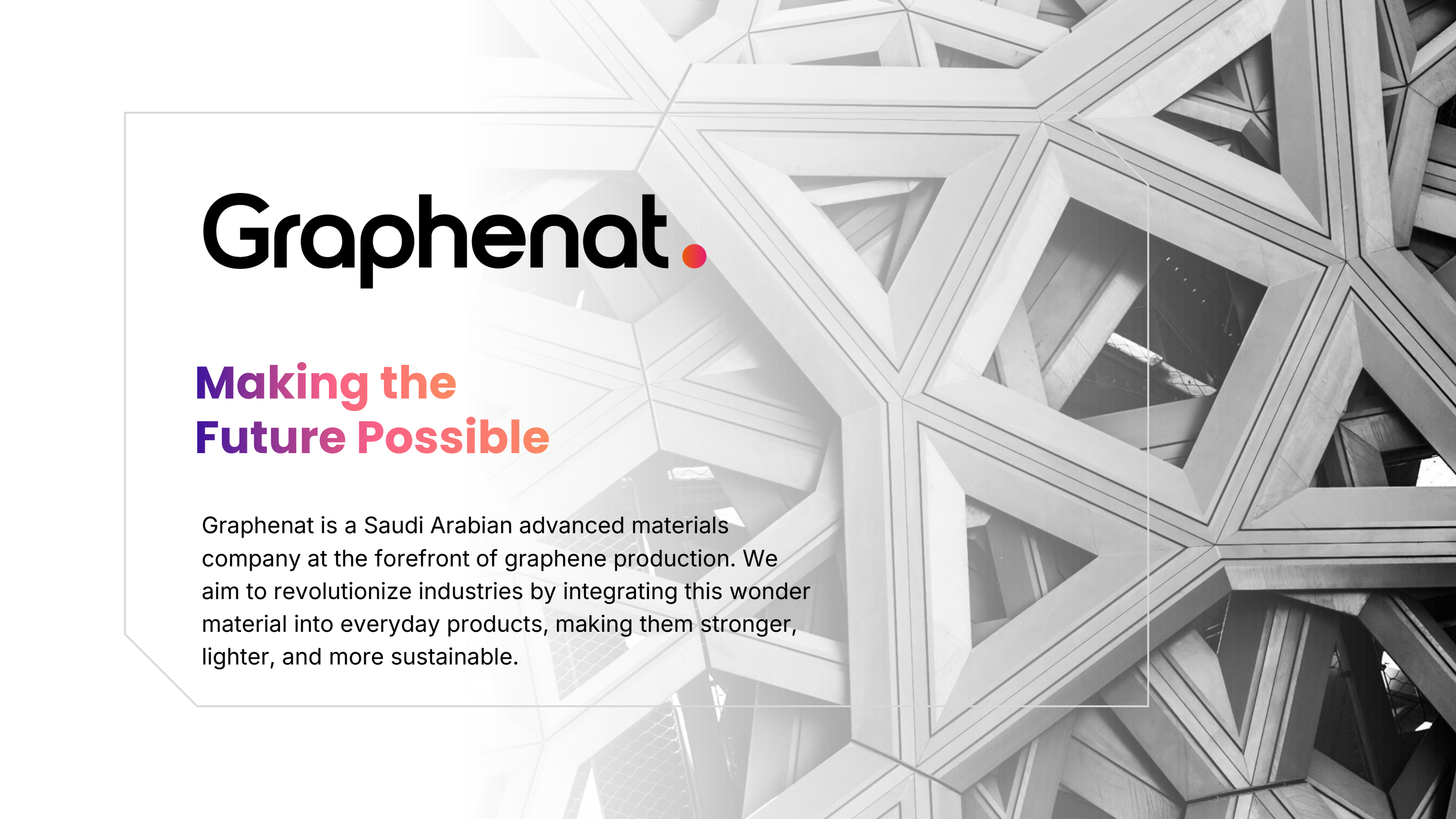




Graphenat.

