

MADE IN EUROPE 2026

ONLINE PITCHING

Presenter: Pedro Mimoso, PIEP, Business Development Director
Pedro.mimoso@piep.pt

23 June 2026

PIEP - Innovation Centre in Polymer Engineering



PIEP, Innovation Centre in Polymer Engineering is a private association, of a technological and scientific matrix, with a business management model from Portugal.

Founded on December 13, 2000, at the initiative of the industry and in collaboration with the Department of Polymer Engineering at the University of Minho (DEP-UM) and the Support Institute for Small and Medium Enterprises and Innovation (IAPMEI).



Your innovation

Partner

in sustainable and
smart growth



+60

Associates

+90

Staff

+250

Publications and
Articles

+350

R&D Projects

+700

Clients

+6.4 M€

Turnover 2025*

We help you to
science up **your**
solutions and
achieve tomorrow's
breakthroughs

HORIZON-CL4-2027-01-MAT-PROD-06 | RIA | TRL 4-5 > TRL 6

PIEP contribution

Formulate recyclable advanced polymers and composites into market-ready, qualifiable materials.

THEODORA low-shear

PEEK / PPS / PEI / PSU

Fire resistance

- High-value residues to qualified compounds, pellets and demonstrators
- Additive packages for flame retardancy, conductivity and durability
- FAIR data, SSbD, LCA and process-property-performance evidence

<https://academia.piep.pt/learning-factories/>

Call fit

Recyclable polymers/composites, circularity by design, scalable recovery and integration into industrial manufacturing.



Foamed circular thermoplastics for energy and construction



VITAL inspiration: bio-based microcellular structures and Foam Injection Moulding led by PIEP

<https://vital-project.eu/>
<https://www.piep.pt/vital/?lang=en>

What PIEP can bring

Supercritical CO₂/N₂ foaming to reduce material intensity while preserving function.

Research route

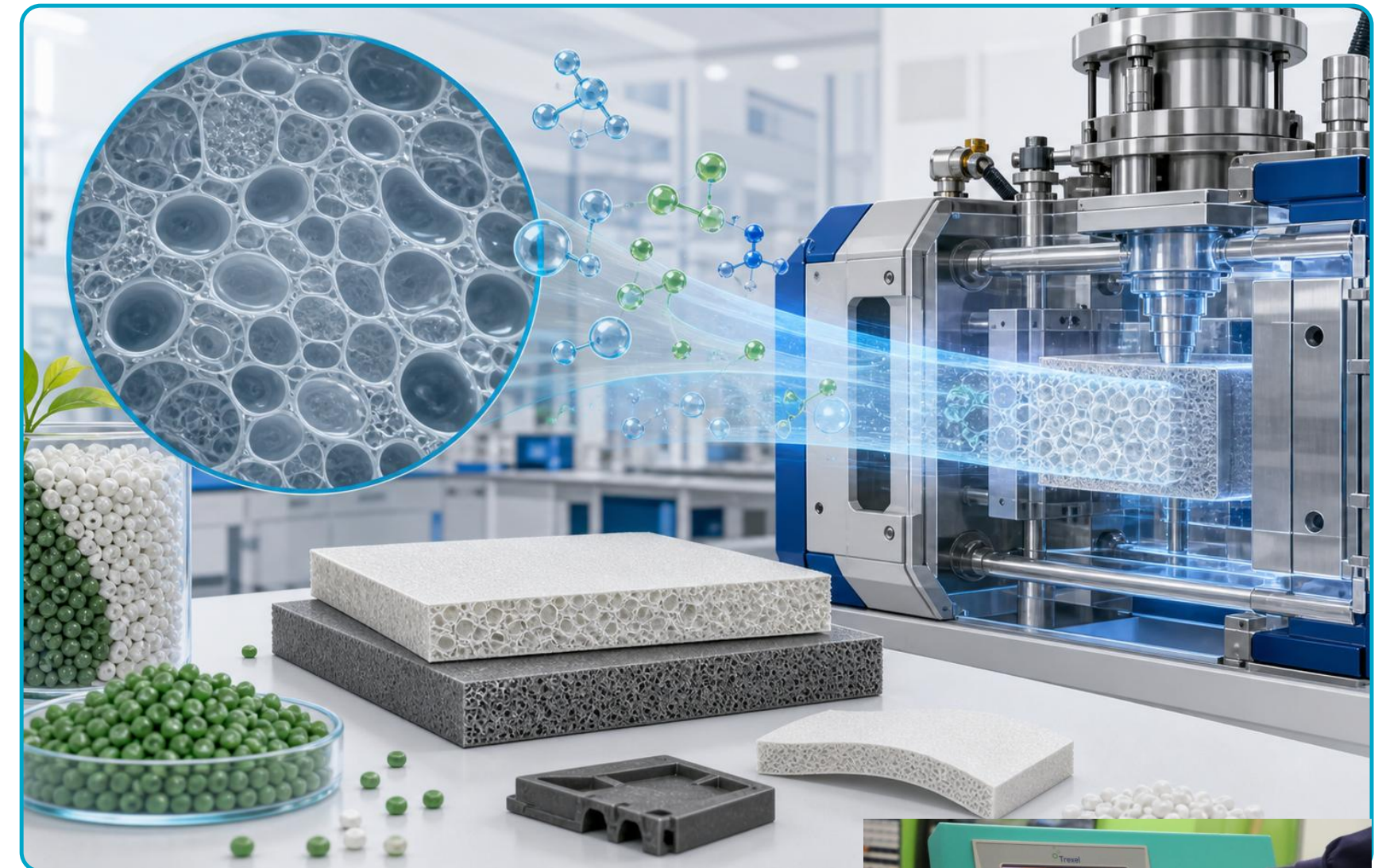
Microcellular morphology control, processing windows, rheology and structure-property relationships.

