



Pitch Army Innovation Day

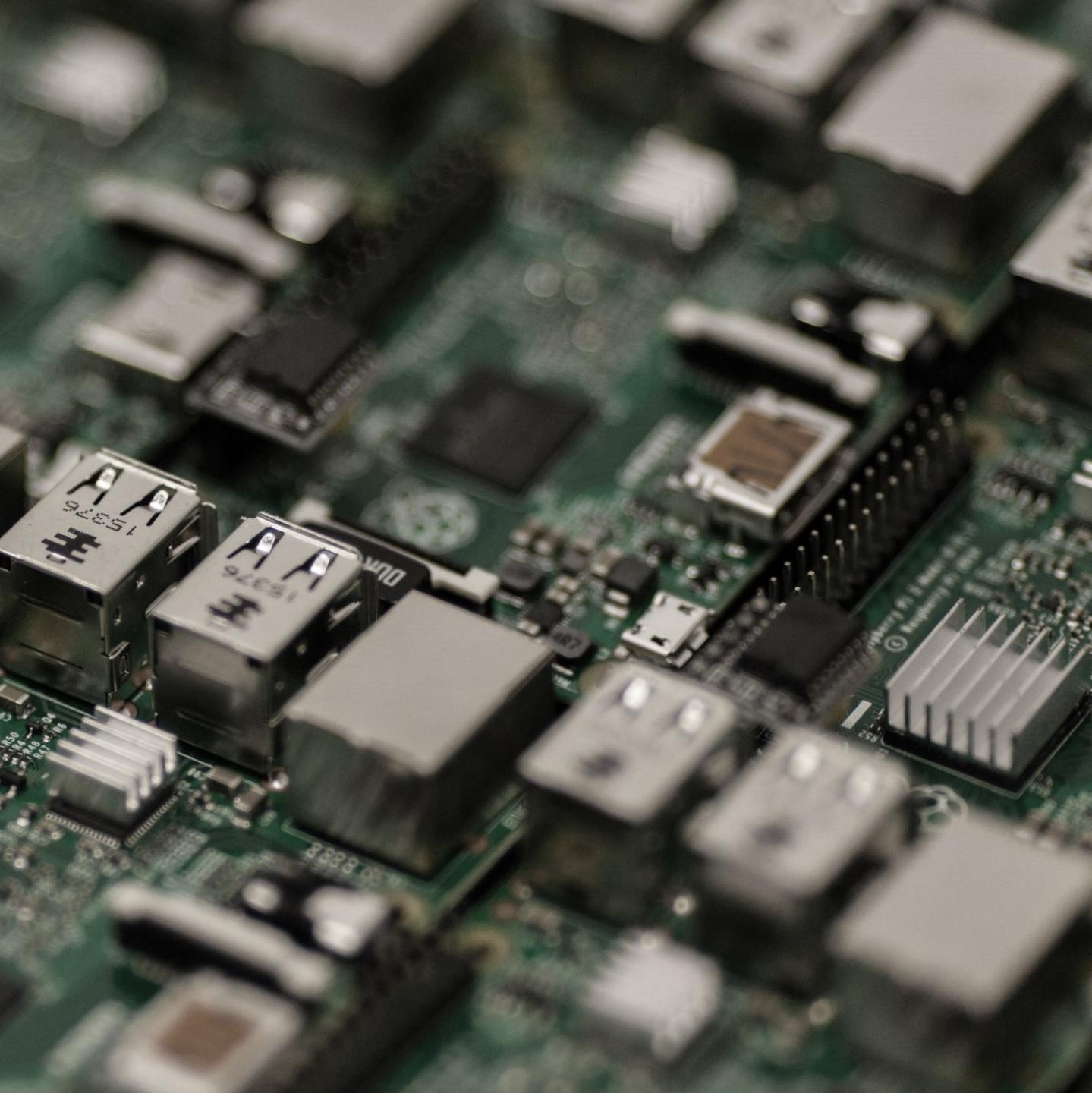
Delivering smart plastics and inks for EMI shielding

17/06/2025

Bruno Figueiredo

PROBLEM

**Electronics have to be
shielded against
Electromagnetic
Interference (EMI)**



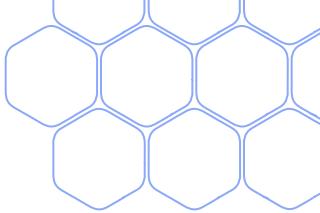
PROBLEM

Metals

- Heavy
- Poor effectiveness
- Energy & Resource Intensive



SOLUTION: Graphene-based Plastics And Inks



Proprietary, scalable, and cost-effective process for producing high-quality graphene nanoplatelets (GNPs), serving as the **foundational material**.

