

TSX: GRA  
OTCQX: NNXPF

# Nano PLORE

Performance Through Carbon Chemistry

**World's Largest Graphene Producer**

**Investor Presentation**

November 2024

# FORWARD-LOOKING STATEMENTS

This presentation contains express or implied forward-looking statements, which are based on current expectations of management. These statements relate to, among other things, our expectations regarding management's plans, objectives, and strategies. All statements other than statements of historical fact could be considered forward-looking, including, but not limited to, any projections of financial information; any statements about historical results that may suggest trends in our business and results of operations; any statements of the plans, strategies and objectives of management for future operations, including the timing, funding and construction of planned manufacturing facilities and sales offices; any statements of expectation or belief regarding future events, potential markets or applications, the sizes of addressable markets, expected technology developments, strategic partnerships and collaborations, or enforceability of our intellectual property rights; any statements about the projected or expected economic or other benefits of our products compared to petroleum-derived equivalents, future sales and any statements of assumptions underlying any of the foregoing.

Forward-looking statements are subject to a number of risks, assumptions and uncertainties, many of which involve factors or circumstances that are beyond our control.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the events and circumstances reflected in the forward-looking statements will be achieved or occur and the timing of events and circumstances and actual results could differ materially from those projected in the forward-looking statements. Accordingly, you should not place undue reliance on these forward-looking statements. All such statements speak only as of the date made, and we undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise.

## Trademarks

Our trademarks may not be copied, imitated or used, in whole or in part, without our prior written permission. Other trademarks, registered trademarks or logos, company names or logos displayed in this presentation are the property of their owners.

# NANOXPLORE AT A GLANCE

**Market Cap** \$387 million  
19 Nov.

**Net Cash** \$21.3 million

**Total Liquidity** \$31.3 million

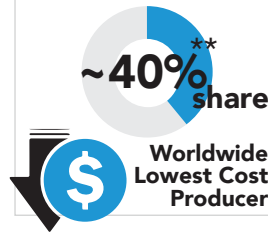
**Long Term Debt** \$5.9 million

**TTM\* Revenue** \$134.7 million

Advanced material company founded in



Largest Graphene Producer



"Blue chip customers"

- Paccar
- Volvo
- Ford
- Daimler
- Morgan Olson
- Caterpillar
- GE
- Solmax
- Itron
- Gerdau

Strong IP portfolio & Know-how through years of R&D development



11 production plants  
~500 employees



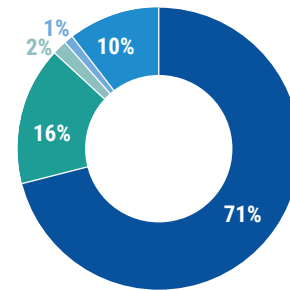
We pride ourselves on the quality & consistency of our branded powder



ESG vision



## END MARKET SECTORS



- Transportation
- Building, Construction & Industrial
- Agriculture
- Wind Energy
- Other

\* Trailing Twelve Months

\*\* The Graphene Batteries Market report by Roni Peleg and Ron Mertens: June 2024

# GRAPHENE'S PROPERTIES PRESENT OPPORTUNITIES FOR MASS ADOPTION



Graphene  
Nobel Prize

Since its recent discovery in 2004, graphene continues to amaze scientists and researchers of the superlative properties the material exhibits.

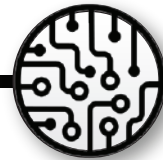
Hailed as a “**wonder material**”, graphene is lauded for its durability, sustainability and potential applications that will be part of in the future.

