



Webinar 1

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CIRCULOOS



**Designing a Circular Solution
that Meets Real User Need**

About me



Aleksandar Zobec
Innovation Manager

- 8+ years of Pan-European experience in venture building, fundraising, and scaling tech startups, with a focus on Horizon Europe and H2020 programs.
- Managed 12+ Horizon Europe and H2020 projects, leading multi-year, cross-border startup acceleration and innovation programs.
- Developed and coordinated proposals resulting in €30M+ in combined budgets for DeepTech, AI, and digital transformation initiatives.
- Experienced in developing and implementing exploitation strategies, sustainability plans, and scaling up innovations in diverse sectors.
- Passionate about fostering innovation, entrepreneurship, and digital transformation.



Objective

We aim to empower businesses to transition from traditional linear models to innovative circular practices. By focusing on reducing waste, enhancing resource efficiency, and closing the loop, we will provide a structured approach to embedding circular economy principles into core operations. The ultimate goal is to foster a regenerative business model that not only benefits the environment but also drives economic value and social impact.

Comprehensive Framework / Actionable Insights / Stakeholder engagement

How to leverage this training

- **Assess Current State:** Begin by evaluating your existing business operations and identifying areas for circular improvement and development using the canvases showed in this Webinar.
- **Strategize and Plan:** Use the proposed canvases to brainstorm innovative solutions and develop a clear roadmap for circular transition.
- **Engage Stakeholders:** Map and prioritize stakeholders to foster collaboration and support for your circular initiatives.
- **Implement and Monitor:** Execute your circular strategies and use the KPI canvases to track progress and refine your approach over time.



Use case Olive Pit Valorisation Pilot (Spain)

Context

Each olive-oil season, mills across Spain generate **thousands of tons of olive pits** as by-products. Today, most pits are:

- burned for low-value heat,
- landfilled, or
- sold cheaply as bulk biomass fuel.

This creates **underutilized waste streams**, unnecessary emissions, and missed economic opportunity.

Challenge

How can SMEs turn this abundant side-stream into **high-value circular products**, while reducing waste and engaging local actors across the value chain?

Circular Solution (Use Case)

Will transform olive pits into **bio-based material pellets** for cosmetics, packaging, and biocomposites.

The model connects:

- **Olive mills** (waste generators)
- **Local logistics SMEs**
- **A valorisation facility** (pelletization + materials innovation)
- **Downstream manufacturers** needing sustainable materials

Why this use case?

- It includes a **clear material loop** (waste → input → product).
- It involves **multiple stakeholders** across a real supply chain.
- It requires **user and capability mapping** (mills, transporters, manufacturers).
- It highlights where **circular business models** become viable.
- It mirrors the **KPIs mentioned in the proposal** (e.g., “Amount of olive pits valorised”).



Value Proposition

Insights

A **value proposition** explains **why customers or users should choose your solution** — what problem it solves, what outcome it creates, and what makes it distinct.

In a **circular context**, it must combine three dimensions:

1. **User Value:** Solves a real need or pain point.
2. **Stakeholder & System Value:** Reduces waste, emissions, or resource use through circular loops across stakeholders.
3. **Business Value:** Creates a viable and scalable way to deliver that impact.

Why It Matters

- **Clarity before complexity:** Without a clear value proposition, circular efforts stay abstract (“good for the planet” ≠ reason to buy).
- **Foundation for business models:** Every circular business model — from reuse to leasing — begins with a defined user value.
- **Investor and partner magnet:** Clear value articulation shows how sustainability translates into competitiveness and returns.
- **Decision filter:** Guides design, operations, and communication — what to do, what not to do.

Key Question to Ask

“What core problem am I solving for a specific user — and how does solving it in a circular way make it *better, cheaper, cleaner, or more resilient* than linear alternatives?”



Value Proposition

Value Proposition Canvas Template

<u>Section</u>	<u>Guiding Questions</u>
1. Target User / Segment	Who are you solving this for? Define specific user groups or industries. What are their key pain points or unmet needs?
2. User Problem / Job-to-Be-Done	What job does the user need to get done? What is frustrating, costly, or inefficient in their current way of doing it?
3. Circular Solution	How does your product/service solve that problem <i>and</i> reduce resource use, waste, or emissions? What circular principle (reuse, refurbish, share, etc.) do you apply?
4. Key Benefit / Outcome	What tangible improvement do users experience — cost saving, convenience, reliability, image, compliance? Quantify if possible.
5. Differentiation / Uniqueness	Why is your circular solution better than existing linear or even circular alternatives? What is hard to copy (technology, partnerships, process)?
6. Impact Dimension	What positive environmental or social outcomes result from using your solution (e.g., X% waste avoided, CO ₂ saved, local jobs created)?
7. Proof & Evidence	What data, pilots, or customer feedback validate your value proposition so far?
8. Next Step / Hypothesis to Test	What key assumption still needs validation (user willingness, cost savings, loop logistics)? What will you test next?



Value Proposition Formula

1. Classic User–Problem–Solution Frame

For [target user] who struggle with [pain/problem], our [solution] helps them [core benefit] by [how it works circularly].

2. Outcome-Driven Frame

We help [target user] achieve [desirable outcome] while [circular impact — e.g., cutting waste, emissions, or cost].