Making the Future Possible

Graphenat is a Saudi Arabian advanced materials company at the forefront of graphene production. We aim to revolutionize industries by integrating this wonder material into everyday products, making them stronger, lighter, and more sustainable.

Who We Are

Established in 2024, Graphenat is a Saudi Arabian technology company specializing in the production of high-quality graphene. our mission is to make graphene technology accessible to all. We strive to improve existing products, enable the development of new technologies, and contribute to a more sustainable future

Founding Team

Name	Job Title	Experience
Dr. Tariq Al-Shawi	Co-founder & CEO	15 years in research and development in advanced technologies
Eng. Nasser Al-Askar	Co-founder & CFO	13 years in project management and financial management
Eng. Khalid Al-Arifi	Co-founder	22 years in industrial technologies and energy economics

About Graphenat.

Our Difference



Quality First

At Graphenat, we maintain strict quality control measures throughout our production process. This ensures that our clients receive consistently high-quality graphene for their specific applications.



Customer Focus

We prioritize building strong relationships with our clients. Our team provides dedicated support, customized solutions, and ongoing technical expertise to meet their evolving needs.



Innovation

We are driven by a passion for innovation. Our dedicated research team continuously explores new applications for graphene, pushing the boundaries of what's possible.

Graphene Properties



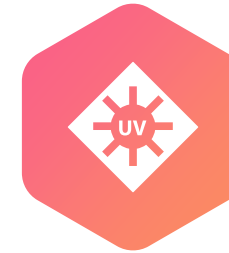
Thermal Conductivity

Highest ever measured at $\sim 4000 \text{ Wm}^{-1} \text{ K}^{-1}$



Strength

Graphene has a strength of 130 GPa, higher than steel



UV Resistance

Blocks harmful UV rays by up to 70%



Electron Mobility

As high as $200,000 \text{ cm}^2/\text{Vs}$, much higher than silicon



Electrical Resistance

Graphene electrical resistivity of just $0.2 \times 10^{-6} \Omega \cdot \text{cm}$



Flame Resistant

Graphene significantly reduces flammability if added to polymers



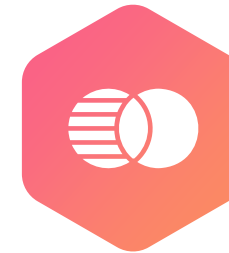
High Surface Area

As much as $2,630 \text{ m}^2/\text{g}$, very high surface area



Flexibility

Graphene can stretch up to 25% of its original length



Transparent

Single layer graphene transmits approximately 97.2% of light



Impermeability

Blocks all other elements, even hydrogen



Thinness

A single layer of graphene is just 0.345 nm



Stiffness

Young's modulus 0.95 to 1.1 TPa, some of the highest ever measured

How Graphene Makes Products Better

Making Things Stronger

Adding graphene to existing materials enhances their strength and durability. From lighter yet stronger car parts to more resilient construction materials, graphene is making a big impact.



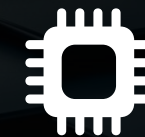
Saving Energy

Graphene's exceptional electrical conductivity makes it ideal for improving energy storage and transmission. This translates to more efficient solar panels, longer-lasting batteries, and reduced energy waste.



Next-Generation Technology

Graphene is a game-changer in the world of electronics. Its use in touchscreens, transistors, and sensors leads to faster devices, improved flexibility, and enhanced performance.



Graphene Product Family

Besides the number of carbon layers, additional characteristics define the material.

