel. The Plan is managed by the Board of Directors of the Corporation. The maximum number of stock options that can be issued under the Plan is 8,000,000, representing 8.5% of the then current number of shares of the Corporation issued and outstanding.

### ***Corporate Updates***

In January 2019, Mr. Rob Wildeboer joined the Board of Directors of NanoXplore and was appointed as Chair of the Board of Directors of the Corporation. Mr. Wildeboer co-founded Martinrea, a global auto parts supplier, specializing in lightweight structures and propulsion systems in the automotive market, and industrial products and technologies in its flexible manufacturing group.

Mr. Rocco Marinaccio, former Vice President – Flexible Manufacturing Group of Martinrea, joined NanoXplore to act full-time as Chief Operating Officer.

### **FISCAL YEAR ENDED JUNE 30, 2020**

#### ***COVID-19 Pandemic***

On March 11, 2020, the World Health Organization declared the outbreak of the COVID-19 global pandemic and recommended various containment and mitigation measures. Since then, extraordinary actions have been taken by public health and governmental authorities across the globe to contain the spread of COVID-19, including travel bans, social distancing, quarantines, stay-at-home orders and similar mandates for many businesses to reduce or cease normal operations. As a result of the COVID-19 global pandemic, in the middle of March, certain Corporation's customers essentially idled their manufacturing operations. NanoXplore followed its customers and also temporarily idled most of its manufacturing operations. This suspension of manufacturing operations and rapid dissipation of customer demand had a negative impact on the Corporation's financial results during the second half of March and the fourth financial quarter of 2020.

Even though manufacturing operations resumed during the month of May, the COVID-19 global pandemic had and continues to have a significant negative impact on customer business activities. This slowdown of manufacturing operations and dissipation of customer demand has had a negative impact on the Corporation's financial results since the second half of March 2020.

The COVID-19 pandemic is expected to have an adverse effect on the Corporation's business, results of operations, cash flows and financial position; however, the full impact cannot be determined at this time. The extent of the impact will depend on various factors, including the possibility of future shutdowns, impact on customers and suppliers, the rate at which economic conditions, operations return to pre-COVID levels, any continued or future governmental orders or lock-downs due to this wave of COVID-19, or any future wave, and the potential for a recession in key markets due to the effect of the pandemic. See "*Economic and Political Conditions*" under the heading "RISK FACTORS" below.

## ***Commercial Activities***

The Corporation focused on the development of its graphene plant in Montreal from the start of the financial year ended on June 30, 2020. Even though the progress of the project was impacted by the COVID-19 pandemic, the 4,000 metric tons/year graphene facility became the Corporation's corporate headquarters on January 20, 2020 and became operational on July 7, 2020.

On January 20, 2020, NanoXplore GmbH, a Germany based wholly-owned subsidiary of the Corporation, was dissolved.

## ***Financing Activities***

On April 3, 2020, the Corporation completed a brokered private placement financing of 19,230,800 Common Shares at a price of \$1.30 per share for gross proceeds of \$25,000,040. As part of the closing of such private placement financing, Caisse de dépôt et placement du Québec and Investissement Québec were granted the collective right to designate one candidate for election to the Board of Directors of NanoXplore.

## ***NanoXplore's shareholders structure change***

On September 9, 2019, Mason Graphite Inc. sold its entire NanoXplore ownership position which resulted in the transfer of 22,188,333 shares to a group of buyers that included Martinrea, Caisse de dépôt et placement du Québec and Investissement Québec.

## **FISCAL YEAR ENDED JUNE 30, 2021**

### ***Graphene plant project in Montreal***

The Corporation's graphene plant in Montreal of a 4,000 metric tons/year capacity became operational on July 7, 2020.

### ***Acquisition of Newton Facility***

On September 11, 2020, through its wholly-owned indirect subsidiary RMC Advanced Technologies Inc., the Corporation acquired substantially all of the assets of CSP Composites, LLC, Continental Structural Plastics, Inc. and Continental Structural Plastics of North Carolina, Inc. (collectively, "CSP") used in connection with its lightweight composite solutions and material business as conducted in Newton, North Carolina, for an unadjusted total purchase price of US\$3,500,000 [\$4,606,900]. The purchase price was reduced by a downward inventory adjustment of US\$128,929 [\$169,703]. This acquisition was concluded in order to expand the Corporation's business in the United States. CSP employs nearly 30 people and operates mainly in the markets of composite products for heavy trucks and machinery. It sells its products to original equipment manufacturers and distributors in the United States, Canada and South America.

### ***Blanket purchase order from Martinrea***

On October 27, 2020, NanoXplore received a blanket purchase order from Martinrea to supply graphene for fuel and brake lines for passenger vehicles produced by North American automotive Original Equipment Manufacturers ("OEM"). These graphene-enhanced products were tested and approved by OEMs and demonstrate significant lifetime improvements in comparison with existing solutions in the market. These parts will be supplied to one or more OEMs by Martinrea within already-awarded multi-year fuel and brake line supply programs.

### ***Corporate Update***

In November 2020, Ms. Jodie Morgan was appointed to NanoXplore's Board of Directors.

### ***Conversion of Outstanding Debentures***

On December 8, 2020, BDC sent NanoXplore a notice of conversion of its convertible unsecured subordinated debentures bearing interest at 8% per annum, for an aggregate principal amount of \$10,000,000 (the “**Debentures**”). The Debentures were converted into Common Shares of the Corporation at a price of \$1.84 per Common Share, resulting in the issuance of 5,434,782 Common Shares of the Corporation.

### ***Financing Activities***

On February 12, 2021, the Corporation completed a bought deal offering of 11,500,000 Common Shares at a price of \$4.00 per share for gross proceeds of \$46,000,000. In a separate transaction that was completed concurrently, M. Soroush Nazarpour, President and Chief Executive of the Corporation, sold to Martinrea 1,000,000 Common Shares at \$4.00 per share for gross proceeds of \$4,000,000 to Mr. Nazarpour.

### ***Corporate Update***

In February 2021, Ms. Nathalie Pilon was appointed to NanoXplore’s Board of Directors.

### ***Joint Venture with Martinrea***

On April 14, 2021, NanoXplore and Martinrea formed a joint venture, VoltaXplore Inc. (“**VoltaXplore**”), a battery-based initiative to service the electric transportation and grid storage market. VoltaXplore will initially build a demonstration facility to develop and produce electric vehicles (EV) batteries enhanced with graphene. Following a successful demonstration of improved battery performance using graphene and based on positive customer feedback as well as building a business case, VoltaXplore intends to build and commission and 10GWh battery cell manufacturing facility in Canada. NanoXplore and Martinrea have each invested \$4 million initially into VoltaXplore as startup capital to support the construction of the demonstration facility, with each committed to provide an additional \$6 million in development funding.

### ***Commercial Activities***

On June 16, 2021, NanoXplore entered into a multiyear agreement to supply GrapheneBlack™ grade of products to Techmer PM, LLC (“**Techmer**”), which agreement includes a customer-based exclusivity. Techmer will market its graphene-enhanced compounds to a variety of industries in a number of diverse end uses and applications.

On June 23, 2021, NanoXplore entered into a multiyear supply and distribution agreement with Gerdau Grafeno LTDA. (“**Gerdau**”), a wholly-owned subsidiary of Gerdau S.A. Gerdau Graphene was founded to develop and market products based on graphene applications on an industrial scale in the Americas region.

On June 23, 2021, 9334-7474 Québec Inc., a wholly-owned subsidiary of NanoXplore, was dissolved.

## **RECENT DEVELOPMENTS**

### ***Graduation to the Toronto Stock Exchange***

On July 15, 2021, NanoXplore’s Common Shares began trading on the TSX, following its graduation from the TSX Venture Exchange.

### ***EPA Approval***

On August 13, 2021, NanoXplore’s U.S. subsidiary RMC Advanced Technologies Inc. entered into a consent order with the U.S. Environmental Protection Agency under the *Toxic Substances Control Act*

(TSCA), which consent order allows for the commercial use of its GrapheneBlack™ as an additive for thermoplastics, thermosets and rubbers, with no annual volume limitation.

### **2022 Outlook**

NanoXplore's focus remains on further commercialization of graphene powder and pre-mixed graphene enhanced thermoplastic and thermoset products for the transportation, packaging (non-food), building, construction, industrial, and electronic packaging markets. Additionally, through its joint venture VoltaXplore with Martinrea, NanoXplore will focus on the development of EV batteries enhanced with graphene.

## **DESCRIPTION OF THE BUSINESS**

The Corporation was formed for the purpose of commercializing technology to produce graphene and value-added products containing graphene. First isolated and characterized in 2004, graphene is a single layer of carbon atoms configured in an atomic-scale honeycomb lattice. Among many noted properties, monolayer graphene is harder than diamonds, lighter than steel but significantly stronger, and conducts electricity better than copper. Graphene has unique capabilities for energy storage, thermal conductivity, electrical conductivity, barrier properties, lubricity, and the ability to impart physical property improvements when incorporated into plastics, composites or other matrices. The Corporation's business model is based on bringing innovative solutions to market using high quality graphene powders. Such advanced material provides a substantial added value to final products. The Corporation's current product offerings are reflected in Fig 1.



Fig 1: The Corporation's product offering

NanoXplore believes that the unique properties of graphene will enable numerous new product applications and the market for such products will grow at a rapid pace, creating significant market opportunities. The Corporation's business model is to design, manufacture and sell graphene powder under the name "GrapheneBlack™" and value-added intermediary products incorporating GrapheneBlack™, such as graphene enhanced thermoplastics (e.g. Polyethylene and Nylon), and graphene enhanced thermosets (e.g. Polyester), and molded plastic and composite products.

### **➤ Graphene powder**

Although the nascent commercial market for graphene-based products is currently small, within the next 10 years, the market is anticipated to achieve unprecedented growth rates through technological advancements. The global graphene market size is expected to gain momentum by reaching

US\$2,864,100,000 [\$3,769,892,083] by 2027, while exhibiting a compound annual growth rate of 39% between 2020 and 2027, according to a study report published in August 2020 by Fortune Business Insights, titled “Graphene Market Size, Share & COVID-19 Impact Analysis, By Product, By End-Use, and Geography Forecast, 2020-2027”. The Corporation believes this rapid growth to be attributable in part to the increasing demand for sustainability solutions.

IDTechEx, in its market report published in November 2020 titled “Graphene Market & 2D Materials Assessment 2021-2031”, explained that the necessity for improved thermal management, sustainability (with the role of graphene being to enable the use of recycled polymers, energy storage systems, and even concrete), lightweighting and improved product lifetime, will be the key market drivers for graphene.

Currently, thermal management, composites, and energy storage are the largest segments of the graphene market, while composites and energy storage will be the largest segment of the graphene market by 2031 by volume and revenue, according to IDTechEx’s report titled “Graphene Market: Orders arrive, consolidation awaits”.

