



Mission



To increase the potential of energy storage through new systems and materials



Batteries



Supercaps



Supercaps

Power



Batteries

Energy



Hybrid
system

Light
Efficient
Lasting

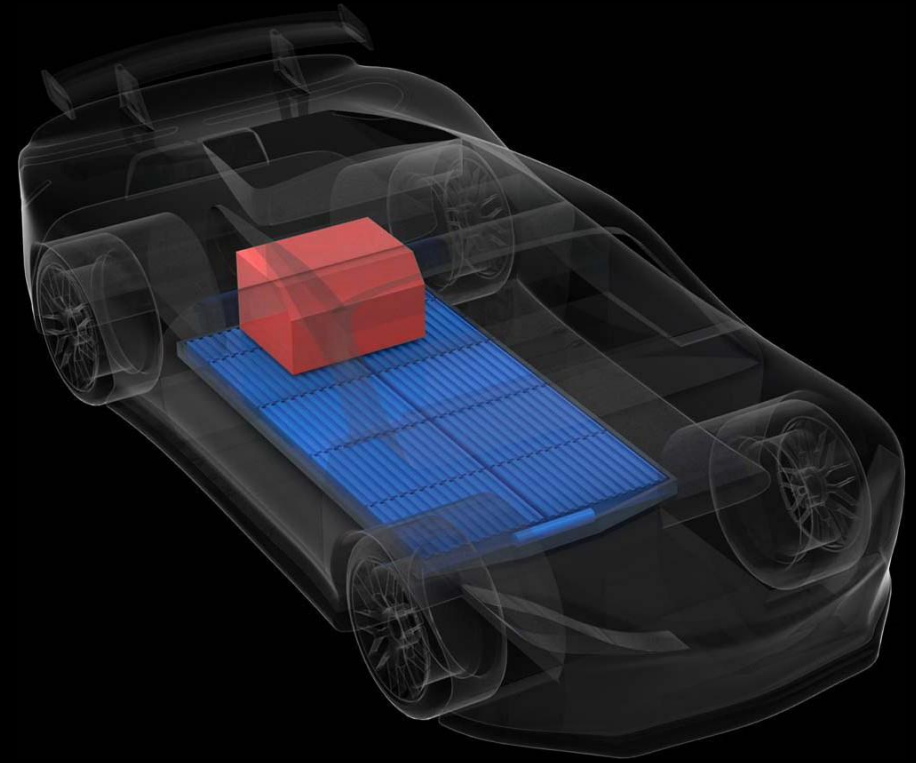
Supercaps problems



Bulky



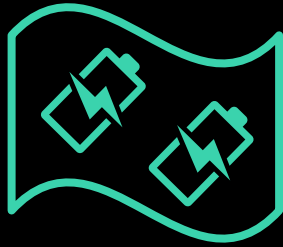
Dangerous (liquid electrolyte)



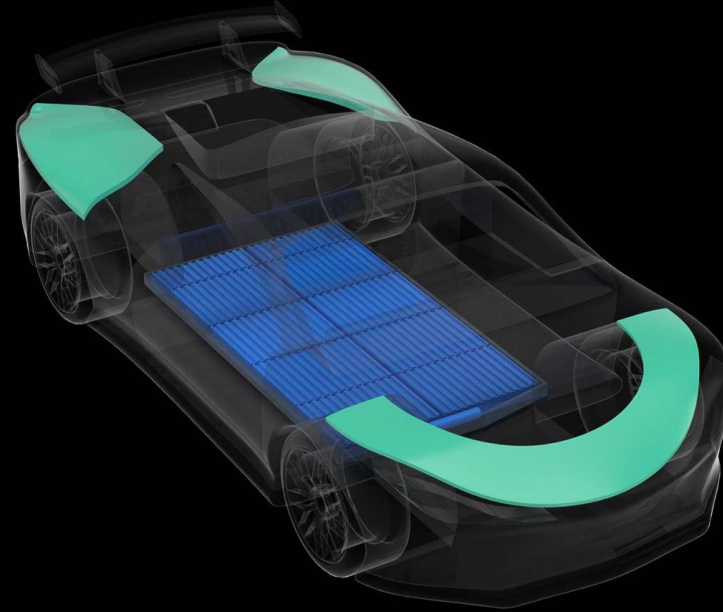
Solution: Solid state shapable supercap



Shapable



Safe (solid electrolyte)



How?

