CLIMATILE™

roofing & cladding

Advancing Circular and Climate-Resilient Construction

Business Model Case Study

Kwale Recycling Centre

P4G

Pioneering Green Partnerships, Investing in Impact

November, 2025

TAKAZURI™

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Contents:

Buildings are at the frontline of the climate crisis — both as contributors to global emissions and as the first to face the impacts of heat, storms, and resource stress. Yet they also represent one of the largest untapped opportunities for climate adaptation and circular innovation.

Takazuri, a Kenya- and UK-based climate-tech venture, is redefining what sustainable construction can look like through Climatile™ — a modular, recyclable roofing and cladding system designed to keep buildings cooler, safer, and more resilient. With support from P4G, Takazuri has transformed an early-stage R&D concept into a market-ready, certified product now gaining commercial traction and investor interest.

This case study traces Takazuri's pathway from concept to investment readiness documenting how product validation, manufacturing partnerships, and on-the-ground pilots in Kenya have proven both the commercial and climate value of circular building materials.

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1. BUILDING CLIMATE RESILIENCE & BRIDGING THE ROOFING GAP

1.1 Urgent Need for Building Climate Resilience & the Opportunity

The built environment sits at the center of the climate crisis — and its solution. Buildings and construction account for 37% of global CO_2 emissions[1]. Yet they also represent one of the fastest-growing markets for climate adaptation, mitigation, and circular innovation — a $150 billion-plus annual opportunity in climate-resilient materials and systems[2].

Three imperatives define this opportunity:

- Adaptation: Buildings must withstand rising heat and extreme weather — staying cooler, leak-free, and rainwater-harvest ready.
- Mitigation: Construction must reduce its footprint — integrating renewable energy and circular materials that lower embodied carbon.
- Deployment: Solutions must be simple, affordable, and easy to implement — overcoming cost, complexity, and labor shortages.

Together, these forces are reshaping how cities and industries invest in the next generation of climate infrastructure.

1.2 Global Shift in How We Build

Across both developed and emerging markets, construction is undergoing a systemic transition driven by adaptation, decarbonization, and digitalization.

- Adaptation investment in the built environment already exceeds $45–60 billion annually[3].
- Low-carbon construction materials and net-zero retrofits represent an $85–100 billion yearly market[4].
- And demand for affordable, modular housing adds another $25–40 billion annually[5].

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[1] UNEP, Global Status Report for Buildings and Construction, 2023

[2] Analysis by the Global Commission on Adaptation (2023), the World Green Building Council (2023), and the McKinsey Global Institute (2020).

[3] Global Commission on Adaptation (2023)

[4] World Green Building Council (2023)

[5] McKinsey Global Institute (2020)

- At the same time, the world must accommodate 3 billion new residents in urban areas by 2030[6] despite a 41 million-worker gap in skilled construction labor[7].

The result is a powerful shift toward systems that can be locally produced, installed quickly, and scaled affordably — unlocking both social and economic resilience.

1.3 Two fronts of the Global Challenge

i. Retrofits in the Global North: Developed markets are racing to modernize aging building stock to meet net-zero and resilience targets. Over 60% of potential operational-energy savings lie in roofs and façades[8].
ii. New Construction in the Global South: In Sub-Saharan Africa, more than 80% of the buildings that will exist in 2050 have yet to be constructed[9]. These regions must build *climate-ready from the outset* — integrating resilience, renewable energy, and circular materials into affordable housing.

While these two fronts differ in pace and scale, they converge in their material needs: lightweight, low-carbon, and modular systems that can adapt to diverse climate conditions.

1.4 Why the Roof Matters

The roof is the **building's first and most important line of defense** against climate stress. It directly influences 30–40% of indoor heat gain[10], determines structural durability, and offers the most surface area for renewable-energy and rainwater integration.

Yet the roofing segment remains one of the least innovated in construction — dominated by metal, bitumen, or asbestos sheets that are thermally inefficient, prone to corrosion, and environmentally damaging. This stagnation represents a critical blind spot in climate adaptation.

Reimagining the roof as a multifunctional platform — combining adaptation (cooling, rainwater management), mitigation (solar generation, recycled materials), and circularity (recyclable design) — unlocks a scalable entry point for climate-smart construction.