**Graphene as a potential to disrupt many industrial applications in particular CarbonBlack.**



## HIGH THERMAL CONDUCTIVITY

Conducts heat & electricity better than copper

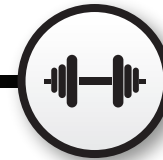


## HIGH ELECTRICAL CONDUCTIVITY



## THIN & LIGHTWEIGHT

Million times thinner than a piece of paper & lighter than feather




## 200X STRONGER THAN STEEL

Due to the strong carbon-carbon bonds



## CLEAN TECHNOLOGY

No petroleum-based material

 **↓~80%\***  
Carbon footprint vs. Carbon Black

# IP PORTFOLIO AND STRATEGY

## NANOXPLORE'S IP STRATEGY

### (1) In-House IP Development:

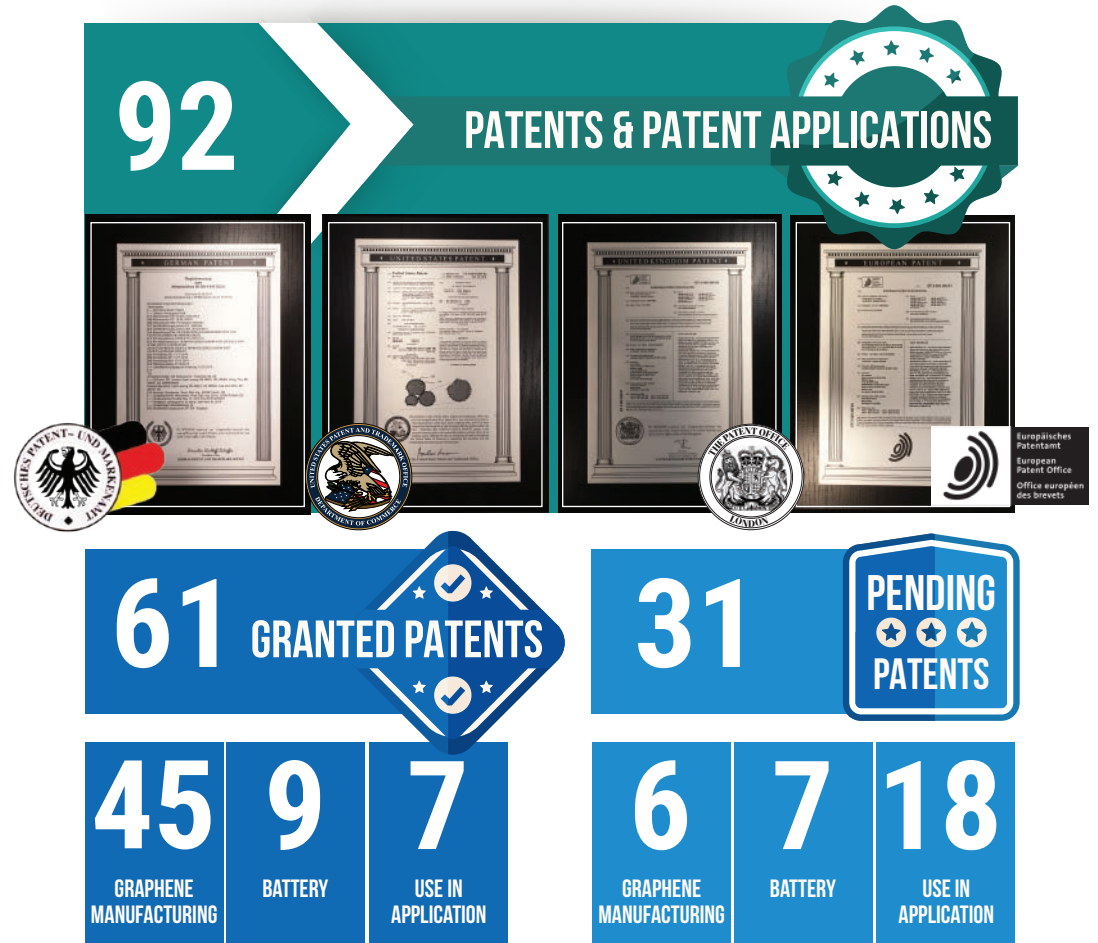
**Extensive record of in-house IP development**, fostering a **culture of creativity and innovation** to ensure that our IP remains dynamic and relevant in a rapidly evolving materials and battery market.

### (2) Robust Patent Portfolio :

**Robust and extensive patent portfolio** that protects our cutting-edge technologies and processes related to graphene and anode materials and battery cell design and manufacturing.

We believe that we own the world's **most cost effective and efficient graphene production method** for both wet and dry production.

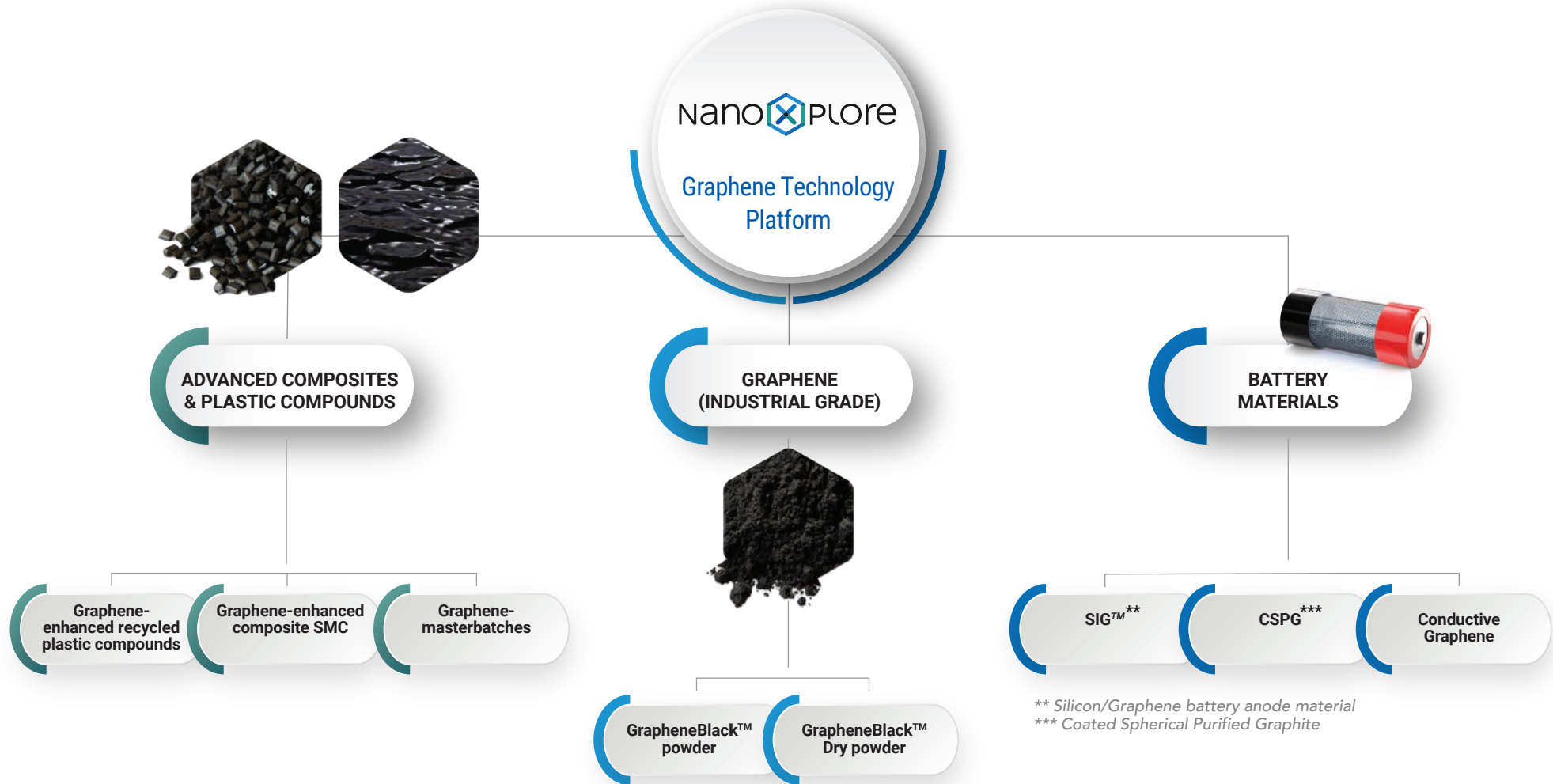
Furthermore, our patent portfolio includes **strong silicon/graphene patents with unmatched battery energy density and life cycle performance** that works well both in liquid and solid-state batteries.



