



Circular Economy and Waste Valorization

SUSTAINABLE SOLUTIONS FOR THE VALORIZATION
OF WASTE AND BY-PRODUCTS

KEY WORDS

CIRCULAR ECONOMY,
BIOPROCESSES,
BIOPLASTICS

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DESCRIPTION

The Curauma Biotechnology Center (NBC) at PUCV promotes the development of innovative solutions to integrate the circular economy into production processes. Through bioprocesses, biotechnology, and the utilization of byproducts, the center promotes the generation of value from industrial waste. It has specialized laboratories and experience in applying valorization technologies, such as bioplastics production. Furthermore, it supports companies in the technical and environmental assessment of reuse and recycling alternatives, strengthening their capacity to move towards circular and sustainable models.

The following facilities are available:

- The laboratory for anaerobic digestion and bioprocesses.
- Pilot plant for the execution and validation of bioprocesses.
- Pilot plant for plastic recycling, equipped with chipper, mixing hopper, extruder, press, molds and various tools.
- Mechanical support system with arm and pulleys for handling heavy loads.
- Space equipped for trials and tests of recycled materials.

APPLICATIONS

- Valorization of industrial and agro-industrial waste.
- Production of bioplastics and mixing of materials from plastic.
- Implementation of circular economy models.
- Technical and environmental assessment of reuse alternatives.
- Training in waste management and utilization.