



UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH

Presentation e-PLASCOM eb-POLICOM

09/02/2023



Picture of the e-PLASCOM group



Índex

Indicators

Lines of investigation

Competitive research projects

Industrial partners in tech-transfert activities



Research

“Bringing solutions to reduce the environmental impact of plastic products”

Transfert activities



Eco-friendly Plastics
and Composites



Generalitat
de Catalunya



Agència
de Gestió
d'Ajuts
Universitaris
i de Recerca



Centre Català del
Plàstic



tecnio
catalonia
Fins a 31/12/2023

ACCIÓ

Generalitat
de Catalunya

<https://futur.upc.edu/e-PLASCOM> 2017-SGR-1141
<https://futur.upc.edu/eb-POLICOM> 2021 SGR-01042

www.upc.edu/ccp
<https://futur.upc.edu/CCP>

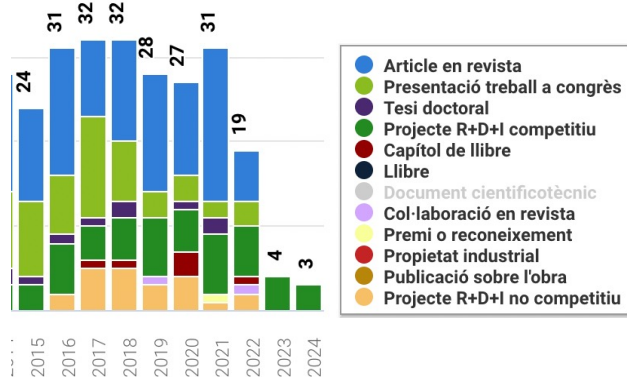
✓ 6 researchers (PhD):

M. Sánchez-Soto, O.
Santana, T. Abt, N.
Candau, N. León Albiter,
M.LI. Maspoch

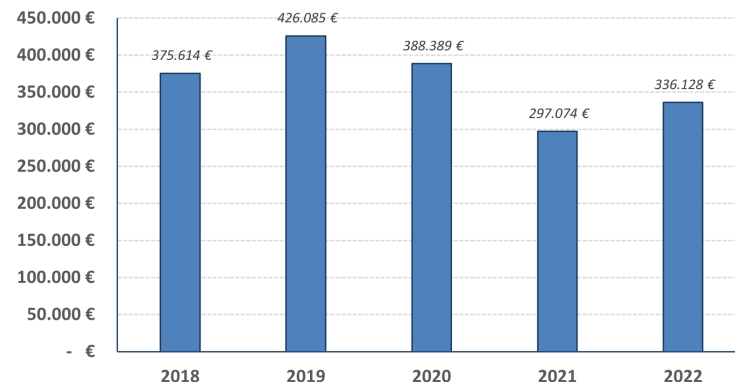
✓ 3 technical personal:

A. Carreras, L. Martínez,
D. Loeza

✓ 7 Master and PhD students

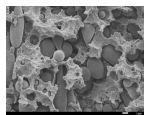


Competitive research projects and transfer funds



DEVELOPMENT OF BIOBLEND & BIOCOMPOSITES

- ✓ Structural modification by reactive extrusion (REX) for rheology control
- ✓ Bioblends for additive manufacturing with controlled morphology

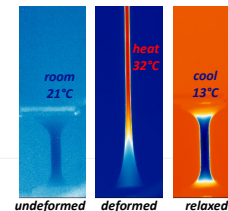


Reactive extrusion
pilot plant

plascom
Plàstics i Compositos
Ecològics

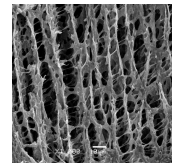
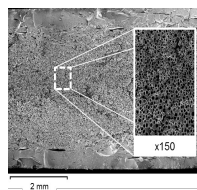
RECYCLING & UPCYCLING

- ✓ Upcycling of thermoplastic wastes: ECOBLEND
- ✓ New added value compounds from rubber wastes:
 - High performance TPE
 - Composites for thermal energy



DESIGN AND MANUFACTURE PROCESSES OF LIGHT PARTS

- ✓ In situ physical microfoaming
- ✓ Aerogels based on biodegradable polymer





DEVELOPMENT OF BIOBLEND & BIOCOSITES

Apps-REXPLA: Industrial applications of composite and blends based on REXPLA

MAT2016-80045-R

12/2016 - 12/2019

PI: ML MasPOCH, O. Santana

Funding: 145 200 €

ECO-blends de alto valor añadido para técnicas de fabricación avanzada

PID2019-106518RB-I00

06/2020 - 05/2024

PI: ML MasPOCH Ruldua, O. Santana

Funding: 145 000 €

RECYCLING & UPCYCLING OF PLASTICS

Revalorización de residuos de PET opaco en materiales de alto valor añadido

INTERREG POCTEFA EFA329/19

01/2020 - 05/2022

PI: O. Santana

Funding: 179 594 €

Revalorization of recycled opaque PET into high added value product

INTERREG POCTEFA EFA064/15

11/2016 - 11/2019

PI: O. Santana Pérez

Funding: 153 742 €

RECYCLING & UPCYCLING OF RUBBERS

Towards Circular Economy of Rubbers (CECOR)

TECSPR18-1-0012

11/2019 - 02/2022

PI: N. Candau

Funding: 83 516 €

Design of ad-hoc mechanocaloric rubbers

TED J-02960

12/2022 - 11/2024

PI: N. Candau

Funding: 136 200 €





Industrial partners in tech-transfert activities



GRIFOLS



Volkswagen

BENITO



KOSTAL



SONY



Thank you for your
attention!

