



Co-funded by the
Erasmus+ Programme
of the European Union

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HEIn4.0



ELVEN
Technologies

Next Generation Flameproof Material for Stopping Battery Fires

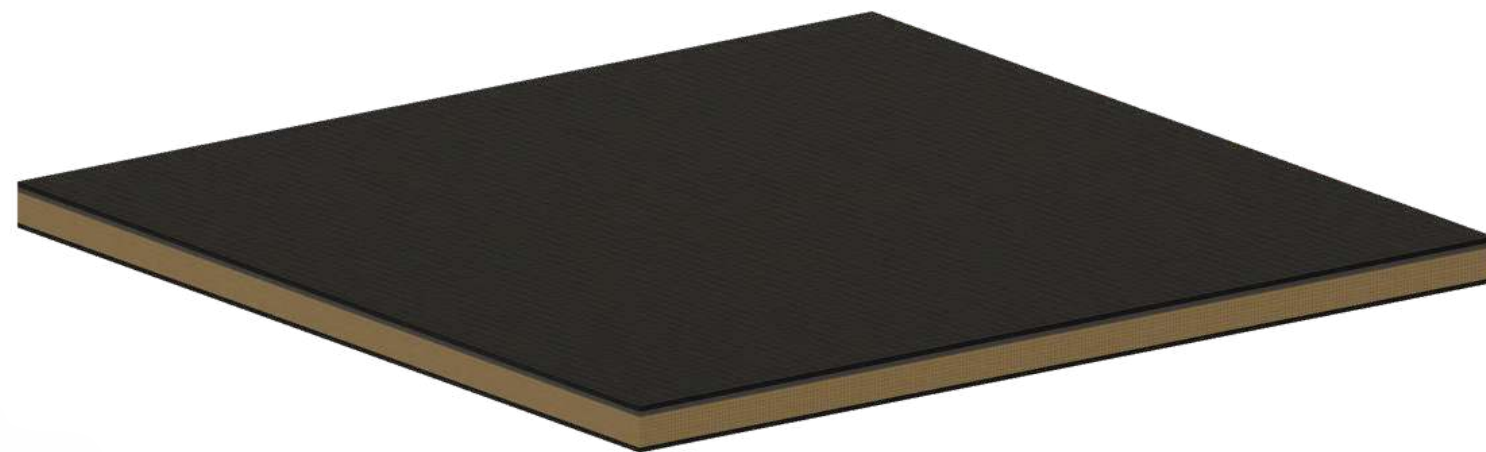
PRODUCT



Flameproof material (U.S. provisional patent):

- Sandwich of 4 materials
- Withstands up to 2000°C (3600°F)
- Super-lightweight and flexible
- Easy to manufacture into 3D shapes

Elven's material technology was birthed from our space technology for protection of astronauts from extreme temperature conditions.