3. Why-It-Matters Frame (simplest)

[Product/Service] enables [user] to [do X better] in a way that's [smarter / cleaner / reusable / regenerative].

Key Guidance

- **Lead with user value**, not with sustainability buzzwords.
- Quantify impact if you can (“reduces waste by 40%” > “eco-friendly”).
- Keep verbs active: *reduce, enable, extend, recover, simplify*.
- Avoid “we aim to” — state what it *does*.



Value Proposition

Olive Pit Valorisation Pilot Example

Section	Guiding Questions
1. Target User	<ul style="list-style-type: none"> Small and medium olive mills in Spain producing seasonal olive pits Manufacturers needing sustainable bio-based material inputs (cosmetics, packaging, biocomposites)
2. User Problem / Job-to-Be-Done	<ul style="list-style-type: none"> Mills need to remove and manage large volumes of olive pit waste cheaply and easily. They need to comply with environmental rules without extra operational burden Manufacturers need reliable, circular, traceable biomass feedstock to replace fossil-based materials.
3. Circular Solution	<ul style="list-style-type: none"> Collect, pre-clean, and transform olive pits into high-value bio-based pellets. Provide logistics + material tracking through a simple digital interface. Offer mills waste-to-value contracts and manufacturers renewable material supply.
4. Key Benefit / Outcome	<ul style="list-style-type: none"> Each participating olive mill saves ~€4–6k in disposal costs and gains €1–3k in new revenue. Manufacturers reduce material costs by €200–400 per ton and cut CO₂ emissions by 60–70%. Regionally, up to 12,000 tons of biomass stay in circulation, avoiding ~20,000 tons of CO₂ per year.
5. Differentiation / Uniqueness	<ul style="list-style-type: none"> Our solution outperforms linear burning and low-grade circular uses by converting pits into high-value materials, backed by processing know-how, regional exclusive partnerships, and digital traceability. These elements are difficult to copy and create a sustainable competitive advantage.
6. Impact Dimension	<ul style="list-style-type: none"> Our solution creates 100× higher material value than burning, reduces CO₂ by up to 70%, and is protected by exclusive feedstock partnerships, optimized processing, local logistics, and digital traceability that existing circular alternatives cannot match.
7. Proof & Evidence	<ul style="list-style-type: none"> Pellet quality verified: moisture <10%, purity >94% Pilot capacity confirmed: 2,000–3,500 tons/year available from partner mills Prototype tests: pellets validated in 2 cosmetic and 1 packaging application Emission cuts indicated: pre-LCA shows ~60–70% CO₂ reduction vs. burning Stakeholder traction: 4 mills + 2 manufacturers signed LOIs
8. Next Step / Hypothesis to Test	<ul style="list-style-type: none"> Will mills adopt the service if collection is guaranteed and the price is predictable? Will manufacturers accept bio-pellets with slightly variable seasonal properties? Can logistics stay cost-effective at regional scale? Does traceability increase willingness to pay for circular materials?



Value Proposition

Olive Pit Valorisation Pilot Example

“We help olive mills turn 120–180 tons of olive pits per season into high-value bio-pellets, cutting disposal costs by €4–6k, generating €1–3k new revenue, and reducing CO₂ emissions by 60–70%.”

That’s the pure Outcome-Driven formula:

- **Target user:** olive mills
- **Outcome:** “turn 120–180 tons into high-value pellets”
- **Value:** “cutting €4–6k costs + adding €1–3k revenue”
- **Circular impact:** “reducing CO₂ by 60–70%”



A value chain describes how value is created, delivered, and captured — from raw material extraction to product use and end-of-life, all the while mapping stakeholders and their involvement.

In a circular context, it expands to include loops — reuse, repair, remanufacture, and recycling — ensuring resources stay in circulation rather than becoming waste.

Mapping this chain means identifying all actors, flows of materials, data, and value, and uncovering where circular interventions can create both sustainability and profit.



Why It's Important

Pinpoints Leverage Points: By visualizing inputs, outputs, and stakeholders, you see where waste, inefficiency, or untapped value occur — the exact spots for circular redesign.