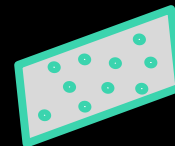
Novac innovative materials



+



+



+



UCC
by novac

Cathode

Anode

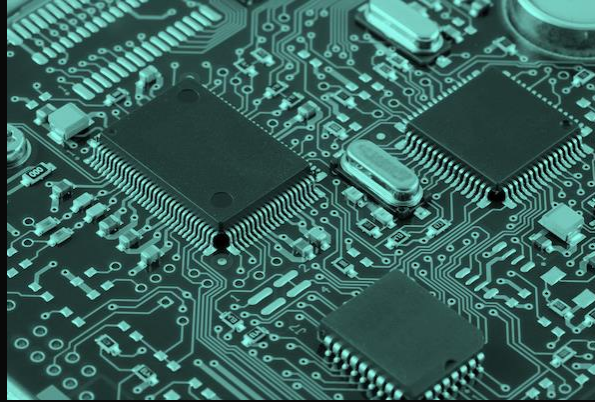
Solid-state
electrolyte

Current collector

Applications



Smart mobility



Electronics



Drones



Automotive



Aerospace

Space connection

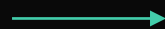


Space concern



- \uparrow Wh/kg and W/kg to reduce weight and downsize batteries
- Sustain large T and radiation variations
- Long life-cycle

Batteries problems



- Batteries oversized to reach power demand (max 200 W/kg)
- Batteries should not be discharged at high currents \rightarrow deterioration and life decrease
- Slow to charge
- Safety issues

