Now

9. Leafcycle

CIRCULOOS

Recycling Leaves into Sustainable Cat Litter (LeafCycle)

*The project LeafCycle aims to **transform** a freely available, rarely-used **natural material** – fallen tree leaves – **into a** sustainable, locally-produced biodegradable clumping **cat litter**.*

Fat Cat LEAVES

RĪGAS MEŽI

RTU RIGA TECHNICAL UNIVERSITY

Cleantech for Baltics

Partners and Roles

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FAT CAT LEAVES – Manufacturer, Project Lead.

Rīgas Meži – Supplier of raw material (leaves).

Riga Technical University – R&D partner for product optimisation and improvement, LCA.

Cleantech for Baltics – Expert in circular business modelling and value chain development, dissemination activities.

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The Challenge

Two waste streams, One missed opportunity

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Cities **spend millions** collecting fallen leaves, only to deliver them to landfill or mismanage them





15 million tonnes of non-biodegradable clumping clay litter are landfilled every year. **75%** of cat owners use clumping clay (bentonite) litter

Fat Cat LEAVES

FAT CAT LEAVES recycles fallen leaves into **biodegradable cat litter**, reducing landfill waste and giving new life to urban leaf biomass.

Value proposition

NATURAL, BIODEGRADABLE

MADE FROM URBAN LEAF WASTE

CLUMPING & ODOUR CONTROL

GOOD MOISTURE ABSORPTION

NO SYNTHETIC OR NON-BIODEGRADABLE ADDITIVES

REDUCES RELIANCE ON NON-RENEWABLE RAW MATERIALS (E.G. BENTONITE)

COMBINES PERFORMANCE & SUSTAINABILITY

LOCALLY MADE

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Circular strategy (R-strategies)

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Reduce: Lower use of virgin, non-renewable materials

Repurpose: Convert fallen leaves into valuable raw material

Recycle: Transform biomass into a functional consumer product

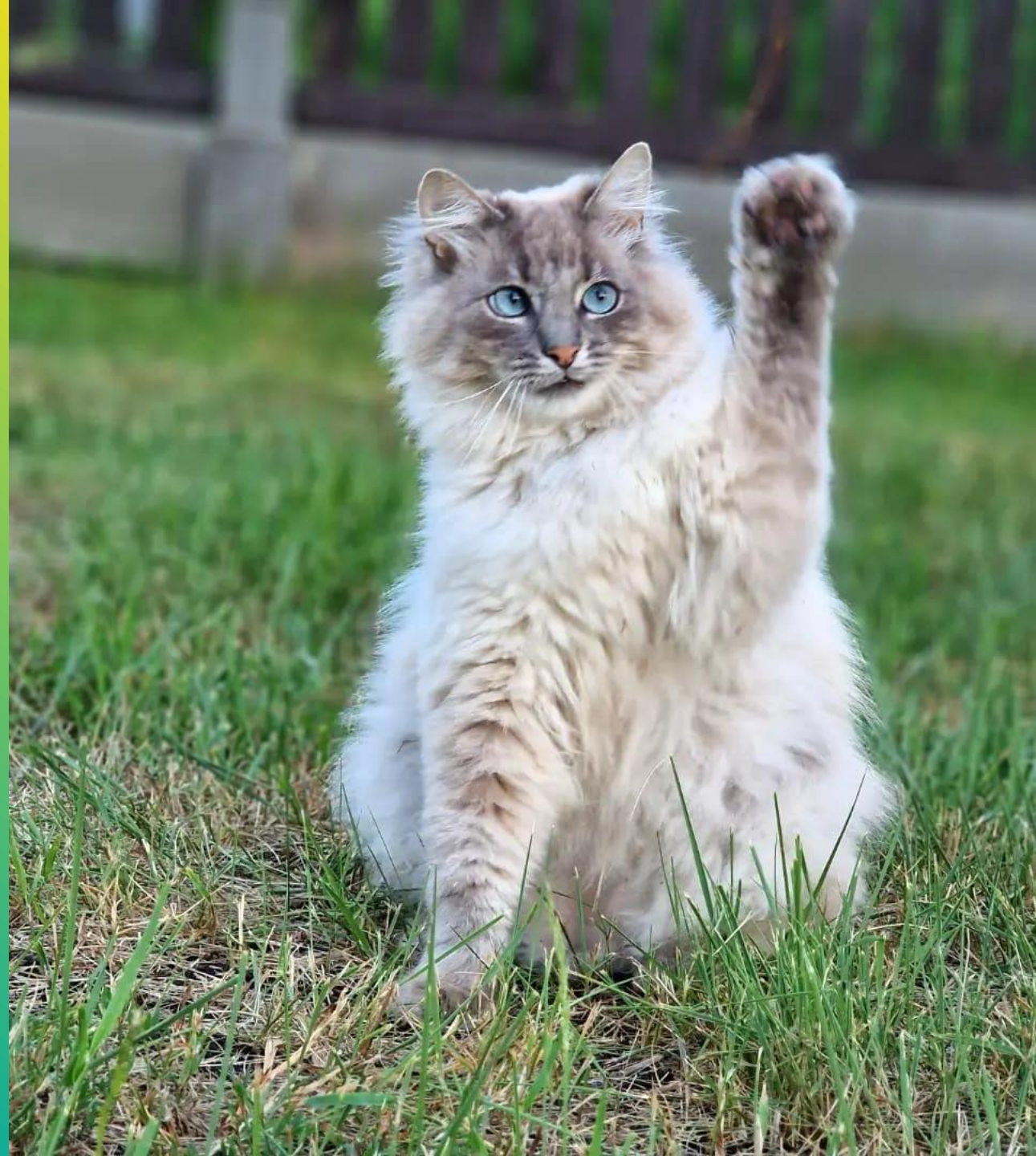
Impact

24 / 25
environmental impact components showed improvement compared with the AS-IS scenario.

76.4% lower
CO_2-eq impact per kg of product compared with bentonite-based litter.

Circular use of biomass
Replacing virgin mineral raw materials with locally available fallen leaves.

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Business Potential

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Global *(biodegradable & non-biodegradable)* cat litter market (2025):

- World – 15 Bn EUR; 220 M cats
- Europe – 5.3 Bn EUR; 127 M cats
- CAGR – 5.5%

Biodegradable cat litter market (20245:

- World – 1.27 Bn EUR
- Europe – 0.47 Bn EUR
- CAGR – 9.2%

Fat Cat Leaves – 6M EUR (2030)

Business Models:

- B2C: Direct-to-Consumer
- B2B: Retail and Distribution

Scalability Model:

- Decentralized Manufacturing
- Franchise Model
- Replication in other regions and countries

Key Partners:

- Municipalities & green-space managers
- Research institutions
- Retail & distribution partners
- Local production partners