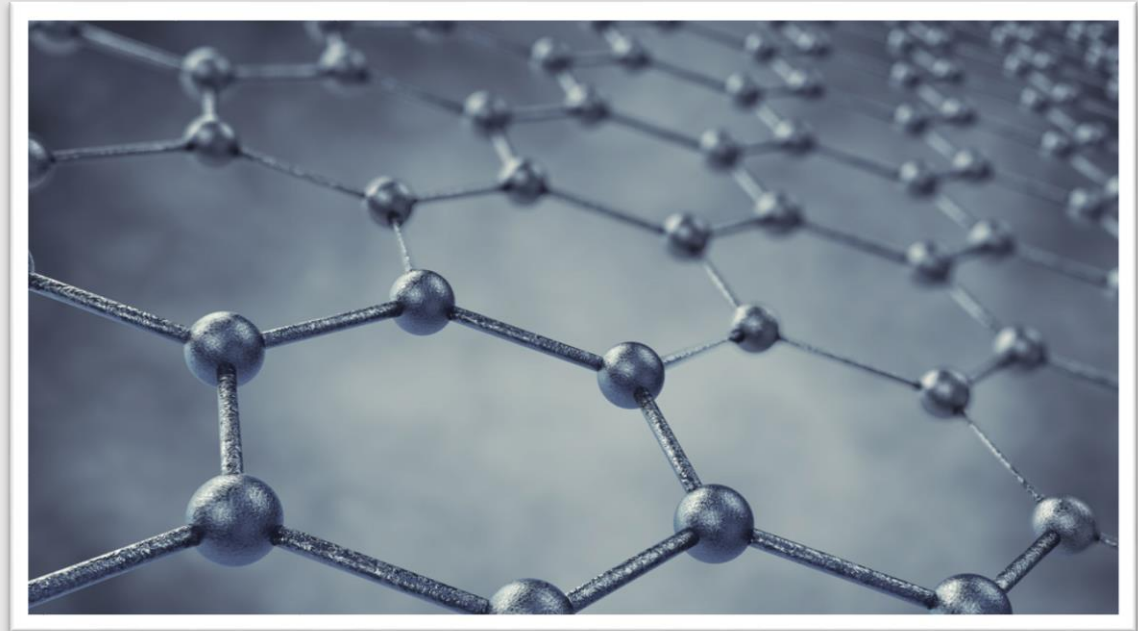
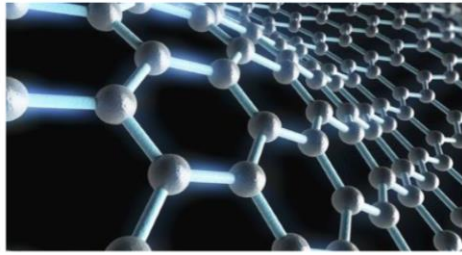
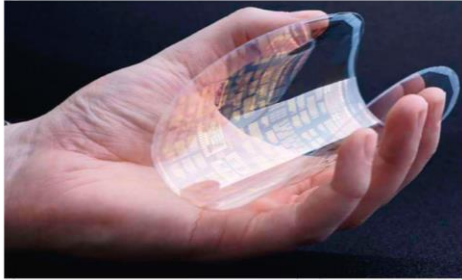




zenyatta

# Graphene



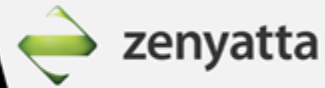
# Forward Looking Statement

## Cautionary Note Regarding Forward-Looking Information

This presentation contains "forward-looking information" within the meaning of applicable Canadian securities legislation and United States federal securities laws. Forward-looking statements include, but are not limited to, estimates and statements with respect to Zenyatta's future exploration and development plans, objectives or goals, to the effect that Zenyatta or management expects a stated condition or result to occur, including the expected timing for release of sample analyses and a resource estimate, the expected uses for graphite in the future, and the future uses of the graphite from Zenyatta's Albany deposit, the adequacy of Zenyatta's financial resources, business plans and strategy, and other events or conditions that may occur in the future. Generally, forward-looking information can be identified by the use of forward-looking terminology such as "plans", "expects", or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "does not anticipate", or "believes" or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might", or "will be taken", "occur", or "be achieved". The following table outlines certain significant forward-looking information contained on this website provides the material assumptions used to develop such forward-looking statements and material risk factors that could cause actual results to differ materially from the forward looking statements.