Cube Sats

Increase space for add. contents

Actuators

Communications

Small Sats

Increase payload, avoid freq. battery replacement

Supercaps

- up to 10 kW/kg
- Long life
- Low temperature

Stage separation

Solar arrays moving

New applications
200kg sat with 1000kg sat power

Antennae adjusting



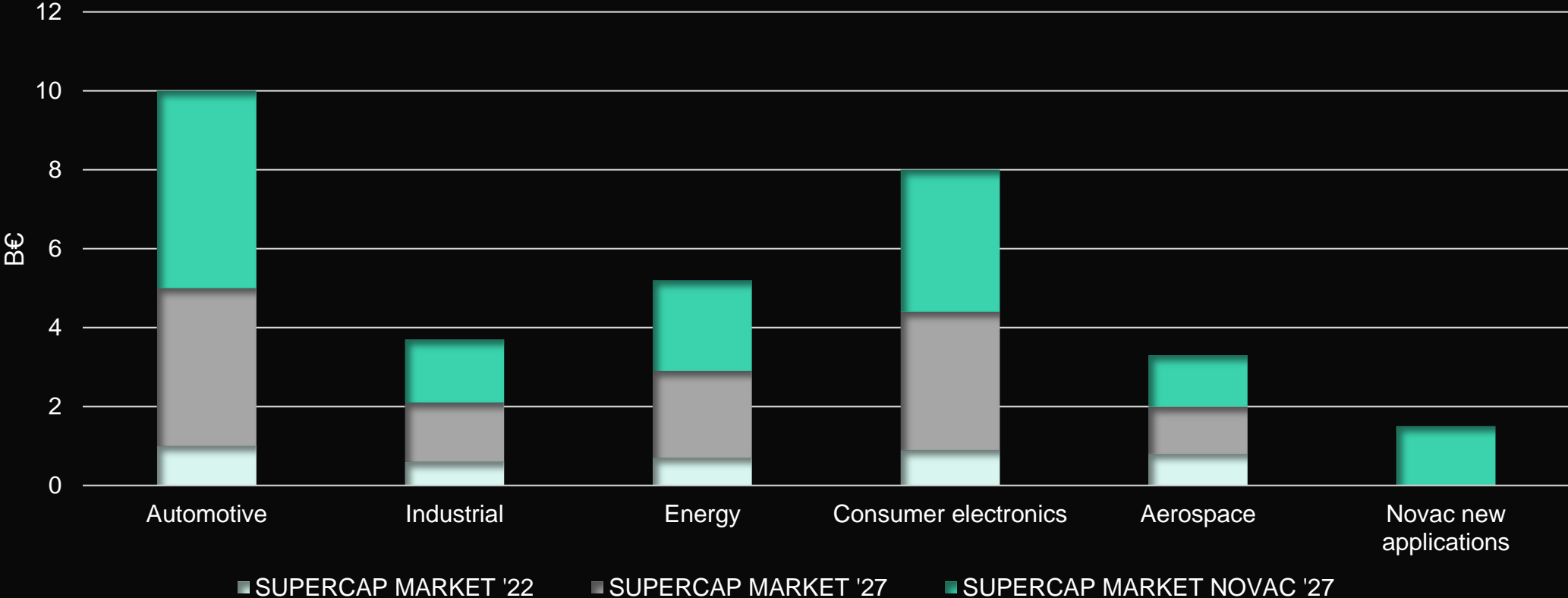