as of March 18, 2024

\*\* includes 15 patents for VoltaXplore, with 9 granted and 6 pending.

# NANOXPLORE'S PRODUCT PORTFOLIO



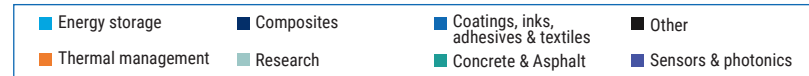
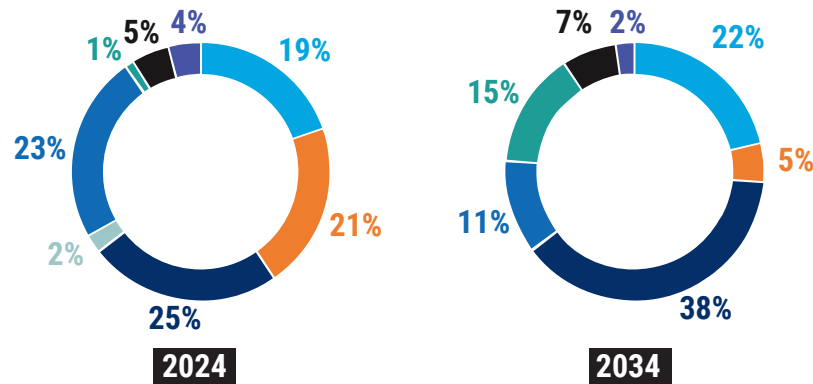
# NANOXPLORE'S END MARKETS

BASED ON BOTH IDTechEx & FORTUNE BUSINESS INSIGHTS

HIGH GROWTH END-MARKET BY INDUSTRIES INCLUDE TRANSPORTATION AND BY APPLICATION INCLUDE COMPOSITE WHICH ARE KEY GROWTH VERTICALS FOR NANOXPLORE

IDTechEx Research

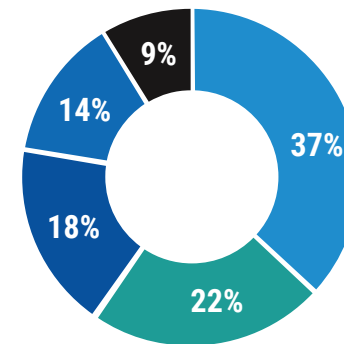
## REVENUE BY APPLICATIONS



<https://www.idtechex.com/en/research-report/graphene-market-and-2d-materials-assessment-2024-2034-technologies-markets-players/967>

FORTUNE BUSINESS INSIGHTS

## GLOBAL GRAPHENE MARKET SHARE, BY END-USE INDUSTRY, 2023



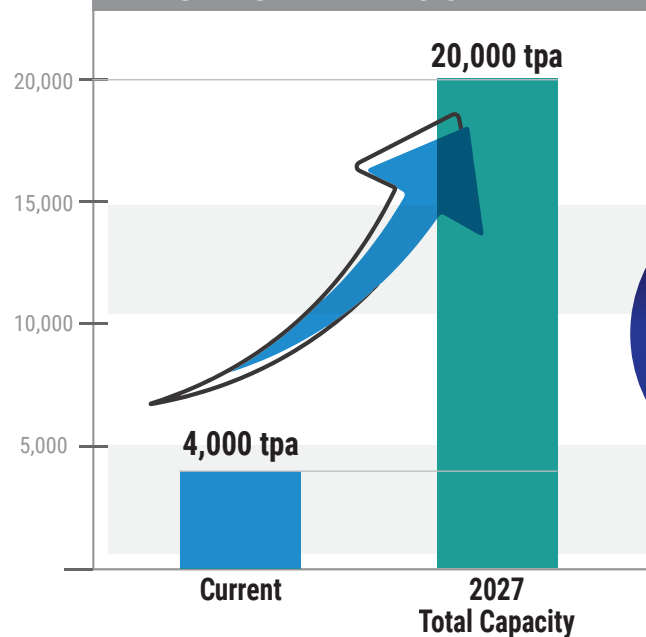
<https://www.fortunebusinessinsights.com/graphene-market-102930>



- **Graphene** is a new material, and we are clearly in the adoption phase as demonstrated by market studies that are **expecting a 10x growth in the industry over the next 10 years**. Fortune Business Insights is forecasting the **global graphene market to grow from approx. \$550M in 2024 to \$5.2B in 2034**. Graphene and its applied products exhibit application potential in various sectors including composites & coating, energy storage, biomedical technologies and water and wastewater treatment.
- **Energy storage industry is anticipated to be one of the key forces driving adoption in future**. Graphene-based batteries exhibit superior rate and energy capacity compared to traditional lithium-ion batteries. Thus, growing demand for energy storage products by electric vehicles, wind power, and solar energy sectors is expected to provide a major boost over the forecasted period.
- **Composite application is expected to represent the largest application over the forecasted period**. Graphene-based composites are used in the transportation, aerospace, and construction industries, as well as in coatings, metals, and plastics.
- **Graphene is increasingly used as an additive in resin matrices and other materials for lightweighting and improve their mechanical properties such as thermal and electrical conductivity, durability, stiffness, flexibility, and fire and UV resistance**. These factors are anticipated to fuel the demand for composites in the coming years.