- 01** Graphene Oxide (GO)
a compound of carbon, oxygen and hydrogen (typically approx. 65% carbon / 35% oxygen by weight).
- 02** Reduced Graphene Oxide (rGO)
Graphene Oxide in which removes much of the oxygen content resulting in approximately 95% carbon by weight.
- 03** Graphene Powder, Solution or Paste
Graphene material can be prepared in various physical forms including as a dry (usually black) powder, in solution (e.g. water or alcohol) or in a paste form (often as a dull reddish brown color).
- 04** Graphene Nano Platelets (GNPs)
GNPs typically have thickness of between 1 nm to 3 nm and lateral dimensions ranging from approximately 100 nm to 100 um.
- 05** Functionalized Graphene
Chemical functionalization (adding specific elements to the surface of the graphene) is important in many applications.

		
Number of Carbon Layers	Description	Price
1	CVD, Mono-layer or "Pristine" Graphene	~ 100,000
1-3	Very Few Layer Graphene	~ 10,000
2-5	Few Layer Graphene	~ 2,000
2-10	Multi-Layer Graphene	~ 500
>10	Graphene nanoplatelets	~ 100



Functional Coatings & Paints

Projected Sales*
SAR 470 Millions



MENA Market
SAR 47.0 Billions



High-performance Composites

Projected Sales*
SAR 323 Millions



MENA Market