1.5 Spotlight on Kenya — A Microcosm of the Global Transition

Kenya exemplifies the dual pressures and opportunities shaping the global construction transition. The country faces a housing deficit of over 2 million units[11] and generates an estimated 450,000–500,000 tons of plastic waste annually. Of this, polypropylene (PP) — used in packaging, containers, and household goods — accounts for roughly 35–40%, or about 180,000 tons each year, with less than 10% recycled[12].

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[6] UN-Habitat, World Cities Report (2022)
[7] ILO, World Employment Outlook, (2023)
[8] IEA, Net Zero by 2050 Pathway (2023)
[9] GlobalABC, *Africa Roadmap*, (2021)
[10] World Bank, *Cool Roofs for Cities*, (2023
[11] UN-Habitat Kenya (2023)
[12] NEMA & WWF Kenya, *Plastic Waste Baseline Report*, (2019); UNEP & WWF, *Mapping Single-Use Plastic Waste in Kenya*, (2021)

Kenya faces challenges mirrored across the Global South, including rapid urbanization, heat stress, and inadequate housing, however, its policy environment is advancing circular construction. The Kenya Green Building Code, Circular Economy Strategy (2023), and Extended Producer Responsibility Regulations (2022) establish a supportive foundation for recycled and low-carbon materials — making Kenya an ideal proving ground for innovation with global scalability.

Within this context, Takazuri reimagines the roof as both a climate shield and an energy platform. Its innovation, Climatile™, transforms waste plastic into certified, modular roofing that delivers durability, insulation, solar readiness, and recyclability.

1.6 Bridging the Gap

While the need for climate-resilient and circular building materials is urgent, few ventures have succeeded in transforming early-stage R&D into certified, market-ready solutions with validated performance and business viability.

Takazuri Ltd. was founded to address this gap. Established in 2021 in the UK and Kenya in 2023, Takazuri develops next-generation building materials that merge circular economy principles, renewable-energy integration, and design simplicity to make construction more resilient and regenerative. Working through an asset-light manufacturing and licensing model, the company partners with local recyclers, industrial converters, and manufacturers to turn waste into infrastructure.

With the support from P4G, Takazuri has advanced from concept to validated innovation — de-risking its technology through testing, certification, and early commercialization. Its flagship product, Climatile™, exemplifies how circular design can create tangible climate and social impact while unlocking new market and investment opportunities.

The following sections trace this evolution— starting with the solution itself, Climatile™, then the methodology, and business model that positions Takazuri for scalable investment & impact.

2. CLIMATILE™ & IT'S INNOVATION PATHWAY

2.1 The Product

Climatile™ is a lightweight, modular roofing and cladding system made from polypropylene (PP) composites with recycled content[13]. The product integrates climate resilience, circularity, and renewable integration into a single, scalable system — designed to perform across both tropical and temperate climates.

Each tile replaces high-carbon, thermally inefficient materials such as galvanized steel or bitumen (see more information in Figure 1), while offering:

- Thermal Comfort: Keeps interiors up to 8–10°C cooler than metal roofing under peak heat.
- Durability and Safety: Impact-, UV-, and corrosion-resistant; flame retardant; validated through 3rd party performance testing.

[13] Currently at 30% , with an R&D pathway to increase this beyond 50% as the quality and consistency of local recyclate improve.

- Circularity: Currently manufactured with 30% post-consumer and post-industrial recycled PP and fully recyclable at end-of-life.
- Ease of Integration: Compatible with ultra-light solar photovoltaic (PV) modules, rainwater harvesting, and green-roof or biophilic attachments.
- Local Manufacturing: Produced by leveraging Kenpoly Plastics Ltd (Kenya) facilities under our defined formulation, process parameters, and quality standards (toll manufacturing) — enabling cost efficiency and rapid replication.