# CAPEX GROWTH PLAN BY FOCUS MARKET

## GRAPHENE & BATTERY MATERIALS CAPACITY EXPANSION PLAN



Five year CAPEX funded through governments incentives and credit facility

## 5Y PLAN<sup>1</sup>

### Graphene Anode & Material

### Graphene Enhanced SMC

\$120 M	REVENUE (Est.)	\$80M
\$120 M	INVESTMENT <sup>1,2</sup>	\$25-30M
New leased facility	SITE TYPE	New leased site
16,000 tpa	CAPACITY ADDITION	10M lbs/annum
200,000 sqft	FACILITY SIZE	200,000 sqft
Greater Montreal, QC	LOCATION	St-Clotilde QC/ Statesville NC
2026	COMMISSIONING	2025
25%	IRR <sup>1,2</sup>	25%

**Battery Materials:** A global US\$50B+ market. North America ramping up capacity to 1000GWh by 2031 driven by EV adoption, energy sustainability, IRA, IoT Adoption.

**Sheet Moulding Compounds:** US\$3.8B in 2023\* market predominantly used for production of Transportation, Construction materials and Electronics.

\* Source: Lucintel

<sup>1</sup> See appendix for assumptions

<sup>2</sup> Non-IFRS measure – refer to non-IFRS measures disclosure in MD&A



# THE EVOLUTION OF A LEADING GRAPHENE PRODUCER

## PHASE 1

## PHASE 2

## PHASE 3



### THE SET-UP

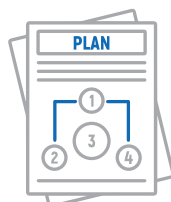


2017-2022

### DE-RISKED & POSITIONED FOR SUCCESS



- ✓ Strengthened our balance sheet
- ✓ Positioned our company as a leading industrial scale graphene producer
- ✓ Successful at lowering our cost per unit to improve adoption



### OUR PLAN



2023-2026

### EXECUTION



- \$120M graphene and battery materials plant
- \$25M to \$30M GrapheneBlack SMC™ (Sheet Molding Compound) plant
- Total investments of \$140M to \$150M financed with debt, ITCs, and cash



### OUR VISION

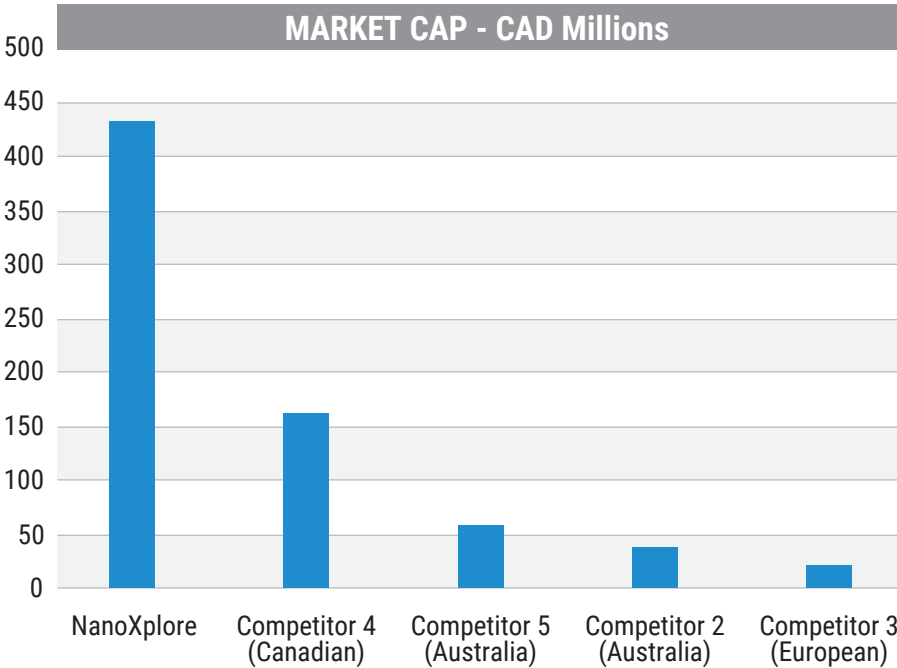
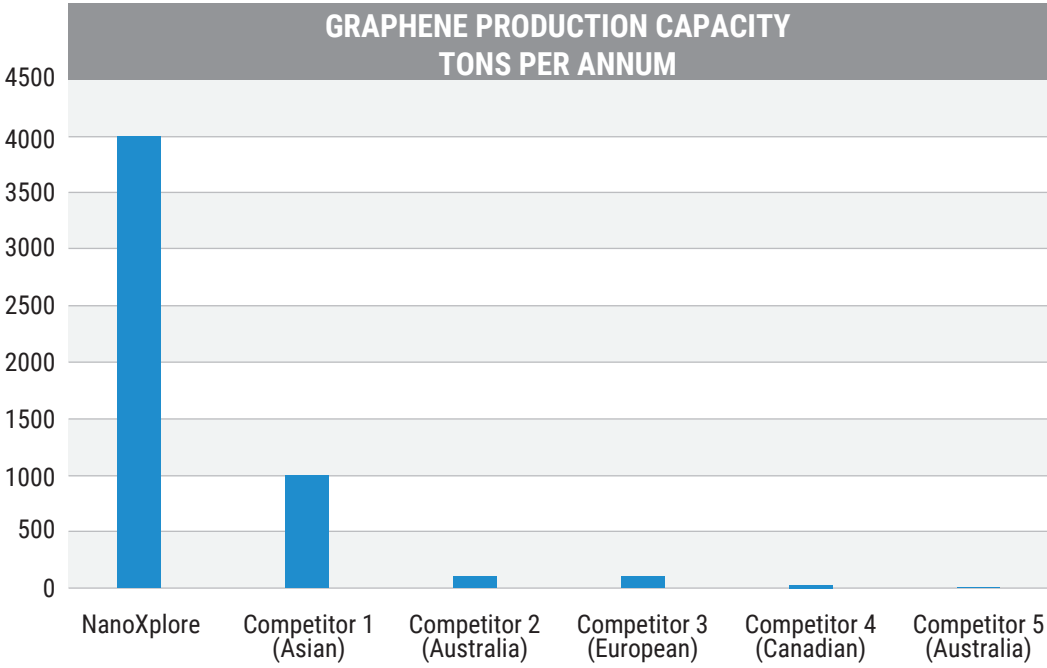
2026+