Market



Supercaps market in 2022: **6B\$**

CAGR 23%

Supercaps market in 2027: **16B\$**



Competitors



- No solid-state supercap on the market



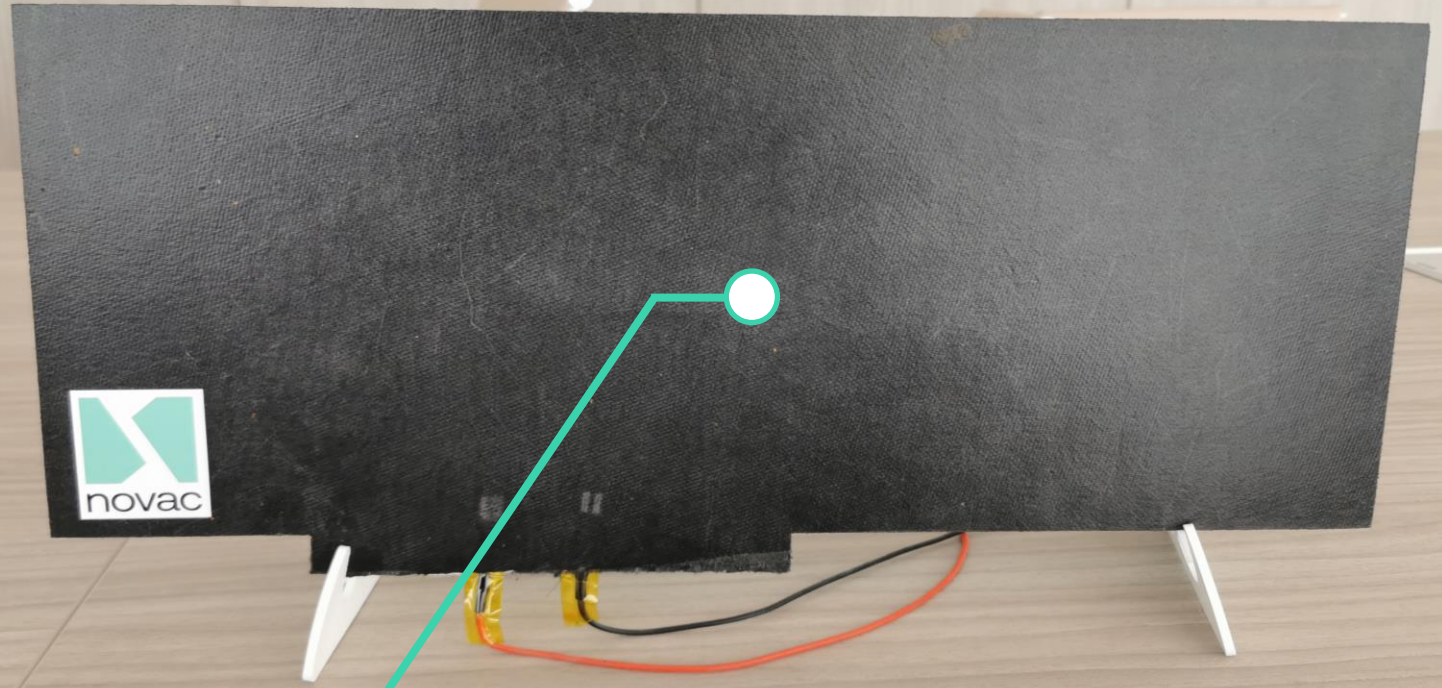
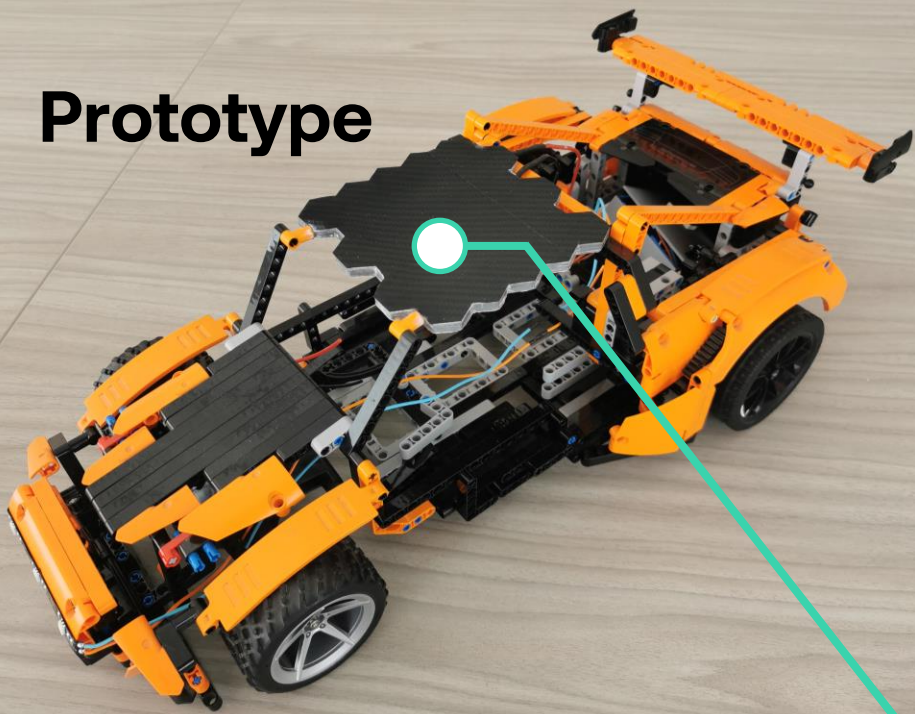
- Literature studies from research centers in collaboration with companies