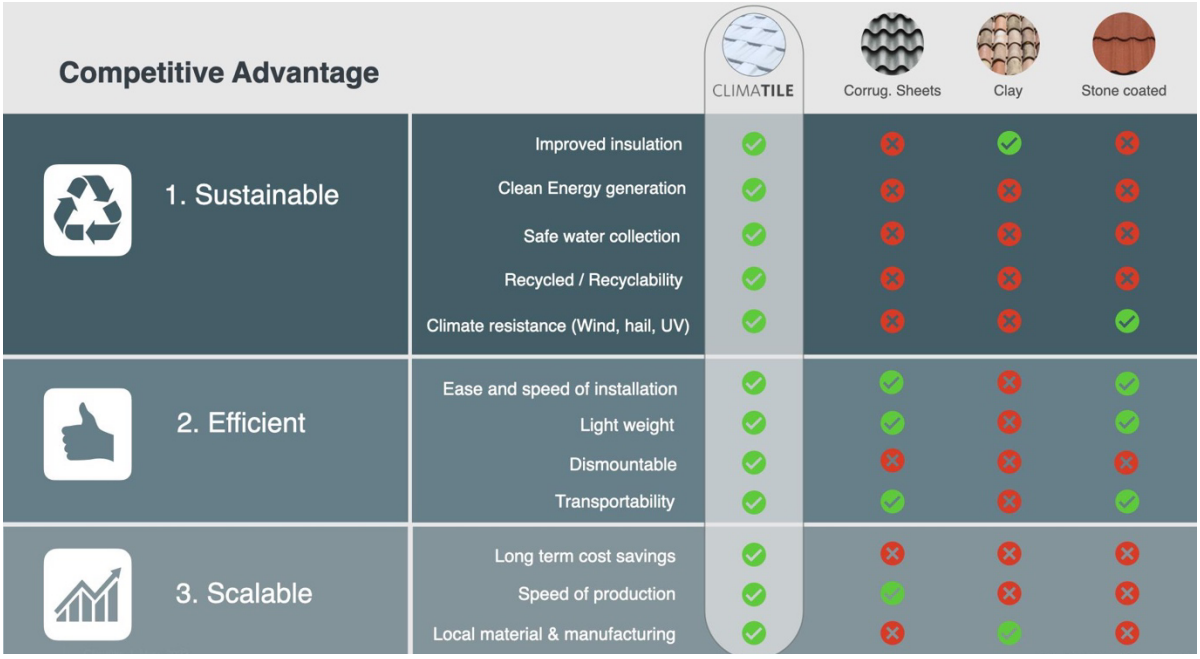

Figure 1: Climatile's Competitive Advantage & Unique Value Composition

2.2 Advanced Chemistry — Turning Recycled Plastic into a High-Performance Material

At the core of Climatile™ is polymer-engineering innovation that upgrades recycled PP into a high-performance compound. With formulation support from BASF and Gabriel-Chemie, the composite achieves:

- Enhanced UV stability and thermal endurance for extended outdoor lifespan.
- Improved mechanical strength comparable to virgin polymer blends.
- Flame retardance and safe-water certification for rainwater harvesting.

This chemistry-driven advancement transforms what was once low-value plastic waste into a certified, high-value building material, marking a step change in how recycled polymers can serve the construction industry.

2.3 Multi-Functional Design — A Systems Approach

Climatile™ is conceived not just as a material, but as a building system. Its modular design allows it to serve multiple functions — roofing, cladding, energy generation, and biophilic integration — all within one aesthetic and structural logic.

- Roof and Façade Integration: Same interlocking components for both vertical and sloped applications.

- Ultra-Thin Solar Panels: Seamless integration of PV modules for on-site energy generation.
- Biophilic Extensions: Optional green-wall elements for passive cooling and air quality improvement.

This systems-approach shifts the roof from a passive cover to an active climate-adaptation asset, improving energy efficiency, comfort, and water management simultaneously.

2.4 Efficiency — From Installation Speed to Solar Readiness

Climatile™ was engineered to be simple, safe, and fast to install, addressing the skilled-labor bottleneck that constrains construction in many markets.

- Snap-lock interlocking mechanism: Enables installation that is up to 60% faster than sheet-metal roofing.
- Walkable surface: Allows safe on-roof maintenance and solar installation without damage.
- Leak-proof design: Ensures structural integrity under heavy rainfall.
- Solar-ready interface: Ultra-light and clean-look finish accommodates solar panel mounting without substructures.

2.5 Plug-and-Play Systems — Demonstrating Deployment Versatility

Takazuri has extended Climatile™ into **pre-engineered "plug-and-play" structures** to showcase its scalability and real-world performance:

- Solar Gazebo: Modular shaded structure integrating solar generation and rainwater harvesting — designed for multi-purpose use.
- Cantilever Canopy: Compact, stand-alone module for providing energy access and weather protection for existing structures.

These pilots demonstrate how Climatile™ can enable distributed, off-grid infrastructure, bridging the gap between construction materials and energy solutions.