Use cases

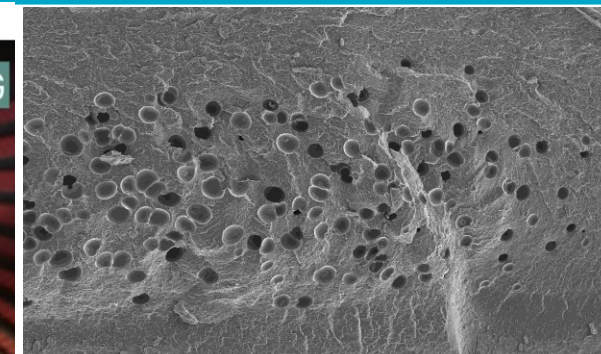
Lightweight insulation, energy absorption, panels and functional building/energy components.

TRL path

From lab formulations and foaming trials to TRL 6 demonstrators with industrial validation.



IN-SITU
MONITORING



Functional circular films: graphene, EMC shielding and absorption



ASTRAL background: PIEP leading development and industrial production of flexible sheets/films

<https://tek.sapo.pt/noticias/ciencia/artigos/consorcio-portugues-desenvolve-novo-material-de-absorcao-eletromagnetica-baseado-em-grafeno-que-sera-testado-na-forca-aerea/>