### GROWTH & POSITIVE YIELDING RESULTS



- Benefit from our investments
- Focusing on sustainability and energy transition
- Bring new applications to graphene
- Extending our battery materials initiatives

# CAPITALIZING ON NANOXPLORE'S FIRST MOVER ADVANTAGE



As of 28 March 2024  
 Competitor 1 is a private company; therefore, we do not have a valuation

The combination of our graphene production capacity with our financial strength makes NanoXplore the industry leader and a de facto partner for any major OEM within the transportation or industrial sector

# EXPANDING OUR GRAPHENE ADDRESSABLE MARKET

Investment Initiative to unlock new manufacturing processes



The Global Carbon Black Market was Valued at \$27B in 2023\*

10% addressable

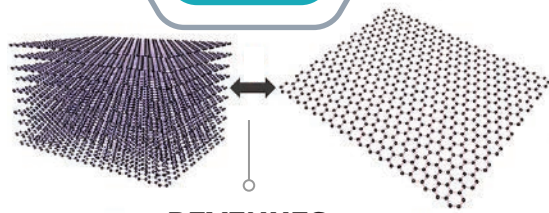
60% addressable

due to high production cost

due to 70% reduction in production cost

Liquid Exfoliation Process

Dry Process

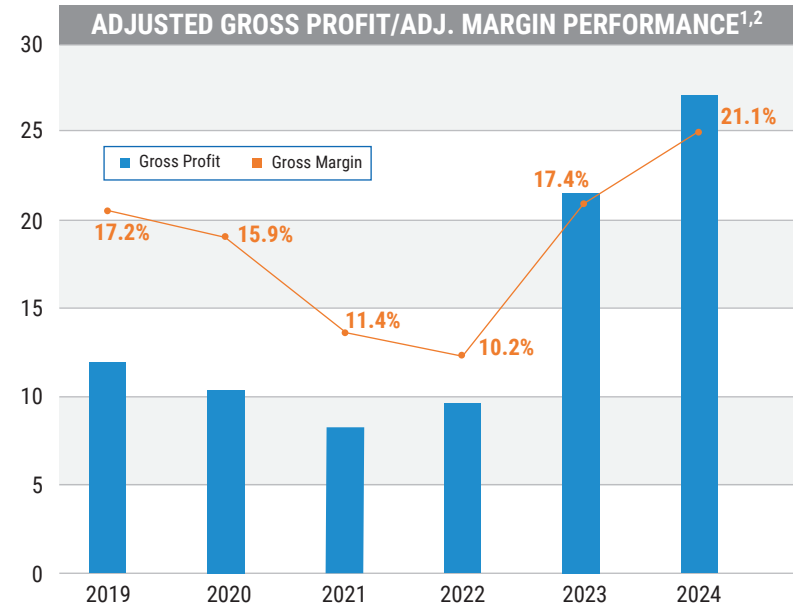
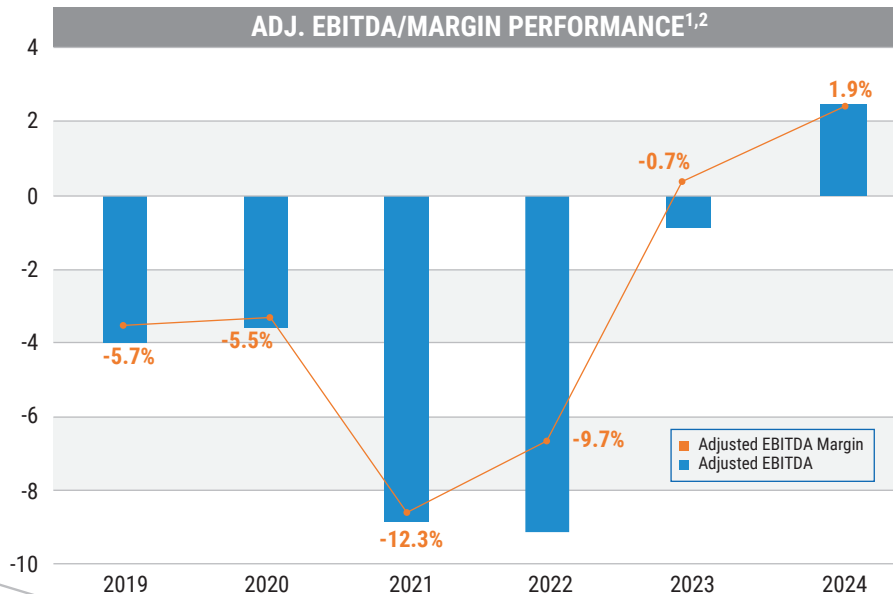
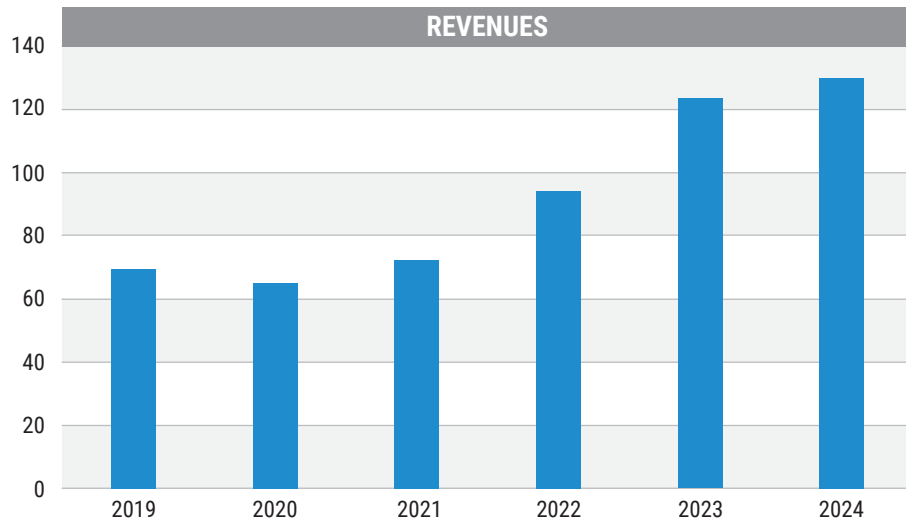


