

BISIGODOS: High added value bioproducts: chemicals and bioresins from algae biorefineries

Ana Palanca Roig
apalanca@aimplas.es

SESSION 4: NEW DEVELOPMENTS IN BIOECONOMY

Content

About AIMPLAS

**BISIGODOS Project: New added
value bioproducts**

What is AIMPLAS?



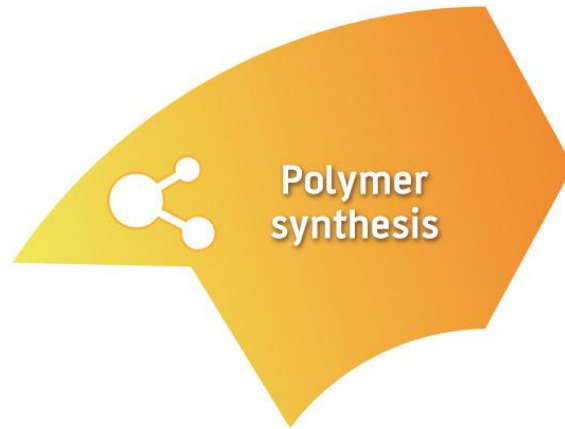
AIMPLAS is a **Technology Centre**



Enviro-Map.com

AFRICA

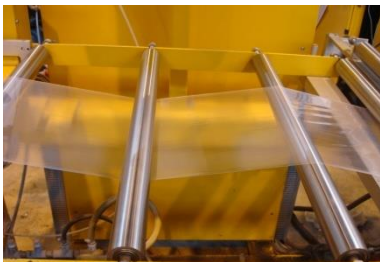
AIMPLAS



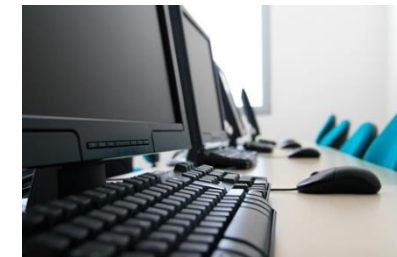
Global expertise
across the
**whole plastics
value chain**



Solutions for Plastics



- > R&D&Innovation Projects
- > Analysis and Testing
- > Polymer Synthesis
- > Material Processing
- > Technical Assistance
- > Competitive Intelligence
- > Training