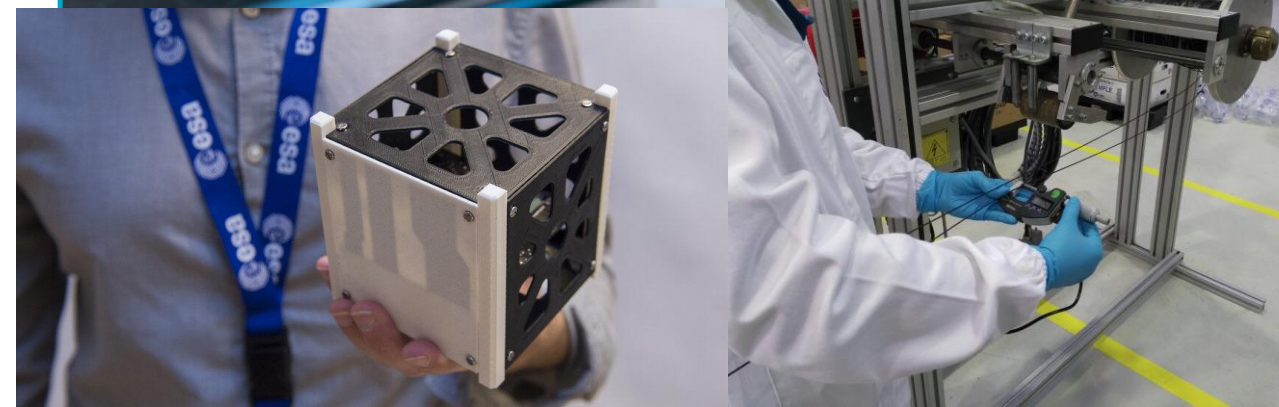
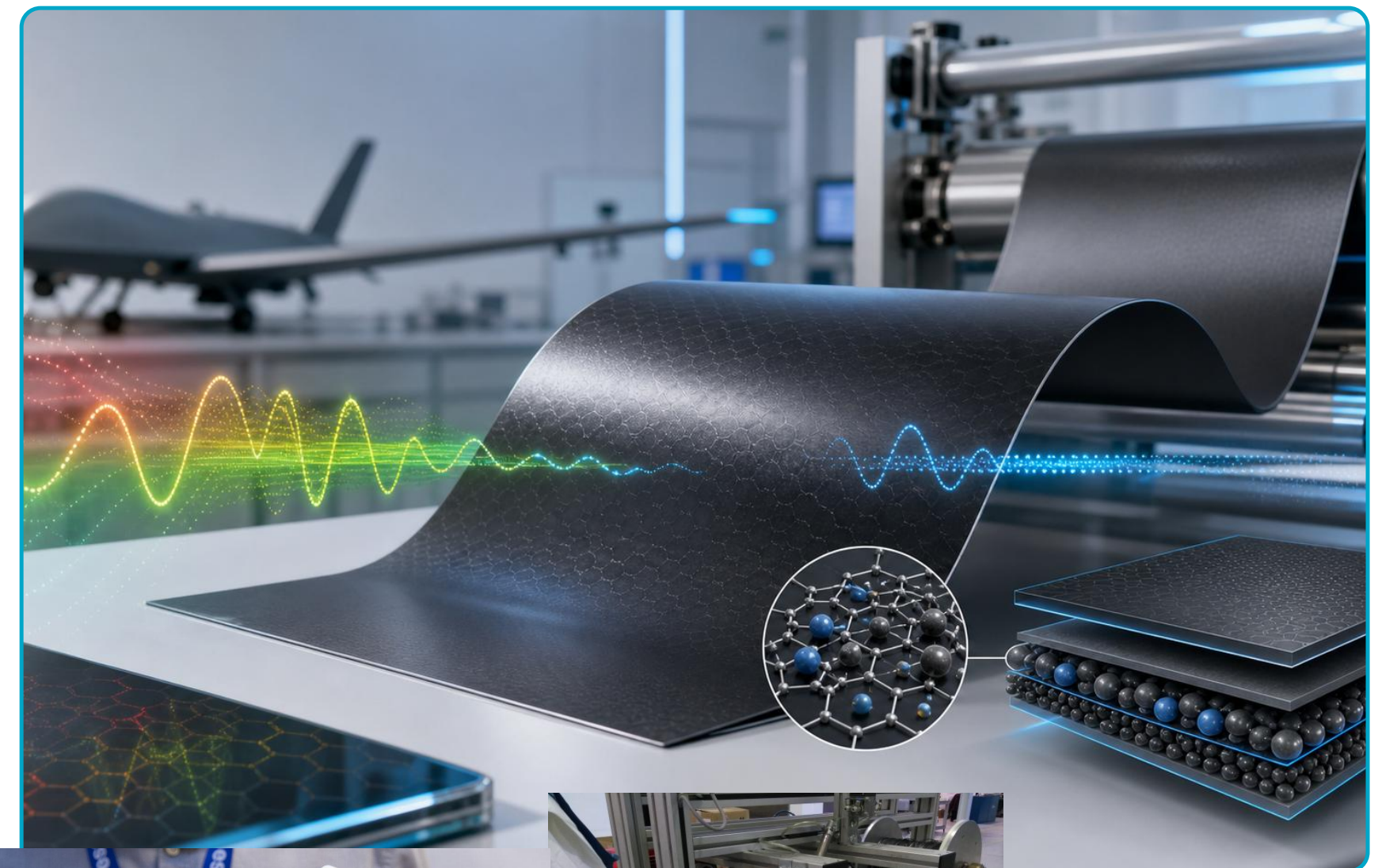
Strategic differentiator

Circular polymer films can become functional advanced materials, not only recycled materials.

- Graphene and magnetic particle dispersion in polymer multilayers
- Conductivity, anti-static behaviour, EMC shielding and broadband absorption
- Transferable to energy, construction systems, mobility and defence-adjacent testing

Partner ask

Energy/construction OEMs, recyclers, converters, data/AI, LCA, SSbD and standards partners for a TRL 6 consortium.



PIEP - Innovation Centre in Polymer Engineering



Ongoing Projects

DIGITAL-2021-EDIH-01
DIGITAL-2026-EDIH-EU-EEA-09



SustrONics
Sustainable and Green
Electronics for Circular Economy

HORIZON europe Co-funded by the European Union ChipsJU

HORIZON-KDT-JU-2022-2-RIA



#EU

AIM-PACE
Artificial Intelligence-Designed
Thermoplastic Materials
for Sustainable Packaging
and Electronics

1. AI-DESIGNED BIOPLASTICS
Smarter materials by design

2. CIRCULAR BY DESIGN
Made for reuse, recycling or composting

3. SUSTAINABLE & COMPETITIVE
Lower impact, lower costs, higher value

PHA BIO-BASED SUSTAINABLE



Strengthening the Integrated Approach of Holistic Impact Assessments for Safe and Sustainable by Design Plastic Value Chain

HORIZON-CL4-2023-RESILIENCE-01-22



Innovative Processing Technologies for Bio-Based Foamed Thermoplastics

HORIZON-CL4-2021-TWIN-TRANSITION-01-05

HORIZON-JU-CBE-2025