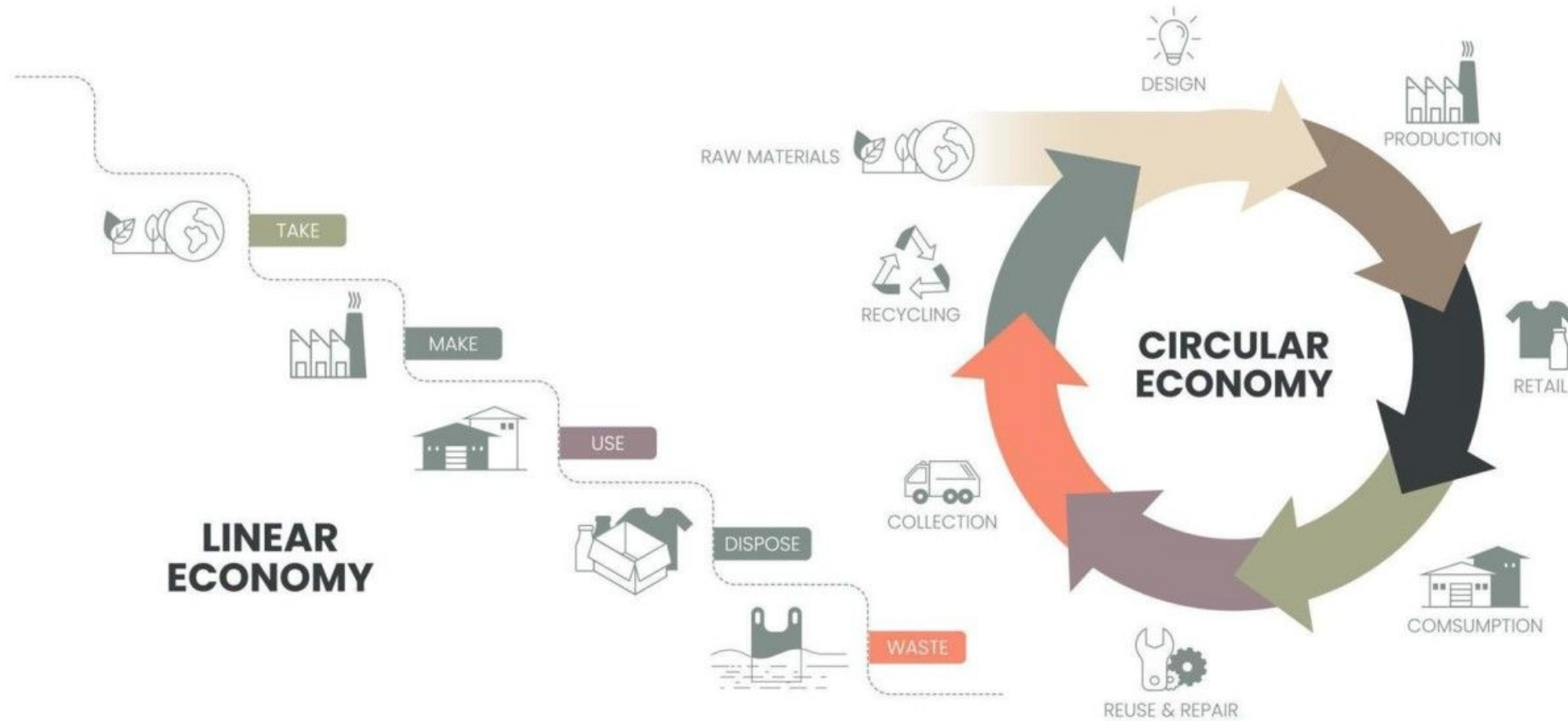
Reveals Dependencies: Circular innovation rarely happens in isolation; value chain mapping exposes where collaboration is required (suppliers, recyclers, users, logistics).

Informs Business Model Choice: Understanding the chain helps select fitting circular models (e.g., reuse, remanufacture, leasing).

Bridges Strategy and Practice: It turns abstract sustainability goals into operational actions — where to start, who to involve, what to redesign.

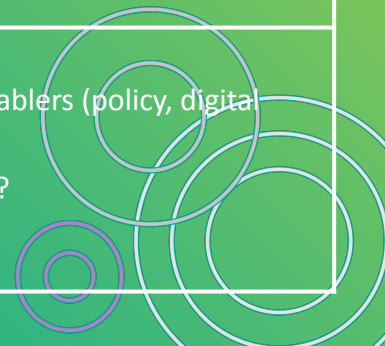


THE DIFFERENCE BETWEEN **LINEAR AND CIRCULAR ECONOMY**



Value Chain Canvas Template

<p><u>Inputs & Resources</u> What goes in: Materials, components, data, and energy that enter the system. Key questions: Are inputs renewable, recycled, or virgin? Can you substitute materials for lower-impact or secondary ones? Who controls the inputs — and what dependencies exist?</p>	<p><u>Value Creation Activities</u> What happens inside: Production, assembly, distribution, and supporting operations. Key questions: Where does most value (and waste) emerge? Which steps are energy-intensive or material-inefficient? What design or process changes could “design out” waste?</p>
<p><u>Outputs & Users</u> Who receives value: Primary users, secondary users, and downstream stakeholders. Key questions: How is the product or service used, and for how long? What happens after first use? Is there an end-of-life plan, take-back, or reuse option??</p>	<p><u>Loops & Reverse Flows</u> How resources re-enter the system: Repair, refurbishment, remanufacture, recycling, or data feedback loops. Key questions: What mechanisms close the loop? Who manages collection, logistics, or reverse supply? How is information shared to enable reuse or recovery?</p>
<p><u>Actors & Partnerships</u> Ecosystem players: Suppliers, manufacturers, customers, recyclers, regulators, and supporting tech providers. Key questions: Who are the critical enablers of each loop? What kind of collaboration model (contractual, platform, consortium) is realistic? Where do new partnerships add circular value or resilience?</p>	<p><u>Gains for Each Actor within the Value Chain</u> What’s in it for them: Economic, environmental, and social value. Key questions: Why would each actor engage in circular practices? Can new incentives (cost savings, brand differentiation, compliance) strengthen participation?</p>
<p><u>Impact & Metrics</u> How to measure success: Material recirculation rate, waste reduction, cost savings, CO₂ avoided, or user retention. Key questions: Which KPIs prove the loop works? How can data from one stage feed improvement in another?</p>	<p><u>Barriers & Enablers</u> Note major challenges (financial, technical, regulatory) and enablers (policy, digital tools, partnerships). Key Questions: what limits scaling, and what unlocks progress?</p>



