

# Context

800kt

of PCBs are fabricated each year, equal to about 6Mt CO<sub>2</sub>.

90%

of FR-4 PCBs contains PFAS.

28%

of the weight of a bare PCB is made of critical materials (mainly copper).

70%

of PCBs treated with non-friendly environmental process.

By transforming the way electronic boards are produced, used and recycled, DESIRE4EU tackles those ecological challenges

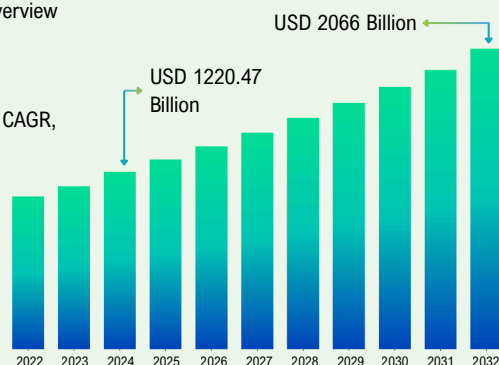
## Always more electronics

### Global consumer electronic market

Market size overview

6.8%

Global market CAGR, 2024-2032



Source :  
Market Data  
Forecast Analysis

# About us

Led by **Grenoble INP**, the project brings together expertise in material science, green chemistry, electronics, and environmental microbiology, together with **Arduino**, **UCLouvain**, **BME**, **Meshining**, **ABChimie**, **Alba PCB** and the **SiNANO Institute**.



**DESIGNing and  
REcycling sustainable  
electronic boards for  
EUropean circular  
economy**

## Discover more



[desire4eu-eic.eu](https://desire4eu-eic.eu)

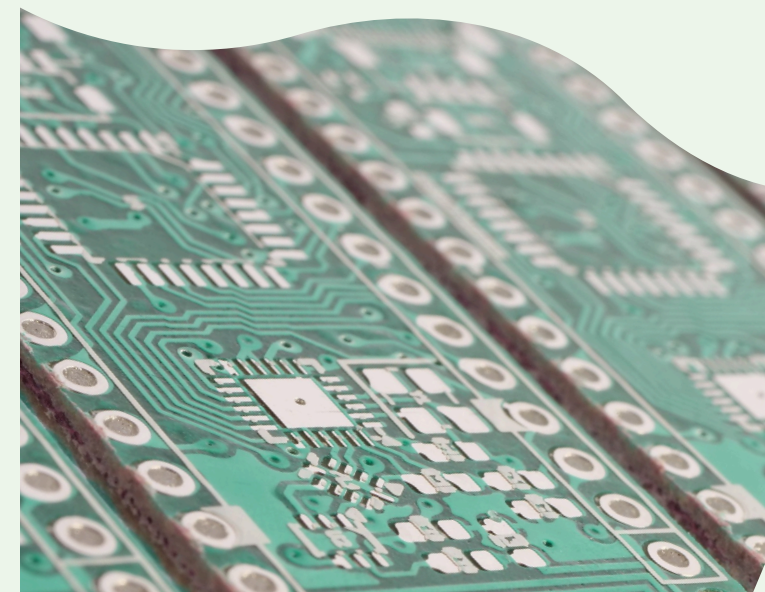


[desire4eu](https://www.linkedin.com/company/desire4eu)

European  
Innovation  
Council



This project has received funding from the European Union's Horizon Europe EIC Pathfinder Challenges programme under GA N°101161251



# The Project

Driven by the goal of revolutionising the electronics industry, the DESIRE4EU project is set to launch a **new era of sustainability** with the development of **fully circular, low-cost and european-made** PCBs, compatible with **actual manufacturing process**.

Relying on the interdisciplinary skills, we aim to develop an alternative, innovative technology of bio-based substrates (made of PLA/Flax), and increase critical materials recycling, by using innovative **bioleaching processes**.

Discover more about our researches and ambitions!

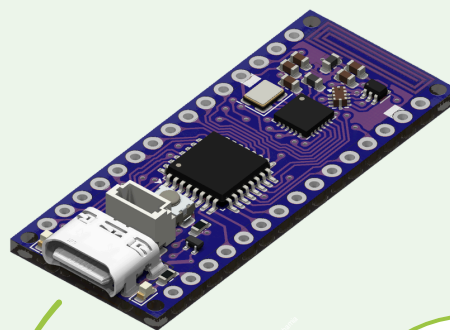
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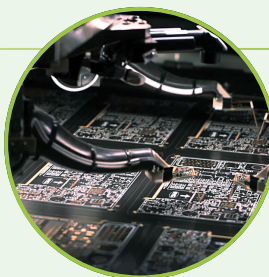
## Our 3 pillars



Bio-based & biodegradable substrates



Eco-design rules for more circularity



Efficient recycling of critical materials

## Market impact

DESIRE4EU aims to provide the **market with industrially credible, environmentally friendly bio-based rigid PCBs by 2030**, driving systemic change in the electronics industry.

The project is part of a broader, long-term initiative, following the Pathfinder project by a Transition and Acceleration project. In ten years, the goal is that our product will be **commercially available**, while key findings and selected datasets will remain accessible through publications and institutional repositories to support further research and development.

**2030**

Target year for market Implementation

**96 %**

of boards copper will be recovered

**100 %**

manufactured in Europe

In the EU, plans, directives and actions have been set-up to reduce electronical waste. Measures include constraints for the use, manufacturing and repairing of devices, new market standards as well as funding and supporting innovative projects aiming at solving toxicity, sustainability and resource depletion challenges.