2.6 Why it is Innovative & Transformative

- First high-performance roofing system in East Africa utilizing recycled polymer composites at commercial scale.
- Bridges adaptation and mitigation: Combines cooling, durability, and solar integration in one solution.
- Introduces circular manufacturing into Kenya's construction value chain — linking waste collectors, recyclers, and industrial manufacturers.
- Reduces embodied carbon and import dependence: Provides a local alternative to high-carbon roofing products or imports.
- Policy alignment: Supports implementation of the Kenya Green Building Code and Circular Economy Strategy (2023) by proving the viability of certified recycled content.
- Scalable model: Takazuri's asset-light, license-ready framework enables replication across Africa, the MENA region, and developed markets seeking circular retrofits.

The innovation behind Climatile™ was matched by a clear and disciplined approach to market readiness. The following section outlines **Takazuri's methodology** — the partnerships,

validation processes, and de-risking steps that turned Climatile™ from a circular design concept into an investable business platform.

3. FROM CONCEPT TO MARKET READINESS

Takazuri followed a structured, evidence-based approach to de-risk its innovation and achieve market and investment readiness — combining technical validation, industrial collaboration, and business model development.

3.1 Design & Material Validation

Rigorous R&D and testing were a cornerstone to transforming recycled PP into a high-performance building material.

- Partnered with BASF and Gabriel-Chemie for customized performance additive formulation
- Conducted iterative trials using multiple recyclate blends to optimize performance
- Undertook independent third-party to validate performance — providing the technical basis for certification and investor confidence.

This data-driven material qualification process positioned Climatile™ as one of the few locally produced, certified building materials incorporating recycled content at industrial scale.

3.2 Circular Manufacturing & Supply Chain Integration

Takazuri adopted an asset-light manufacturing model, integrating existing industrial capacity rather than building new factories:

- Partnered with Kenpoly Plastics Ltd., a leading regional injection molder, to toll-manufacture Climatile™ using Takazuri's proprietary molds and material formulations.
- Developed local circular supply chains, sourcing recycled PP from Mr. Green Africa, TakaTaka Solutions, and Kwale Recycling Centre, ensuring traceability and consistency of feedstock.
- Implemented quality control (QC) protocols with 'golden sample' benchmarks and on-site QC audits, ensuring product uniformity across batches.

This model reduced capital intensity while demonstrating how circular production can leverage existing industrial ecosystems for scalability.

3.3 Product Certification & Performance Benchmarking

To gain regulatory and market acceptance, Takazuri prioritized compliance and certification pathways early:

- Mapped product standards aligned with Kenya Bureau of Standards (KEBS) and achieved KEBS certification for local deployment.
- Used Société Générale de Surveillance (SGS) test results to form the foundation for international third-party certification and inclusion in green building specification systems.
- Engaged Kenya Green Building Society (KGBS) for policy and technical alignment.

This ensured that Climatile™ met both performance and policy thresholds for inclusion in future climate-resilient infrastructure programs.

3.4 Pilot Deployment & User Validation

Takazuri validated Climatile™ through reference projects with clients, demonstrating its real-world performance and installation efficiency. *Plug-and-play* structures — including solar gazebos, canopies, and residential retrofits — were deployed across Kenya to test adaptability and user experience.

Feedback on thermal comfort, installation speed, and aesthetics informed next-generation design improvements, while pilot installations were used to train local installers and refine standard operating procedures (SOPs) for a future certified installer network.

This user-centered testing confirmed the technical reliability, ease of deployment, and market acceptance of Climatile™ across community and commercial applications, providing tangible proof of product viability and readiness for scale.

3.5 Business Model Development & Investment Preparation

Parallel to technical execution, Takazuri refined its business and investment model for scalability:

- Developed an asset-light licensing framework to replicate manufacturing in other regions.
- Built internal financial models to test unit economics, cost structures, and return profiles for investors.
- Leveraged P4G's support to strengthen: governance, monitoring & evaluation (M&E) systems, and impact reporting aligned with the P4G monitoring, evaluation & learning (MEL) framework.

This combination of scientific validation, operational proof, and business readiness has positioned Takazuri for its next phase: commercial scale-up through strategic investors, industrial partners, and climate-finance vehicles.

4. TAKAZURI BUSINESS MODEL HIGHLIGHTS

4.1 Overview

Takazuri's business model combines direct product sales, channel partnerships, and technology licensing to deliver circular, climate-resilient building systems at scale. The model is intentionally asset-light, leveraging local manufacturers and distributors to minimize capital expenditure while enabling rapid growth and impact. The model, validated in Kenya across residential, commercial, and institutional projects, has already attracted attention from other markets.