#### ➤ **Concentrates and intermediary products**

In order to benefit from the superior properties of graphene, it is important to mix graphene effectively into different matrices such as thermoplastics and thermosets. Such mixing activities (dispersion) are essentially a complex chemical process in which interfacial reaction between graphene and the matrix is improved. The key to the successful commercialization of graphene is to transfer the properties of graphene to the final product. The interface between graphene particles and matrix is of particular importance as it acts as a bridge. As these mixing processes are highly complex, the Corporation offers graphene pre-mixed products to simplify the use of its products by customers.

NanoXplore’s products are especially appropriate in material composites requiring improved:

- Mechanical and structural properties;
- Thermal and/or electrical conductivity;
- Wear and abrasion resistant and long-lasting surface properties; and
- Electro-magnetic shielding.

#### ➤ **Graphene enabled plastic and composite parts**

During the past several years, NanoXplore has acquired plastic and composite manufacturing assets and companies, which enabled the Corporation to develop graphene enhanced products for the transportation and the building, construction and industrial markets and introduce graphene to real-world applications. These plastic and composite activities allowed NanoXplore to effectively develop and showcase the benefits of graphene to OEMs. NanoXplore is actively developing products through its acquisitions and has been successful in introducing graphene into products of these acquired companies. Furthermore, these acquisitions strengthened the balance sheet of the Corporation.

The plastic and composite activities of NanoXplore are focused on closed mold processes for a variety of applications and industries in North America and Europe. These range from precision injection molding for the automotive, medical, electro-mechanical and watch-making markets, to closed-mold sheet molding compound (“**SMC**”), reaction injection molding polydicyclopentadiene (“**DCPD**”) and resin transfer molding composite parts for the transportation and industrial markets. These include SMC and DCPD parts for trucks and handlers, as well as composite bus flooring. In addition, NanoXplore produces pultruded composite and injected plastic parts for the public transit, wind and agriculture markets.

#### **Target Markets**

The Corporation is focused on five target markets to sell its graphene products and solutions.

### Transportation

- Large and diverse market with potential for performance elevation by graphene, such as applications in interiors, composite body panels, and energy storage for electric vehicles; furthermore, graphene enhanced recycled plastics are finding their way in several under the hood and interior parts of the vehicles providing a market pull for the Corporation's business;
- Product and design validation process is lengthy; However, the potential growth is significant as graphene offers several added values, such as weight reduction;
- Product offerings are graphene enhanced thermoplastic and thermoset concentrates and molded plastic and composite parts.

### Consumer Packaging (non food-contact)

- Sustainability and increased consumption of recycled plastic is the main driver for graphene in this market, as graphene assists with the reusability of plastics;
- Regulatory approval process can be lengthy for food-contact applications, which explains the Corporation's initial focus on non food-contact applications;
- Product offerings are graphene powder and graphene enhanced thermoplastic concentrates.

### Building, Construction and Industrial

- Sustainability and increased consumption of recycled plastic is the main driver for graphene in this market, as graphene assists with several added values, such as enabling the use of higher concentration of recycled plastics in the products, improved mechanical properties, and enhanced humidity barrier properties; in addition, graphene enhanced concretes are slowly being introduced to the construction market, which present a significant growth opportunity;
- Depending on the application, certification process length varies; However, the Corporation is focused on applications with shorter certification processes;
- Product offerings are graphene powder and graphene enhanced thermoplastic concentrates.

### Electronic Packaging

- Faster electronics processing is the main driver for the use of graphene in this market, as graphene brings several added values, such as improving electromagnetic shielding properties of the electronic enclosures, a very important feature in future autonomous vehicles, 5G networks, and high-speed data centers;
- Product offerings are graphene enhanced thermoplastic and thermoset concentrates and molded plastic and composite parts.

### Energy storage materials

- Enhanced energy density (as a result of stabilizing silicon in the anode formulation) and charging speed (as a result of improved electrical conductivity) are the main drivers for the use of graphene in this market;
- Product offerings consists of specialty formulated graphene enhanced silicon anode and cathode slurries.

The addressable markets for the Corporation's graphene materials are large and growing.

For example, in the consumer packaging market, according to a study report published in April 2020 by Grand View Research titled "Plastic Packaging Market Size, Share & Trends Analysis Report By Product (Bottles, Bags, Wraps & Films), By Type (Rigid, Flexible), By Application (Food & Beverages, Industrial), And Segments Forecasts, 2020-2027", the global packaging market for plastics was estimated to be US\$234.14 billion in 2019 [\$308.19 billion] and US\$242.7 billion [\$319.46 billion] in 2020, with a

forecasted compound annual growth rate of 4% from 2020 to 2027. NanoXplore is involved with customers in this market, in order to increase the recycled plastic content of their products.

Additionally, in the transportation market, there is an industry-wide desire for increased light weighting technologies in vehicles. The objectives of these light weighting initiatives are to reduce fuel consumption in combustion engine vehicles and to extend battery range in electrical vehicles.

Data derived from the US Department of Energy (the “DOE”), in a report dated August 2010 titled “Materials Technologies: Goals, Strategies, and Top Accomplishments”, indicate that, in 1977, conventional steel accounted for 75% of the weight of all materials used in the manufacture of a vehicle. By 2010, that number was down to about 65%, with a significant increase in high-strength steel, aluminium and polymer composites.

In order to meet industry light weighting targets, it is estimated that by 2035, polymer composites usage will increase to 20% of all materials used in a vehicle, up by approximately 10% from today’s current usage<sup>1</sup>. Improvements to today’s composite materials are critical for this to occur, and graphene’s strength and stiffness attributes make it a good candidate for the broad adoption of polymer composites in the automotive industry.

In 2018, it is estimated that 71 million automobiles were produced globally, based on a study report published in 2020 by Statista titled “Estimated worldwide automobile production”. Assuming that the average automobile weights 1,500 kilograms<sup>2</sup> and based on 100 kilograms in a given automobile being comprised of polymer composites, the addition of graphene-related products in such polymer composites at just 1wt% concentration could create potential demand of over 71,000 tons for graphene.

## **Commercialization Process and Development**

Because graphene is a new material, most of the Corporation’s customers are still in the development phase in terms of using graphene in their products. Commercialization is a process for which the exact timing is difficult to predict. It starts with internal R&D, to validate performance for an identified market or customer-specific need. The Corporation’s customers then validate the performance of the Corporation’s materials and determine whether they can be incorporated into their manufacturing processes. This is generally done at pilot production scale levels. The Corporation’s customers then introduce products incorporating NanoXplore’s materials to their own customers for further validation. After their customers have validated performance, the project may move to commercial scale production.

Every customer goes through a similar process, but will do so at varying speeds, depending on the customer, the product application, and the end-use market. Thus, it is hard to predict with any precision the start of commercial volumes orders of graphene materials or predict expected volumes over time. However, as customers move through the process, the Corporation generally receives feedback and gains greater insights regarding their commercialization plans.

Presented below are development case studies showing graphene as providing value to the Corporation’s customers and partners, at levels that are either already commercial, or where levels are believed to become commercial soon.

### **Building, Construction and Industrial**

The Corporation is developing products with customers in the building, construction and industrial markets, such as piping, roofing, construction materials such as concrete and insulation materials,

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<sup>1</sup> DOE, “Materials Technologies: Goals, Strategies, and Top Accomplishments”, August 2010; Journal of Engineering Science, Volume 4, Issue 2, Hovorun T.P., Berladir K.V., Pererva V.I., Rudenko S.G., Martynov A.I., “Modern materials for automotive Industry, December 2, 2017.

<sup>2</sup> DOE, “Lightweighting Efforts for Sustainable Transportation”, 2nd Lightweighting Summit, March 5, 2015

agricultural products such as geotextiles, paints and coatings (for example protective and anti-corrosion coatings), etc. The Corporation believes that this market will be the main segment in its annual sales within the next 24 months.

### Transportation

In addition to the existing markets for Corporation's composite products, the Corporation is currently supplying graphene or graphene enhanced products in this market and is expecting rapid growth. NanoXplore's graphene products add value to interior, exterior, and under-the hood parts. Three major trends could become tail winds for the Corporation's graphene sales activities in the transportation market. The first one is the desire for additional light weighting, the second is the electrification of the transportation sector, and the third lies upon the anti-bacterial and anti-viral properties of the Corporation's graphene.

Regarding the light weighting of the transportation sector, the Corporation's product was tested and approved by OEMs and is sold to Martinrea for use in fuel and brake lines. The addition of graphene improves the corrosion resistance of these products.

The Corporation is also developing graphene enhanced composite parts for passenger and commercial vehicles. NanoXplore's graphene is a key component in the light weighting of these parts, as adding graphene to sheet molding compounded composite parts enhances the strength, stiffness, and smoothness of the part. These attributes could create significant costs savings, resulting from a part's weight reduction and easier painting process.

Regarding the anti-viral and anti-dirt properties of graphene, as further explained under the heading "**Intellectual Property**" below, the Corporation has filed a provisional patent in the United States in 2020. It also started product development based on these anti-viral and anti-dirt properties with an OEM, who has also filed a patent on this subject. The success of this product is dependent upon several risk factors, such as the evolution of the COVID-19 pandemic. See "*Economic and Political Conditions*" under the heading "RISK FACTORS" below.

### Electronic packaging

NanoXplore has started selling graphene and graphene enhanced products to a manufacturer of electronic server racks. The electromagnetic shielding properties of graphene are the main added values for this customer. While volumes are low for this application, NanoXplore is actively marketing this attribute of its graphene to potential customers requiring similar product performance.

### Consumer packaging (non food-contact)

The Corporation is developing products with several potential customers active in this market. By enhancing the properties of the final plastic part, graphene allows for increased use of recycled plastics in the product. For sustainability reasons, this is of interest to several packaging companies. NanoXplore's partnership with Techmer will assist the Corporation as it develops this market.

## Sales

For each of its two most recently completed financial years, the following table identifies NanoXplore's sales, on a consolidated basis:

	<u>2021</u>	<u>2020</u>
Transportation	\$50,863,724	\$44,844,720
Building, Construction and Industrial	\$5,865,638	\$8,834,971
Agriculture	\$2,930,793	\$2,387,560
Wind Energy	\$2,027,516	\$3,232,000
Other	\$4,966,963	\$2,903,077
	<u>\$66,654,634</u>	<u>\$62,202,328</u>

As its graphene operations are still in an early stage, its 4,000 metric tons/year graphene facility becoming operational only in July 2020, the Corporation's sales are derived in most part from sales of composite parts. NanoXplore's sales of graphene and graphene enhanced products within the target markets identified above remain minimal.

