



This project is co-financed by the European Union
and the Republic of Türkiye



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PRESENTER FULL NAME: Vicent Martinez

ORGANIZATION: AIMPLAS Plastic Technology Centre

WORKSHOP NAME: #2 Twin Green and Digital Transition of Industry

E-MAIL: vmartinez@aimplas.es

Description of the Organisation



AIMPLAS Valencia (Spain)

+35 years' experience in the industry
Building a better world by fostering sustainable innovation to help businesses create wealth and jobs, and contribute to social challenges

+12.000 m² cutting edge facilities
+260 highly qualified professionals
+860 member companies
+3.500 clients

Expertise across entire Plastics Value Chain

Market oriented



Electronics



Auto



Aeronautics&Aerospace



Navigation



Energy

Your Teams' Expertise



R & D & I

Project Management

Technological Services

Training & Events



Innovative Advanced Materials
TRL 3 to TRL 7

Processing and Prototyping
Analysis and Testing

Track Record +160 funded projects
FP5, FP6, FP7, LIFE, H2020, HE



Your Research Fields

Advanced Smart Manufacturing

Digitalization & Industry 4.0

Sustainable materials enabling recyclability in a **Circular Economy**



Additive Manufacturing

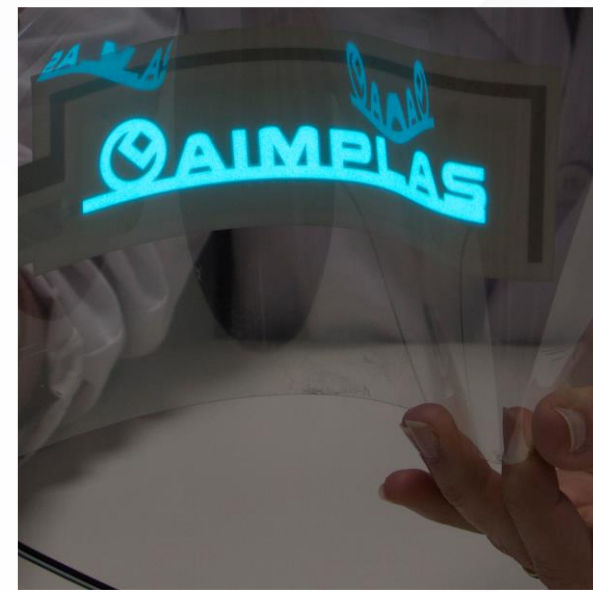
3D Printing, FDM , SML, LFAM

Tailor made compounds: highly conductive, encapsulated nanomaterials, biobased

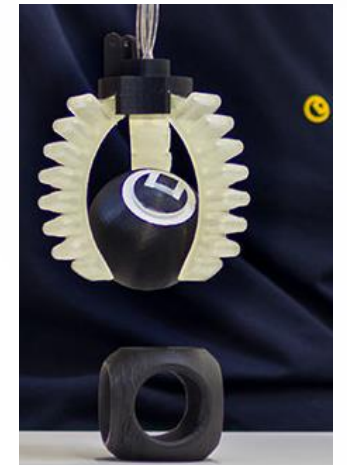
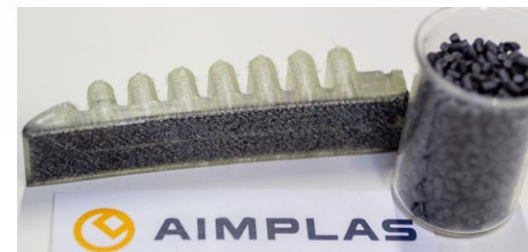


Printed electronics

Sensors, actuators, electroluminescence, bioactive...
High resolution screen printing, in-mould electronics and stretchable thermoforming



Soft Robotics



Your On-going Projects



Printed Electronics for the Circular Economy

Goal: Development of green functional electronics using eco-design principles and sustainable materials to allow end-of-life circularity

Topic: Digital and emerging technologies for competitiveness and fit for the green deal

HORIZON-CL4-2021-DIGITAL-EMERGING-01-31

www.reform-project.eu



AI-driven multiscale methodology to develop Transparent Wood as sustainable functional material

Goal: New functional wood-based composites allowing virtual screening for bio-sourced materials

Topic: Computational models for the development of safe and sustainable by design chemicals and materials

HORIZON-CL4-2023-RESILIENCE-01-23

www.ai-transpwood-project.eu

RAPTOR

Remote Weapon condition-based Monitoring System

Goal: Predictive maintenance, increased safety and reliability of weapon systems

Topic: EDF research actions focused on SMEs and Research Organizations

EDF-2023-LS-RA-SMERO-NT

Project Idea

Call Topic: HORIZON-CL4-INDUSTRY-2025-01-TWIN-TRANSITION-32: Green and resilient flexible production processes (Processes4Planet) (IA)

Deadline Dates: Sep 2025

- ❑ **Objectives:** Development of Resilient, Flexible and Smart Manufacturing Strategies in the Plastic Industry
Focus on additive manufacturing technologies capable to run on-demand, avoiding tooling changeovers and restart downtimes, with zero material waste or scrap generation

Adoption of biobased polymers with lower melting points to reduce input energy processing

Case study : Highly automated 3D printing manufacturing vs. conventional injection moulding

- ❑ **Expected Results:**

- Digital tools and advanced control systems to support flexibility in manufacturing processes under variable energy inputs
- Methodology to assess costs savings and reduction of environmental impacts (GHG)

Consortium – required partners

No	Expertise	Type	Country	Role
01	Generation renewable energy sources	RTO		Coordinator
02	Management of energy grids and storage	Company/RTO		WP leader
03	Development efficient energy intensive plants	Company/RTO		WP leader
04	Development digital tools and advanced control systems	Company/RTO		Task leader
05	Methodology to boost decarbonisation across industrial sectors	RTO		Task leader
06	AIMPLAS: validation case for additive manufacturing in plastic industry	RTO	Spain	WP leader



PRESENTER CONTACT

vmartinez@aimplas.es

mcobo@aimplas.es

AIMPLAS

(SPAIN)