

Deep Innovation: An Innovation Feasibility Assessment & Launch Roadmap Dossier

1. Product Vision & Value Proposition

Product Vision: A future where every textile product contributes to a verifiable closed-loop system, rendering virgin material reliance obsolete. ReGenScale serves as the indispensable, universal ledger that accelerates textile circularity at industrial scale.

Core Value Proposition: ReGenScale solves the acute volume-verification bottleneck inherent in scaling high-volume chemical and mechanical textile recycling by providing robust, transparent, and auditable mass balance accounting.

Unique Selling Point (USP 1) - Verifiability: Offers immediate, credible assurance for recycled content claims, mitigating greenwashing risks through immutable traceability of certified credits from authenticated waste inputs (post-consumer garments) to final manufactured product.

Unique Selling Point (USP 2) - Efficiency: Converts often chaotic, mixed post-consumer textile waste streams into standardized, fungible, and tradable 'Recycling Credits,' optimizing procurement for large brands aiming for aggressive recycled content targets.

Unique Selling Point (USP 3) - Scale: The platform enables the utilization of previously difficult-to-process, mixed feedstock streams, unlocking vast quantities of global textile waste for high-quality recycled fiber production.

1. Consumer & Market Impact

Persona 1: The Sustainability Director (Global Apparel Brand)

Pain Point: Difficulty meeting public commitments for recycled content due to lack of high-volume, cost-effective, and verifiably traceable fiber inputs.

"Testimonial": "ReGenScale gives us the regulatory certainty and scalable volume we need to hit our 2030 targets. It transforms our waste liabilities into strategic, auditable assets."

Persona 2: The Textile Innovator (Advanced Chemical Recycler)

Pain Point: Challenges in selling recycled output at a premium and proving chain of custody when inputs are co-mingled or batch-processed.

"Testimonial": "This platform finally matches our innovative output with verified demand, ensuring we get fair value for our sustainable material. It feels like the essential supply chain infrastructure the industry was missing."

Persona 3: The Regulator/Auditor (Non-Obvious Stakeholder)

Pain Point: Lack of standardized, digitized reporting tools to verify compliance with global textile waste legislation and EU directives on product sustainability claims.

"Testimonial": "The standardized ledger provides instant, immutable audit trails, significantly reducing our burden. It streamlines compliance verification and ensures integrity across complex, global supply chains."

Early Market Focus: High-volume fast fashion and athleisure sectors, where material turnover is rapid and the immediate need for massive, verifiable, and compliance-ready recycled input is critical.

1. Feasibility Assessment

Technological Readiness Level (TRL): TRL 6 - System/subsystem model or prototype demonstration in a relevant environment.

Explanation: The core underlying technologies (blockchain traceability, standardized mass balance accounting principles adapted from adjacent industries like fuels and chemicals) are well-established. The current stage involves adapting and integrating these proven systems specifically for complex, global textile recycling value chains and demonstrating volume tracking in a quasi-operational setting.

Next Stage (TRL 7): System prototype demonstration in an operational environment, simulating full supply chain integration from post-consumer waste collector through recycling partners and into final product manufacturing systems.

Business Readiness Level (BRL): BRL 4 - Preliminary validation of value proposition and business model.

Explanation: The business problem (the scaling and verification gap) is strongly validated by overwhelming industry demand and ESG commitments. Initial market outreach confirms high interest from potential launch partners (large brands). However, the optimal and legally compliant fee structure (e.g., transaction fee per credit vs. subscription) and the operational legal framework for global credit trading require focused commercial validation.

Next Stage (BRL 5): Focused pilots and initial customer contracts established, defining quantifiable product-market fit metrics and securing scalable commercial terms.



1. Prototyping & Testing Roadmap

Phase 1: MVP Development (6 Months)

Goal: Build the foundational digital ledger and core credit issuance/redemption interfaces.

Action: Define and program the auditable mass balance rules based on international standards (e.g., GRS). Develop API links for integration with two initial pilot textile recycling facilities (covering both mechanical and chemical processes).

Phase 2: Targeted Field Trials (9 Months)

Goal: Validate end-to-end functionality and commercial viability.

Action: Onboard 2-3 global apparel brands as early adopters. Run end-to-end trials tracking a minimum of 500 tons of waste through recycling, credit allocation, and final product manufacturing. Simultaneously validate optimal credit pricing models.

Phase 3: Iterative Refinement & Standardization (6 Months)

Goal: Prepare the platform for general market availability and regulatory acceptance.

Action: Refine the platform based on trial data, focusing on international regulatory compliance modules and complex edge-case handling. Seek formal certification/endorsement from key textile standardization bodies (e.g., Textile Exchange) to solidify credibility.

1. Strategic Launch & Market Integration

Strategic Partnerships:

We will partner with major global fiber producers and recycling technology incumbents to ensure guaranteed supply routes for certified ReGenScale credits. Crucially, we will collaborate with major PLM (Product Lifecycle Management) and ERP providers for necessary factory-level integration.

Pilot Programs & Incentives:

Offer highly attractive subsidized platform access for the first 12 months to the top 10 global textile companies that commit to purchasing a minimum volume of ReGenScale-certified credits, rapidly driving network effect and initial volume through the system.

Distribution Channels:

Primary model is a B2B SaaS platform targeting Chief Procurement Officers and Sustainability VPs. A high-margin secondary revenue stream will be generated via a premium marketplace facilitating the trading of certified Recycled Credits.

Macrotrends Fit (Inevitability):

ReGenScale is the necessary infrastructure to capitalize on the **Circular Economy** transition and meet upcoming mandatory **Extended Producer Responsibility (EPR)** and green claims legislation, particularly in the EU and North America. It provides the digital backbone required to document the future normal of verifiable material flow.



Next Step

Secure foundational seed funding (\$2 million) to finalize the TRL 6 MVP and establish a binding strategic collaboration agreement with a major chemical recycling technology provider to co-develop and launch the first BRL 5 commercial pilot program.