4.2 What Takazuri Offers

Takazuri delivers integrated roofing and energy systems centered on its flagship innovation, Climatile™, locally produced via toll manufacturing. Its offering is structured around three adaptable product configurations that meet different performance and budget needs:

- Climatile™ Roofing & Cladding — circular roofing for homes and small buildings.
- Climatile™ + Solar — integrated system combining roofing with ultra-light PV modules.
- Full System (Climatile™ + Solar + Structure) — plug-and-play shelters such as gazebos, carports, and canopies integrating rainwater harvesting and solar power.

(Figure 2: Adaptable Product Configurations Takazuri Offers)

Across all formats, Takazuri positions itself not just as a materials supplier but as a solution partner — combining circular design, solar integration, and localized manufacturing to create value for customers and communities.

4.3 Who the Clients Are

Takazuri's customer base spans residential, commercial, and institutional sectors, with reference projects and early sales helping to refine value propositions for each segment.

- Residential & Small and Medium Employers: Developers: modern, durable, and cooler roofing with low maintenance.
- Hospitality & Lifestyle Projects: solar-ready, aesthetic solutions enhancing comfort and sustainability branding.
- Education & Health Facilities: off-grid, climate-resilient infrastructure that improves thermal comfort and service reliability.
- Institutional & Public Projects: certified, locally produced circular materials aligned with Kenya's Green Building Code and the Sustainable Development Goals.

4.4 How Clients Access Takazuri Products

Takazuri reaches customers through a **hybrid go-to-market system** combining direct engagement and network-led growth:

- Direct Sales & Projects: In-house team manages design, quotation, and installation — ensuring quality and customer learning.
- Channel partnerships: Selected distributors, contractors, and engineering firms are authorized to supply and install Climatile™ systems. Partners receive technical training, marketing materials, and co-branding rights while adhering to Takazuri's quality and

sustainability standards. This channel supports faster market penetration and aligns local business incentives.
- Referral & Ambassador Program: Architects, contractors, and early clients promote Climatile™ and receive commissions for successful referrals, helping scale demand organically.
- Digital & Demonstration Marketing: Online campaigns, customer relationship management (CRM) tracking, and live reference projects build awareness & trust.
- Licensing to Regional Partners: For additional market reach, Takazuri licenses its molds, formulations, and intellectual property under royalty-based technology transfer agreements, including training and quality assurance (QA) oversight.

Together, these channels form a multi-layered delivery ecosystem — allowing Takazuri to reach customers directly today while building a replicable network for regional scale.

4.5 How Takazuri Generates Value

Takazuri creates and captures value across **four complementary revenue streams**, balancing operational income with scalable IP-based growth:

Revenue Stream	Description	Time Horizon
Product & Project Sales	Direct sales of roofing, solar systems, and full turnkey installations in Kenya	Short-term (2024–2026)
Channel Partnerships	Shared margin from partner-led supply and installation, expanding reach without new assets	Medium-term (2025 onward)
Licensing & Royalties	Recurring royalties and setup fees from regional manufacturers using Takazuri's IP	Medium–long term (2026 onward)
Advisory & Integration Services	Technical design, impact reporting, and training for institutional clients.	Ongoing

(Table 1: Takazuri's Diversified Revenue Streams and Their Time Horizons)

4.6 Kenya as a Launch Pad

Kenya serves as Takazuri's "run subsidiary" — a fully operational test market to refine product, process, and systems before replication. By overseeing every step from material sourcing to client delivery, Takazuri has learned what it takes to make circular building materials commercially viable:
- Product optimization: Continuous iteration from field feedback into second-generation Climatile™.
- Value-based selling: Educating clients on total cost of ownership rather than upfront price.
- Integrated delivery: Building a unified network of recyclers, compounders, manufacturers, and installers.
- Operational readiness: Developing SOPs, training modules, and pricing frameworks for replication.

These learnings de-risk Takazuri's future expansion into new markets through partners.

4.7 Expansion Outlook

Kenya's proven model is now generating international interest:
- Regional exports: Initial client interest from Tanzania and Ireland.
- Licensing discussions: Active partner scoping in Egypt and Saudi Arabia.

- Global replication: Plans for a U.S. subsidiary using the same toll-manufacturing and distribution partnership model to enter developed markets.