Forward-looking information	Assumptions	Risk factors
<b>Zenyatta's properties may contain economic deposits of graphite and/or other metals</b>	Financing will be available for future exploration and development of Zenyatta's properties; the actual results of Zenyatta's exploration and development activities will be favourable; operating, exploration and development costs will not exceed Zenyatta's expectations; the Company will be able to retain and attract skilled staff; all requisite regulatory and governmental approvals for exploration projects and other operations will be received on a timely basis upon terms acceptable to Zenyatta, and applicable political and economic conditions are favourable to Zenyatta; the price of graphite and/or other applicable metals and applicable interest and exchange rates will be favourable to Zenyatta; no title disputes exist with respect to its properties	Graphite price volatility; uncertainties involved in interpreting geological data and confirming title to acquired properties; the possibility that future exploration & processing results will not be consistent with Zenyatta's expectations; availability of financing for and actual results of Zenyatta's exploration and development activities; increases in costs, environmental compliance and changes in environmental and other local legislation and regulation; interest rate and exchange rate fluctuations; changes in economic and political conditions; Zenyatta's ability to retain and attract skilled staff
<b>Zenyatta will be able to carry out anticipated business plans, including costs and timing for future exploration on its property interests</b>	Zenyatta's exploration activities, and the costs associated therewith, will be consistent with Zenyatta's current expectations; debt and equity markets, exchange and interest rates and other applicable economic conditions are favourable to Zenyatta; Financing will be available for Zenyatta's exploration and development activities and the results thereof will be favourable; the Company will be able to retain and attract skilled staff; all applicable regulatory and governmental approvals for exploration projects and other operations will be received on a timely basis upon terms acceptable to Zenyatta; Zenyatta will not be adversely affected by market competition; the price of graphite and/or other applicable metals will be favourable to Zenyatta; no title disputes exist with respect to Zenyatta's properties	Graphite price volatility; changes in debt and equity markets; timing and availability of external financing on acceptable terms; the uncertainties involved in interpreting geological data and confirming title to acquired properties; the possibility that future exploration & processing results will not be consistent with Zenyatta's expectations; increases in costs, environmental compliance and changes in environmental and other local legislation and regulation; interest rate and exchange rate fluctuations; changes in economic and political conditions; Zenyatta may be unable to retain and attract skilled staff; receipt of applicable permits
<b>Management's outlook regarding future trends</b>	Financing will be available for Zenyatta's exploration and operating activities; global demand for the use and application of graphite will increase; the price of graphite and/or other applicable metals will be favourable to Zenyatta;	Graphite price volatility; changes in debt and equity markets; interest rate and exchange rate fluctuations; changes in economic and political conditions

# Forward Looking Statement



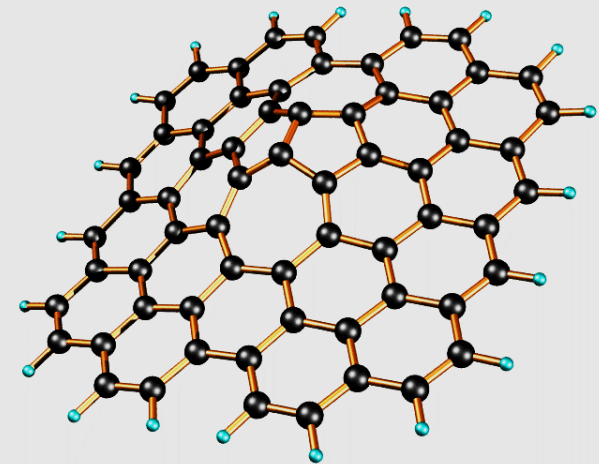
Statements relating to “reserves” or “resources” in this Presentation are deemed to be forward-looking statements, as they involve the implied assessment, based on certain estimates and assumptions that the resources and reserves described can be profitably produced in the future. Inherent in forward-looking statements are risks, uncertainties and other factors beyond Zenyatta’s ability to predict or control. Readers are cautioned that the above chart does not contain an exhaustive list of the factors or assumptions that may affect the forward-looking statements, and that the assumptions underlying such statements may prove to be incorrect. Actual results and developments are likely to differ, and may differ materially, from those expressed or implied by the forward-looking statements contained in this Presentation. Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause Zenyatta’s actual results, performance or achievements to be materially different from any of its future results, performance or achievements expressed or implied by forward-looking statements. All forward-looking statements herein are qualified by this cautionary statement. Zenyatta disclaims any intention or obligation to withdraw, update or revise any forward-looking statements whether as a result of new information, future events or otherwise, except to the extent required by applicable laws. If the Zenyatta does update one or more forward-looking statements, no inference should be drawn that it will make additional updates with respect to those or other forward-looking statements, unless required by law. An additional cautionary note to readers - no part of this Zenyatta presentation is intended to be deemed as an offering of its securities to investors outside of Canada or is to be relied on by residents of the United States of America or other jurisdictions outside of Canada. Certain terms such as “resource”, “measured resource”, “indicated resource” and “inferred resource” are recognized under Canadian securities laws, however, the United States Securities and Exchange Commission may not recognize such terms. All maps, information, data, diagrams etc. obtained from internet are believed to be reasonably accurate but can not be guaranteed.