EXTREME FIRE PROTECTION IN



Automotive & Home Solar Battery Fires



Space & Aeronautics



Firefighter Suits



Documents & Valuable Boxes

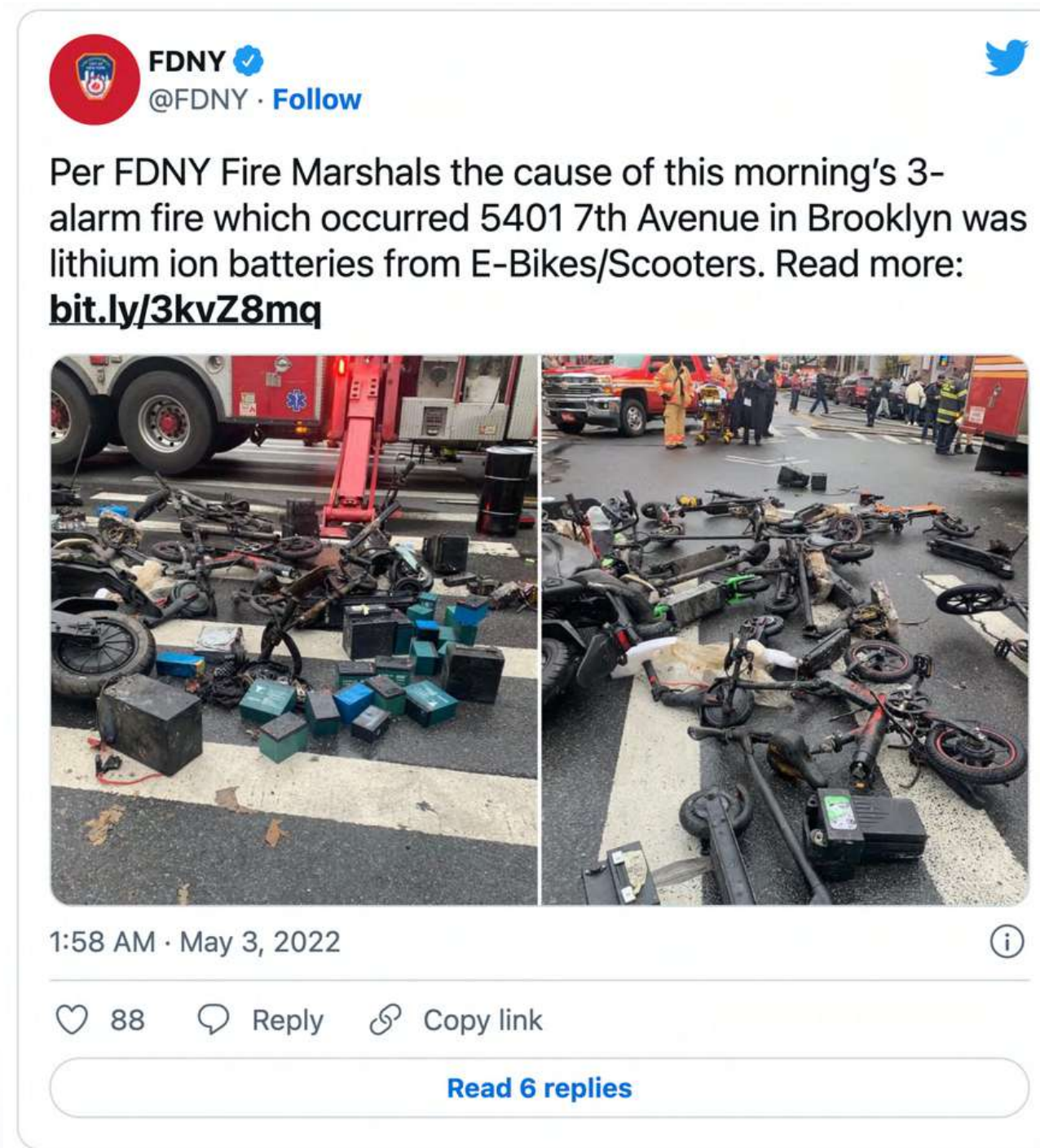


OUR 1st TARGET

Electric Transportation Fires



- **25/100,000** EV's catch fire spontaneously
- **Devastating Fire** - danger to passengers and property
- In 2021 total of **4.2 million** EV's sold globally
- Market has **~50%** annual growth
- By 2030 all cars in CA will be EV's
- **5-15%** of people don't buy EV's due to this problem
- No solution currently on the market
- Our solution can be used in all electric transportation as well as home/industrial solar battery products



GLOBAL MARKET POTENTIAL



Calculated Using:

$$\begin{aligned}
 &\text{Units sold per year} \times \text{Annual growth} \times \text{Battery Size/Sq.f} \times \$10 \times \$1 \\
 &\text{EV's, Scooters, etc.} \qquad \qquad \qquad \text{COGS/Sq. Feet} \qquad \qquad \text{Gross Margin}
 \end{aligned}$$