Value Chain Olive Pit Valorisation Pilot Example

<p><u>Inputs & Resources</u> What goes in: 120–180 tons/season per ml of olive pits (biomass side-stream) ; Water + energy for cleaning & pelletisation ; Data from mills: volumes, moisture, collection schedules Logistics capacity (small trucks; <40 km routes) Key questions: 100% secondary input (no virgin raw materials) Dependency: seasonal availability (Oct–Jan)</p>	<p><u>Value Creation Activities</u> What happens inside:</p> <ul style="list-style-type: none"> • Collection & pre-cleaning (remove stones, debris) ; Drying to <10% moisture • Pelletisation & quality control ; Packaging + short-haul delivery ; Digital traceability logging <p>Where value emerges:</p> <ul style="list-style-type: none"> • Upcycling raises value from €0–5/ton → €850–950/ton • Largest waste reduction: during cleaning (recoverable biomass)
<p><u>Outputs & Users</u> Who receives value:</p> <ul style="list-style-type: none"> • Primary users: mills (waste → revenue), material buyers • Secondary users: cosmetics, packaging, biocomposites • Downstream: consumers buying sustainable products <p>End-of-life plan:</p> <ul style="list-style-type: none"> • Pellets → final products → recycling/biodegradation depending on blend • Potential return-loop for manufacturing scrap 	<p><u>Loops & Reverse Flows</u> How resources re-enter system:</p> <ul style="list-style-type: none"> • Recovery of dust & fines → reintroduced into pellet mix (5–10%) • Return of production scrap from manufacturers • Digital feedback loop: material passports, CO₂ tracking <p>Who manages reverse logistics:</p> <ul style="list-style-type: none"> • Processor + logistics SME (short routes)
<p><u>Actors & Partnerships</u> Critical actors:</p> <ul style="list-style-type: none"> • Olive mills (feedstock providers) ; Logistics SME (collection & return flows) • Pelletisation facility (processing) ; Manufacturers (cosmetics, packaging) • Regulators & certifiers (CO₂ reporting, quality standards) <p>Partnership model:</p> <ul style="list-style-type: none"> • LOIs with 3–5 mills; off-take agreements with 2 manufacturers • Simple bilateral contracts + traceability data-sharing 	<p><u>Gains for Each Actor within the Value Chain</u> Olive mills: Save €4–6k disposal costs ; Earn €1–3k revenue Logistics SME: Stable seasonal contracts worth €20–40k/year Pelletisation facility: Sell pellets for €850–950/ton ; Total pilot revenue: €1.2–2M/year Manufacturers: Save €200–400/ton vs. fossil pellets ; Access traceable circular material Region: 8,000–12,000 tons/year diverted from burning ; 14,000–20,000 tons CO₂ avoided</p>
<p><u>Impact & Metrics</u></p> <ul style="list-style-type: none"> • % of pits valorised (target: 70–85%) • CO₂ avoided (target: 60–70% reduction) • Material recirculation rate (target: >90% usable output) • Cost savings for mills (tracked per season) • Number of circular off-take contracts (target: 2–3 buyers) 	<p><u>Barriers & Enablers</u> Barriers: Seasonal supply peaks ; Moisture variability affects pellet quality ; Need certification for cosmetic-grade pellets ; Logistics cost sensitivity Enablers: Short-haul logistics (<40 km) ; Existing mill relationships ; Regional sustainability policies ; Digital traceability improves value + trust</p>

User & Capability Mapping

Insights

The Target Users Capabilities is about understanding who your users are, what they can do, and how their capabilities (or limits) shape the success of a circular solution.

Most teams only profile demographics — this tool digs deeper: what behaviors, knowledge, and infrastructure do users already have that enable circularity?

Guiding question:

“Can our intended users realistically adopt, maintain, or return our circular solution — and what support do they need to do so?”



User & Capability Mapping

Template

<u>User Segment</u>	<u>Motivations / Drivers</u>	<u>Pain Points / Barriers</u>	<u>Existing Capabilities</u>	<u>Missing Capabilities / Needs</u>	<u>Engagement Strategy / Support Needed</u>
Who are they? Define 2–3 segments (e.g. SME manufacturer, retail customer, farmer).	Why would they adopt a circular solution? (Cost savings, compliance, reputation, convenience, values.)	What might stop them? (Price sensitivity, habits, lack of trust, lack of infrastructure.)	What skills, tools, or systems do they already have that enable circular adoption? (Sorting, data tracking, repair know-how.)	What’s missing for circular participation? (Knowledge, infrastructure, incentives.)	How will you bridge the gap? (Training, deposit system, app reminders, service contracts.)

Identify up to 3 core user segments (keep it lean).

Fill one row per segment, combining customer research, observation, and assumptions.

Then discuss: “Where is friction highest?” — that’s your design focus.

The output feeds directly into **your value proposition refinement** (you see which capabilities you must enable for adoption).