G-Shield Plastics

EMI shielding, electrostatic discharge (ESD) and thermal conductivity

HexaShield Inks

EMI shielding, flexible & printed electronics, and energy storage systems



Seamless integration into e-mobility and next-gen electronics, allowing OPEX savings:



Electronic housing & enclosures



e-mobility components



Energy storage systems



Flexible Printed Electronics



Effective EMI shielding: 50 dB at high-frequencies (>60 GHz) outperforming traditional materials



Price competitive: replacement of metal and non-functional components by up to 30%.



Reduce component weight by up to 75%. *potential saving 200 kg per vehicle, improving EV range by up to 10%.*

SOLUTION

G-Shield

Smart Conductive Plastics



PRODUCT PORTFOLIO: G-Shield Plastics

G-Shield Plastics

G-Shield product line is a graphene-enhanced thermoplastic compound developed for EMI shielding and thermal management.

Market opportunity: 375 tpa by 2030

Target pricing ([ref.](#)): 30 €/kg



Developing industry requested plastics

5-years Joint Venture Agreements (JVA) with

Hubron.

PP – polypropylene for electronic enclosures

 **DELTATECNIC**

PVC – Polyvinyl chloride for cables

Exclusive graphene supply + 5% royalty fees + Co-branding

Partners & Customers

Cables



Prysmian
Group

LEONI

 **NEW ENGLAND WIRE
TECHNOLOGIES**



• **APTIV** •

Electronics enclosures

italtronic
enclosures for electronic