REVENUES IMPACTING 2025

REVENUES STARTING TO IMPACT 2027

# HISTORICAL FINANCIAL PERFORMANCE

All the amounts in \$ millions



Despite COVID, revenues grew at a 14.8% CAGR over the last 5 Years

We expect an acceleration in revenue growth due to:

- Strong demand for Graphene Enhanced SMC predominantly in transportation and industrial segment

Margins expansion as a consequence of:

- Product Mix
- Pricing power
- Raw material prices fluctuation passed-through
- Increased volume
- Increased productivity

# FQ1 2025 CORPORATE HIGHLIGHTS

## Quarterly Key Developments

### Graphene Enhanced SMC

Demand continues to be very strong, and our capacity is almost fully utilized.

As part of our 5-year strategic plan, we are expanding our capacity, mostly in the US, supported by booked contracts with existing and new customers.



### Graphene Sales Activities

Validation and testing activities are ongoing with new customers while we continue to supply existing ones.

## TOTAL REVENUES \$33.7M

### DRIVERS:

- Positive product mix including graphene-enhanced products
- Higher volume

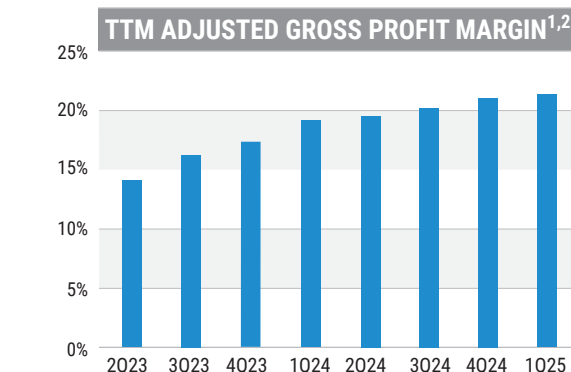
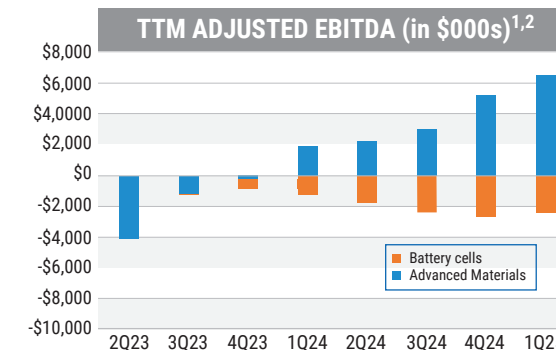
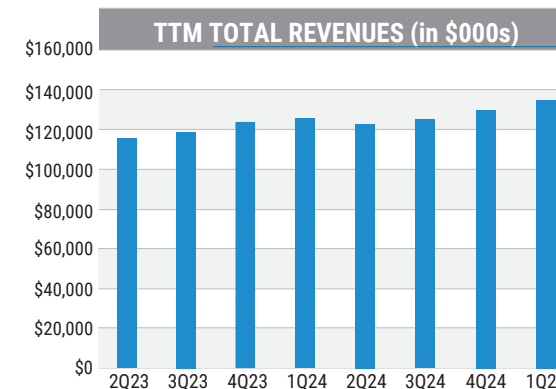
## ADJUSTED EBITDA<sup>1,2</sup> \$1.5M

Advanced materials, plastics & composites segment

### DRIVERS:

Gross margin expansion driven by:

- Higher revenues
- Higher margins product mix
- Improved productivity
- Cost control



# LEADERSHIP TEAM



**Dr. Soroush Nazarpour, Ph.D.**  
Founder &  
Chief Executive Officer

Ph.D in Nanotechnology from the University of Barcelona;

Serial entrepreneur and the founder of NanoXplore President & CEO since 2011 and serves as a director on the board of directors;

Acknowledged expert in the field of graphene and co-author of "Graphene Technology From Laboratory to Fabrication" published by Wiley & Co in 2016;

CEO of VoltaXplore, an electric vehicle battery manufacturing company.



**Rocco Marinaccio**  
Chief Operating Officer

More than 20 years of experience within operations;

Vice President of Flexible Manufacturing Group at Martinrea;

Occupied multiple senior positions at Martinrea International Inc. including Material Production and Logistics Manager, General Manager and Director of Modules;

Formerly responsible for over-seeing the construction of key Martinrea facilities located in Ramos Arizpe, Mexico and Riverside, Missouri as well as the relocation of two facilities in Canada.