\$15.3B
Next 5 Years

\$9.3B E-vehicles **\$152M** E-busses
\$5.5B E-scooters **\$71M** Home solar

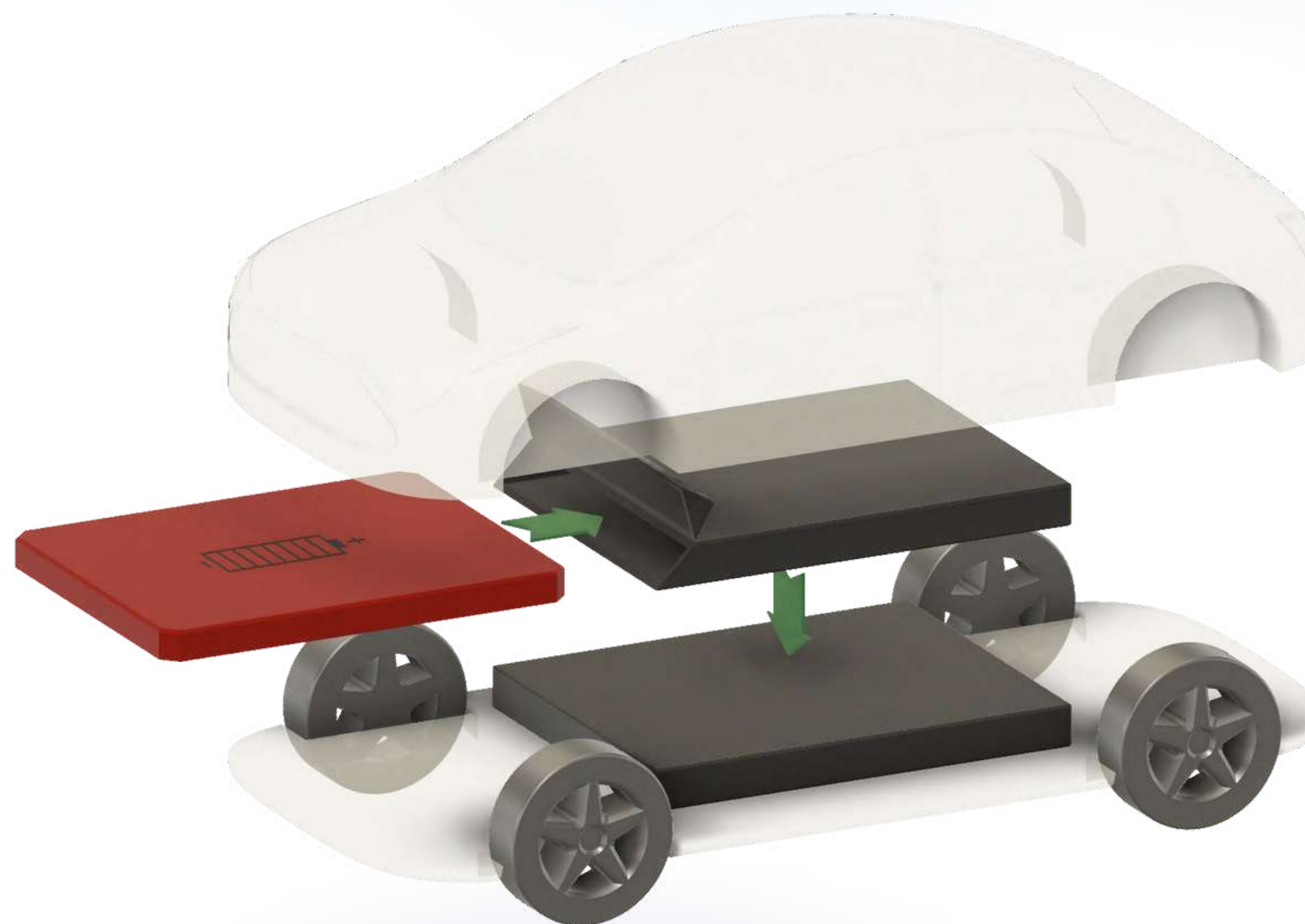
\$97.8B
Next 10 Years

\$81.9B E-vehicles **\$472M** E-busses
\$15.2B E-scooters **\$216M** Home Solar

SOLUTION

EV Battery Safety Enclosure

- Contains fire and temperature
- Protects passengers and property
- Withstands up to 2000°C (3600°F)



COMPETITION



Operating Temperature

2000°F
(1100°C)

1800°F
(1000°C)

2200°F
(1200°C)

2200°F
(1200°C)

Peak Temperature

2600°F
(1426°C)

N/A

2900°F
(1600°C)

3600°F
(2000°C)

Long term direct flame resistance



Product

Fabric/Material

Battery cover & Container box

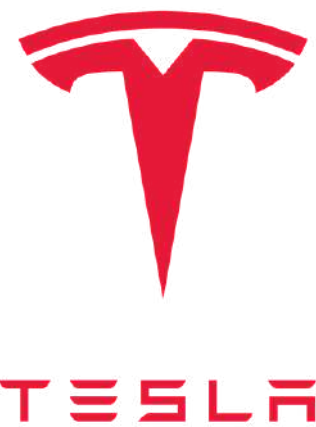
Vehicle fire cover for firefighters

EV installed battery enclosure

BUSINESS MODEL



- Currently exploring the pricing model with the following automakers
- Exploring B2B model with battery manufacturers as well



WHO WE ARE

Founders



Vamekh Kherkheulidze
CEO

- M.D. 7-year experience in medical practice and education
- 5-year experience in engineering and entrepreneurship



Alexander Chubinidze
Scientist

- M.D., Inventor
- Expert on human physiology and genetics



George Gabarashvili
CTO

- 15+ years of experience in electrical, computer and mechanical engineering



Bela Butskhrikidze
Manufacturing, Sewing

- 15+ years of experience in apparel design and construction

Advisors



Farid Ismayilzada

- 3 successful exits
- 15+ years of xp on executive positions



Ken Tallo Advisor

- Partner at Winning Streak Ventures.
- Previously Senior Director at Intel.



Dr. Thomas Azwell

- Head of Disaster X-labs at UC Berkeley
- Founder of FIRE Foundry

FUNDED & ACCELERATED BY



\$300k

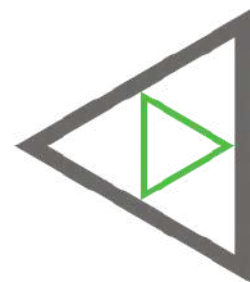
Raised in equity

\$200k

Won in grants



GEORGIA'S INNOVATION &
TECHNOLOGY AGENCY



TECHNOVATE



CBRN

Centres
of Excellence

An initiative of the European Union



VENTUREWELL™

idea to impact



Berkeley
UNIVERSITY OF CALIFORNIA

INVESTMENTS & MILESTONES



\$0.5M

Fundraising Goal

\$10M

Valuation

12

Month Runway

Milestones

Lab Tests with
UC Berkley & NC
University

Realistic Burn
Test DATA for
manufacturers

LOI with
potential
customer

TEST LINKS



Press  to play