User & Capability Mapping

Olive Pit Valorisation Pilot Example

<u>User Segment</u>	<u>Motivations / Drivers</u>	<u>Pain Points / Barriers</u>	<u>Existing Capabilities</u>	<u>Missing Capabilities / Needs</u>	<u>Engagement Strategy / Support Needed</u>
Olive Mills (Primary Feedstock Providers)	<ul style="list-style-type: none"> • Reduce waste-handling cost (€4–6k saved/season) • Earn small but meaningful revenue (€1–3k/season) • Meet environmental compliance easily • Improve local reputation as “zero-waste” mill 	<ul style="list-style-type: none"> • Fear of extra workload during peak season • Uncertainty about long-term demand • Low trust in new processors (past burnouts) • Seasonal variability (moisture, volume) 	<ul style="list-style-type: none"> • Storage areas for pits • Basic machinery to separate pits from pulp • Routine data logs on production volume • Established short-haul logistics relationships 	<ul style="list-style-type: none"> • Controlled drying to <10% moisture • Digital reporting of waste quantities • Understanding of pellet quality standards 	<ul style="list-style-type: none"> • Guaranteed pickup schedule + simple contract • “No extra work” model (processor handles cleaning/drying) • One-page onboarding + mobile reporting tool • Incentivise with per-ton payment + CO₂ report for PR
Manufacturers (Cosmetics / Packaging / Biocomposites)	<ul style="list-style-type: none"> • Reduce raw material cost by €200–400/ton • Meet sustainability and product transparency targets • Differentiate with circular, traceable inputs • Reduce dependency on volatile fossil-based pellets 	<ul style="list-style-type: none"> • Concern about quality consistency • Need certification (e.g., REACH, cosmetic-grade specs) • Supply reliability during off-season • Hesitation toward “new material” supply risk 	<ul style="list-style-type: none"> • Quality inspection labs • Mixing/blending lines that accept pellet feedstock • ESG/CO₂ reporting systems • Stable procurement workflows 	<ul style="list-style-type: none"> • Specs for olive-pit pellet integration • Adjusted blending settings for variable feedstock • Long-term supply assurance 	<ul style="list-style-type: none"> • Provide small sample batches for testing • Certify pellet batches + traceability passport • Offer fixed-price off-take contracts • Deliver clear CO₂-reduction numbers
Logistics SME (Short-Haul Collector)	<ul style="list-style-type: none"> • Stable seasonal contracts (€20–40k/year) • Simple, predictable route planning • Entry into growing circular supply chains 	<ul style="list-style-type: none"> • Seasonal spikes → capacity stress • Mills located on rural roads → access issues • Need for backhauling opportunities to reduce empty runs 	<ul style="list-style-type: none"> • Fleet of small trucks suitable for rural areas • Basic tracking (GPS, scheduling tools) • Existing service relationships with mills 	<ul style="list-style-type: none"> • Moisture-aware handling (to avoid mold) • Coordinated schedules across multiple mills • Data sharing for digital traceability 	<ul style="list-style-type: none"> • Pre-planned collection calendar • Training on pit handling + contamination risks • Digital app for weight/moisture input • Bonus for reliable/consistent pickups

A circular business model defines how an organization creates, delivers, and captures value while keeping materials, components, and data in continuous use.

Unlike linear “take–make–dispose” systems, circular models are designed for loops — reuse, regeneration, and recirculation.

They treat waste as a design flaw, not an unavoidable outcome.



Core Principle

Value is no longer created by selling more products — it's created by keeping resources productive for longer.

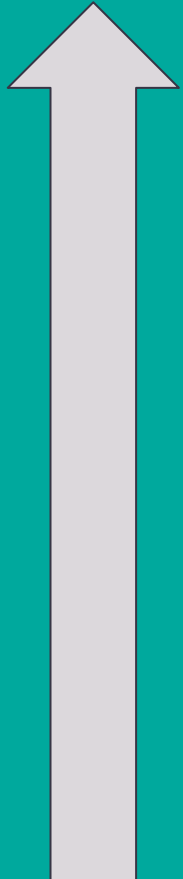
Circular business models re-think **ownership, revenue, and relationships** so that environmental and economic value reinforce each other.

Linear Logic	Circular Shift	Why It Matters
Sell more units	Deliver performance or service	Aligns revenue with durability
End-of-life disposal	Plan for reuse, repair, recovery	Retains embedded energy and materials
Siloed operations	Shared loops and partnerships	Builds resilience and new revenue streams

12 R Strategies

Framework

High Retained Value



Low Retained Value

- 1. Refuse** Avoid wasteful or unsustainable products, processes, or “business-as-usual” methods.
- 2. Reduce** Reduce raw material and resource use per unit to boost efficiency and cut impact.
- 3. Rethink** Rethink business models, e.g., shift from ownership to product-as-a-service.
- 4. Redesign** Redesign products and systems for circularity, zero waste, and sustainability from the start.
- 5. Re-earth** Capture and compost biomaterials to support natural regeneration cycles.
- 6. Reuse** Enable reuse loops like second-hand markets, refills, or reusable packaging.
- 7. Repair** Offer maintenance and repair to extend product life and usability.
- 8. Refurbish** Refurbish and upgrade used products to restore and improve function.
- 9. Remanufacture** Keep materials in circulation by reprocessing them into new products.
- 10. Repurpose** Repurpose products or parts for new uses beyond their original function.
- 11. Recycle** Recover and process materials into new raw inputs while retaining value.
- 12. Recover** Use waste-to-energy tech to recover energy from non-reusable waste.