SAR 35.9 Billions



Supercapacitors & Batteries

Projected Sales*
SAR 697 Millions



MENA Market
SAR 233 Billions



Construction and Concrete

Projected Sales*
SAR 177 Millions



MENA Market
SAR 5.9 Trillions



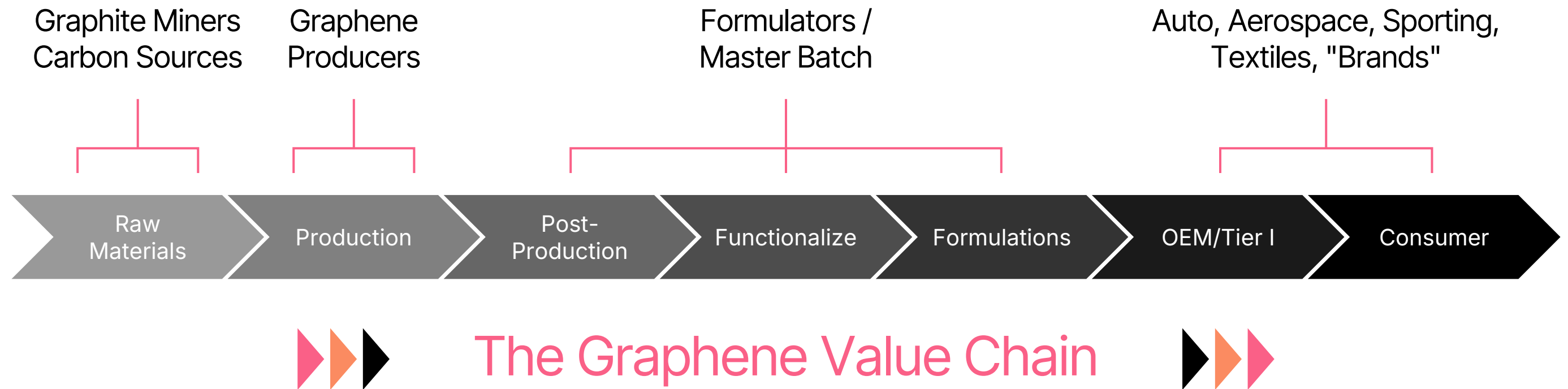
Roads & Asphalt Composites

Projected Sales*
SAR 174 Millions



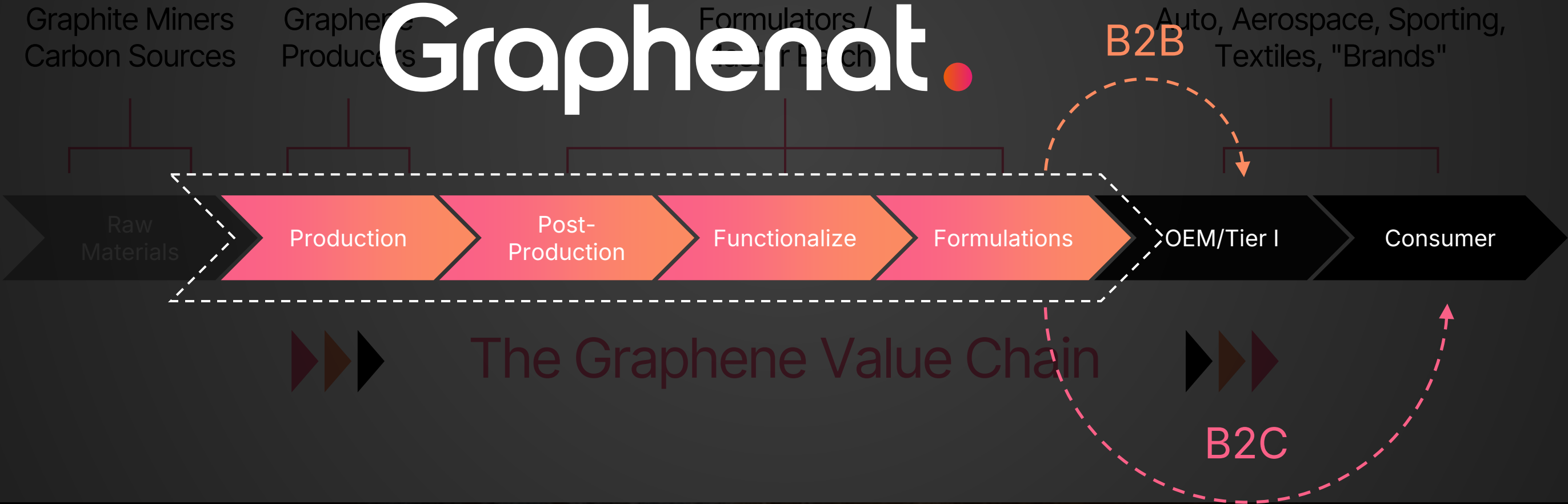
MENA Market
SAR 580 Millions

Graphene Value Chain

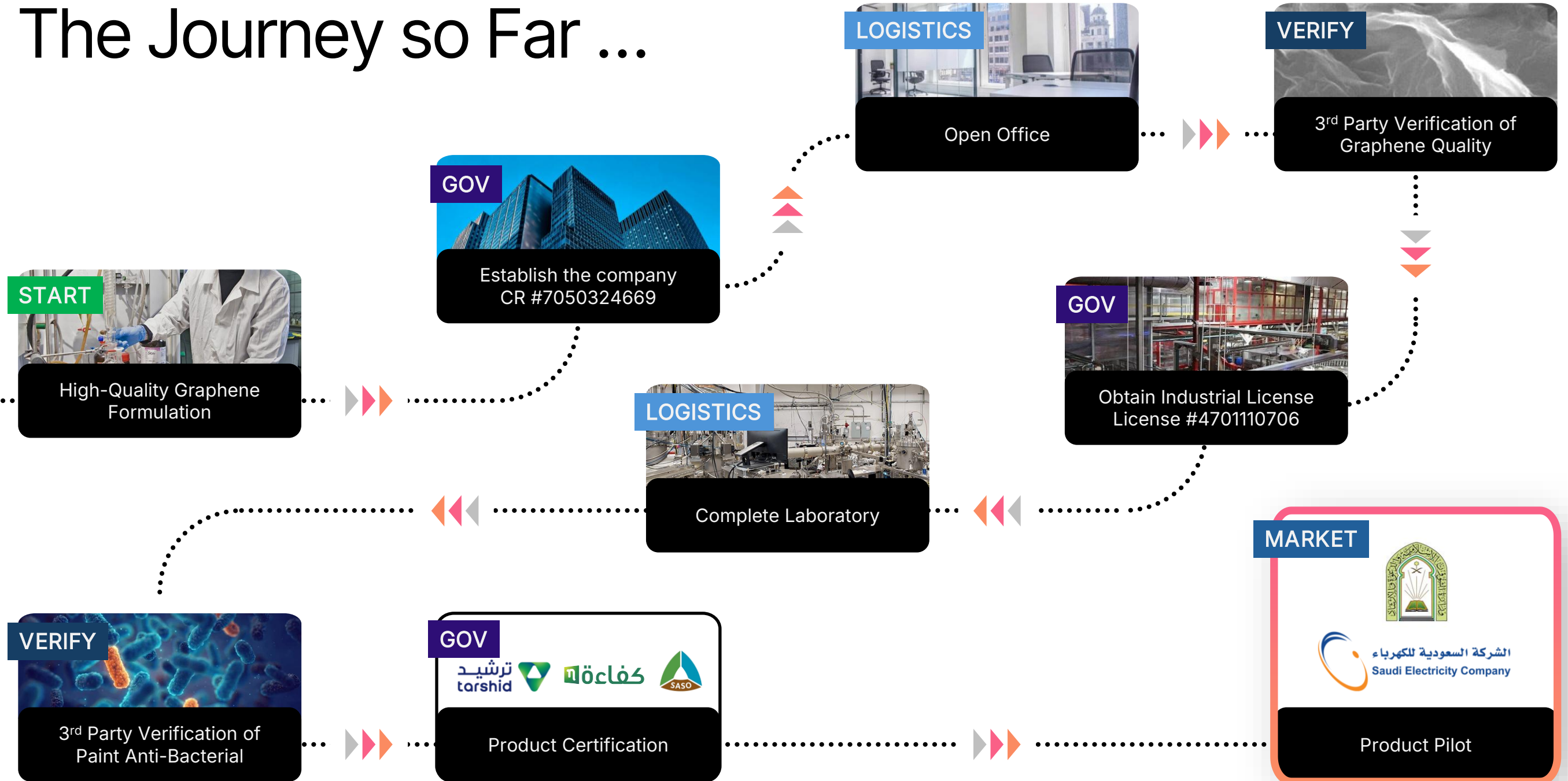


Graphene Value Chain

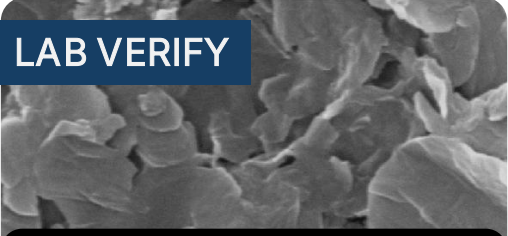
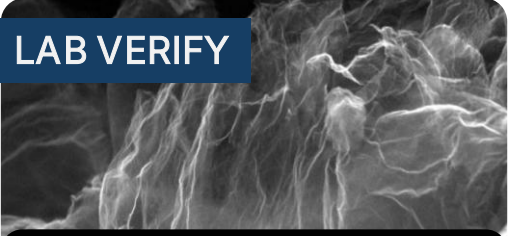
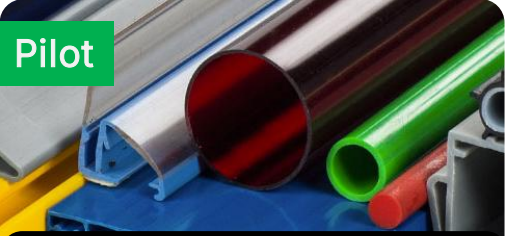
Graphenat.