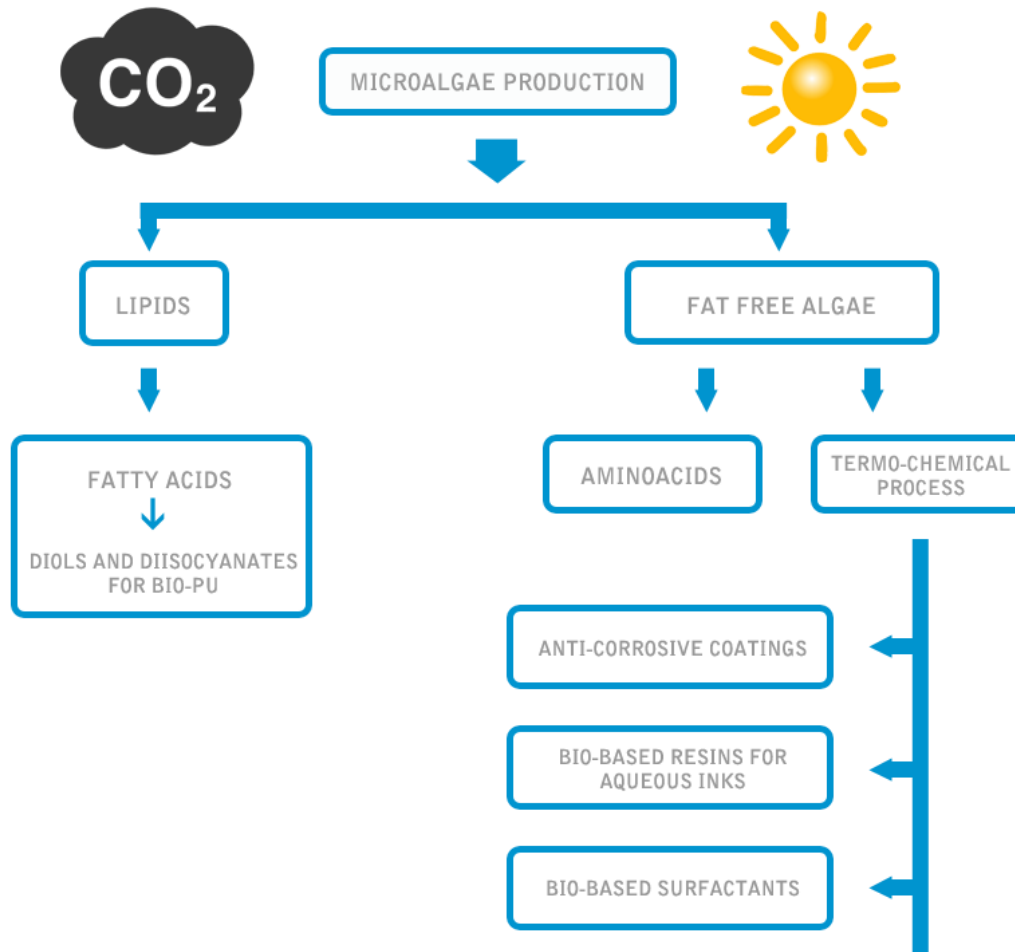
Content






About AIMPLAS

BISIGODOS Project: : New added value bioproducts

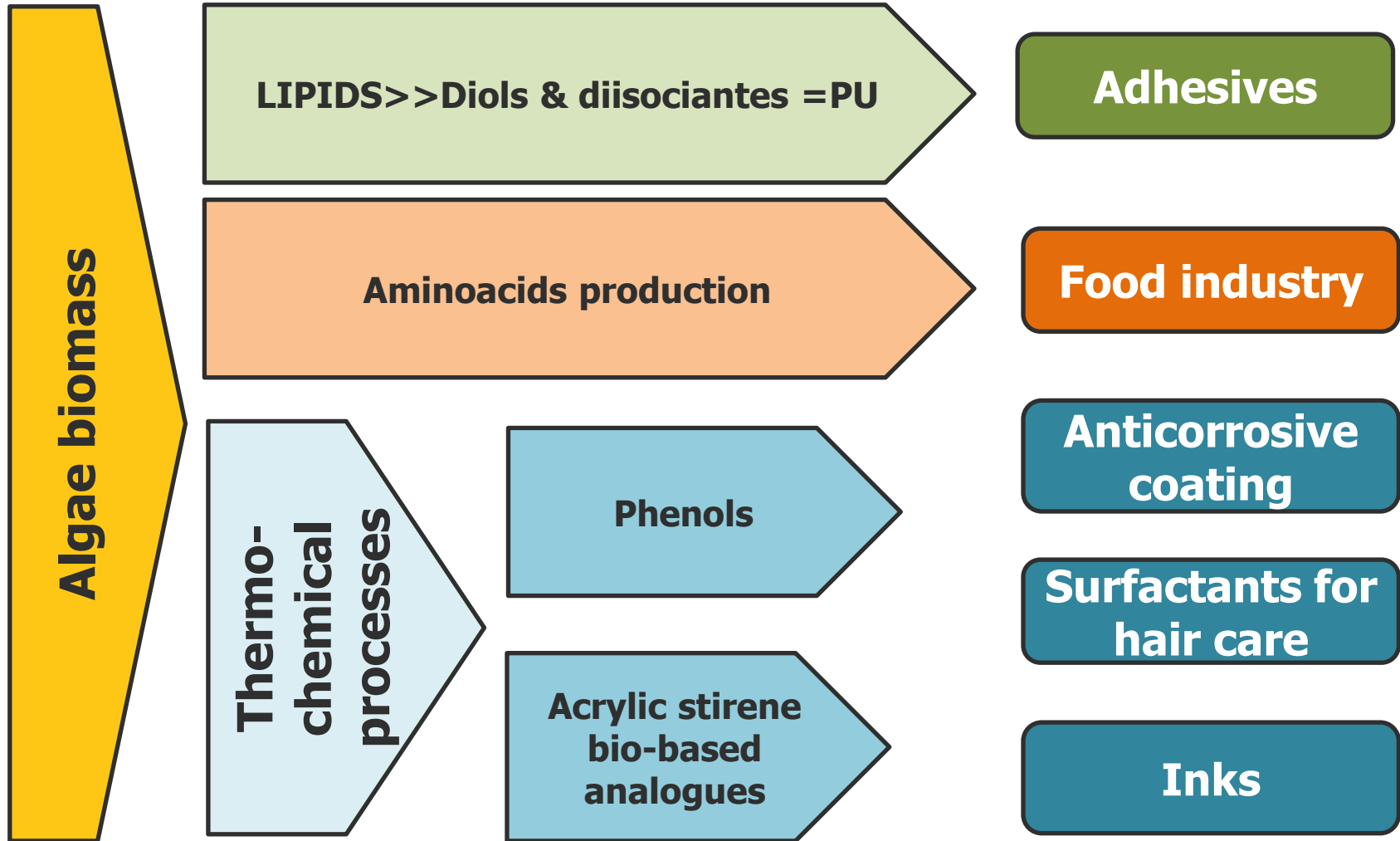


General Overview

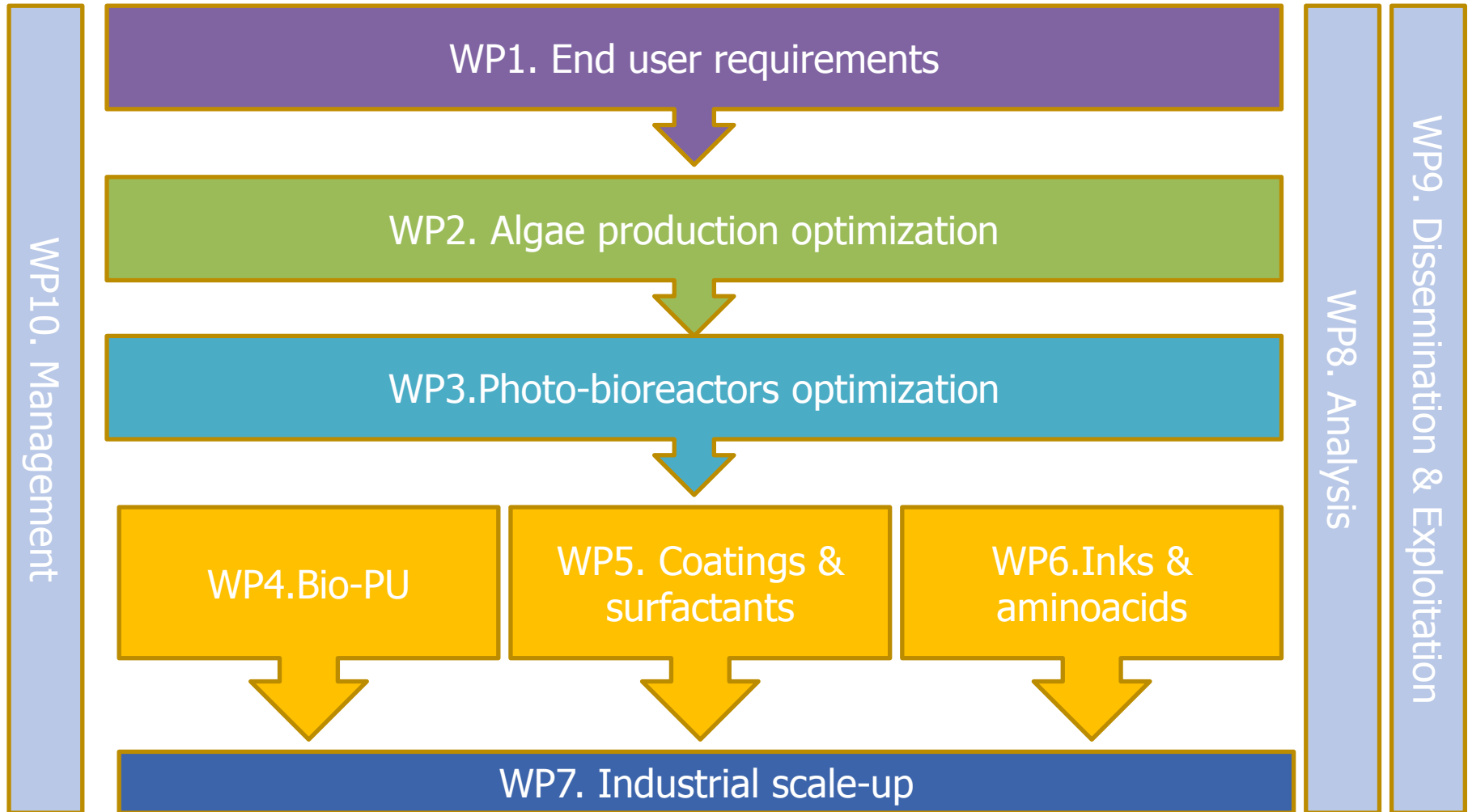


-  **Optimization of production of new algae strains and the photo-bioreactors**
-  **Energy balance improvement**
-  **Study and adaptation of separation of algae components**
-  **Reduction of industrial CO₂ emissions up to 65% by means of producing high added-value products**
-  **Production of algae derived components**

Value chains



Work structure