<u>Model Archetype</u>	<u>Core Logic</u>	<u>Example Applications</u>	<u>Key Insight / Design Cue</u>
1. Bio-based Input Models	Replace fossil or virgin resources with renewable biomass; focus on sustainable feedstock sourcing and certification.	Bioplastics from crop residues; algae for pigments, protein, or polymers.	Secure dual value: stable supply + sustainability label (FSC, ISCC).
2. By-product Valorisation / Cascading Use	Treat residues, waste, and by-streams as feedstocks for new value chains.	Food waste → biogas → digestate; brewery grain → insect protein.	Profit sits in logistics and partnerships, not tech. Coordination is king.
3. Regenerative Production Systems	Design production to restore ecosystems — soil health, biodiversity, carbon sinks.	Agroforestry raw materials, mycelium composites, regenerative farming networks.	Move from “less harm” to “net-positive.” Measure and monetise ecosystem services.
4. Bio-based Service & Platform Models	Offer biological functions or loop-enabling services instead of selling goods.	Composting-as-a-Service; digital marketplace linking waste producers with bio-material startups.	Traceability and data = trust. Transparency becomes part of the product.
5. Industrial & Territorial Symbiosis	Cluster industries to exchange materials, heat, water, and residues.	Pulp mill + biogas + aquaculture co-location; eco-industrial parks.	Regional infrastructure and governance matter more than product design.

Where does your circular advantage come from?”

If it's material → Input or Cascading model.

If it's process or system → Symbiosis.

If it's service or platform → Bio-based service model.

If it's environmental regeneration → Regenerative model.

Circular Business Models

Template

<p><u>1. Circular Problem</u> Identify the main environmental, social, or economic pain points you're solving.</p> <ul style="list-style-type: none"> • What are the top three problems or inefficiencies in your market or value chain? • What waste, emissions, or lost value does your solution target? 	<p><u>2. Circular Solution</u> Describe your product, service, or system and how it closes the loop.</p> <ul style="list-style-type: none"> • Which circular principles does it apply (reuse, repair, refurbish, regenerate, etc.)? • How scalable or replicable is it? 	<p><u>3. Circular Value Proposition</u> State the unique benefit you deliver to users and the system.</p> <ul style="list-style-type: none"> • Why is it better than linear or semi-circular alternatives? • How do circularity and user value reinforce each other? 	<p><u>4. Customer Segments</u> Identify who benefits and who pays.</p> <ul style="list-style-type: none"> • Who are your ideal users, early adopters, or clients? • What motivates them to adopt circular solutions? • Which partners or communities are indirectly impacted?
<p><u>5. Existing Alternatives</u> Analyse current solutions and competitors.</p> <ul style="list-style-type: none"> • What do they do well, and where do they still waste resources? • What lessons can you borrow or improve on? 	<p><u>6. Circular Metrics</u> Decide how you'll measure circular performance.</p> <ul style="list-style-type: none"> • Material recovery, reuse %, waste reduction, CO₂ savings, customer retention, etc. • What baseline and target values can you track? 	<p><u>7. Purpose & Impact</u></p> <ul style="list-style-type: none"> • Express your mission and operating commitments. • What change are you driving for people, planet, and prosperity? • How does your model advance regeneration, transparency, inclusion, and ethical sourcing? • What measurable outcomes prove progress? 	<p><u>8. Loops & Ecosystem Opportunities</u> Map your circular network.</p> <ul style="list-style-type: none"> • What partners, materials, or technologies enable your loops? • Which collaborations unlock new forms of value or reduce costs?
<p><u>9. Channels & Early Adopters</u> Explain how you reach users and build early traction.</p> <ul style="list-style-type: none"> • Which communication, distribution, or digital channels work best? • Who are your first believers, and how will you engage them? 	<p><u>10. Revenue Streams & Cost Structure</u> Show how circularity sustains the business financially.</p> <ul style="list-style-type: none"> • What revenue mechanisms (subscription, pay-per-use, take-back fee, data service)? • How do circular practices cut costs or generate savings? • What's the balance between investment and circular ROI? 	<p><u>11. Transition Plan</u> Outline concrete next steps for circular implementation.</p> <ul style="list-style-type: none"> • What are the first 3–5 actions, resources, and milestones for the next six months? • Who leads each step, and what partnerships are required? 	<p><u>12. Risk Assessment</u></p> <ul style="list-style-type: none"> • Briefly identify the risks • Briefly identify ways to mitigate the risk

