

A close-up, slightly blurred photograph of a robotic arm in an industrial setting. The arm is metallic and has various cables and hoses attached to it. It is positioned over a work area. The background shows other industrial equipment and structures, all in a muted, greyish-blue color palette. The text 'Additive Manufacturing' is overlaid in the center in a bold, white, sans-serif font.

Additive Manufacturing

Reinforce3D: Eurecat spin-off

Enhancing the Performance of 3D-Printed Materials



First technology based on reinforcing the part after the Additive Manufacturing: Reinforce3D is a start-up aimed to further develop and commercialise the **Continuous Fiber Injection Process (CFIP) Technology**. CFIP is a new post-process technology which drastically improves the mechanical and lightweighting performance of 3D printed parts by reinforcing them with continuous fibers



RTO knowledge transfer into the market: Born from a partnership with BeAble Innvierte Kets Fund (BIKF), Eurecat and Marc Crescenti (researcher previously working at Eurecat). This technology has been jointly developed for **commercialisation through a newly created spin-off**



An Advanced Manufacturing technology: This advancement contributes to **reducing CO₂ emissions**, fuel and electricity costs. It also increases the **European competitiveness and productivity**, while reducing the manufacturing costs



Fibre trajectories

It allows to place the fibers in all directions following complex trajectories (also between printing layers).



Materials

It can reinforce parts made by any existing AM technology and material, including plastics, metals and ceramics.



Integral joining

It enables to integrally join different parts with fiber continuity between them, achieving an ultrahigh joining performance.



Large structures

It allows the efficient manufacturing of large, multi-material and multi-process structures.



eurecat



An Eurecat Technology Nurture by Collaborative Projects

Beneficiating from a Partnership with an Investment Firm

Leading to a New Industrial Spin-off

REINFORCE 3D

Reinforce3D: Eurecat spin-off

Collaboration advancements

- **Projects with HP and Asics**
- Internal Research projects PRIV and TRAÇA
- Eurecat adopts the **CFIP Technology** developed initially by a researcher working at the centre

Technology presentation & recognition

Presentation at **Industry3D Exhibition** and awarded at **JEC World**.



IN(3D)USTRY
FROM NEEDS TO SOLUTIONS
Best Solution in Advanced Materials



Market Deployment

- First service contracts signed
- Machine development continues
- **First Machines sales end of 2024**

10 Years

EU & Worldwide Market Expansion

2014

2015

2017

2019

2021

2024

Idea Start

Idea (TRL 1-3): Proof of concept development by Eurecat

Two patent applications

- **2015:** IP protection for the Technology and Method submitted
- **2017:** 2nd patent Shared with Airbus Research to Industry3D Congress

Spin-off creation

October 2021 LOI signed with investor **BeAble** to constitute a spin-off to exploit CFIP technology



In December 2021 **Eurecat Board approves the constitution of Reinforce 3D S.L.**

"This technology makes it possible to address some of the mechanical performance, dimensions and part type limitations that additive manufacturing has currently."

Marc Crescenti, CTO and partner at Reinforce3D and the architect of the technology in his role as a researcher at Eurecat

CFIP is a transversal technology aimed to address a wide variety of sectors and applications. Some the most relevant are:



Aerospace



Automotive



Sporting goods



Health



Construction