## Production Process

The output of NanoXplore's graphene production line is a very fine fluffy black powder with particle size ranging from 5 to 35  $\mu\text{m}$ . There is currently one module of 4,000 tpy already installed in the facility. Below is a description of each production step in the graphene production facility.

### Raw material feed

In order to produce graphene, the process needs to combine different solids and feed them to the mills. The solids' feed is composed of natural flake graphite, water, salts and active materials. Each of the solids has to be unloaded from their respective bulk bags into storage bins. From the storage bins, the solids then must be weighed before being introduced into the feed system.

### Reverse osmosis water

Reverse osmosis water is fed into each mill directly from the reverse osmosis water treatment unit.

### Milling

After addition of all the raw materials to each mill, the milling process begins. During milling, by using a mechano-chemical exfoliation process, graphite turns into graphene. The material of the tanks and the grinding media is stainless steel 316L.

After the milling process is finished, the slurry inside the mills is transferred to two agitating tanks using special pumps. The approximate quality of the run is checked using pH and particle size measurements. If the run fails the quality check, the run is transferred to the waste treatment area.

### Purification

The slurry from the agitating tanks is then transferred into the purification area. This stage consists of centrifuges and small agitating tanks. The input slurry has a high pH. The first step is to reduce the pH to an acceptable range, which is lower than neutral, in order to remove all impurities. The next step is to bring the pH up to neutral, in order to have a neutralized product.

### Solid liquid separation

A filter separates graphene from the liquid using suction generated by a pump. The graphene is trapped on the filter cloth of a vacuum filter and the liquid is transferred to the liquid-gas separator and transferred to the waste treatment area. The output of this stage is a wet graphene paste with around 50wt% moisture.

### Drying and de-agglomeration

Using conveyors, the graphene is added to a dryer. The goal is to dry the graphene with around 50wt% moisture content to under 10wt%. At the end of this drying process, graphene forms a friable cake. To turn the cake into powder and de-agglomerate it, the cake enters a secondary mill.

### Further drying and classification

From the secondary mill, the graphene is dropped into an air-based drying system, with the goal to dry the graphene to have as low as 2wt% moisture content and also de-agglomerate any small, agglomerated particles. During this process, coarse products are separated from fine products. Based on the particle size of the dried products, they are separated and fed directly to the packaging area as final products.

### Ternary milling

The coarse products may undergo a ternary milling process for further particle size reduction, depending upon customer needs.

### Product handling, storage and packaging

The fully processed graphene products are then packaged inside the plant in small and big bags in a specific area and, from that area, are transported by forklifts to the wrapping and storage area.

### Waste treatment and reverse osmosis unit

In order to minimize the amount of water consumption in the production process, a waste treatment unit followed by a reverse osmosis unit was installed. The waste treatment unit consists of:

- A wastewater tank that collects all of the waste generated throughout the system;
- A reactor, which is a tank where flocculants and other chemicals are added in order to control the pH and sediment the solid waste;
- A filter unit, which consists of multiple filters such as a filter press and ultrafiltration, to separate the solid from the liquid;
- A treated wastewater tank.

The treated wastewater is transferred from the treated tank to the reversed osmosis system. The reverse osmosis water is stored in process water tanks to be reused in the production.

## **Specialized Skill and Knowledge**

Recruiting and retaining qualified personnel is critical to the Corporation's success. Especially if it relates to its graphene operations, finding skilled scientists and a sales team familiar with the subject matter is difficult. The number of persons skilled in the high-tech manufacturing business is limited and competition for this workforce is intense. See "*Qualified Employees*" under the heading "RISK FACTORS" below.

## **Competitive Conditions**

The plastic and composite additive markets and the energy storage markets are extremely competitive. The Corporation believes that its aggressive acquisition plan and strong R&D capabilities will keep it

ahead of the competition, as it has better access to OEMs, resulting in faster qualification and integration of graphene into end-products.

The table below summarizes several important players in the graphene market and their product offering:

Competitors	Product Offering	Type	Focused Market	Location
<b>Angstrom Materials</b>	Graphene Manufacturer	Graphene nanoplatelets	Plastics and Batteries	North America
<b>Applied Graphene Materials</b>	Graphene manufacturer	Graphene nanoplatelets	Composites and Coatings	Europe
<b>Directa Plus</b>	Graphene Manufacturer	Graphene nanoplatelets	Sporting Goods	North America and Asia
<b>First Graphene</b>	Graphene Manufacturer	Graphene nanoplatelets	Rubber	Australia
<b>Graphenea</b>	Graphene manufacturer	CVD Graphene and Graphene nanoplatelets	Electronics and Research	Europe
<b>Graphene 3D Lab</b>	Graphene Manufacturer	Graphene nanoplatelets	3D Printing and Composites	North America
<b>Haydale</b>	Graphene functionalization	-	Composites and Medical	Europe and Asia
<b>Thomas Swan</b>	Graphene manufacturer	Few-layer Graphene and Graphene nanoplatelets	Plastics, Composites and Inks	Europe
<b>XG Sciences</b>	Graphene Manufacturer	Graphene nanoplatelets	Batteries, Composites and Inks	North America

### Components and Raw Materials

The main raw material needed for the production of graphene is natural flake graphite. The Corporation believes that there is currently an oversupply in the market of natural flake graphite. The Corporation's graphite is currently procured from a Canadian supplier, but graphite is also readily available from alternative sources. Furthermore, if the electric vehicles market continues to grow and use spherical graphite, NanoXplore believes that there is limited supply risk, as the required feedstock is small flake natural graphite, which is in greater availability than large flake natural graphite. All other raw materials used in the production of graphene are readily available and equipment used in the production of graphene are off-the-shelf equipment. Polyester resin and glass fiber for the production of composite parts

are procured from several suppliers, with whom the Corporation has had long term commercial relationships.

### **Intellectual Property**

In addition to holding certain patents and pending patent applications, the Corporation relies on a combination of trade secrets, know how, and employee confidentiality agreements to safeguard its intellectual property. The Corporation's main patent families are described below.

NanoXplore's first patent family relates to large scale production of thinned graphite, graphene and graphite-graphene composites. This patent family is directed to processes detailing various procedures for producing thinned crystalline graphite and few layers graphene. The patents relating to this family were filed in the United States, Canada, Australia and Europe, and will expire in 2035.

NanoXplore's second patent family relates to large scale production of oxidized graphene. This patent family is directed to processes of metal hydroxide salts, oxidizers, surfactants, multiple electrolyte solutions and milling. The patents relating to this family were filed in the United States, Canada, Australia and Europe, and will expire in 2035.

NanoXplore's third patent family relates to method of compounding graphene with non-conductive particles and applications. This patent family is directed to processes detailing a method of coating non-conductive polymer particles with graphene nanoflakes. The patents relating to this family were filed in the United States, and will expire in 2037.

NanoXplore's fourth patent family relates to methods of exfoliating and dispersing graphitic material into polymer matrices using supercritical fluids. This patent family is directed to a process of melt mixing a polymer and a graphitic material, applying a supercritical fluid to the mixture, depressurizing the mixture to let the supercritical fluid escape, thereby exfoliating the graphitic material to form thinned graphitic sheets. The patents relating to this family were filed in the United States, Canada, Europe, China and Japan, and will expire in 2038.

NanoXplore's fifth patent family relates to graphene-polymer porous scaffold for stable lithium-sulfur batteries. This patent family is directed to combining functionalized graphene with a nitrogen-containing polymer to form a mixture and forming the mixture into a nanocomposite cathode. The patent was filed in the United States, and will likely expire in 2041.

NanoXplore's sixth patent family relates to a non-oxidized graphene-based anti-viral coating. It is directed at a process of mixing non-oxidized and edge-functionalized graphene with catalysts, additives, and thermosets to develop a composite with anti-viral and anti-dirt properties. It can be particularly useful against COVID-19. The patent was filed in the United States, and will likely expire in 2041.

### **Cycles**

A portion of the business of the Corporation is cyclical, especially as it relates to its activities in the transportation industry. It is dependent on, among other factors, general economic conditions in North America and elsewhere. See "*Cyclical Risks*" under the heading "RISK FACTORS" below.

### **Economic Dependence**

As it relates to NanoXplore's composites' parts manufacturing operations, North America is a key truck producing region for the Corporation and operating results are dependent on truck production in this region by its customers. Due to the nature of this part of the Corporation's business, it is dependent upon several large customers such that cancellation of a significant order by any of these customers, the loss of any such customers for any reason or the insolvency of any such customers, reduced sales of truck platforms of such customers, or shift in market share on trucks on which it has significant content, or any significant or sustained decline in truck production volumes in North America, could significantly reduce

the Corporation's ongoing revenue and/or profitability, and could materially and adversely affect the Corporation's financial condition. Although the Corporation continues to diversify its business, there is no assurance that it will be successful. The Corporation does not have any economic dependence upon its suppliers. See "*Cyclical Risks*" under the heading "RISK FACTORS" below.

### **Environment, Health and Safety**

Large volume production of graphene requires permits and approvals from various government authorities, and is subject to extensive federal, provincial, state, and local laws and regulations governing development, production, exports, taxes, labour standards, occupational health and safety, environment and other matters. As graphene is a new chemical substance, production and sale of graphene may be subject to specific occupational health and safety and environment regulatory approvals in different jurisdictions including, without limitations, under the *Canadian Environmental Protection Act* (Canada), the *Food and Drug Act* (Canada), the *Toxic Substances Control Act* (USA), the *Food Drug and Cosmetic Act* (USA) and the *Registration, Evaluation, Authorization and Restriction of Chemicals* (Europe). Such laws and regulations are subject to change, can become more stringent, and compliance can be costly. There can be no guarantee that the Corporation will be able to maintain or obtain all necessary licences, permits and approvals that may be required to produce or sell graphene, and such failures could have a material adverse effect on the Corporation. See "*Laws and Regulations, Licenses And Permits*" under the heading "RISK FACTORS" below.

### **Employees**

As at June 30, 2021, the Corporation had 376 employees.

### **Reorganizations**

NanoXplore is the resulting entity from the RTO completed in 2017, described above under the heading "CORPORATE STRUCTURE".

Following the RTO, on November 23, 2017, the Corporation acquired all of the issued and outstanding shares of CEBO through its wholly owned subsidiary NanoXplore Switzerland Holding SA. CEBO is a Swiss-based injection molding company which provides customers with high precision and high-quality injection molded products, and serves the automotive, medical, industrial and watches manufacturing markets. CEBO has expertise in highly precise parts, over molding, insert molding, and complex and precise parts and assemblies of plastic, metal and ceramic. This acquisition was concluded in order to introduce NanoXplore's graphene-enhanced solution products into the products of CEBO.

