



Pitch Army Innovation Day

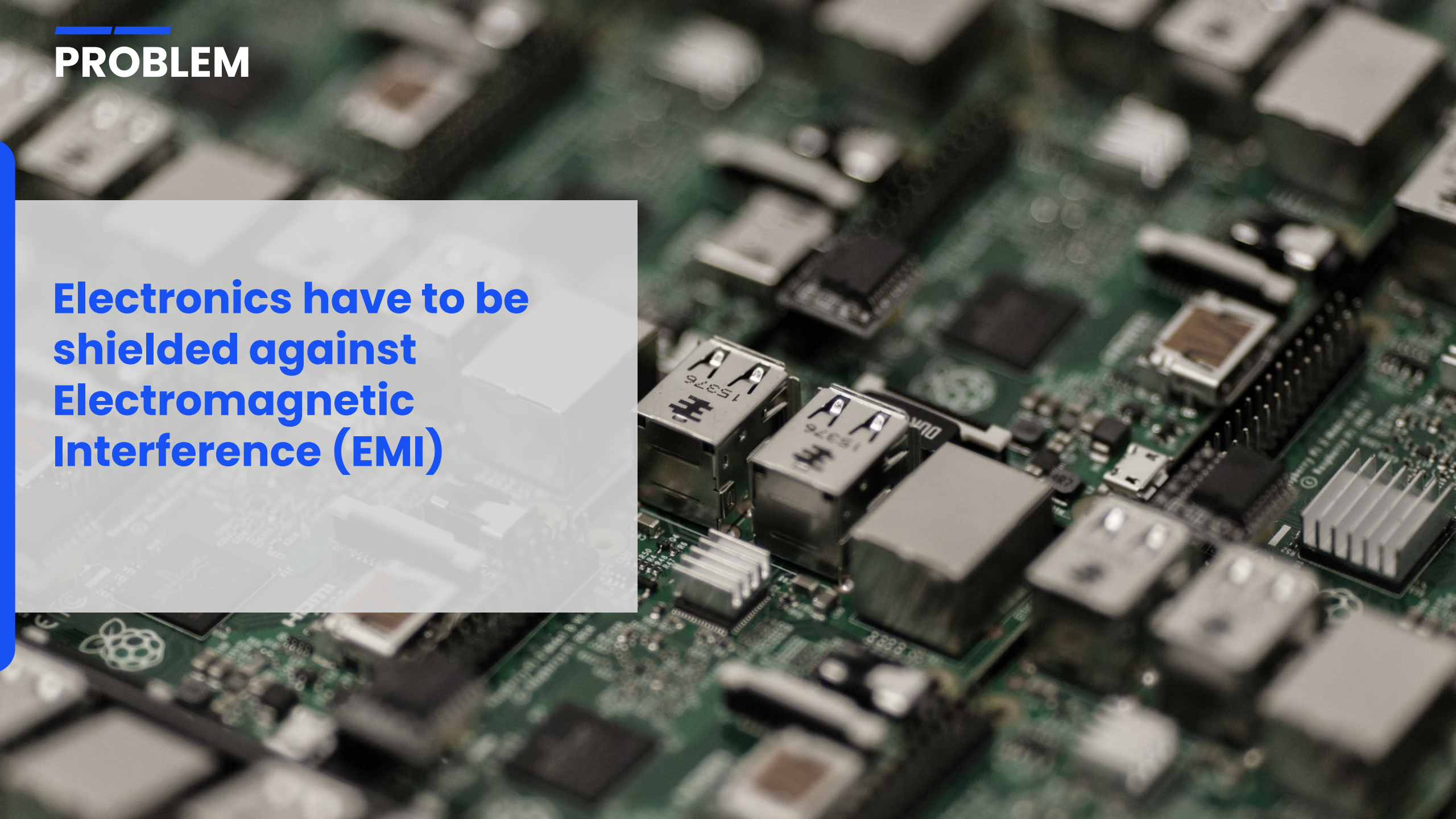
Delivering smart plastics and inks for EMI shielding

17/06/2025

Bruno Figueiredo

PROBLEM

Electronics have to be shielded against Electromagnetic Interference (EMI)



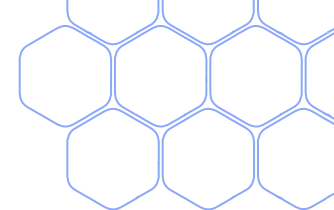


PROBLEM

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



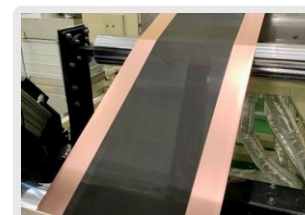
Seamless integration into e-mobility and next-gen electronics, allowing OPEX savings:



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%.

A close-up photograph of a red, textured fire-resistant glove holding a rectangular metal block. The block has a black square sensor mounted on its top surface. The background is blurred, showing industrial equipment.

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

DELTA TECNIC

PVC – Polyvinyl chloride for cables

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

Partners & Customers

Cables



Prysmian
Group

LEONI



• **A P T I V** •

Electronics enclosures

italtronic
enclosures for electronic



Valeo



Connectors

molex



fischer
CONNECTORS



SOLUTION

HexaShield

Sustainable Coatings & Inks

PRODUCT PORTFOLIO: HexaShield Inks

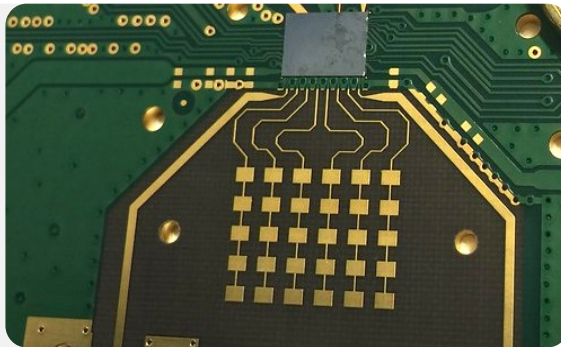
HexaShield Inks

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

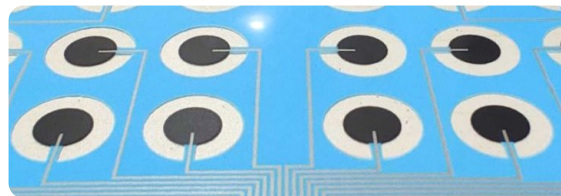
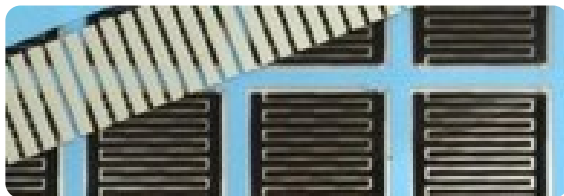
Market opportunity:
75 tpa by 2030

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



NOOTCH



Printed Electronics & Plastronics

TACTOTEK



DELO



A top-down view of various disassembled smartphone components laid out on a green grid-patterned work mat. The components include a main logic board with a SIM card slot, a camera module, a circular speaker or microphone component, a long flexible ribbon cable, a black plastic back cover, a battery, a USB-C port assembly, a small yellow component, a black plastic frame, a small circular component, and a black plastic bracket. A blue-handled screwdriver is also visible.

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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13 CLIMATE
ACTION