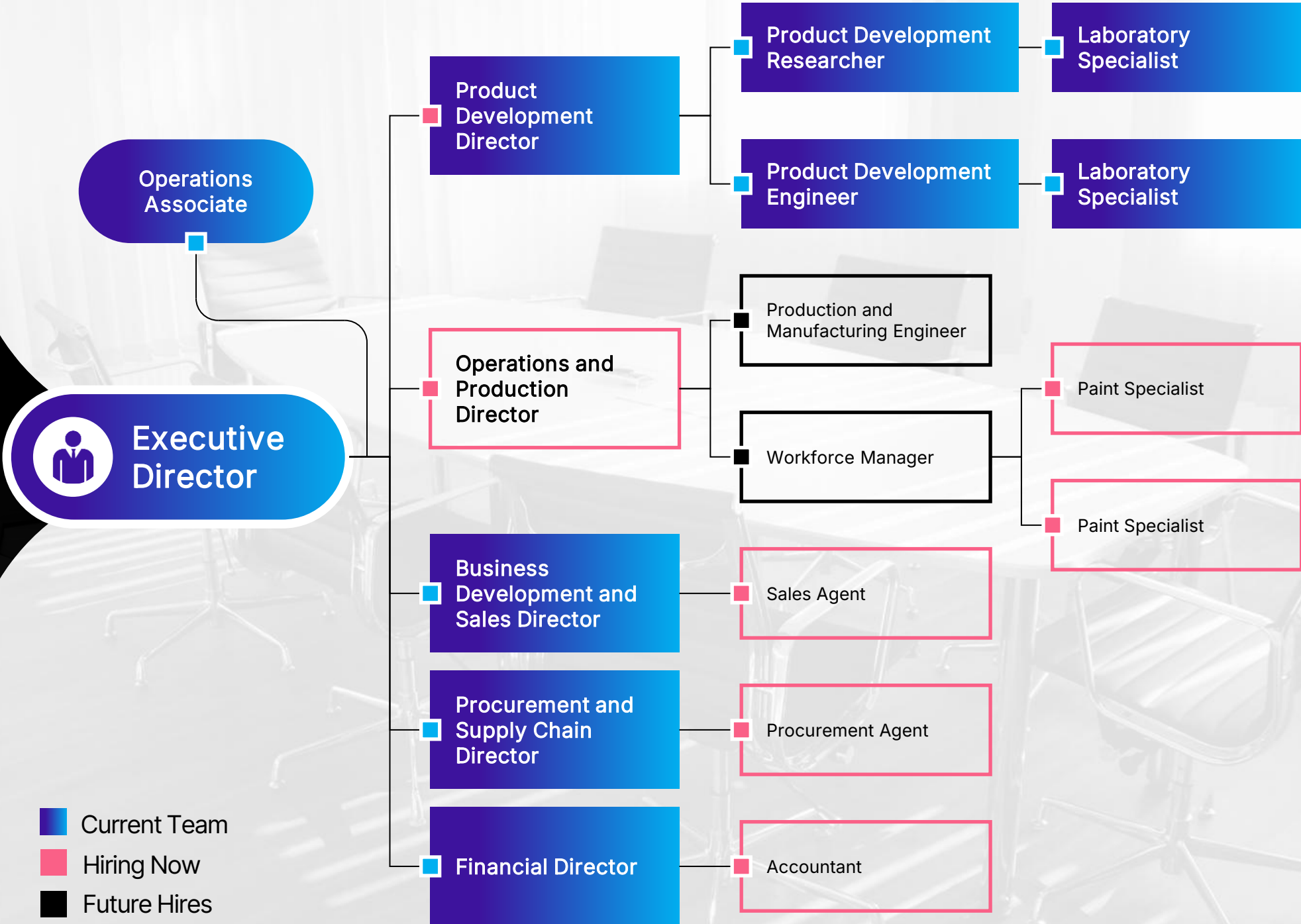
The Journey so Far ...