In September 2018, the Corporation completed an arrangement under the CBCA pursuant to which it acquired all of the issued and outstanding common shares of Sigma, a manufacturing company specializing in the manufacture of composite products. It operates in the markets for heavy trucks, buses, public transit, machinery and wind energy. Sigma sells its products to original equipment manufacturers and distributors in the United States, Canada and Europe.

On September 11, 2020, through its wholly owned indirect subsidiary RMC Advanced Technologies Inc., the Corporation acquired substantially all of the assets of CSP used in connection with its lightweight composite solutions and material business as conducted in Newton, North Carolina. This acquisition was concluded in order to expand the Corporation's business in the United States.

## **RISK FACTORS**

The Corporation has identified certain risks and uncertainties that are difficult to predict and may have a material adverse effect on its business, results of operations, or financial condition. In any such case, the market price of its Common Shares could decline, and investors may lose all or part of their investment.

The following list of risk factors is not exhaustive. Investors should carefully consider these and other risks, one or all of which may be material, before purchasing securities of the Corporation. The Corporation will, on occasion, make forward-looking statements about its expectations, its business and industry, and operations. These forward-looking statements are made at a point in time, based on certain assumptions. They are subject to change without notice as a result of the risks described herein and other risks. Investors or potential investors in the Corporation should not rely on forward-looking statements or the Corporation's historical operating performance as a prediction of actual results, and the Corporation undertakes no obligation to update forward-looking information. In addition, the Corporation operates in a rapidly changing business and economic environment, and new potentially material risk factors emerge from time to time.

### ***Economic and Political Conditions***

The Corporation has international operations, including operations in Canada, the United States and Europe. Worldwide financial and economic cycles or conditions are uncertain, and recovery from a business downturn or recession could be very slow and have significant impact on the Corporation's business. The Corporation's business is sensitive to changes in economic and political conditions, including interest rates, currency issues, energy prices, trade issues, international or domestic conflicts or political crises, and epidemics or pandemics, such as the strain of COVID-19.

As at the date hereof, the global reactions to the spread of COVID-19 have led to, among other things, significant restrictions on travel and gatherings of individuals, quarantines, temporary business closures and a general reduction in consumer activity. While these effects are expected to be temporary, the duration of the disruptions to business internationally and the related financial impact cannot be estimated with any degree of certainty at this time. In addition, the increasing number of individuals infected with COVID-19 could result in an even greater global health crisis that could adversely affect global economies and financial markets, resulting in a protracted economic downturn that could have an adverse effect on the Corporation's prospects.

The responses of governmental authorities and corporate entities, including through mandated or voluntary shutdowns, may also lead to a general long-term slow-down in the economy and may lead to disruptions to the Corporation's workforce and facilities, customers, sales and operations and supply chain.

Measures taken by the governments worldwide and voluntary measures undertaken by the Corporation with a view to the safety of the Corporation's employees, may adversely impact the Corporation's business.

In particular, as a result of the foregoing, COVID-19 could materially and adversely impact NanoXplore's business, including without limitation, employee health, workforce availability and productivity, limitations on travel, supply chain disruptions, increased insurance premiums, and restrictions to the Corporation's ability to conduct its business. Also, the Corporation's revenues and cash resources may be negatively affected, it may need to assist potential customers with obtaining financing or government incentives to help customers fund their purchases of the Corporation's products and demand for NanoXplore's products may decrease as partners and potential customers defer their projects. Any such disruptions or closures could have a material adverse effect on the Corporation's business. In addition, parties with whom the Corporation does business or on whom the Corporation is reliant may also be adversely impacted by the COVID-19 pandemic which may in turn cause further disruption to the Corporation's business. Any long-term closures or suspensions may also result in the loss of personnel or the workforce in general as employees seek employment elsewhere.

The impact of COVID-19 and government responses thereto may also continue to have a material impact on financial results and could constrain the Corporation's ability to obtain equity or debt financing in the future, which may have a material adverse effect on its business, financial condition and results of operations.

NanoXplore is actively monitoring the situation and will respond as the impact of the COVID-19 pandemic evolves, which will depend on several factors set out above. The extent to which the pandemic will impact the Corporation's operations in the future is highly uncertain and cannot be predicted with confidence as at the date hereof, but could have a material adverse effect on the Corporation's business, financial condition and results of operations. These uncertainties include, but are not limited to, the duration of the outbreak, the ability of governments in countries in which NanoXplore conducts business to curtail the spreading of the virus, the economic recovery as well as community and social stabilities. Any of these uncertainties, and others, could have further material adverse effects on the Corporation's business and operations.

### ***Revenue from Graphene Sales; Long and Complex Sales Cycle***

To date, the Corporation has recorded minimal revenue from its graphene powder and graphene enhanced products sales. There can be no assurance that significant losses will not occur in the near future or that the Corporation will be profitable in the future. The Corporation's operating expenses and capital expenditures may increase in subsequent years. The Corporation expects to continue to incur losses unless and until such time as it enters into long term and large volume graphene supply agreements and generates sufficient revenues to fund its continuing operations.

In addition, it has been the experience of the Corporation that the average sales cycle for its graphene powder and graphene enhanced products can range from one to multiple years from the time a customer begins testing the Corporation's product until the time that they could be used in a commercial product. The product introduction timing will vary based on the target market. The sales and development cycles for the Corporation's products are subject to customer budgetary constraints, internal acceptance procedures, competitive product assessments, scientific and development resource allocations, and other factors beyond the Corporation's control. If the Corporation is not able to successfully accommodate these factors to enable customer development success, the Corporation may be unable to achieve sufficient sales to reach profitability. Failure to achieve profitability may have a material adverse effect on the Corporation's operating results.

### ***Product Development and Technological Change***

As there is limited sustained history of successful use of the Corporation's graphene powder and graphene enhanced products in commercial applications, there is no assurance that broad successful commercial applications may be technically feasible. Most, if not all, of the scientific and engineering data related to the Corporation's products has been generated by the Corporation's own laboratories or laboratory environments at our customers or third-parties, like universities and national laboratories. It is well known that laboratory data is not always representative in commercial applications.

Additionally, the industries in which the Corporation operates are characterized by rapid technological change and frequent new product introductions. Part of the Corporation's business strategy is to monitor such change and take steps to remain technologically current, but there is no assurance that such strategy will be successful. If the Corporation is not able to adapt to new advances in materials sciences, or if unforeseen technologies or materials emerge that are not compatible with the Corporation's products and services or that could replace its products and services, the Corporation's revenues and business would likely be adversely affected.

### ***Market Development and Sustained Growth***

Failure to further develop the Corporation's key markets and existing geographic markets or to successfully expand its business into new markets could have an adverse impact on sales growth and operating results. The Corporation's ability to further penetrate its key markets and the existing geographic markets in which it competes, and successfully expand its business into other countries, is subject to numerous factors, many of which are beyond its control. There can be no assurance that efforts to increase market penetration in the Corporation's key markets and existing geographic markets will be successful. Failure to achieve these goals may have a material adverse effect on the Corporation's operating results.

### ***Liquidity Concerns and Future Financing***

The Corporation is ultimately dependent on the commercial sales of graphene powder and graphene enhanced products. Any delay in the sales of such products could require additional financing. There can be no assurance that the Corporation will be successful in obtaining the required financing as and when needed. Volatile markets may make it difficult or impossible for the Corporation to obtain debt financing or equity financing on favorable terms, if at all. Failure to obtain additional financing on a timely basis may cause the Corporation to postpone or slow down its development plans or reduce or terminate some or all of its activities.

### ***Laws and Regulations, Licenses And Permits***

Legislation is evolving in a manner that is creating stricter standards, while enforcement, fines and penalties for non compliance are also increasingly stringent. A significant change in the legal and regulatory environment in which the Corporation currently carries on business could adversely affect the Corporation's operations. In particular, large volume production of graphene requires permits and approvals from various government authorities, and is subject to extensive federal, provincial, state, and local laws and regulations governing development, production, exports, taxes, labour standards, occupational health and safety, environment and other matters. As graphene is a new chemical substance, production and sale of graphene may be subject to specific occupational health and safety and environment regulatory approvals in different jurisdictions including, without limitations, under the *Canadian Environmental Protection Act* (Canada), the *Food and Drug Act* (Canada), the *Toxic Substances Control Act* (USA), the *Food Drug and Cosmetic Act* (USA) and the *Registration, Evaluation, Authorization and Restriction of Chemicals* (Europe). Such laws and regulations are subject to change, can become more stringent, and compliance can be costly. There can be no guarantee that the Corporation will be able to maintain or obtain all necessary licences, permits and approvals that may be required to produce or sell graphene, and such failures could have a material adverse effect on the Corporation.

In addition, the Corporation's operations could be adversely impacted by significant changes in tariffs and duties imposed on its products, particularly significant changes to the United States-Mexico-Canada Agreement on Trade ("**USMCA**"), the adoption of domestic preferential purchasing policies in other jurisdictions, particularly the United States, or positive or negative changes in tax or other legislation. The Corporation could be exposed to increased customs audits due to governmental policy which could lead to additional administrative burden and costs. Changes in legislation or regulation could lead to additional administrative burden and costs in general, and also carry the potential of a material fine or significant reputational risk.

### ***Intellectual Property***

The Corporation relies on the patent, trade secret and other intellectual property laws of Canada, the United States and the other countries where it does business to protect its intellectual property rights. The Corporation may be unable to prevent third parties from using its intellectual property without its authorization. The unauthorized use of the Corporation's intellectual property could reduce any competitive advantage that it has developed, reduce its market share or otherwise harm its business. In the event of unauthorized use of the Corporation's intellectual property, litigation to protect and enforce the Corporation's rights could be costly, and the Corporation may not prevail.

Many of the Corporation's technologies are not covered by any patent or patent application, and the Corporation's issued and pending Canadian, United States and other countries' patents may not provide the Corporation with any competitive advantage and could be challenged by third parties. The Corporation's inability to secure issuance of pending patent applications may limit its ability to protect the intellectual property rights these pending patent applications were intended to cover. The Corporation's competitors may attempt to design around its patents to avoid liability for infringement and, if successful, could adversely affect the Corporation's market share. Furthermore, the expiration of the Corporation's patents may lead to increased competition.

In addition, effective patent, trade secret and other intellectual property protection may be unavailable or limited in some foreign countries. In some countries, the Corporation does not apply for patent or other intellectual property protection. The Corporation also relies on unpatented technological innovation and other trade secrets to develop and maintain its competitive position. Although the Corporation generally enters into confidentiality agreements with its employees and third parties to protect its intellectual property, these confidentiality agreements are limited in duration, could be breached and may not provide meaningful protection of its trade secrets. Adequate remedies may not be available if there is an unauthorized use or disclosure of the Corporation's trade secrets and manufacturing expertise. In addition, others may obtain knowledge about the Corporation's trade secrets through independent development or by legal means. The failure to protect the Corporation's processes, technology, trade secrets and proprietary manufacturing expertise, methods and compounds could have a material adverse effect on its business by jeopardizing critical intellectual property.

