

# FINAL ECO-CLIP WORKSHOP

Eco-friendly frame clips and system brackets for a fuselage demonstrator



26th of October 2022

## INTRODUCTION

ECO-CLIP is a European project of Clean Sky 2 call focused on the recycling of continuous fiber LMPAEEK to develop a new material for structural components of aircraft to be integrated by welding on the MFFD (Multifunctional Fuselage Demonstrator). With this event we want to share the successful results of the project which comprised three blocks: Recycling process of Thermoplastic Composite, Ultrasonic Welding, and Environmental and Cost Cycle Analysis.

## OBJETIVES

- Learn about recycling processes, new recyclable materials, and circularity of composites.
- Explore the welding of composites by different techniques, including the upscale of welding process of real parts into aerospace demonstrators.
- Present the importance of Eco-design methods, LCA and LCC in the aeronautical sector to achieve a sustainable aviation.

## ADDRESSED TO

Managers, Heads of Engineering, Production, R&D&i, Design, Logistics and Systems of industrial companies mainly related to the automotive, naval, metalworking, aeronautical and energy sectors.

## FORMAT

**HYBRID: face-to-face and online**

### VENUE:

AIMEN TECHNOLOGY CENTRE - Laser Applications Centre  
Polígono Industrial de Cataboi SUR-PPI-2 (Sector 2), Parcela 3  
ES36418 O PORRIÑO – Pontevedra (Spain)  
42° 8' 31.799" N 08° 38' 12.862"W

## DATE AND SCHEDULE

26th of October 2022 from 9.00 to 17.00 hours

## REGISTRATION

Participation in this workshop is free of charge.

To formalize your registration, you should fill out the form that you will find at <https://www.aimen.es/>

Your registration will be confirmed via email.

*\*The Workshop will take place in English*

## TECHNICAL REQUIREMENTS

For those who are interested in participating online, the event will be through the Microsoft Teams platform, which is compatible with Windows, Mac and Linux. Browsers such as Internet Explorer, Firefox, Chrome or Safari can be used. You can also participate in the event through mobile devices using the free Microsoft Teams apps for iOS and Android.

Once your registration is confirmed via e-mail, we will send you the corresponding invitation to access the event on the platform.

## PROVISIONAL PROGRAMME

08.30 to 09.00 h	Registration
09.00 to 09.10 h	Welcome
09.10 to 09.20 h	<b>Introduction to ECOCLIP project</b> Leo Mujis. FOKKER-GKN
<b>NEW RECYCLED AND RECYCLABLE MATERIALS FOR STRUCTURAL COMPONENTS MANUFACTURING</b>	
09.20 to 09.40 h	<b>ECOCLIP Project: Recycling route for CF-LMPAEEK factory waste to manufacture structural aircraft components</b> Celia Martín. AIMEN Technology Centre Julio Vidal. AITIIP AIMEN Technology Centre
09.40 to 10.00 h	<b>SPARTA Project: Scrap of thermoplastic composites materials</b> Rocío Ruíz. AIMPLAS Plastics Technology Centre
10.00 to 10.20 h	<b>EURECOMP Project: European recycling and circularity in large composite components</b> Prof. Costas Charitidis and Dionisis Semitekolos. National Technical University of Athens
10.20 to 10.40 h	<b>Aero grade epoxy vitrimers towards commercialization</b> Dr. Alaitz Rekondo. CIDETEC
10.40 to 11.00 h	<b>ReCAP Project: Designing of carbon fiber reinforced polymer (CFRP) composites for a second-life in the aeronautic industry: strategies towards a more sustainable future</b> Carolina Nasamiento. INEGI
11.00 to 11.30 h	<b>Coffee break</b>
<b>COMPOSITE WELDING TOWARD SUSTAINABILITY</b>	
11.30 to 11.50 h	<b>ECOCLIP Project: ultrasonic welding between short and continuous CF/LM PAEK</b> Noelia González. AIMEN Technology Centre
11.50 to 12.10 h	<b>Material weldability and sustainability of welded joint</b> Dr. Galyna Goncharova. AIRBUS
12.10 to 12.30 h	<b>Development of thermoplastic welding technologies in Clean Sky 2 Multifunctional Fuselage Demonstrator</b> Dr. Alexei Vichniakov. AIRBUS
12.30 to 12.50 h	<b>Ultrasonic welding technologies at TUDelft and SAM XL</b> Dr. Irene Villegas. Delft University of Technology
12.50 to 13.10 h	<b>Welding thermoplastics using alternative methods</b> Dr. Massimiliano Russello. AIMEN Technology Centre - Queen's University Belfast
13.10 to 13.30 h	<b>Manufacturing of a thermoplastic fuselage demonstrator</b> Simon Bauer. DLR
13:30 to 14:30 h	<b>Lunch</b>
<b>ECODESIGN AND LCA/LCC FOR A SUSTAINABLE AIRCRAFT PRODUCTION</b>	
14.30 to 14.50 h	<b>ECOCLIP Project: Environmental impact (LCA) and cost analysis (LCC) of new recycled polymer in aeronautics</b> Dr. Rocío Pena. AIMEN Technology Centre
14.50 to 15.10 h	<b>ecoDESIGN in next generation aircraft fuselage</b> Marta Solares. AIRBUS
15.10 to 15.30 h	<b>ecoDESIGN and Sustainable Productivity</b> Eng. Tosten Moll. Fraunhofer-Gesellschaft
15.30 to 17.00 h	<b>Visit AIMEN facilities</b>

ORGANIZED BY:



FUNDED BY:



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