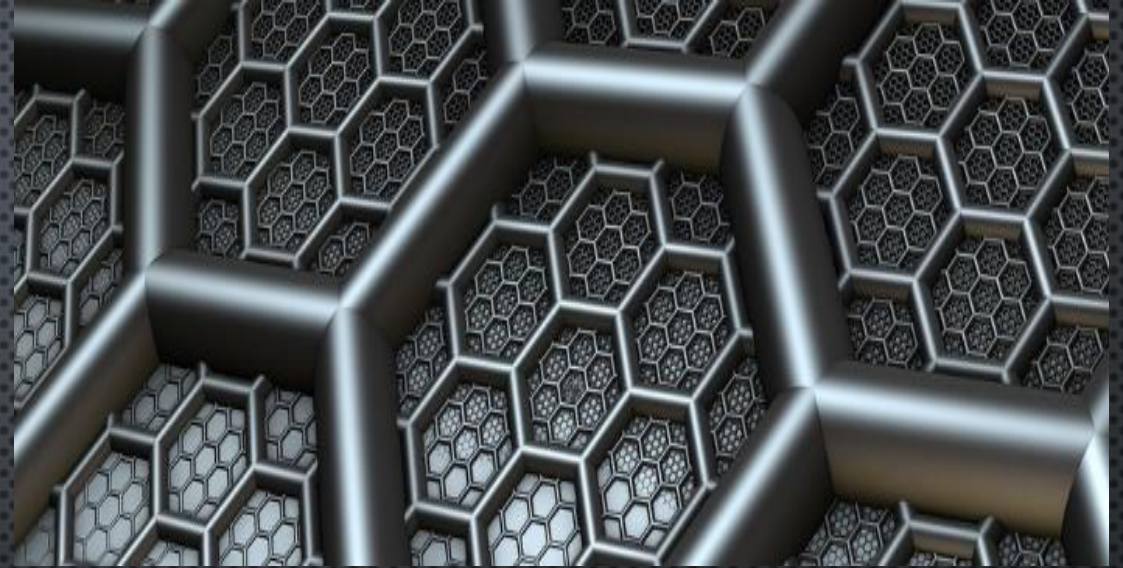


GRAFREN AB



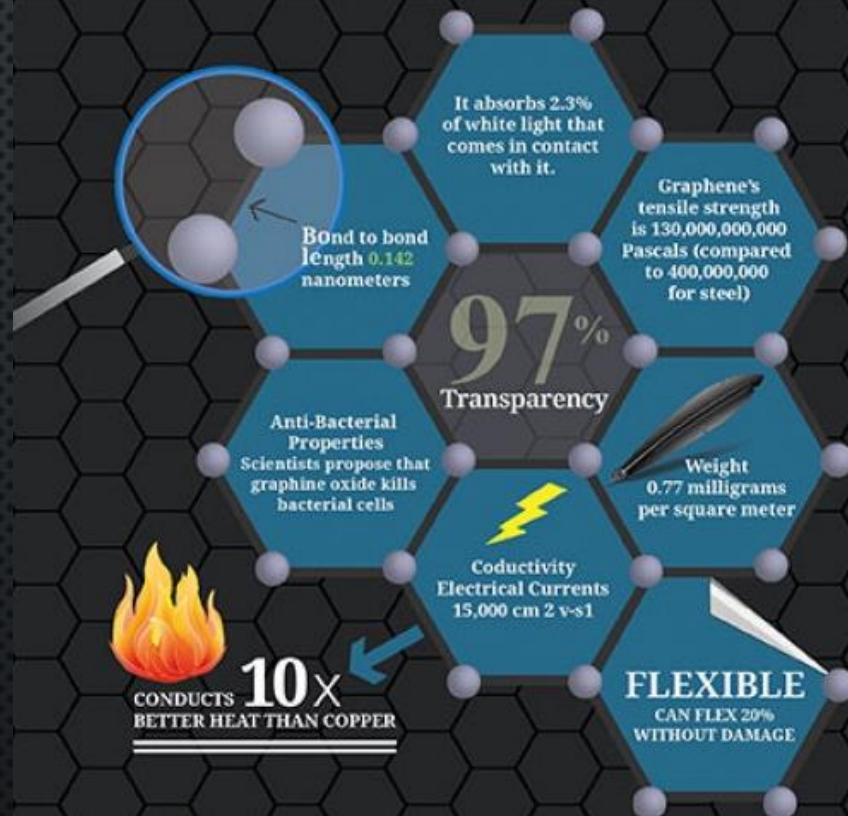
WE HELP CUSTOMERS TO IMPLEMENT GRAPHENE  
MATERIALS IN THEIR PRODUCTS

# WHAT'S THE PROBLEM?

## GRAPHENE

The Strongest  
Known Material To Man

The next time you write with a pencil, consider that you have one of the world's most powerful substances at your fingertips. Graphene is a single atomic layer of graphite, the same stuff used in pencil lead. Often described as having the shape of chicken wire, the atomic material is on track to change the technology industry. The material is a one-atom-thick sheet of carbon and almost completely transparent. Graphene is also considered the world's thinnest material while being conductive, transparent and flexible.