<p>1. Circular Problem</p> <ol style="list-style-type: none"> Low-value disposal of olive pits (sold as biomass for €0–5/ton). High emissions from burning (≈1.8 t CO₂ per ton of pits). Lost economic value — pits could feed high-value markets (cosmetics, packaging). <p>Waste targeted:</p> <ul style="list-style-type: none"> 120–180 tons/season per mill Regional supply: 8,000–12,000 t/year 	<p>2. Circular Solution</p> <p>A regional service that collects, cleans, dries (<10% moisture), and pelletises olive pits into high-value bio-based material pellets.</p> <ul style="list-style-type: none"> Replace linear disposal with material upcycling Pits → cosmetic granules, composite fillers Recycle / Regenerate: reintroduce production scrap into pellet mix (5–10%) Replicable in any olive-growing region (Spain, Greece, Italy, Tunisia). Processing modular: 1–5 t/day units. 	<p>3. Circular Value Proposition</p> <p>“Turn 120–180 tons/season of olive pits into high-value pellets, saving mills €4–6k in disposal costs, generating €1–3k revenue, and reducing CO₂ by 60–70%.”</p> <ul style="list-style-type: none"> 100× higher value than burning Traceable, certified circular feedstock Lower material cost for manufacturers (–€200–400/ton) Circularity reinforces user value: More circular = more profitable (waste → resource). Higher transparency = higher willingness to pay 	<p>4. Customer Segments</p> <p>Paying customers / users:</p> <ul style="list-style-type: none"> Manufacturers (cosmetics, packaging, biocomposites) Olive mills (indirect users; benefit from savings + revenue) <p>Early adopters:</p> <ul style="list-style-type: none"> Mills already facing disposal pressure Manufacturers with ESG targets Indirectly impacted: Logistics SMEs Local municipalities (lower waste burden) Regional supply chain actors
<p>5. Existing Alternatives</p> <ul style="list-style-type: none"> Burning pits (cheap, dirty, zero valorisation) Low-grade biomass pellets (€20–40/ton value) Landfilling in some regions (costly + emissions) <p>What they do well & Where they fail:</p> <ul style="list-style-type: none"> Simple, predictable, known processes Waste valuable material resources High CO₂ emissions No traceability No high-value applications <p>Opportunity:</p> <ul style="list-style-type: none"> Move biomass → premium circular materials with industrial-grade quality. 	<p>6. Circular Metrics</p> <ul style="list-style-type: none"> % of pits valorised: target 70–85% CO₂ avoided: 60–70% reduction vs. burning Material recovery rate: >90% usable output Cost savings for mills: €4–6k per season Revenue generated: pellets sold at €850–950/ton Number of circular buyers: target 2–3 in first year 	<p>7. Purpose & Impact</p> <p>Mission: Enable olive regions to convert agricultural waste into regenerative, high-value materials.</p> <ul style="list-style-type: none"> Income stability for mills Local job creation (processing + logistics) Up to 20,000 t CO₂ avoided regionally Biomass circularity instead of burning Regional economic value: €1.5–2.5M/year Replace fossil inputs → renewable biomass Provide transparent material passports Promote ethical sourcing (local supply chains) 	<p>8. Loops & Ecosystem Opportunities</p> <ul style="list-style-type: none"> Pit → pellet → product → scrap → pellet Digital traceability closes the information loop Return logistics for production fines <p>Enabling partners:</p> <ul style="list-style-type: none"> Olive mills → feedstock Logistics SMEs → collection Pellet facility → processing Manufacturers → demand engine Certifiers → traceability validation <p>New value opportunities:</p> <ul style="list-style-type: none"> Sell CO₂ savings data Expand to other agricultural side-streams
<p>9. Channels & Early Adopters</p> <p>Channels:</p> <ul style="list-style-type: none"> Direct sales to manufacturers Regional industry associations Sustainability/ESG networks Demonstrations + sample batches <p>Early adopters:</p> <ul style="list-style-type: none"> Cosmetic brands seeking natural exfoliants Packaging manufacturers replacing virgin fillers Mills with high disposal costs 	<p>10. Revenue Streams & Cost Structure</p> <ul style="list-style-type: none"> Sale of bio-material pellets (€850–950/ton) Processing fees (optional) CO₂ data services (premium) Long-term off-take contracts <p>Cost structure:</p> <ul style="list-style-type: none"> Collection + logistics Drying + pelletisation energy Labour + Maintenance + storage Certification + traceability system <p>Circular ROI:</p> <ul style="list-style-type: none"> Waste becomes high-value feedstock Efficient logistics → –25% collection cost High-margin pellet sales 	<p>11. Transition Plan</p> <ul style="list-style-type: none"> Mills onboarding (M1–M2): secure 3–5 mills (2,000–3,500 t/year). Pilot pelletisation (M2–M3): produce 3–5 sample batches. Manufacturer testing (M3–M4): validate cosmetic/composite use. CO₂ + LCA baselines (M4–M5). Off-take contract negotiation (M5–M6). <p>Lead actors: pellet facility, mills, 2 manufacturers, logistics SME.</p>	<p>12. Risk Assessment</p> <p>Main Risks:</p> <ul style="list-style-type: none"> Seasonal variability in pit quality Manufacturers rejecting material quality Logistics cost overruns Certification delays <p>Mitigation:</p> <ul style="list-style-type: none"> Pre-drying + uniform storage Pilot testing with multiple formulations Short-haul optimized routing Parallel certification pathways

Establishing Strategic Partnerships

Insights

- Value chain mapping: who do you need to collaborate with (Distributors, resellers, pilots and large industry players)
- Develop a strategy
- Building relationships & Personal Relationships towards **TRUST**
- Documenting stakeholder engagement (LOIs, MoU, pilots, co-creation agreements, etc)