5. TAKAZURI – DRIVING PERFORMANCE & IMPACT

Through P4G's collaboration, Takazuri has transitioned Climatile™ from prototype to market-ready product, validating both commercial traction and climate impact.

5.1 Commercial and Operational Results

- $107,000 in direct sales generated during the reporting period, with 1,500 m² of Climatile™ installed across 15 sites nationwide.
- Expanded recyclate supplier base from 1 to 3, strengthening supply-chain resilience and material traceability.
- Manufacturing partners increased capacity utilization and share of recycled feedstock.
- 30 installers trained on standard installation methods; 6 certified installers currently active on projects.
- Collaboration with architectural firms and design practices has led to Climatile™ being specified in new development and retrofit projects (including link with United Nations led agencies)
- Negotiations underway with two corporate clients for supply-and-fix contracts, signaling growing institutional demand.

5.2 Reference Projects/ Use cases (See Annex 2 & 3 for Testimonials and Pictures)

Category	Project Type / Purpose	Impact Highlights
e-Mobility Infrastructure	Canopies over battery-swapping stations.	Provided durable, cool-roof shading; planned integration with solar PV.
Industrial Applications	Installation at a Material Recovery Facility (MRF) on Kenya's coast.	Showcased local circular economy loop — roofing made from recycled plastics used at waste-processing sites.
Recreational & Commercial	Solar canopy over a padel court in Nairobi.	Generated renewable power for an adjacent restaurant; demonstrated urban-aesthetic integration.
Hospitality & Tourism	Off-grid cantilever structure in Nanyuki.	Delivered cooler interior temperatures and renewable power for eco-pods.
Residential Coastal Installations	Canopy in Kilifi.	Validated performance under high wind and saline conditions; next phase to integrate solar.
Residential Retrofits	Upgrading existing roofs.	Demonstrated cost-effective improvement in comfort and leak protection.
Plug-and-Play Systems	Gazebos, carports, and extensions.	Enabled households to move partially off-grid with modular, quick-install systems.
Industrial Cooling Solutions	Canopies over containerized workspaces.	Reduced surface temperatures, improving energy efficiency for interior operations.

(Table 2: Overview of Key Projects Across Sectors, Highlighting Purpose and Impact)

5.3 Broader Impact and Ecosystem Development

- Circular economy impact: 4+ tons of post-consumer PP waste upcycled into the Climatile, creating local demand for higher-quality recyclate.
- Skill development: Created Kenya's first certified Climatile™ installer program, linking green jobs to climate-resilient construction.
- Market momentum: Visible reference sites in Nairobi and the coast have driven inbound client interest and media coverage.
- Investment readiness: The combination of certified product, verified installations, and operational data positions Takazuri for follow-on blended or equity investment.
- Global replication potential: Learnings from Kenya are already informing discussions with partners in Egypt and Saudi Arabia — from adapting material formulations for hotter climates, to localizing production SOPs, identifying priority building applications, and accelerating go-to-market strategies. These cross-market insights underscore the scalability of Takazuri's approach and its ability to bridge innovation between the Global South and North.

(Figure 3: Climatile™ Installer Training Program and Community-Led Plastic Collection)

6. CHALLENGES & SOLUTIONS

Takazuri's pathway from product innovation to market deployment has required navigating multiple technical, operational, and market challenges. Each has informed the company's strategic evolution and investment readiness.

Challenge	Solution / Response
Limited market awareness and perception of circular materials	Introduced value-based, consultative selling — positioning Climatile™ around lifecycle savings, cooling performance, and design benefits rather than price. Developed demonstration projects to showcase performance and drive client confidence.
Lengthy sales cycles and working capital pressure	Diversified offerings to include plug-and-play systems (solar gazebos, canopies) with shorter cycles and faster cash turnover. Leveraged blended finance from client pre-payments and vendor financing to stabilize liquidity.