### GLOBAL GRAPHITE PRODUCTION

**\$12 US Billion**  
Market Graphite Demand

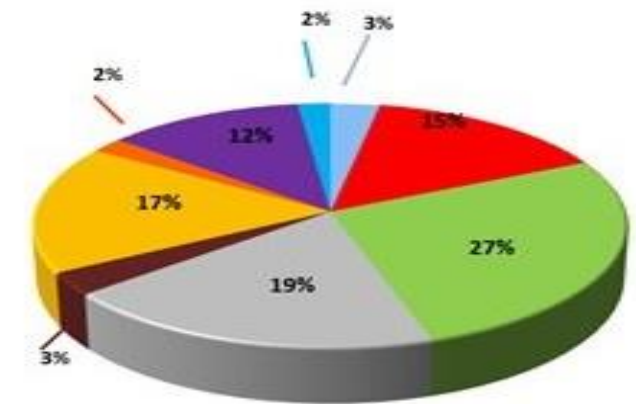
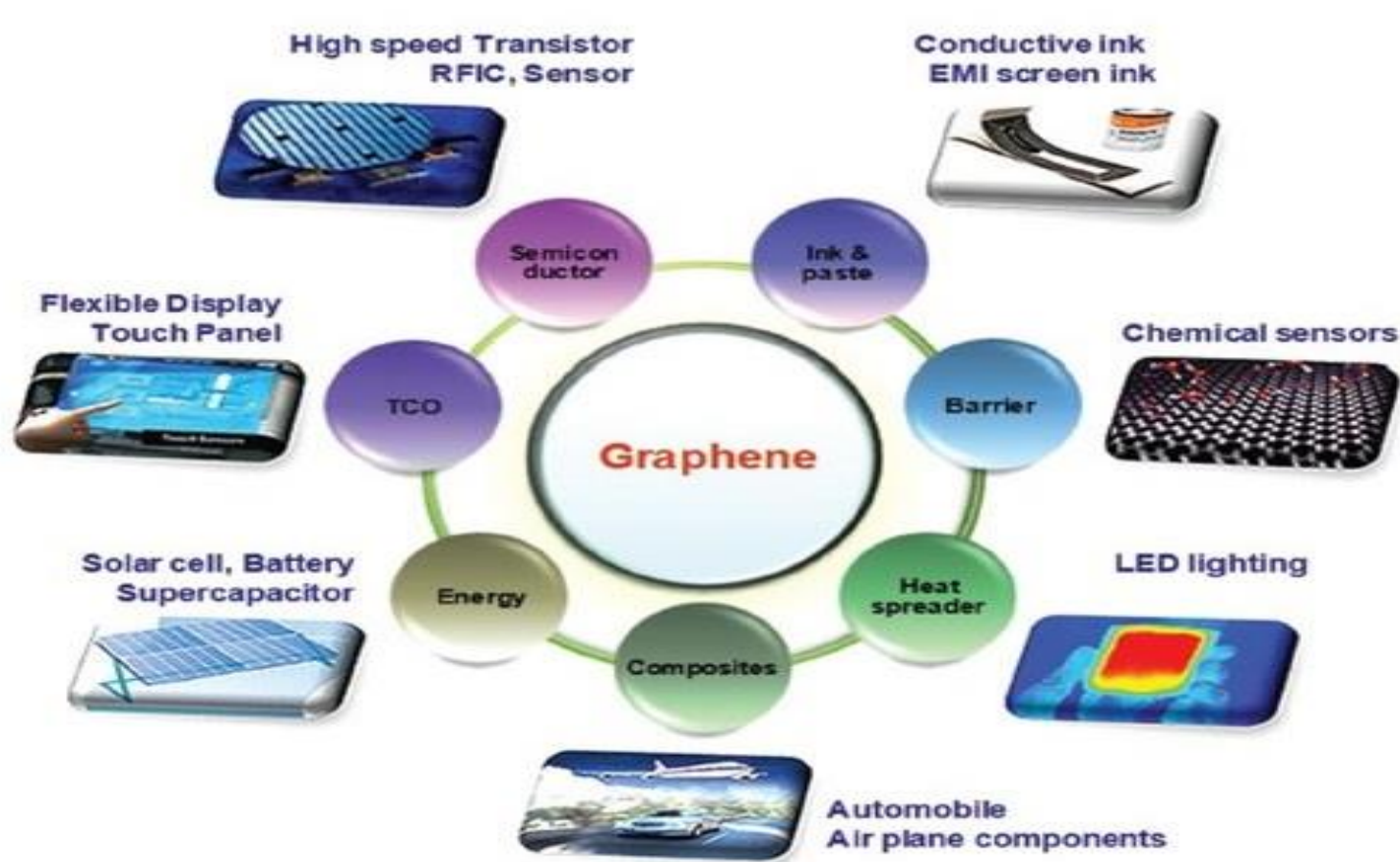