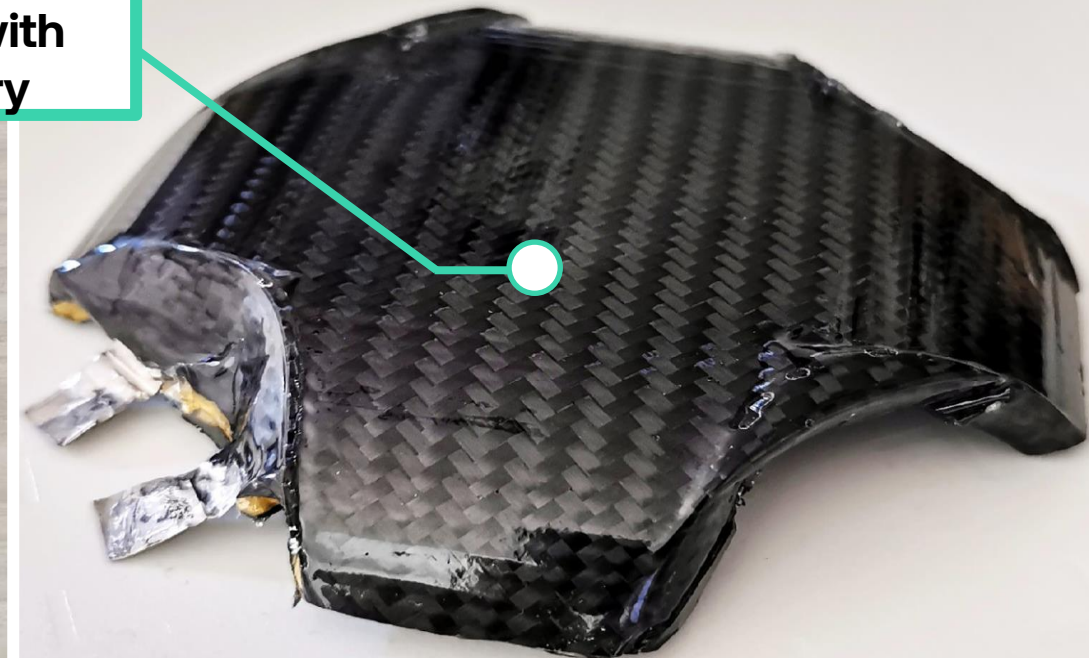
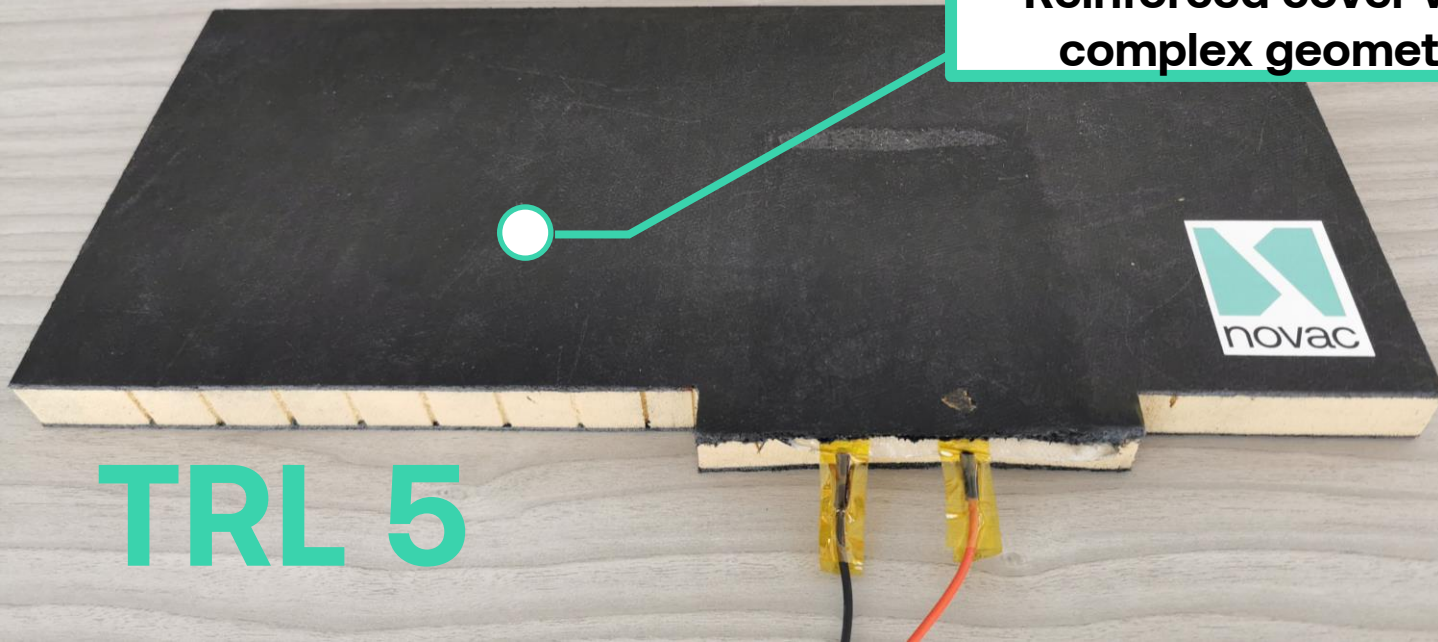
Competitors limits:

- - High cost/performance ratio
 - Low scalability

Prototype



Reinforced cover with complex geometry





5 filed patents on materials and production processes:

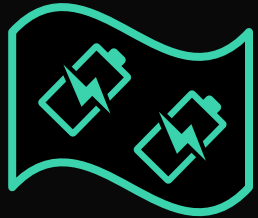
- 4 granted and extended with PCT
- 1 pending

Next (2023):

- 2+ patents on materials
- 1+ patents on electronics

Revenue streams

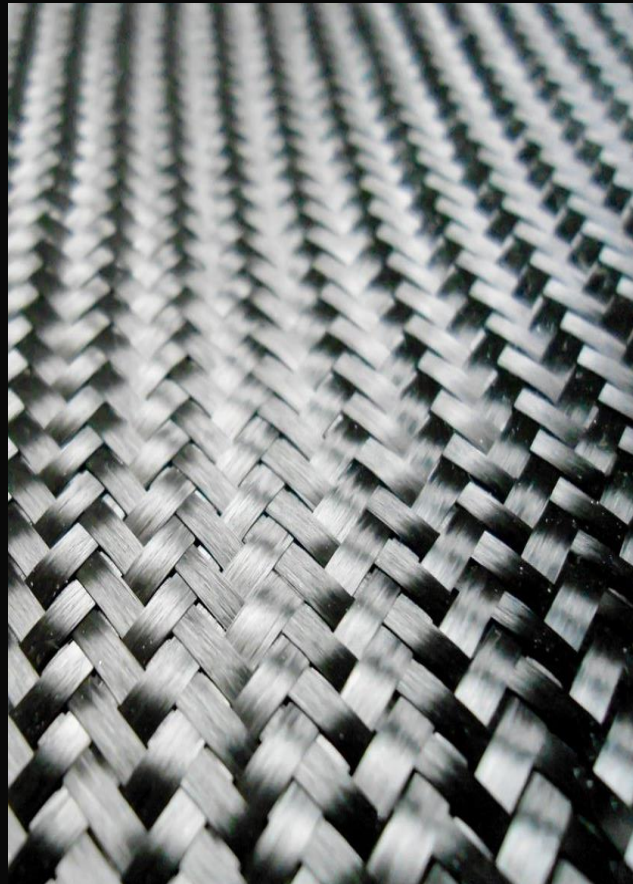
SHAPABLE SUPERCAP



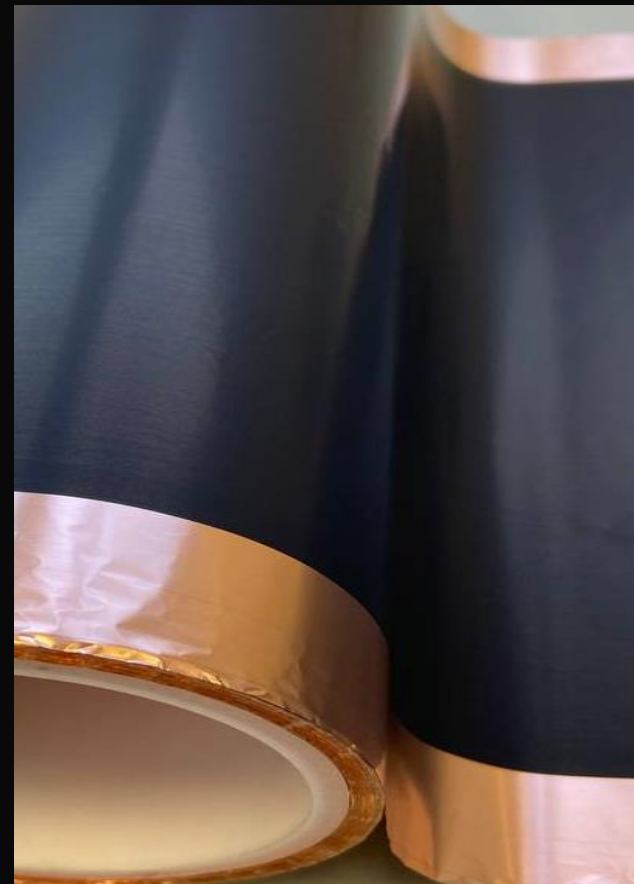
TRACTION

3 ongoing POCs:

- Electronics (Tier 1)
- Motorsport (Tier 1)
- Drones (OEM)



INNOVATIVE MATERIALS



TRACTION

2 ongoing POCs:

- LFP batteries (OEM)
- NMC batteries (OEM)

Business Model: *Production and sale of supercaps and materials*



The team



Matteo Bertocchi
CEO, Vehicle Engineer



Loris Bruzzi
COO, Electronics Engineer



Bruno Grandinetti
R&D, Material Scientist



Aldo Girimonte
CTO, Materials Engineer



Alessandro Fabbri
CIO, Vehicle Engineer



Stefano Chiavegato
R&D, Industrial Chemist

Where do we come from

TACC

Project birth

Sept 2018

TACC is a Unimore university course in which the 4 founders, still students, met for the first time

ReAct@r

Acceleration program

Mar 2020

Novac participates in the program organized by the Golinelli Foundation



Innovative startup setting up

Oct 2020



**MOTOR VALLEY
ACCELERATOR**
L'ACCELERATORE MOBILITY
DELLA RETE NAZIONALE CDP

Acceleration program

Jul 2021

Novac participates in the first batch of the new accelerator, launched by CdP and Plug and Play



cdp

Pre-seed round

Apr 2022

Novac receives a pre-seed round of over 400k€, to finalize the research and development phase



eesa
BUSINESS
INCUBATION
CENTRE

Incubation

April 2023

Novac enters the ESA-BIC incubation program, in order to develop the aerospace business.

Mentor



Salvatore Majorana
Director
Kilometro Rosso



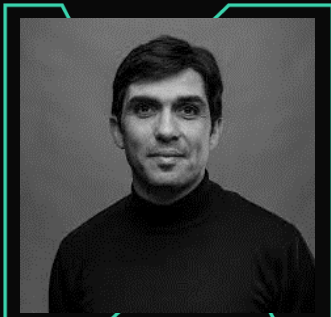
Massimo Gentili
Senior Advisor
Eureka! Fund



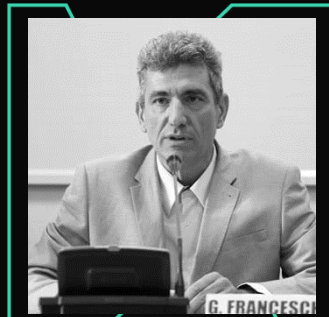
Enrico Dente
Director
Motor Valley Accelerator



Anna Amati
Board member
Eureka! Fund



Luca Poggiaroni
Senior Advisor
Azimut



Giovanni Franceschini
Ordinary professor
UniMoRe



Luigi Rovati
Ordinary professor
UniMoRe



Bernardo Balboni
Associate professor
UniMoRe

Where do we go



Novac laboratory inauguration

Q2 2023

Novac is equipping its own laboratory which will act as a hub for innovation in the field of energy storage materials, in Modena, the heart of the Motor Valley



1st PoC

Q3 2023

Novac is discussing possible partnerships for the application of its supercap in a first field application



Seed round

Q2 2024

Once the prototype milestone has been reached, a round will be collected aimed at setting up a plant for production



Production plant start-up

Q4 2024

Novac intends to set up a factory for the production of its material and enter the market

Seed round ~ 4M\$



Q2 2024

- Expansion of the team, both technical and commercial
- Set-up of the first production line
- Development of domestic and foreign marketing strategy
- Product certification

How to engage



- PoC collaborations
- Partners for setting-up the production line
- Seed round investors



Novac.srl



Novac S.r.l.



Novac Srl



novacsupercap.com