## Cautionary Note Regarding Mineral Reserve and Resource Estimates

See “Technical Report on the Albany Graphite Deposit, Northern Ontario, Canada”, authored by David Ross, P.Geo., and Katharine M. Masun, P.Geo., of Roscoe Postle Associates Inc., who are independent “qualified persons” as defined by National Instrument 43-101. The Technical Report was issued on January 16, 2014 and may be found under the Company’s profile on SEDAR at [www.sedar.com](http://www.sedar.com) and at [www.zenyatta.ca](http://www.zenyatta.ca). This presentation has been prepared in accordance with the requirements of Canadian securities laws in effect in Canada, which differ from the requirements of United States securities laws. Unless otherwise indicated, all mineral resource and reserve estimates included in this presentation have been prepared in accordance with NI 43-101 and the Canadian Institute of Mining and Metallurgy Classification System. NI 43-101 is a rule developed by the Canadian securities regulatory authorities that establishes standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects. Canadian standards, including NI 43-101, differ significantly from the requirements of the U.S. Securities and Exchange Commission (the “SEC”), and resource and reserve information contained herein may not be comparable to similar information disclosed by U.S. companies. In particular, and without limiting the generality of the foregoing, the term “resource” does not equate to the term “reserves.” Under U.S. standards, mineralization may not be classified as a “reserve” unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. The SEC’s disclosure standards normally do not permit the inclusion of information concerning “measured mineral resources,” “indicated mineral resources,” or “inferred mineral resources” or other descriptions of the amount of mineralization in mineral deposits that do not constitute “reserves” by U.S. standards in documents filed with the SEC. U.S. investors should also understand that “inferred mineral resources” have a great amount of uncertainty as to their existence and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of an “inferred mineral resource” will ever be upgraded to a higher category. Mr. Peter Wood, P.Geo., VP Exploration for Zenyatta Ventures Ltd., is the “Qualified Person” under National Instrument 43-101 – Standards of Disclosure for Mineral Projects and has reviewed and approved the technical information contained in this presentation.

# Introduction

- ❑ Graphene can be synthesized from graphite to create the thinnest, strongest and most conductive material known today.
- ❑ It is considered a 2D 'wonder material' that can be used in many applications.
- ❑ Researchers around the world are using it for critical advances in a variety of industries.
- ❑ There is a rapid increase in graphene producers.
- ❑ Global graphene market is expected to reach \$149.1 million in 2020 (source: <http://alliedmarketresearch.com/graphene-market>)



# Graphene

- ❑ Graphene extracted from graphite was discovered in 2004 by Professor Andre Geim and Professor Kostya Novoselov at The University of Manchester.
- ❑ The two researchers removed flakes from a lump of bulk graphite with tape and by separating the graphite fragments repeatedly, they managed to create flakes and isolate graphene for the first time.
- ❑ Graphene can be isolated in 1 atom thick sheets of carbon atoms arranged in a honeycomb pattern.
- ❑ In 2010, there were over 400 patents issued on graphene and 3,000 research papers published.  
(source: <http://www.nanowerk.com/news/newsid=23444.php#ixzz1x2HGBHo8>)





