



C3-BIOECONOMY
Circular and Sustainable Bioeconomy

EDITORIAL



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We are delighted to present the sixth issue of C3-BIOECONOMY Magazine: 'Circular and Sustainable Bioeconomy'. This edition further establishes the magazine's reputation for disseminating scientific and technical knowledge, and promoting the circular bioeconomy. As in previous issues, our focus remains on innovation, with a particular emphasis on the agri-food and forestry sectors, while maintaining our clear multi-sectoral vocation. Over the years, C3-BIOECONOMY has become an invaluable resource for fostering dialogue and collaboration, bridging the gap between continents, particularly between Europe and Latin America.

In the current global scenario, which is characterised by increasingly complex environmental and economic challenges, research is the key to addressing the problems of modern society and finding innovative, sustainable solutions. This sixth issue continues this mission, offering an in-depth and enlightening perspective on critical issues for the future.

The sixth issue provides a comprehensive and enlightening overview, organised around three scientific articles, a specialised monograph, and two practical case studies. The articles section explores the vital connection between science,

economics and the environment. One study examines the critical relationship between pollination and food security from the perspective of agricultural producers in Itapúa, Paraguay. Demonstrating its ongoing commitment to the circular economy, the journal includes an article focusing on waste recovery through the production of biogas from the fermentation of by-products generated in the processing of *Physalis peruviana* L. (aguaymanto). Studies on the recovery of by-products such as this one are in line with previous research published in the journal, which has focused on olive biomass, whey and slaughterhouse waste. Additionally, the issue presents an evaluation of the biostimulant effect on plants using microalgae extracts obtained from a circular economy process.

To complement this research, the issue features a monograph on bioentrepreneurship in Latin America and the Caribbean, which highlights the contributions of the IICA Centre for Agribusiness and Investment. This approach recognises the importance of business models, human capital, and territorial development, emphasising the need for social awareness, training, and research to promote sustainable rural development.

Finally, two success cases are presented to illustrate how collaboration and practical application can transform knowledge into concrete action. The first story addresses the global issue of food loss and waste (FLW), as previously discussed in the journal, and presents concrete proposals within the framework of the ZEROW project. The second success story demonstrates the use of alternative technologies for managing organic waste in developing countries, using the Hydrothermal Carbonisation Plant in Mexico City as an example. These examples demonstrate how resource reuse and practical innovation can solve sectoral problems. Similar solutions have previously been achieved using microalgae and bacteria as valuable raw materials, or by managing waste from protected agriculture in Andalusia. Interdisciplinary collaboration and the practical application of these findings are essential for transforming knowledge into actions that drive positive change towards a more sustainable and regenerative model.

Kind regards.

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