Where a product formulation or process is kept as a trade secret, third parties may independently develop or invent and patent products or processes identical to such trade secret products or processes. This could have a material adverse effect on the Corporation's ability to make and sell products or use such processes and could potentially result in costly litigation in which the Corporation might not prevail.

The Corporation could face intellectual property infringement claims that could result in significant legal costs and damages and impede its ability to produce key products, which could have a material adverse effect on its business, financial condition, and results of operations.

### ***Dependence on Management and Key Personnel***

The Corporation is dependent on the services of key executives, including a small number of highly skilled and experienced executives and personnel. The Corporation's development to date has largely depended, and in the future will continue to depend, on the efforts of key management and other key personnel to develop its projects. Loss of any of these people, particularly to competitors, in the short term, could have a material adverse impact upon the Corporation's business.

### ***Qualified Employees***

Recruiting and retaining qualified personnel is critical to the Corporation's success. Especially if it relates to its graphene operations, finding skilled scientists and a sales team familiar with the subject matter is difficult. As the Corporation grows further, the need for skilled labour will increase. The number of persons skilled in the high-tech manufacturing business is limited and competition for this workforce is intense. This may adversely affect the business of the Corporation if it is unable to recruit and retain qualified personnel as and when required.

### ***Competition***

The Corporation competes with other graphene and manufacturing companies, in highly competitive markets. Some of the Corporation's competitors have substantially greater financial, marketing and other resources and higher market share than the Corporation has in certain products or geographic areas. As the markets for the Corporation's products and other services expand, additional competition may emerge and competitors may commit more resources to products which directly compete with the Corporation's products. There can be no assurance that the Corporation will be able to compete successfully with existing competitors or that its business will not be adversely affected by increased competition or by new competitors.

### ***Cybersecurity Threats***

The reliability and security of the Corporation's information technology ("IT") systems is important to the Corporation's business and operations. Although the Corporation has established and continues to enhance security controls intended to protect the Corporation's IT systems and infrastructure, there is no guarantee that such security measures will be effective in preventing unauthorized physical access or

cyberattacks. A significant breach of the Corporation's IT systems could, among other things, cause disruptions in the Corporation's manufacturing operations (such as operational delays from production downtime, inability to manage the supply chain or produce product for customers, disruptions in inventory management), lead to the loss, destruction, corruption or inappropriate use of sensitive data, including employee information or intellectual property, result in lost revenues due to theft of funds or due to a disruption of activities, including remediation costs, or from litigation, fines and liability or higher insurance premiums, the costs of maintaining security and effective IT systems, which could negatively affect results of operations and the potential adverse impact of changing laws and regulations related to cybersecurity or result in theft of the Corporation's, its customers' or suppliers' intellectual property or confidential information. If any of the foregoing events (or other events related to cybersecurity) occurs, the Corporation may be subject to a number of consequences, including reputational damage, a diminished competitive advantage and negative impacts on future opportunities which could have a material adverse effect on the Corporation.

### ***Share Price Fluctuations***

The market price of securities of many companies, particularly development stage companies, experience wide fluctuations in price that are not necessarily related to the operating performance, underlying asset values or prospects of such companies. There can be no assurance that fluctuations in the Corporation's share price will not occur. In particular, the fluctuations may be exaggerated if the trading volume of the Common Shares of the Corporation is low.

### ***Cost Absorption and Purchase Orders***

Especially as it relates to its activities in the transportation industry, and given the current trends in that industry, the Corporation is under continuing pressure to absorb costs related to product design and development, engineering, program management, prototypes and validation. In particular, OEMs are requesting that suppliers pay for the above costs and recover these costs through the piece price of the applicable component. Contract volumes for customer programs not yet in production are based on the Corporation's customers' estimates of their own future production levels. However, actual production volumes may vary significantly from these estimates due to a reduction in consumer demand or new product launch delays, often without any compensation to the supplier by its OEM customer. Typical purchase orders issued by customers do not require that they purchase a minimum number of the Corporation's products. For programs currently under production, the Corporation is generally unable to request price changes when volumes differ significantly from production estimates used during the quotation stage. If estimated production volumes are not achieved, the product development, design, engineering, prototype and validation costs incurred by the Corporation may not be fully recovered. Similarly, future pricing pressure or volume reductions by the Corporation's customers may also reduce the amount of amortized costs otherwise recoverable in the piece price of the Corporation's products. Either of these factors could have an adverse effect on the Corporation's profitability. While it is generally the case that once the Corporation receives a purchase order for products of a particular vehicle program it would continue to supply those products until the end of such program, customers could cease to source their production requirements from the Corporation for a variety of reasons, including the Corporation's refusal to accept demands for price reductions or other concessions.

### ***Acquisitions***

The Corporation has acquired and could continue to acquire complementary businesses, assets, technologies, services or products, at competitive prices. The Corporation could continue to pursue acquisitions in those product areas which were identified as key to the Corporation's long-term business strategy. However, as a result of intense competition in these strategic areas, the Corporation may not be able to acquire the targets needed to achieve its strategic objectives. The completion of such transactions poses additional risks to the Corporation's business. Acquisitions are subject to a range of inherent risks, including the assumption of incremental regulatory/compliance, pricing, supply chain, commodities, labor relations, litigation, environmental, pensions, warranty, recall, IT, tax or other risks. Although the Corporation seeks to conduct appropriate levels of due diligence on acquisition targets, these efforts may

not always prove to be sufficient in identifying all risks and liabilities related to the acquisition, including as a result of: limited access to information; time constraints for conducting due diligence; inability to access target company facilities and/or personnel; or other limitations in the due diligence process. Additionally, the Corporation may identify risks and liabilities that cannot be sufficiently mitigated through appropriate contractual or other protections. The realization of any such risks could have a material adverse effect on the Corporation's operations or profitability. The benefit to the Corporation of previous and future acquisitions is highly dependent on the Corporation's ability to integrate the acquired businesses and their technologies, employees and products into the Corporation, and the Corporation may incur costs associated with integrating and rationalizing the facilities (some of which may need to be closed in the future). The Corporation cannot be certain that it will successfully integrate acquired businesses or that acquisitions will ultimately benefit the Corporation. Any failure to successfully integrate businesses or failure of the businesses to benefit the Corporation could have a material adverse effect on its business and results of operations. Such transactions may also result in additional dilution to the Corporation's shareholders or increased debt. Such transactions may involve partners, and the formula for determining contractual sale provisions may be subject to a variety of factors that may not be easily quantified or estimated until the time of sale (such as market conditions and determining fair market value).

### ***Launch and Operational Costs***

The launch of new business, in an existing or new facility, is a complex process, the success of which depends on a wide range of factors, including the production readiness of the Corporation and its suppliers, as well as factors related to tooling, equipment, employees, initial product quality and other factors. A failure to successfully launch material new or takeover business could have an adverse effect on profitability. Significant launch costs were incurred by the Corporation in recent years. The Corporation's manufacturing processes are vulnerable to operational problems that can impair its ability to manufacture its products in a timely manner, or which may not be performing at expected levels of profitability. The Corporation's facilities contain complex and sophisticated equipments that are used in its manufacturing processes. The Corporation has in the past experienced equipment failures and could experience equipment failure in the future due to wear and tear, design error or operator error, among other things, which could have an adverse effect on profitability. From time to time, the Corporation may have some operating divisions which are not performing at expected levels of profitability. Significant underperformance of one or more operating divisions could have a material adverse effect on the Corporation's profitability and operations.

### ***Cyclical Risks***

A portion of the business of the Corporation is cyclical, especially as it relates to its activities in the transportation industry. It is dependent on, among other factors, general economic conditions in North America and elsewhere. Future sales and production volumes are anticipated to be relatively flat or stable in North America over the next several years, but volume levels are uncertain, and volume levels can decrease at any time. There can be no assurance that North American truck production overall or specific platforms will not decline in the future or that the Corporation will be able to utilize any existing unused capacity or any additional capacity it adds in the future. A continued or a substantial additional decline in the production of trucks overall or by customer or by customer platform may have a material adverse effect on the Corporation's financial condition and results of operations and ability to meet existing financial covenants.

North America is a key truck producing region for the Corporation and operating results are dependent on truck production in this region by our customers. Due to the nature of the Corporation's business, it is dependent upon several large customers such that cancellation of a significant order by any of these customers, the loss of any such customers for any reason or the insolvency of any such customers, reduced sales of truck platforms of such customers, or shift in market share on trucks on which we have significant content, or any significant or sustained decline in truck production volumes in North America, could significantly reduce the Corporation's ongoing revenue and/or profitability, and could materially and adversely affect the Corporation's financial condition. Although the Corporation continues to diversify its business, there is no assurance that it will be successful.

### ***Product Warranty, Recall and Liability Risk***

Especially as it relates to the Corporation's composites parts manufacturing operations, customers are increasingly requesting that each of their suppliers bear costs of the repair and replacement of defective products which are either covered under a manufacturer's warranty or are the subject of a recall by the manufacturer and which were improperly designed, manufactured or assembled by their suppliers. The obligation to repair or replace such parts, or a requirement to participate in a product recall, could have a material adverse effect on the Corporation's operations and financial condition.

### ***Material and Commodity Prices***

Prices for key raw materials and commodities used in composite parts and graphene production, particularly graphite, polyester resin, glass fiber and other raw materials, as well as energy prices, have proven to be volatile at certain times. To the extent that the Corporation is unable to fully mitigate its exposure to price change of key raw materials and commodities, particularly through engineering products with reduced content, by passing price increases to customers, or otherwise, such additional costs could have a material adverse effect on profitability. Increased energy prices could also have an impact on production or transportation costs which in turn could affect competitiveness.

### ***Quote/Pricing Assumptions***

Especially as it relates to the Corporation's composites parts manufacturing operations, the time between award of new production business and start of production typically ranges between one to three years. Since product pricing is typically determined at the time of award, the Corporation is subject to significant pricing risk due to changes in input costs and quote assumptions between the time of award and start of production. The inability to quote effectively, or the occurrence of a material change in input cost or other quote assumptions between program award and production, could have an adverse effect on the Corporation's profitability.

### ***Uninsured Risks***

The Corporation maintains insurance to cover normal business risks. In the course of its manufacturing businesses, certain risks and, in particular, unexpected or unusual catastrophic events including explosions and fire may occur. It is not always possible to fully insure against such risks as a result of high premiums or other reasons. Should such liabilities arise, they could reduce or eliminate any future profitability and result in increasing costs and a decline in the value of the Common Shares of the Corporation.

