



FINTECH AND THE CIRCULAR ECONOMY: EMERGING SYNERGIES FOR SCALING SUSTAINABLE IMPACT

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Abstract: *The paper explores technologies that could accelerate circular innovation, such as blockchain, tokenization, artificial intelligence-based investment platforms and crowdfunding.*

• Introduction

In recent decades, the global agenda has focused on issues such as environmental degradation, loss of natural resources and climate change. In these circumstances, the traditional linear economic model based on the processes of extraction, production, consumption and disposal is increasingly being challenged as it is considered unsustainable in the long term. The circular economy, on the other hand, advocates a systems approach that reduces environmental impact by optimizing resource use, recovering waste and designing products for reuse, remanufacturing and recycling.

• Material and method

This paper utilizes a qualitative methodology with exploratory and analytical dimensions, focused on identifying and interpreting synergies between digital financial technologies (FinTech) and circular economy models.

• Results and discussions

Platforms using blockchain and their features

Platform	Core technology	Applicable fields	Main functionalities	Key differentiator
Everledger	Blockchain + AI	Diamonds, wines, batteries, art	Traceability, certified provenance, anti-fraud protection, ESG scores	Accent pe produse de lux și artefacte
Provenance	Blockchain (Ethereum)	Fashion, food, cosmetics	Product traceability, transparent labeling, verification of ethical and environmental claims	Focus on luxury products and artifacts
IBM Food Trust	Blockchain (Hyperledger)	Global food chains	Real-time traceability, stock monitoring, automated alerts, food safety audits	Massive corporate infrastructure and partnerships
MineHub	Blockchain	Mining, logistics	Documentation management, raw material traceability, compliance	Specializing in industrial mining
Circularise	Blockchain + Zero-Knowledge Proofs	Plastics, automotive	Confidential traceability, ESG reporting without disclosing commercially sensitive data	Unique ZKP technology for data protection

• Conclusions

The analysis revealed a dynamic environment in which digital financial tools such as blockchain, tokenization, artificial intelligence used in investment decisions and crowdfunding platforms are helping and revitalizing local and international economic ecosystems.

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