



BIOTRANSFORM

TRANSITION PATHWAYS TO CIRCULAR BIO-ECONOMY

Financing tools for circular bioeconomy

Jean Benoit Bel and Anita Lombardo

*Association of cities and regions for sustainable resource
management (ACR+)*





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Funding/financing category	Description
Alternative funding	Different types of fundings such as crowdfunding (pooling resources of different actors against the repayment after the project is active, rewards, or shares), green municipal bonds (debt investment issued by municipalities to fund green investments, that can be made attractive via tax-exemption), financial lease (the lessee becomes the legal owner of an asset after the contract), operational lease (the assets return to the lessor after the contract), or social impact bonds (bonds issued by public organisations that enable private investments in project tackling social challenges, with the return or repayment depending on the social outcomes of the project).
Equity & quasi-equity	<p>Funders invest money to get a share in a project, to earn dividend or the possibility to sell the share at a higher price.</p> <p>Quasi-equity offers non-dilutive equity risk capital paid back based on the performances of the project</p>
Grants & subsidies	Funders provide money to support a project without expecting a payment back
Guarantees	Funders take over part of the obligations in case of non-payment. With collateral guarantees, the funder receives a claim to the asset of the company. Loan guarantees can be provided by third parties that assure the payment of the debt if the project cannot do it.
Debts	Funders lends money to a project against a repayment with interests (loan). The company can also issue bonds that can attract capital in case of the impossibility to cover the costs with a bank loan.

Main funding and financial categories

Source: HOOP project

Risk assessment and funding categories for several types of circular bioeconomy projects

Project type	Cash-flow characteristics	Risk assessment	Funding and financial categories				
			Alternatives	Equity	Grants	Guarantees	Debt
Research & Development	Pre-revenue	Very high	●	●	●	●	
Start-up	Pre-profit	Very high		●	●	●	
Scale-up	Pre-profit to profit	High		●			●
Growth	Profit	Medium		●			●
Mature	Profit	Low					●
Advisory	N/A	N/A			●		●

Source: HOOP project



Examples of funding schemes for CBE projects

Shared management funds

ERDF (co-fund depending on operational program) > investment in bioproduct valorisation from biowaste and wastewater. To be financed, project must be in line with the Regional Operational Programme.

Cohesion fund (ranging from 1 M€ to over 20 M€) > investments in the field of environment, including water and waste management. Applicants should first check with the national authority managing the fund. Funding rate of 85% of project cos. Beneficiaries: cities and regions from EU Member States with a gross national income per capita below 90% EU-27

Just transition fund (ranging from 1 M€ to over 20 M€) > productive investments in SME, R&I activities, aligned with the Just Transition objectives that include new green jobs for circular bioeconomy. Cities and Regions from EU Member States that pre-pared a strategic Territorial Just Plans

European funding Programmes

Horizon Europe

- HE Cluster 6 : Areas of intervention related to urban circular bioeconomy: food systems; bio-based innovation systems in the EU's bioeconomy; circular systems.
- H 2020 Program for smart cities (climate cities contracts)
- Regional innovation valleys for bioeconomy and food systems: flagship action in building 100 regional deep-tech innovation valleys

Circular Biobased Europe Partnership

- €2 billion partnership between EU and Bio-based Industries Consortium (BIC) projects advancing competitive circular bio-based industries.
- SMEs, Research and technology organisations (RTOs), Universities, Associations, Public authorities
- Innovation actions (Selective and sustainable (co)-production of lignin-derived aromatics), R&I actions
- Call open until September 2022, 60% to 100% financing rate

LIFE (co-funding up to 60%)

Circular economy and quality of life sub-programme includes several funding lines, among which recovery of resources from waste and water services and focuses on the implementation of innovative solutions and technologies. Best practice, pilot and demonstration projects.

European Agricultural Fund for Rural Development

- > Structural and Investment Fund linked to the second pillar of the EU's Common Agricultural Policy (CAP).
- > LEADER: A local development method which has been used for 30 years to engage local actors in the design and delivery of strategies, decision-making and resource allocation for the development of their rural areas, implemented by around 2 800 Local Action Groups (LAGs),

Financial institution instruments

EIB and European investment fund

- investment loans for up to 50% of the total cost of urban and regional projects in the agriculture, forestry and forest-based sector, blue economy and solid waste management sectors and value chains.

European circular bioeconomy fund (Equity, quasi-equity, and debt funding)

- projects and companies in the demonstration and commercial development phases (late phase).
i.e projects on valorisation of municipal biowaste and wastewater sludge into bio-based products and bioenergy production.
- Targeted industry sectors are Ag- and food, forestry, blue economy, industrial biotech, bio-based chemicals and materials, packaging, personal & home care, construction, textiles and others.
- 2.5 to 10 M€ for Projects and SMEs, focusing on TRL of 6 to 9

Other national and regional funds from BIOTRANSFORM case studies

- **Northern Burgenland (Austria)** > LEADER Program (European Agricultural Fund for Rural Development)
- **Charles Spa Region (Czech Republic)** > Just Transition Fund, and the **Business Development Agency (KARP)**
- **Finland** > **Business Finland**, **Ministry of Agriculture and Forestry in Finland**, **The Academy of Finland** and **European Regional Development Fund (ERDF)**
- **Andalucia (Spain)** > **Strategy Fund for Andalusian Circular Bioeconomy Strategy**
- **Western Macedonia (Greece)** > **Just transition Fund**, **H 2020 Program for smart cities**
- **Northern Westphalia (Germany)** > **Federal Ministry of Education and Research (BMBF)**, **NRW-Patent-Validierung**, **GreenEconomy.IN.NRW** and **ZukunftBIO.NRW**.
At a binational level, the funding scheme **INTERREG DE-NL**