Research & Development Engagements

 جامعة الأمير سطام بن عبدالعزيز PRINCE SATTAM BIN ABDULAZIZ UNIVERSITY	College of Science Central Lab College of Pharmacy Department of Pharmaceutics	LAB VERIFY  Material Characterization	LAB VERIFY  Anti-bacterial Testing	LEGAL  Collaboration Agreement
 جامعة الملك سعود King Saud University	College of Engineering Chemistry Research Lab Electrical Engineering Lab	LAB VERIFY  Material Characterization	RSEARCH  Biomedical Sensor using Graphene Ink for Military Applications	RSEARCH  Communication Antenna using Graphene for Space Applications
 لوازم CONSTRUCTION SUPPLIES FACTORY LAWAZEM	LAWAZEM Construction Supplies Factory	Pilot  Graphene-enhanced Polyethylene	Development  RTP Pipes for Oil and Gas	

Team Structure & Workforce Plan



Product Development Projects



PRODUCTS



- Thermal Paste (TIM) v.A
- Thermal Paste (TIM) v.B
- Thermal Conductance Coating v.A
- Thermal Conductance Coating v.B
- Thermal Conductance Coating v.C

- Antibacterial Floor Epoxy v.A
- Antibacterial Floor Epoxy v.B
- Antibacterial Wall Paint v.A
- Antibacterial Wall Paint v.B
- Antibacterial Clear Coating v.A
- Anti-Static Floor System v.A

- Nano fertilizer Micronutrient v.A
- Nano fertilizer Micronutrient v.B
- Nano fertilizer Micronutrient v.C
- Nano fertilizer Micronutrient v.D
- Nano fertilizer Micronutrient v.E
- Nano fertilizer Macronutrient v.A
- Nano fertilizer Macronutrient v.B

TARGET



- Buildings HVAC
- Schools HVAC
- Mosques HVAC
- Industrial Equipment Cooling
- Oil & Gas refineries Heat Exchange

- Hospitals
- Schools
- Mosques
- Public Spaces
(Metro, Airport, ... etc)

- Farms' Owners
- Gardens' Owners
- Hotels and Resorts

Product Development Projects



PRODUCTS



- Anti-Corrosion Metal Paint v.A
- Anti-Corrosion Metal Paint v.B
- Anti-Corrosion Metal Paint v.C
- Automotive Batteries Additive v.A
- Waterproof Coating v.A
- Waterproof Coating v.B
- Concrete Additive v.A
- Asphalt Additive v.A

- Conductive Ink v.A
- EM Conductive Coating v.A
- Polymer composites v.A
- Polymer composites v.B
- Polymer composites v.C
- 3D Printing Filament v.A
- 3D Printing Filament v.B

TARGET



- Home Owners
- Car Owners
- Industrial Plants
- Warehouses & Factories
- Industrial Equipment Manufacturers

- Automotive Batteries Manufacturers
- Municipalities
- Construction Contractors

- Defense & Military
- Advanced Engineering Uses
- 3D Printing hoppiest
- Sensors Applications
- Electronics Manufacturers

The financial and investment aspect

Financial projections for the next two years

Return on Investment (ROI): > 73%

Payback Period: 30 months

Annual Growth Rate: > 35%

Gross Profit Margin: > 47%

Risk Level: Reduced due to the diversification of products added to the portfolio.

The amount requested for investment

Amount: 3,750,000 SAR

Operational funding period: 24 months

Allocation of invested amount:

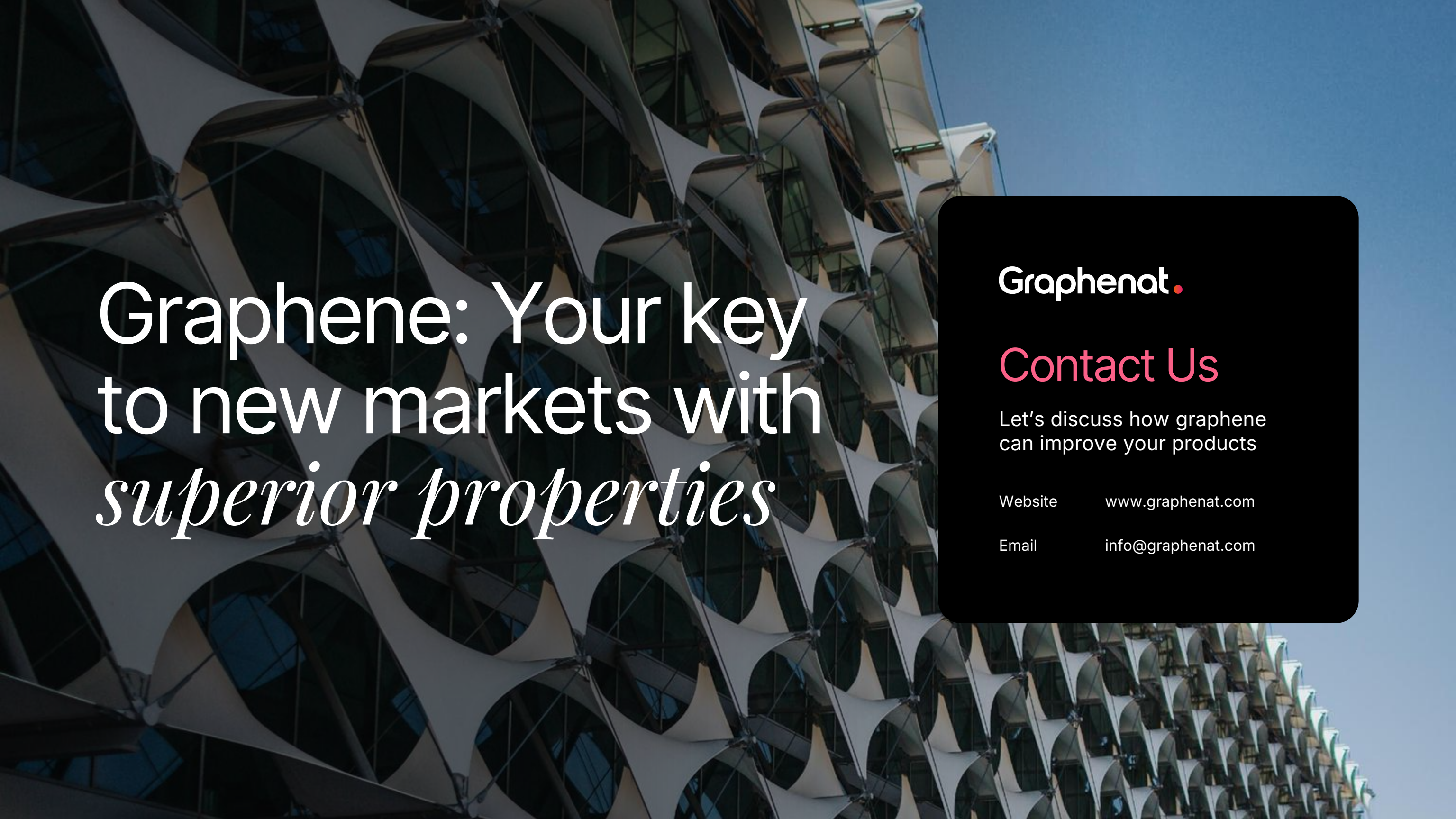
- * Product Development: 30 - 50%
- * Customer Acquisition: 20 - 30%
- * Salaries and Recruitment: 20 - 30%
- * Infrastructure and Supply Chain: 10 -20%
- * Liquidity: 5 -15%



Work With Us

We are eager to collaborate with forward-thinking organizations across various industries. Whether you're a manufacturing company, research institution, or technology developer, we can help you harness the power of graphene.

Let's explore how graphene can enhance your products, solve technical challenges, and drive innovation in your industry. Contact us to discuss partnership opportunities and explore the possibilities of graphene.



Graphene: Your key to new markets with *superior properties*

Graphenat.

Contact Us

Let's discuss how graphene
can improve your products

Website www.graphenat.com

Email info@graphenat.com