**Pedro Azevedo**  
Chief Financial Officer

Extensive experience in manufacturing and operations, as well as M&A;

Former CFO of Tarkett Sports, a division of publicly traded global manufacturing company Tarkett S.A.;

Occupied a variety of positions starting from a cost accountant to different corporate controller functions.



**Pierre-Yves Terrisse**  
Vice-President of Corporate Development

Over 25 years of experience in finance and capital markets;

As a financial analyst, specialized in the technology and industrial sectors for over a decade;

Transitioned to investment banking and M&A, providing guidance to both public and private companies as well as offering strategic insights to institutional investors;

Served as Managing Director Investment Banking at Industrial Alliance Capital Markets (IACM);

Previously held the position of Managing Director Institutional Sales at Echelon Wealth Partners for 10 years.

# REASONS TO INVEST IN NANOXPLORE

LEADERSHIP IN  
SMC/LIGHTWEIGHTING  
COMPOSITES



OPERATIONAL  
PERFORMANCE



CULTURE OF  
INNOVATION



EXECUTION +  
HIGH BARRIERS  
TO ENTRY



5-YR  
STRATEGIC CAPEX PLAN  
FINANCING COMPLETED



GRAPHENE POWDER  
SALES WILL START  
IMPACTING FY2025





# APPENDIX





# ASSUMPTIONS & RISKS 5 YEARS STRATEGIC PLAN

## Graphene & Anode Material

### Revenue Assumptions

In recent years, North American demand for battery cells has resulted in numerous battery cell production facilities being built or announced to be built in North America. Along with this trend, North American governments are requiring and incentivising manufacturers to source more battery materials in North America. Against this backdrop, the Corporation sees a capability to sell all its annual anode materials capacity of 8,000MT over the course of 2 years at a price above \$7.50 USD/kg and an equivalent quantity of low-price graphene at a price above \$3USD/kg. Both with annual price escalations assumptions of 3%.

### Major risks

While risks of not achieving the expected revenues are numerous, the Corporation sees these as the main risks:

- > Significant delay or non-creation of North American battery cell production market
- > Slowdown in Electric Vehicle adoption
- > New battery technologies
- > New entrants to the anode materials market taking majority of future market share

### Investment

Sum of all capital expenditures expected for the investment. The investment amount does not take into consideration sunk costs or costs already occurring in the Corporation that may be reaffected to execute the project.

### IRR calculation

IRR is based on the expected net annual cash flows discounted at 8.8% over a period of 10 years with a 3% inflation assumption.

### Financing

Financing for project is expected in part through investment tax credits (~30%), Federal and Provincial low-interest loans (~20%) which are currently being secured and with balance of financing needs covered through either additional debt financing yet to be secured or new equity, but only in favorable market conditions.

# ASSUMPTIONS & RISKS 5 YEARS STRATEGIC PLAN

## Graphene Enhanced SMC

### Revenue Assumptions

Demand from our customers for SMC parts is in excess of our capacity to produce which indicates a continued market shift towards composite materials and more specifically SMC. Capacity to produce SMC parts for the commercial vehicle market in North America is limited with only a few large manufacturers, including the Corporation. The capacity being added with this initiative is smaller than the expected demand into the future and as such the Corporation expects to fully sell the added capacity over the course of 3 years. Production capacity will allow for the production of 80,000 truck parts at an average of \$750USD per part.

### Major risks

While risks of not achieving the expected revenues are numerous, the Corporation sees these as the main risks:

- > Inability to increase sales with existing customers or to attract new customers
- > Shift to other composite production processes

### Investment

Sum of all capital expenditures expected for the investment. The investment amount does not take into consideration sunk costs or costs already occurring in the Corporation that may be reaffected to execute the project.

### IRR calculation

IRR is based on the expected net annual cash flows discounted at 10.0% over a period of 10 years, with a 3% inflation assumption.

### Financing

Financing for project fully secured by RBC credit agreement through available equipment leasing and revolving credit line.