 **TEKO**
ENCLOSURES

 **Valeo**

 **KURO**
KUNSTSTOFFE

Connectors

molex

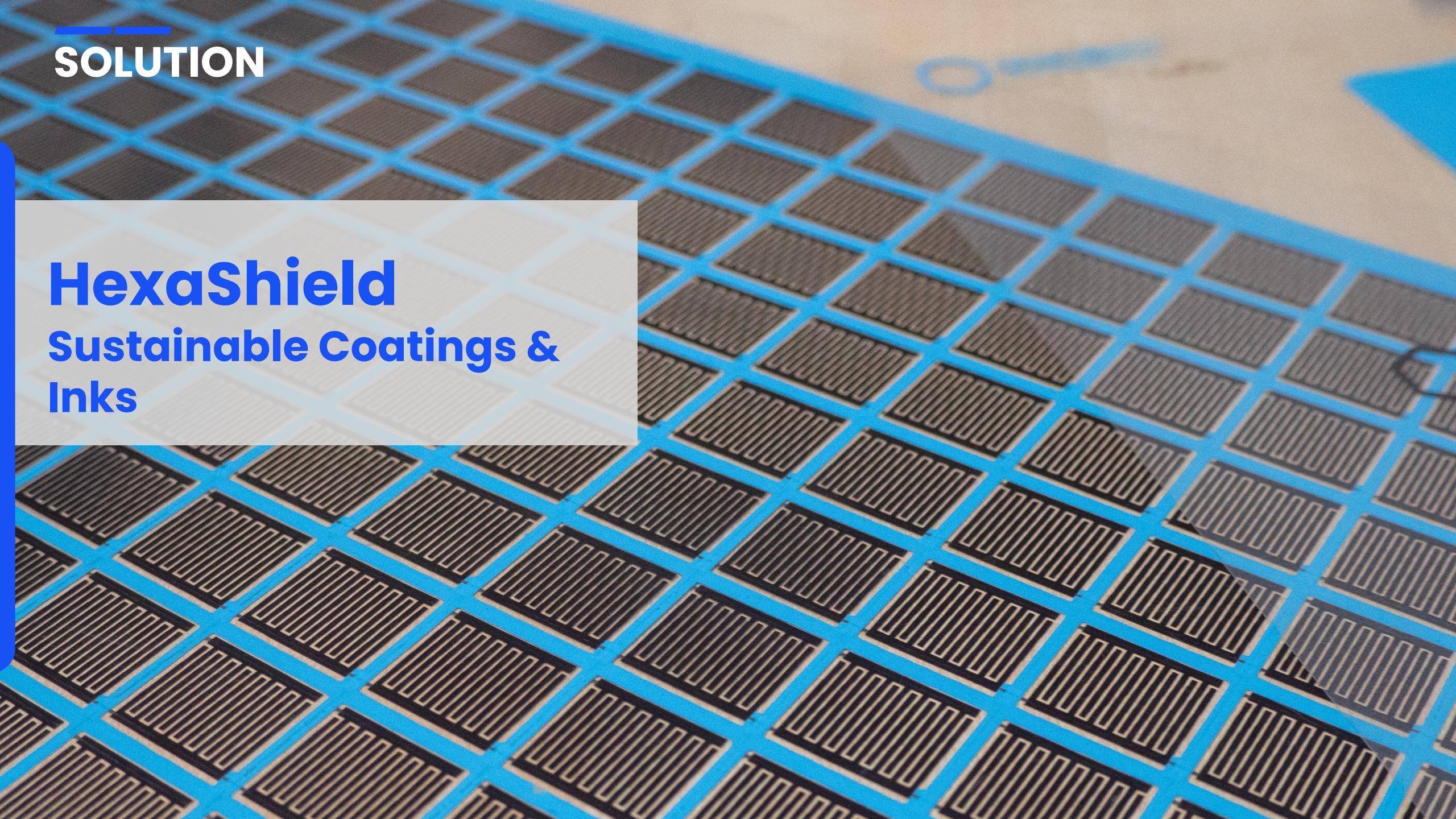
 **TE**
connectivity

 **fischer**
CONNECTORS

SOLUTION

HexaShield

Sustainable Coatings & Inks



PRODUCT PORTFOLIO: HexaShield Inks

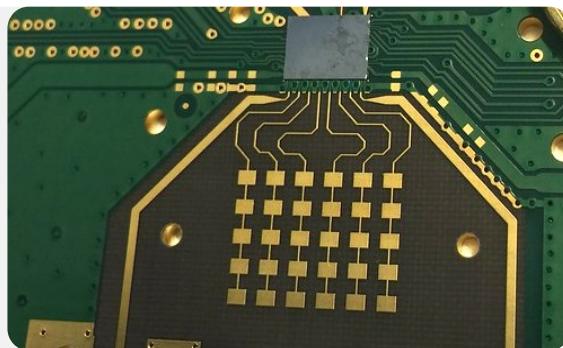
HexaShield Inks

HexaShield product line is a graphene-based conductive ink developed for EMI shielding and flexible electronics.

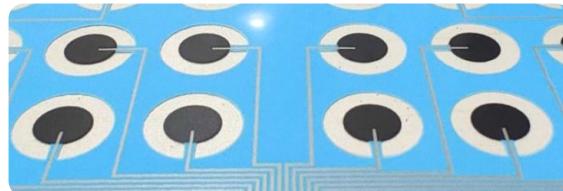
Market opportunity: _____
75 tpa by 2030

Target pricing [\(ref.\)](#):
200 €/kg

—
MVP – Ready to launch
sustainable water-
based product



Water & Solvent-based solution



Partners & Customers

EMI Shielding & ESD



SURFORMA®

peters
Coating Innovations
for Electronics



NOTCH



Printed Electronics & Plastronics

TACTOTEK

TMG
GROUP



DELO

Lohmann
The Bonding Engineers

ECOSTEEL
Metal Systems

ELPER
INNOVATION IS OUR RESISTANCE

MOOS

 **GRAPHENEST**
Advanced Nanotechnology

EMI SHIELDING MARKET TAM € 9.94 B

CAGR of 5.7%

Targeting plastic and coating applications on
US and EU for automotive and electronics market

SAM € 2.14 B



TEAM



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8 DECENT WORK
AND ECONOMIC GROWTH



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12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



13 CLIMATE ACTION



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