# Graphene Properties

1 carbon atom thick

Mechanical, optical, thermal,  
chemical properties

Thinnest material known to man -  
0.33m

The lightest material

Extremely strong - harder than  
diamond and 300x harder than steel

High tensile strength

Extremely dense

High thermal conductivity

Optical Transparency

Elastic/Stretchable

High surface area to mass ratio

High light absorption

Highest current density

The highest intrinsic mobility

Almost invisible and weightless

Can stretch up to 20 percent of its  
length

Most impermeable material ever  
discovered

Highly efficient electrical conductivity -  
more efficient than copper

# Graphene Applications

## Energy / Storage

- Power buffering between wind-turbines and the electrical grid
- Heavy-duty supercapacitors for turbine blade feathering
- Large-scale batteries for grid storage systems
- Catalysis materials and bipolar plates for fuel cells
- More powerful batteries for instant start-stop vehicles
- Longer range electric and hybrid vehicles

## Electronics

- Conductive inks for printed circuits
- Thermal coatings and greases for heat dissipation
- Conductive circuits for LED backplanes
- Can dramatically increase the lifespan of a traditional lithium-ion battery, meaning devices can be charged more quickly and hold more power for longer.
- Graphene can be used as a coating to improve current touch screens for phones and tablets
- Improve the speed of computers
- Flexible computers and cell phones

## Biomedical and Life Sciences

- Bio-sensors for glucose
- Printable circuits on diagnostic devices
- Superior packaging for high-value medical devices
- Targeted drug delivery; improved brain penetration
- Graphene applications in biomedical are numerous and can be classified into several areas;
  1. Transport (delivery) systems
  2. Sensors
  3. Tissue Engineering
  4. Biological Agents

# Graphene Applications

## Sensors

- Graphene is an ideal material for sensors.
- Every atom in graphene is exposed to its environment, allowing it to sense changes in its surroundings.
- For chemical sensors the goal is to be able to detect just one molecule of a potentially dangerous substance.

## Graphene Supercapacitors

- Could provide massive amounts of power while using much less energy than conventional devices.
- Because they are light, they could also reduce the weight of cars or planes.

## Membranes

- Graphene oxide membranes are capable of forming a perfect barrier when dealing with liquids and gasses
- They can effectively separate organic solvent from water and remove water from a gas mixture to an exceptional level



# Graphene Applications

## Sports

- Lightweight composites
- High impact strength coatings
- Light weight materials with improved stiffness
- OLED lighting systems for sports stadiums

## Aerospace

- Lightweight metal composites for structural components
- Conductive sheets for lightning-strike protection
- Additives for improved impact strength
- Ultra-high density power for satellites and aircraft
- Resistive heating for anti-icing surfaces

## Infrastructure

- Super-strong concrete for skyscrapers and bridge decks
- Abrasion-resistant concrete for roads and warehouses
- Low-cost imbedded stress sensors
- Membranes for water purification
- Superior pipe-repair coatings for natural gas and oil
- Oil-spill cleanup materials
- Replacement of steel cables by stronger carbon nanotubes in suspension bridges

# Graphene Applications

## Defence

- Blast-resistant vehicles and ships
- Light weight power systems for vehicles
- Light-weight batteries for soldiers
- Conductive fabrics for environmental sensing
- Self-healing and self-diagnosing composites
- Infra-red obscuration
- Better body-armor for soldiers