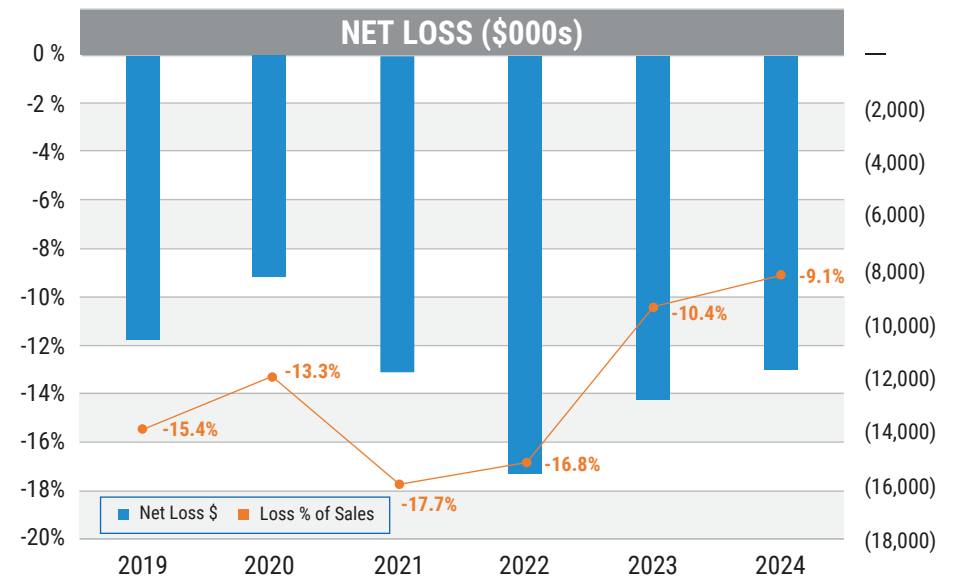
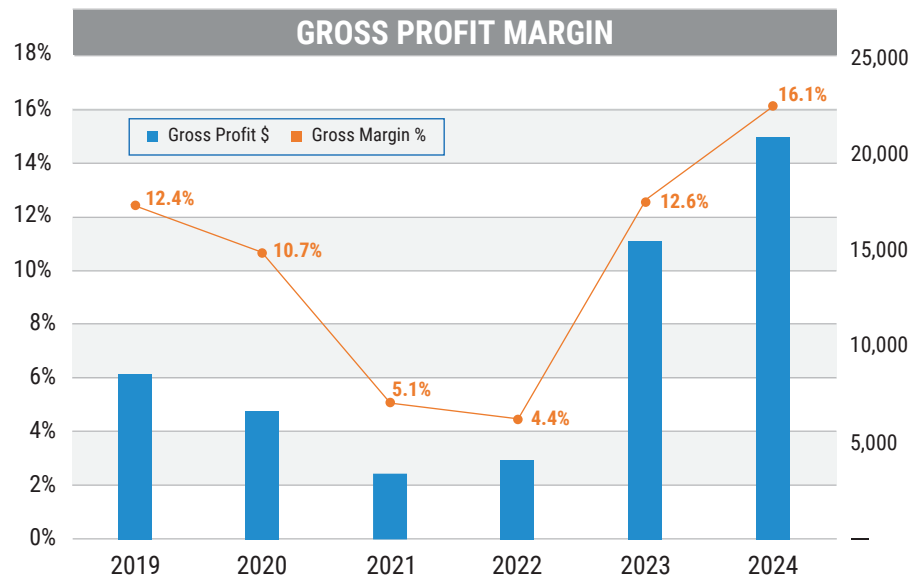
## NON-IFRS MEASURES

The information contained in this presentation was prepared using results and financial information determined under IFRS. However, the Corporation considers certain non-IFRS financial measures as useful additional information in measuring the financial performance and condition of the Corporation.

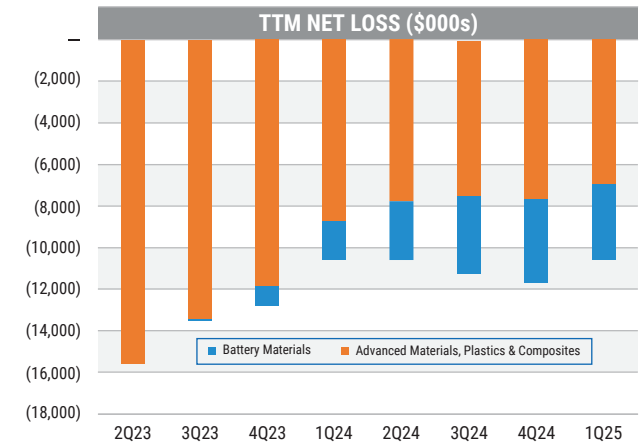
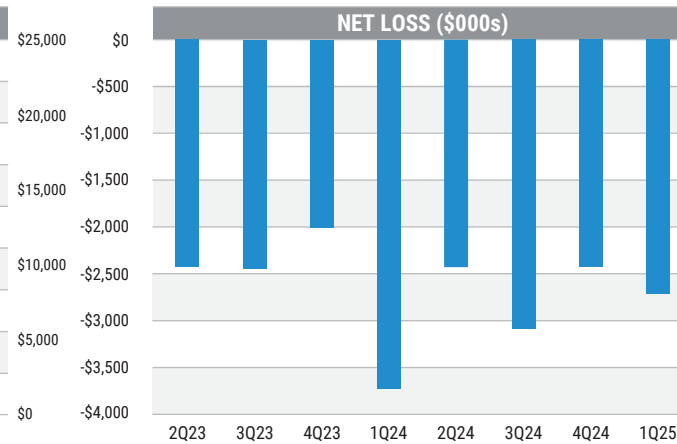
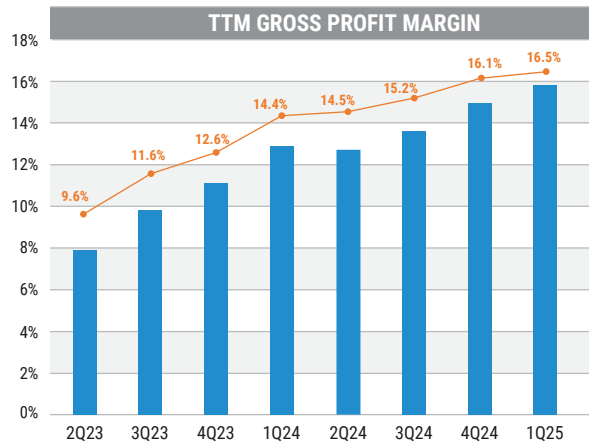
These measures, which the Corporation believes are widely used by investors, securities analysts and other interested parties in evaluating the Corporation's performance, do not have a standardized meaning prescribed by IFRS and therefore may not be comparable to similarly titled measures presented by other publicly traded companies, nor should they be construed as an alternative to financial measures determined in accordance with IFRS.

Non-IFRS measures include "Adjusted EBITDA" and "Adjusted gross margin".

# ANNUAL IFRS EQUIVALENT



# QUARTERLY IFRS EQUIVALENT



# Nano Plore

Performance Through Carbon Chemistry

4500 Thimens Blvd, Montreal, QC H4R 2P2

[www.nanoxplore.ca](http://www.nanoxplore.ca)

TSX: GRA | OTCQX: NNXPF

Follow us