### ***Foreign Exchange***

The Corporation operates internationally and is exposed to foreign exchange risk mainly related to expenses and sales in currencies other than the respective functional currencies of the Corporation, primarily with respect to the US dollar. Management has set up a policy that requires the Corporation to manage its currency risk and imposes strict limits on the maximum exposures that can be entered into. Sales denominated in US dollars accounted for around 42% of the Corporation's total sales for the year ended June 30, 2021. Consequently, the Canadian dollar trends in relation to the US dollar add an element of risk and uncertainty for the Corporation. These risks are partially offset by the raw material purchases denominated in US dollars. The Corporation's policy is not to use derivative financial instruments for trading or speculative purposes but only for hedging some risk related to the US dollar. The Corporation sets up credit facilities allowing it to enter into forward foreign or option exchange contract transactions. This amount partially covers the Corporation's potential requirements over the next 24 months. The Corporation will proactively monitor the need to use this facility based on market conditions.

### ***Litigation***

The Corporation has entered into legally binding agreements with various third parties, including supply, distribution, non-disclosure, consulting and partnership agreements. The interpretation of the rights and obligations that arise from such agreements is open to interpretation and the Corporation may disagree with the position taken by the various other parties resulting in a dispute that could potentially initiate litigation and cause the Corporation to incur legal costs in the future. Given the speculative and unpredictable nature of litigation, the outcome of any such disputes could have a material adverse effect on the Corporation's business.

### ***Other Risk Factors***

Additional risks not currently known to the Corporation or that the Corporation currently deems immaterial may also impair the Corporation's operations.

## **DIVIDENDS AND DISTRIBUTION**

Until now, the Corporation has never paid any cash dividend on its Common Shares and it currently intends to retain its future earnings, if any, to fund the development growth of its business.

## **DESCRIPTION OF CAPITAL STRUCTURE**

The authorized capital of the Corporation consists of an unlimited number of Common Shares, without nominal or par value, an unlimited number of First Preferred Shares, without nominal or par value, and an unlimited number of Second Preferred Shares, without nominal or par value.

The holders of Common Shares are entitled to receive notice of and to attend and cast votes at all shareholder meetings of the Corporation and are entitled to one vote per share. The holders of Common Shares are entitled to receive, during each fiscal year, such dividends as may be declared from time to time by the board of directors of the Corporation, subject to the priority of payment of dividends attaching to the series of First Preferred and Second Preferred Shares as noted below. In the event of liquidation or winding up, after payment to the holders of First Preferred Shares and Second Preferred Shares, the holders of Common Shares shall be entitled, on a pro rata basis, to a share of the remaining assets of the Corporation.

The holders of First Preferred Shares are not entitled to receive notice of or to attend shareholder meetings, nor are they entitled to vote at such meetings. The First Preferred Shares are issuable in series. The holders of First Preferred Shares are entitled to receive, during each fiscal year, such dividends as may be declared from time to time by the board of directors of the Corporation in priority to the holders of Second Preferred Shares and Common Shares. In the event of liquidation or winding up, in priority to the holders of Second Preferred Shares and Common Shares, the holders of First Preferred Shares shall be entitled to receive amounts the articles of the Corporation provide must be paid to them in respect of return of capital and dividends remaining unpaid.

The holders of Second Preferred Shares are not entitled to receive notice of or to attend shareholder meetings, nor are they entitled to vote at such meetings. The Second Preferred Shares are issuable in series. The holders of Second Preferred Shares are entitled to receive, during each fiscal year, such dividends as may be declared from time to time by the board of directors of the Corporation in priority to the holders of Common Shares, but subject to the priority of payment of dividends attaching to the series of First Preferred Shares as noted above. In the event of liquidation or winding up, in priority to the holders of Common Shares but after payment to the holders of First Preferred Shares, the holders of Second Preferred Shares shall be entitled to receive amounts the articles of the Corporation provide must be paid to them in respect of return of capital and dividends remaining unpaid.

As at September 21, 2021, 157,987,059 Common Shares of the Corporation were outstanding and fully-paid. No series of First Preferred Shares or Second Preferred Shares were issued and outstanding.

## MARKET FOR SECURITIES

### Trading Price and Volume

The Corporation's Common Shares are listed on the TSX under the symbol "GRA".

The following table provides the historical monthly trading price ranges and volume for the Common Shares during the most recently completed financial year ended June 30, 2021.

	Low \$	High \$	Volume
July 2020	1.43	1.80	962,242
August 2020	1.54	1.72	226,120
September 2020	1.48	2.09	1,016,707
October 2020	2.06	3.00	3,006,399
November 2020	2.56	4.15	4,313,710
December 2020	3.09	4.86	2,045,426
January 2021	3.67	4.79	3,049,473
February 2021	3.61	4.54	3,648,360
March 2021	2.99	3.92	3,003,494
April 2021	3.19	4.27	2,089,135
May 2021	3.21	4.00	1,067,405
June 2021	3.03	4.73	2,903,344

### Prior Sales

The following table sets out the number of Common Shares or securities convertible or exchangeable into Common Shares issued or granted by NanoXplore during the financial year ended June 30, 2021, along with the exercise price and date of each respective issuance or grant.

<u>Date of issuance</u>	<u>Price per Security</u>	<u>Number of Securities</u>	<u>Type of Securities</u>
July 24, 2020	\$0.45	38,000	Common Shares (Stock Options)
August 7, 2020	\$0.45	32,000	Common Shares (Stock Options)
August 18, 2020	\$0.45	10,000	Common Shares (Stock Options)
August 27, 2020	\$0.45	12,000	Common Shares (Stock Options)
October 6, 2020	\$1.33	50,000	Common Shares (Stock Options)
October 9, 2020	\$1.33	50,000	Common Shares (Stock Options)
October 13, 2020	\$1.33	35,000	Common Shares (Stock Options)
October 15, 2020	\$2.34	160,000	Stock Options
October 16, 2020	\$1.33	31,667	Common Shares (Stock Options)
October 16, 2020	\$1.39	37,500	Common Shares (Stock Options)
October 16, 2020	\$1.33	28,333	Common Shares (Stock Options)
October 16, 2020	\$1.39	37,500	Common Shares (Stock Options)
October 19, 2020	\$1.33	55,000	Common Shares (Stock Options)
November 25, 2020	\$3.75	150,000	Stock Options
November 30, 2020	\$0.45	16,667	Common Shares (Stock Options)
December 8, 2020	\$1.84	5,434,782	Common Shares (conversion of the Debentures)
December 17, 2020	\$1.60	100,000	Common Shares (Stock Options)
December 29, 2020	\$1.35	35,000	Common Shares (Stock Options)
February 12, 2021	\$4.00	11,500,000	Common Shares
February 17, 2021	\$1.27	25,000	Common Shares (Stock Options)
February 19, 2021	\$0.45	5,000	Common Shares (Stock Options)
February 24, 2021	\$3.85	200,000	Stock Options

March 2, 2021	\$1.27	25,000	Common Shares (Stock Options)
March 9, 2021	\$0.45	30,000	Common Shares (Stock Options)
April 1, 2021	\$1.27	25,000	Common Shares (Stock Options)
April 7, 2021	\$3.55	250,000	Stock Options
April 9, 2021	\$0.45	20,000	Common Shares (Stock Options)
April 15, 2021	\$1.27	25,000	Common Shares (Stock Options)
May 7, 2021	\$0.45	14,000	Common Shares (Stock Options)
May 11, 2021	\$0.45	8,000	Common Shares (Stock Options)
May 19, 2021	\$0.45	13,000	Common Shares (Stock Options)
June 4, 2021	\$0.45	10,000	Common Shares (Stock Options)

## DIRECTORS AND EXECUTIVE OFFICERS

### Name, Occupation and Security Holding of Directors and Executive Officers

The following sets forth certain information concerning the directors and the executive officers of the Corporation as of September 22, 2021.

Name, place of residence	Position with the Corporation and Principal occupation during the last 5 years	Director since
Rob Wildeboer <sup>(4)</sup> Burlington, Ontario, Canada	Chairman of the Board of the Corporation. Executive Chairman of Martinrea International Inc.; Advisor to the Governments of Canada and Ontario on a variety of economic, trade, innovation, manufacturing and automotive mandates.	January 2019
Benoît Gascon <sup>(1)(3)</sup> Montréal, Québec, Canada	Vice Chairman of the Board of the Corporation. President and Chief Executive Officer of Mason Graphite Inc. from 2012 to March 2020.	August 2017
Soroush Nazarpour Montréal, Québec, Canada	President and Chief Executive Officer of the Corporation.	August 2017
Cameron Harris <sup>(1)(3)</sup> Etobicoke, Ontario, Canada	Director of the Corporation. President of Canadian Engineering Associates Ltd. Senior Vice President and General Manager of SNC Lavalin from June 29, 2015 to November 15, 2016.	August 2017
Denis Labrecque <sup>(2)</sup> Trois-Rivières, Québec, Canada	Director of the Corporation. Consultant and Director of Norcap Partners Inc.; Director of Fonderie Poitras Ltée; Consultant of ACappella Investissement Inc. from May 2015 to May 2018; Director of A.U.B. Corp. Inc. from May 2014 to April 2020.	August 2017
Arinder S. Mahal <sup>(1)(2)</sup> Toronto, Ontario, Canada	Director of the Corporation. Founder and CEO of Antera Inc.; Chief Executive Officer of Synoptim Advisory Corp.; Managing Director, Head of Technology Investment Banking of Echelon Wealth Partners Inc. from May 2017 to April 2018.	November 2018
Jodie Lynn Morgan Wilmington, Delaware, United States	Director of the Corporation. Chief Executive Officer and Director of GreenMantra; President of Pinova, Inc. from 2013 to 2016.	November 2020
Nathalie Pilon Dorval, Québec, Canada	Director of the Corporation Director of HEC Montréal, the CSA Group, the Montreal Port Authority and Nouveau Monde Graphite (NYSE: NMG, TSXV:	February 2021

Name, place of residence	Position with the Corporation and Principal occupation during the last 5 years	Director since
	NOU). President of ABB in Canada from 2015 to 2019	
Luc Veilleux Montréal, Québec, Canada	Chief Financial Officer of the Corporation. Chief Financial Officer of Mason Graphite Inc. from December 2012 to June 2019.	N/A
Rocco Marinaccio Mississauga, Ontario, Canada	Chief Operating Officer of the Corporation. Vice President, Operations of Martinrea International Inc. from September 2014 to January 2019.	N/A

Notes:

- (1) Member of the Audit Committee.
- (2) Member of the Corporate Governance and Nominating Committee.
- (3) Member of the Human Resources and Compensation Committee.
- (4) Mr. Wildeboer is the Executive Chairman of Martinrea International Inc., which holds 35,045,954 Common Shares of the Corporation.

Each Director holds office until the next annual meeting of shareholders or until a successor is duly elected or appointed, unless he/she ceases to hold office pursuant to the CBCA, or his/her office is vacated earlier pursuant to the By-laws of the Corporation.

