



Zero Waste and Circular Production Model with AI-Supported Biomass Ecosystem (BioLoop)



BioLoop develops an AI-driven circular biomass ecosystem based on zero-waste principles. Regional biomass resources are digitally classified, while digital twin models enable real-time monitoring and optimization of conversion processes. AI algorithms identify optimal conditions for each biomass type, increasing efficiency and minimizing emissions. By-products such as biogas and biochar are reused through industrial symbiosis, fostering circular economy models and sustainable, traceable biomass valorization.

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