Establishing Strategic Partnerships

Insights

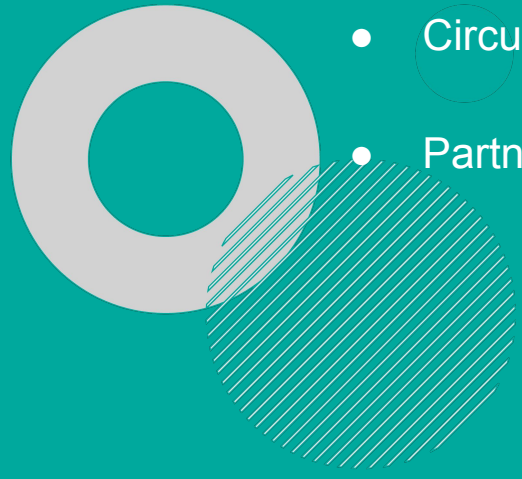
CIRCULOOS

“Circularity cannot be achieved by a single actor. Every loop you design will cross the boundaries of your organization.”

Who do we depend on to keep our product, material, or value in circulation?”

Why this matters:

- Inputs, production, logistics, and recovery rarely sit under one roof.
- Circularity relies on **shared responsibility** — flows instead of transactions.
- Partnerships determine whether your model is **operational** or just a **good idea**.



Establishing Strategic Partnerships

Insights



<u>Partnership Type</u>	<u>Purpose / Why It Exists</u>	<u>Examples</u>
Feedstock / Input Partners	Ensure reliable, sustainable, traceable material supply.	Farmers, recyclers, material suppliers, cooperatives.
Production / Processing Partners	Handle transformation you can't do in-house.	Manufacturers, lab facilities, food processing units.
Distribution & Logistics Partners	Move materials/products forward and back.	Delivery services, wholesalers, municipal waste operators.
Reuse / Repair / Refurbishment Partners	Extend lifecycle; keep products in circulation.	Repair shops, service centers, maker-spaces.
Recovery & Reverse Logistics Partners	Enable take-back, return incentives, collection.	Local governments, retailers, packaging hubs.
Data & Certification Partners	Create trust, verification, traceability.	LCA consultancies, blockchain traceability platforms, certification bodies.
Market & Commercialization Partners	Unlock channels, early adopters, customer trust.	Retailers, procurement departments, distributors.

Establishing Strategic Partnerships

Partnership Design Table Template



Don't try to impress with partner lists.

Focus on the two actors who make your loop possible.

Fill one row per partner. The clarity matters more than the quantity.

Partner Candidate	Why They Matter (loop dependency)	What They Gain (their incentive)	What We Need (our ask)	First Low-Risk Step
<i>Name the organization, group, or actor.</i>	<ul style="list-style-type: none"> • Which part of the loop do they control? • What can't you do without them? • What flow (material / data / logistics) depends on them? 	<ul style="list-style-type: none"> • What's in it for them? • Cost savings? New revenue? Faster compliance? Better public image? • Be specific. 	<ul style="list-style-type: none"> • The concrete thing you need from them (not "support"). • Access? Volume? Data? Facility use? Pilot period? 	<ul style="list-style-type: none"> • One move that takes < 2 weeks and doesn't require contracts. • A call? A test batch? A shared measurement?

Establishing Strategic Partnerships

Partnership Design Table Template



Partner Candidate	Why They Matter (loop dependency)	What They Gain (their incentive)	What We Need (our ask)	First Low-Risk Step
Olive Mills (Feedstock Providers)	They supply 100% of the raw material (120–180 tons/season per mill). Without mills, no loop exists.	<ul style="list-style-type: none"> • Save €4–6k/season in disposal costs • Earn €1–3k from valorisation contracts • Compliance + “zero-waste mill” reputation 	<ul style="list-style-type: none"> • Reliable seasonal scheduling • Basic volume/moisture data • Storage space for collected pits 	1-month pilot: collect 10–20 tons from a single mill to prove ease + value.
Logistics SME (Short-Haul Collector)	They enable material flow between mills and processing facility; without logistics the loop breaks.	<ul style="list-style-type: none"> • Seasonal contracts worth €20–40k/year • Predictable routes + recurring volume • Entry into circular economy operations 	<ul style="list-style-type: none"> • Scheduled pickups (2–3×/week) • Moisture-protective handling • Digital logging of weight 	Two-week test route between 2 mills and the facility to calibrate timing, moisture, and costs.
Manufacturers (Cosmetics / Packaging)	They create demand for pellets — closing the economic loop.	<ul style="list-style-type: none"> • Lower raw material cost (–€200–400/ton) • 60–70% CO₂ reduction • Traceable circular feedstock for ESG reports • Differentiation in product sustainability 	<ul style="list-style-type: none"> • Testing + feedback on pellet batches • Quality requirements (particle size, purity) • Off-take agreements (monthly or seasonal) 	Send 50–100 kg of sample pellets for lab and small-line testing.

Foreseen actions

By M6 feel free to use in your business deliverables

- *Value Proposition Template + Value proposition statement*
- *Value Chain Canvas*
- *User Capacity Mapping*
- *Circular Business Model*
- *Partnership Design Template*



Next up

Upcoming aspects in Webinar 2

- *Commercialization Strategy,*
- *Go-to-Market Planning,*
- *Cost-Benefit;*
- *ROI Analysis,*
- *Raising Investment, and Pitch Deck Essentials.*



Q&A