As of the date of this Annual Information Form, the Corporation's directors and executive officers, as a group, own 12,992,184 Common Shares or approximately 8.22% of the Corporation's outstanding Common Shares.

#### **Cease Trade Order, Bankruptcy, Penalties or Sanctions**

To the Corporation's knowledge, no director or executive officer of the Corporation is, at the date of this Annual Information Form, or has been, within 10 years before the date of the Annual Information Form, a director, chief executive officer or chief financial officer of any company that, (i) was the subject of a cease trade or similar order or an order that denied the relevant company access to any exemption under securities legislation, for a period of more than 30 consecutive days while that person was acting in that capacity, or (ii) was subject to a cease trade or similar order or an order that denied the relevant company access to any exemption under securities legislation, for a period of more than 30 consecutive days that was issued after that person cease to act in such capacity but which resulted from an event that occurred while that person was acting in such capacity.

To the Corporation's knowledge, no director or executive officer of the Corporation or a shareholder holding a sufficient number of securities of the Corporation to affect materially the control of the Corporation is, at the date of this Annual Information Form, or has been, within 10 years before the date of the Annual Information Form, a director or executive officer of any company that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets.

To the knowledge of the Corporation, no director or executive officer of the Corporation or a shareholder holding a sufficient number of securities of the Corporation to affect materially the control of the Corporation has, within the 10 years before the date of this Annual Information Form, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the director, executive officer or shareholder.

Furthermore, to the knowledge of the Corporation, no director or executive officer of the Corporation or a shareholder holding a sufficient number of securities of the Corporation to affect materially the control of

the Corporation has been subject to any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority, or has been subject to any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

### **Conflicts of interest**

There are potential conflicts of interest to which the directors and officers of the Corporation or its subsidiaries may be subject in connection with the operations of the Corporation or its subsidiaries. Some of the directors and officers are engaged and will continue to be engaged, directly or indirectly, in other businesses and situations may arise where some of the directors and officers will be in direct competition with the Corporation or its subsidiaries. No conflicts of interest currently exist between the Corporation or its subsidiaries and a director or officer of the Corporation or its subsidiaries.

## **LEGAL PROCEEDINGS AND REGULATORY ACTIONS**

### **Legal Proceedings**

During the fiscal year ended June 30, 2021 and as of the date hereof, there have been and are no legal proceedings outstanding, threatened or pending, by or against NanoXplore or to which NanoXplore is a party, nor to NanoXplore's knowledge are any such legal proceedings contemplated, which could become material to NanoXplore.

### **Regulatory Actions**

During the fiscal year ended June 30, 2021 and as of the date hereof, there have been no penalties or sanctions imposed against NanoXplore (a) by a court relating to securities legislation or by a securities regulatory authority or (b) by a court or regulatory body that would likely be considered important to a reasonable investor making an investment decision in NanoXplore. NanoXplore has not entered into any settlement agreements with a court relating to securities legislation or with a security's regulatory authority during the fiscal year ended June 30, 2021 and as of the date hereof.

## **INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS**

To the knowledge of the Corporation, no director, executive officer or principal shareholder of the Corporation, or associate or affiliate of any of the foregoing, has had any material interest, direct or indirect, in any transaction within the preceding three years or in any proposed transaction that has materially affected or will materially affect the Corporation or any subsidiary of the Corporation.

## **AUDIT COMMITTEE**

### **The Audit Committee Charter**

A copy of the audit committee of the Corporation ("**Audit Committee**") charter is attached to this Annual Information Form as Schedule "A".

### **Composition of the Audit Committee**

The Audit Committee is comprised of three members, all of which are independent within the meaning of *Regulation 52-110 respecting Audit Committees* ("**Regulation 52-110**") and are financially literate, namely: Benoit Gascon, Cameron Harris and Arinder S. Mahal.

## Relevant Education and Experience

The education and experience of each Audit Committee member that is relevant to the performance of his responsibilities are as follows:

Mr. Benoît Gascon is the former President and Chief Executive Officer of Mason Graphite Inc, a Canadian graphite mining and processing company. He brings approximately 30 years of experience in the graphite and carbon industries. Mr. Gascon is a CPA, CA and holds a Bachelor in Business Administration from École des Hautes Études Commerciales (HEC).

Dr. Cameron Harris is the President of Canadian Engineering Associates, an engineering consulting firm that provides services to the global mining industry. He is a former Senior Vice-President and General Manager at SNC-Lavalin, and former head of the Mining Industry Practice for North America at Accenture. He has held a wide range of operational, technical and executive positions at world leading companies such as Noranda, Kvaerner, and Worley Parsons. Dr. Harris has been a director for Cansolv Technology Inc. and has been previously involved in nano-materials production. Dr. Harris holds a PhD in Metallurgy from Imperial College (United Kingdom).

Mr. Arinder S. Mahal is the founder and CEO of Antera Inc., a technology focused merchant bank based in Toronto. He is also the founder and CEO of Synoptim Advisory Corp., a corporate and business advisory firm. Mr. Mahal is a former managing director and head of technology investment banking of Echelon Wealth Partners Inc. and Dundee Capital Markets (now Eight Capital). He has also held senior executive and board advisor positions at a number of technology companies in Canada and in the United States. Prior to that, he was a senior manager with Deloitte Consulting providing management consulting services in the areas of corporate strategy, mergers and acquisitions, and finance to Canadian and Global telecom and technology companies. Mr. Mahal holds a Bachelor of Engineering degree from the University of Victoria and an MBA from Schulich School of Business, York University. He is also a Chartered Financial Analyst (CFA).

The members of the Corporation's audit committee have provided the information disclosed hereinabove.

## Audit Committee Oversight

At no time since the commencement of the Corporation's most recently completed financial year, a recommendation of the audit committee to nominate or compensate an external auditor was not adopted by the board of directors.

## Reliance on Certain Exemptions

At no time since the commencement of the Corporation's most recently completed financial year has the Corporation relied on the exemption in Section 2.4 of Regulation 52-110 (*De Minimis Non-Audit Services*) or an exemption from Regulation 52-110, in whole or in part, granted under Parts 6 and 8 of Regulation 52-110, other than the exemption granted under Section 6.1 of Regulation 52-110, which exempts venture issuers from the requirements of Part 3 (*Composition of Audit Committee*) and Part 5 (*Reporting Obligations*).

## Pre-Approval Policies and Procedures

The Audit Committee approves the engagement terms for all audit and non-audit services to be provided by the Corporation's auditors before such services are provided to the Corporation or any of its subsidiaries.

## External Auditor Service Fees

The fees charged to the Corporation by its external auditor in each of the last two financial years are as follows:

	2021	2020
Audit Fees <sup>(1)</sup>	\$400,983	\$225,235
Audit-Related Fees	-	-
Tax Fees <sup>(2)</sup>	\$83,069	\$35,310
Other	-	-
<b>Total</b>	<b>\$484,052</b>	<b>\$260,545</b>

Notes:

- (1) Includes billing (or estimate) related to the work done on the audit for the fiscal year ending June 30, 2020 or June 30, 2021.
- (2) Such amounts relate to tax compliance services.

## TRANSFER AGENT AND REGISTRAR

TSX Trust Company, at its place of business in Montreal, acts as the transfer agent and registrar regarding the Corporation's Common Shares.

## MATERIAL CONTRACTS

Other than those contracts entered into in the ordinary course of business, the Corporation has not entered into any material contract since the beginning of the last financial year ended June 30, 2021 or entered into prior to such date, but which are still in effect and which are required to be filed with any Canadian securities regulatory authorization in accordance with Section 12.2 of *Regulation 51-102 respecting Continuous Disclosure Obligations*.

Please refer to section "General Development of the Business" of this Annual Information Form for the particulars of these material contracts, which are also available in their entirety on the Corporation's profile at [www.sedar.com](http://www.sedar.com).

## INTEREST OF EXPERTS

PricewaterhouseCoopers LLP, the auditors of the Corporation, prepared an auditors' report on the consolidated financial statements of the Corporation for the years ended June 30, 2021 and 2020. PricewaterhouseCoopers LLP has advised that it is independent with respect to the Corporation within the meaning of the rules of the *Code of ethics of chartered professional accountants* (Québec).

Angel Pelegry Cuesta from Duro Felguera Mining & Handling, a consulting company specializing in projects for the energy, industrial and Oil & Gas sectors, is the author of the Feasibility Report dated August 3, 2018. To the best of the Corporation's knowledge, the expert named above did not have any registered or beneficial interest, direct or indirect, in any securities or other property of the Corporation, when the expert prepared its report, and no securities or other property of the Corporation or one of its subsidiaries was subsequently received or to be received by such expert.

## **ADDITIONAL INFORMATION**

Additional information, including directors' and officers' remuneration and indebtedness, principal holders of the Corporation's securities and securities authorized for issuance under equity compensation plans, as applicable, is contained in the Corporation's management information circular dated October 20, 2020 filed under the Corporation's issuer profile on SEDAR at [www.sedar.com](http://www.sedar.com).

Additional financial information is provided in the Corporation's financial statements and management's discussion and analysis for the Corporation's most recently completed financial year.

Additional information relating to the Corporation may also be found under the Corporation's issuer profile on SEDAR at [www.sedar.com](http://www.sedar.com).

## SCHEDULE "A"

### AUDIT COMMITTEE CHARTER

#### 1. PURPOSE

**1.1** The primary functions of the Audit Committee of NanoXplore Inc. (the "Corporation") are to fulfil its responsibilities in relation to reviewing the integrity of the Corporation's financial statements, financial disclosures and internal controls over financial reporting; monitoring the system of internal control; monitoring the Corporation's compliance with legal and regulatory requirements; selecting the external auditors for shareholder approval; and reviewing the qualifications, independence and performance of the external auditors.

#### 2. MEMBERSHIP AND ORGANIZATION

**2.1 Composition** - The Audit Committee shall consist of not less than three independent members of the Board. At the invitation of the Audit Committee, members of the Corporation's management and others may attend Audit Committee meetings as the Audit Committee considers necessary or desirable.

**2.2 Appointment and Removal of Audit Committee Members** - Each member of the Audit Committee shall be appointed by the Board on an annual basis and shall serve at the pleasure of the Board, or until the earlier of (a) the close of the next annual meeting of shareholders of the Corporation at which the member's term of office expires, (b) the death of the member or (c) the resignation, disqualification or removal of the member from the Audit Committee or from the Board. The Board may fill a vacancy in the membership of the Audit Committee.

**2.3 Chair** - At the time of the annual appointment of the members of the Audit Committee, the Board shall appoint a Chair of the Audit Committee. The Chair shall be a member of the Audit Committee, preside over all Audit Committee meetings, coordinate the Audit Committee's compliance with this mandate, work with management to develop the Audit Committee's annual work-plan and provide reports of the Audit Committee to the Board. The Chair may vote on any matter requiring a vote and shall provide a second vote in the case of a tie vote.