SUPPLY FOR GRAPHITE IS GROUPED INTO TWO FORM CATEGORIES

**40% FLAKE FORM**  
**60% AMORPHOUS**

- GRAPHENE CAN BE USED IN PLENTY APPLICATIONS. BUT ITS PROPERTIES DEPENDS STRONGLY ON ITS TYPE, SURFACE CHEMISTRY, SIZE ETC.
- MANY INDUSTRIES WOULD LIKE TO START USING GRAPHENE, BUT THEY ARE SIMPLY NOT AWARE WHICH TYPE OF MATERIAL THEY HAVE TO CHOOSE TO REACH THEIR GOAL.

# POTENTIAL GRAPHENE APPLICATIONS AND MARKET SHARES



- Healthcare
- Aerospace & defence
- Electronics, optoelectronics and semi-conductors
- Energy Storage
- Automotive
- Plastics, composites
- sensors
- coating, packaging and paints
- telecommunications

# OUR SOLUTION

Regions of operation: Nordic and EU countries (2018-2021)



Identifying of graphene potential for customers product



Determination of the required graphene properties (dimensions, structure, doping and surface modification)



Synthesis of graphene with the properties tailored for customer needs

# Business Model

## **Consultancy Service**

We provide consultancy to the companies, helping them identify the properties of graphene materials they need for their applications.

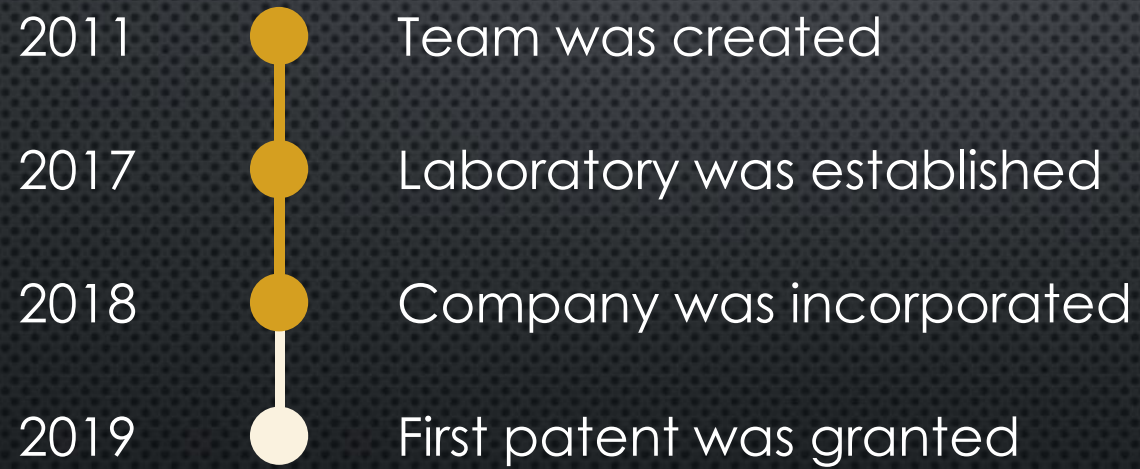
## **Customized graphene materials sales**

We sell to customers optimized graphene materials for their needs, in any quantity.

## **Consultancy + Customized Materials sales**

We study the customers needs and sell them the graphene material with necessary properties.

# ROADMAP & TRACTION



# THE TEAM



Vlad Erik Khranovskyy, CEO,  
PhD in Solid State Physics,  
68+ articles, 6 MKr in projects.



Rositsa Yakimova  
Professor Emerita,  
PhD in Material Science,  
250+ articles, 10+ patents,  
50+ MKr in projects.



Ivan Shtepliuk,  
CTO,  
PhD in Semiconductor Physics,  
38+ articles, 3 MKr in projects.

...Plus 2 employees (Sept. 2018)

# FUNDING STAGE OF THE COMPANY: PRE-SEED

1) 10 κΕυ – 2016

2) 20 κΕυ – 2017

3) 60 κΕυ - 2018

REVENUE – 0 (SEPT. 2018),  
COMPANY ESTABLISHED – SEPT. 2018.