- **14 partners** from **7 countries**
- **Industries:** PDC, PHYCOSOURCE, GBR.AT, CASPEO, 3V TECH, BECKERS, SUNCHEM, CUSA, CRODA, BFS
- **2 RTD & 2 High Education:** VTT, AIMPLAS, BANGOR, WARWICK



Roles



Algae biomass optimization



Photobioreactor modelling



Techno-economical evaluation



Separation technologies



CROMOGENIA-UNITS,S.A.



Industrial End users



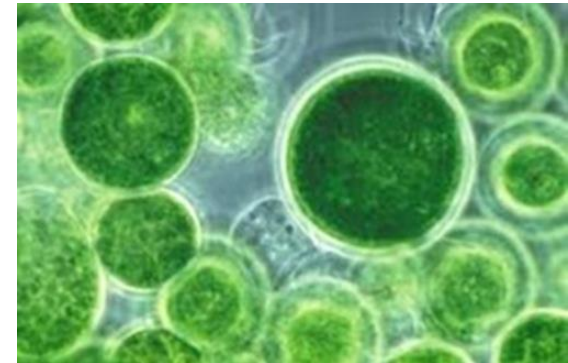
R&D



AIMPLAS
INSTITUTO TECNOLÓGICO
DEL PLÁSTICO

Challenges: Upscaling

- **Avoid contamination**
- **Homogeneous biomass: increase algae-based products reproducibility**
- **Adjustment and optimization of the separation strategies**
- **Increase the efficiency of extraction:**
 - **CAPEX**
 - **OPEX**
 - **Energy balance**



Challenges: Market uptake

- **Make biomass viable: competitive cost**
- **Downstream processes cost**
- **PU petrol based already in the market with competitive cost**
- **Regulatory issues: food contact approval**
- **Initial investment**
- **Connecting academia and consumers**



Thank you for your attention

Contact us: www.aimplas.net

Phone + 34 96 136 60 40 extension 231

R&D: Ana Palanca Roig: apalanca@aimplas.es

www.linkedin.com/company/aimplas

Twitter: @aimplas