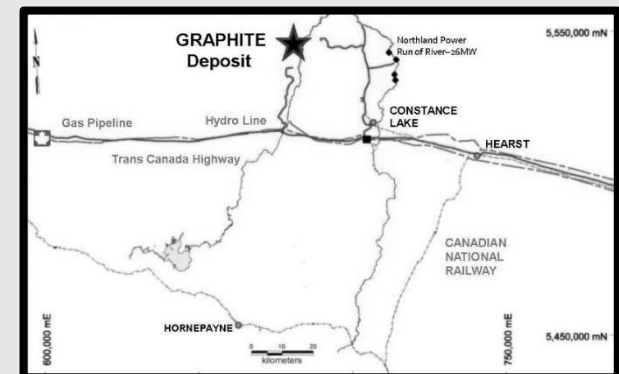
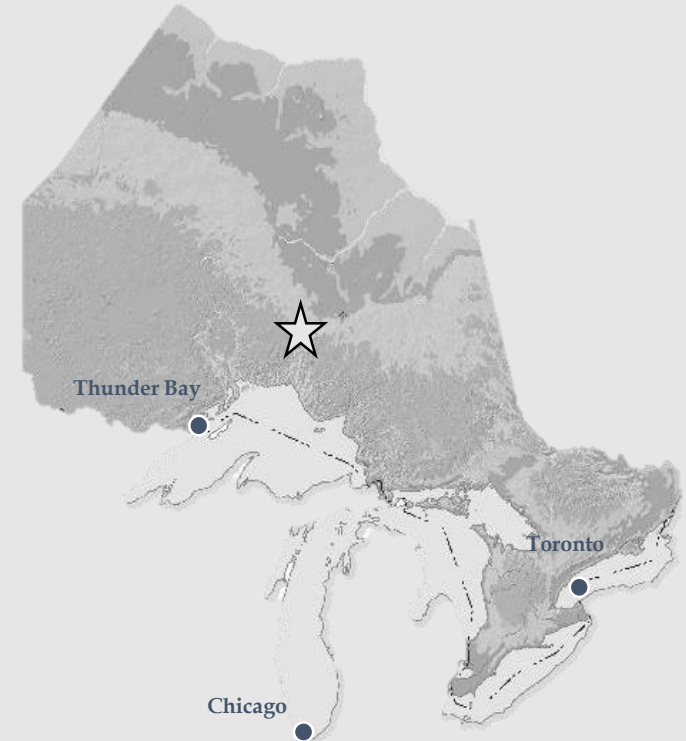
## Composites and Coatings

- Rust-free graphene with paint coating that could end the deterioration of ships and cars through rust
- Polymer, ceramic matrix composites; as paper-like materials but with unusual mechanical properties

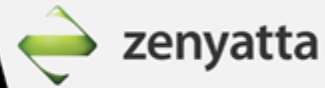


# Zenyatta Ventures Ltd. – Albany Graphite Project

- ❑ the **largest** and only **rare**, igneous-related hydrothermal graphite deposit with the potential to produce a natural, high-purity graphite.
  
- ❑ Graphite Deposit located 30 km north of Trans-Canada Highway. Power line and natural gas pipeline near Constance Lake First Nation (CLFN) & Hearst. Rail line located 70 km away and all-weather road ~10km from deposit.
  
- ❑ Albany graphite achieved an ‘extraordinary’ carbon purity result of >99.9% in a bench-scale test using a proprietary and environmentally safe method of purification, which could compete in the diversified ‘synthetic’ graphite market.



# Zenyatta's Market Role in Graphene

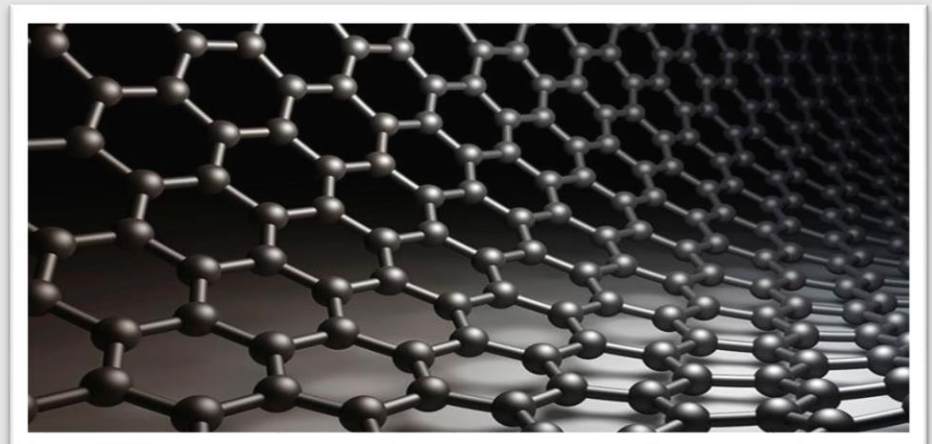


Graphene could be as transformative in this century as plastics were in the 20<sup>th</sup> century.

Global graphene market is growing at a CAGR of 44.0% (2014-2020)

(source: <http://alliedmarketresearch.com/graphene-market>)

Graphene could have a dramatic impact on our future by changing the fields of; computing, energy and materials. Making everything **smaller, stronger** and more **ecologically sustainable**.





# zenyatta

## Thank you!



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