**2.4 Independence** - Each member of the Audit Committee shall be "independent" (as such term is used in National Instrument 52-110 - Audit Committees ("NI 52-110")).

**2.5 Financial Literacy** - Members of the Audit Committee shall be financially literate or agree to become financially literate within a reasonable period of time following the member's appointment. An individual is financially literate if he or she has the ability to read and understand a set of financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of the issues that can reasonably be expected to be raised by the Corporation's financial statements.

### 3. MEETINGS

**3.1 Meetings** - The members of the Audit Committee shall hold meetings as are required to carry out this mandate, and in any case no less than four meetings annually. The external auditors are entitled to attend and be heard at each Audit Committee meeting. The Chair, any member of the Audit Committee, the external auditors, the Chairman of the Board or the President and CEO may call a meeting of the Audit Committee. The Chair shall chair all Audit Committee meetings that he or she attends, and in the absence of the Chair, the members of the Audit Committee present may appoint a Chair from their number for a meeting.

**3.2 Secretary and Minutes** - The Secretary, his or her designate or any other person the Audit Committee requests, shall act as secretary at Audit Committee meetings. Minutes of Audit Committee meetings shall be recorded and maintained by the Corporate Secretary and subsequently presented to the Audit Committee for approval.

**3.3 Quorum** - A majority of the members of the Audit Committee shall constitute a quorum. If a quorum cannot be obtained for an Audit Committee meeting, members of the Board who would qualify as members of the Audit Committee may, at the request of the Chair or the Chairman of the Board, serve as members of the Audit Committee for that meeting.

**3.4 Access to Management and Outside Advisors** - The Audit Committee shall have unrestricted access to management and employees of the Corporation, and, from time to time may hold meetings with the external auditor, the CFO or the President and CEO. The Audit Committee shall have the authority to retain and terminate external legal counsel, consultants or other advisors to assist it in fulfilling its responsibilities and to set and pay the respective compensation for these advisors without consulting or obtaining the approval of the Board or any officer of the Corporation. The Corporation shall provide appropriate funding, as determined by the Audit Committee, for the services of these advisors.

**3.5 Meetings Without Management** - The Audit Committee shall hold unscheduled or regularly scheduled meetings, or portions of regularly scheduled meetings, at which management is not present.

### 4. FUNCTIONS AND RESPONSIBILITIES

The Audit Committee shall have the functions and responsibilities set out below as well as any other functions that are specifically delegated to the Audit Committee by the Board. In addition to these functions and responsibilities, the Audit Committee shall perform the duties required of an audit committee by applicable corporate securities laws, the binding requirements of the stock exchanges on which the securities of the Corporation are listed, and all other applicable laws.

#### 4.1 Financial Reports

(a) **General** - The Audit Committee is responsible for reviewing the integrity of the Corporation's financial statements and financial disclosures. Management is responsible for the preparation, presentation and integrity of the Corporation's financial statements and financial disclosures and for the appropriateness of the accounting principles and the reporting policies used by the Corporation. The external auditors are responsible for auditing the Corporation's annual consolidated financial statements and, if requested by the Corporation, for reviewing the Corporation's unaudited interim financial statements.

(b) **Review of Annual Financial Reports** - The Audit Committee shall review the annual consolidated audited financial statements of the Corporation, the external auditors' report thereon and the related management's discussion and analysis of the Corporation's financial condition and results of operation to determine whether they present fairly, in all material respects in accordance with International Financial Reporting Standards ("IFRS") in which the financial statements of the Corporation are prepared from time to time, the financial condition, results of operations and cash flows of the Corporation. After

completing its review, if advisable, the Audit Committee shall approve and recommend for Board approval the annual financial statements and the related MD&A.

(c) **Review of Interim Financial Reports** - The Audit Committee shall review the interim consolidated financial statements of the Corporation, the external auditors review report thereon, if applicable, and the related MD&A to determine whether they present fairly, in all material respects in accordance with IFRS, the financial condition, results of operations and cash flows of the Corporation. After completing its review, if advisable, the Audit Committee shall, if so authorized by the Board, approve the interim financial statements and the related MD&A, or if not authorized by the Board, then approve and recommend for Board approval.

(d) **Review Considerations** - In conducting its review of the annual financial statements or the interim financial statements, the Audit Committee shall:

- (i) meet with management and the external auditors to discuss the financial statements and MD&A;
- (ii) review the disclosures in the financial statements;
- (iii) review the audit report or review report prepared by the external auditors;
- (iv) discuss with management, the external auditors and legal counsel, as requested, any litigation claim or other contingency that could have a material effect on the financial statements;
- (v) review critical accounting and other significant estimates and judgments underlying the financial statements as presented by management;
- (vi) review any material effects of regulatory accounting initiatives or off-balance sheet structures on the financial statements as presented by management;
- (vii) review any material changes in accounting policies and any significant changes in accounting practices and their impact on the financial statements as presented by management;
- (viii) review management's report on the effectiveness of internal controls over financial reporting;
- (ix) review results of the Corporation's whistleblowing program; and
- (x) review any other matters, related to the financial statements, that are brought forward by the external auditors, management or which are required to be communicated to the Audit Committee under accounting policies, auditing standards or applicable law.

**4.2 Approval of Other Financial Disclosures** - The Audit Committee shall review and, if advisable, approve and recommend for Board approval financial disclosure in a prospectus or other securities offering document of the Corporation, press releases disclosing financial results of the Corporation and any other material financial disclosure, including in Management Information Circulars and Annual Information Forms.

#### **4.3 External Auditors**

(a) **General** -The Audit Committee shall be responsible for oversight of the work of the external auditors in auditing and reviewing the Corporation's financial statements and internal controls over financial reporting.

(b) **Appointment and Compensation** - The Audit Committee shall review and, if advisable, select and recommend (i) for shareholder approval, the appointment of the external auditors and (ii) for shareholder or Board approval, as applicable, the compensation of the external auditors.

(c) **Annual Review Report** - At least annually, the Audit Committee shall obtain and review a report by the external auditors describing: (i) their internal quality-control procedures and (ii) any material issues raised by their most recent internal quality-control review, peer review or by any inquiry or investigation by governmental or professional authorities within the preceding five years respecting one or more independent audits carried out by the external auditors and any steps taken to deal with any of these issues.

(d) **Audit Plan** - At least annually, the Audit Committee shall review a summary of the external auditors' annual audit plan. The Audit Committee shall consider and review with the external auditors any material changes to the scope of the plan.

(e) **Quarterly Review Report** - If the external auditors review the Corporation's unaudited interim financial statements, then the Audit Committee shall review a quarterly review report prepared by the external auditors in respect of each of the interim financial statements of the Corporation.

(f) **Independence of External Auditors** - At least annually, and before the external auditors issue their report on the annual financial statements, the Audit Committee shall obtain from the external auditors a formal written statement describing all relationships between the external auditors and the Corporation, discuss with the external auditors any disclosed relationships or services that may affect the objectivity and independence of the external auditors, and obtain written confirmation from the external auditors that they are objective and independent within the meaning of the Rules of Professional Conduct/Code of Ethics adopted by the provincial institute or order of chartered accountants to which it belongs.

(g) **Evaluation and Rotation of Lead Partner** - At least annually, the Audit Committee shall review the qualifications and performance of the lead partners of the external auditors. The Audit Committee shall obtain a report from the external auditors annually verifying that the lead partner of the external auditors has served in that capacity for no more than seven fiscal years of the Corporation and that the engagement team collectively possesses the experience and competence to perform an appropriate audit.

(h) **Pre-Approval of Non-Audit Services** - The Audit Committee shall pre-approve any retainer of the external auditors for any non-audit service to the Corporation in accordance with applicable law and Board approved policies and procedures. The Audit Committee may delegate pre-approval authority to a member of the Audit Committee. The decisions of any member of the Audit Committee to whom this authority has been delegated must be presented to the full Audit Committee at its next scheduled Audit Committee meeting.

(i) **Hiring Practices** - The Audit Committee shall review and approve guidelines regarding the hiring of employees or former employees of the external auditors.

#### **4.4 Internal Controls**

(a) **General** - The Audit Committee shall monitor the system of internal control.

(b) **Establishment, Review and Approval** - The Audit Committee shall require management to implement and maintain appropriate systems of internal control in accordance with applicable laws, regulations and guidance, including internal control over financial reporting and disclosure and to review, evaluate and approve these procedures. At least annually, the Audit Committee shall consider and review with management and the external auditors: (i) the effectiveness of, or weaknesses or deficiencies in: the design or operation of the Corporation's internal controls (including computerized information system controls and security); the overall control environment for managing business risks; and accounting, financial and disclosure controls (including, without limitation, controls over financial reporting), non-financial controls, and legal and regulatory controls and the impact of any identified weaknesses in internal

controls on management's conclusions; (ii) any significant changes in internal control over financial reporting that are disclosed, or considered for disclosure, including those in the Corporation's periodic regulatory filings; (iii) any material issues raised by any inquiry or investigation by the Corporation's regulators; (iv) any related significant issues and recommendations of the external auditors together with management's responses thereto, including the timetable for implementation of recommendations to correct weaknesses in internal controls over financial reporting and disclosure controls.

**4.5 Whistleblowing Procedures** - The Audit Committee shall review and approve the establishment by management of procedures for the receipt, retention and treatment of complaints received by the Corporation from employees or others, regarding accounting, internal accounting controls, or auditing matters.

**4.6 Succession Planning** - In consultation with the Board, the Audit Committee shall review, if applicable, succession plans for the CFO and Controller of the Corporation. The Audit Committee shall review candidates for the position of CFO of the Corporation and make recommendations to the Board with respect to the appointment of a CFO.

**4.7 Adverse Investments and Transactions** - The Audit Committee shall review any investments and transactions that could adversely affect the well-being of the Corporation.

**4.8 Audit Committee Disclosure** - The Audit Committee shall review and approve any audit committee disclosures required by securities regulators in the Corporation's disclosure documents.

**4.9 Assessment of Regulatory Compliance** - The Audit Committee shall review management's assessment of compliance with laws and regulations as they pertain to responsibilities under this mandate, report its findings to the Board and recommend changes it considers appropriate.

**4.10 Delegation** - The Audit Committee may designate a sub-committee to review any matter within this mandate as the Audit Committee deems appropriate.

## **5. REPORTING TO THE BOARD**

**5.1** The Chair shall report to the Board, as required by applicable law or as deemed necessary by the Audit Committee or as requested by the Board, on matters arising at Audit Committee meetings and, where applicable, shall present the Audit Committee's recommendation to the Board for its approval.