Fragmented supply chain and quality consistency	Established direct relationships with recyclers and manufacturers; implemented standardized QA protocols and installer SOPs to maintain quality and traceability from feedstock to installation.
Vendor coordination and project delivery risk	Transitioned from ad-hoc subcontracting to strategic partnerships with aligned incentives. Introduced clearer project management workflows, milestone-based payments, and stronger client communication systems.
Product–market fit refinement	Used pilot feedback to upgrade to second-generation Climatile™, improving interlocking, pitch compatibility, and solar integration. This iterative process enhanced performance and customer satisfaction.
Cost alignment and value chain efficiency	Optimized procurement and logistics through bulk sourcing and localized production. Strengthened supplier relationships to align margins with client value creation rather than one-off transactions.
Regulatory and policy uncertainty for recycled construction products	Proactively engaged Kenya Green Building Society (KGBS) to align testing protocols and influence inclusion of recycled products in green-building standards.
Data transparency and investor readiness	Developed internal financial dashboards to track unit economics, project profitability, and impact metrics — demonstrating commercial traction and readiness for follow-on investment.

(Table 3: Core Challenges Faced and the Solutions Implemented)

7. LESSONS LEARNT

- Educate the Market Through Value-Based Selling: Customers adopt innovation when they understand its total cost of ownership — not just its upfront cost.
- Commercial Traction Builds Investor Confidence: Demonstrating repeat sales, strong references, and evolving unit economics is essential to attract follow-on investment.
- Partnerships Accelerate Market Penetration : While early pilots required Takazuri to coordinate everything, long-term growth will depend on robust channel and installation partners.
- Not Every Market or Client is a Fit: Testing diverse use cases clarified where Climatile™ adds the most value — guiding focus toward scalable, repeatable project types.
- Policy Engagement is Critical: Certification and standards development are not peripheral — they are fundamental to enabling product acceptance and procurement.
- Blended Finance Enables the Transition from Validation to Scale: Bridging the gap between pilot and commercial growth requires concessional or patient capital tied to verified outcomes.

8. RECOMMENDATIONS

8.1 For Entrepreneurs and Innovators

- Integrate R&D with market testing**:** Building, selling, and iterating simultaneously enables startups to validate both technical performance and customer willingness to pay early — reducing time from innovation to investment readiness.
- Invest early in data systems, QA standards, and training programs: Accurate unit-economics and consistent quality are what investors and partners evaluate most; early systems prevent costly scaling mistakes.
- Design business models with recurring or partnership-based revenues: Reliance on one-off project sales limits growth. Recurring income (through licensing, royalties, or maintenance) provides predictable cash flow and signals long-term viability.

8.2 For Investors

- Back "run-subsidiary" pilots that build operational readiness before scale: Takazuri's Kenya subsidiary allowed full visibility of cost drivers, customer behavior, and supply chain bottlenecks. Investors funding such integrated pilots gain clearer risk data and stronger evidence of replicability for future licensing or regional expansion.
- Blend concessional and commercial finance to bridge validation and growth*:* Circular construction ventures face a long gap between R&D, certification, and first large-scale sales. A hybrid approach — concessional funds for product validation, commercial funds for scale-up — would unlock momentum while maintaining investor discipline.
- Support enterprises that capture both environmental and infrastructure value: Solutions like Climatile™ cut emissions, reduce waste, and improve building resilience — all while creating new asset classes (e.g., solar rooftops). Investors should evaluate such "dual-value" models not just as hardware but as scalable climate infrastructure plays.

8.3 For Policymakers and Development Partners

- Simplify testing & certification for circular building materials*:* Takazuri's experience with SGS and KEBS showed that even validated products face lengthy, fragmented approval steps. Streamlined certification pathways would help innovators enter public procurement and green-building programs faster.
- Incentivize adoption through green-building codes & fiscal measures: Tax incentives, import duty relief, or local content requirements for circular materials can shift demand from high-carbon imports to local innovation — stimulating manufacturing & recycling ecosystems.
- Champion demonstration & procurement of verified circular solutions: Development agencies and public institutions can accelerate market trust by piloting certified solutions (like Climatile™) in schools, clinics, or housing programs — showing performance under real conditions and signaling bankability to private financiers.
- Build regional platforms for technology transfer & market harmonization: Policy-driven cooperation on standards and trade for recycled construction materials could scale adoption and investment across regions that share similar climate-resilient construction needs.

Takazuri's journey illustrates what it takes to turn circular innovation into investable climate infrastructure. By coupling advanced material science with local manufacturing and value-based market engagement, the company has demonstrated that climate adaptation and economic opportunity can advance together.

As Takazuri moves from Kenya to regional and global markets, the lessons from this partnership — on ecosystem collaboration, blended finance, and enabling regulation — hold relevance far beyond a single product or geography. They show how emerging-market innovators can lead the global shift toward resilient, low-carbon construction, one roof at a time.

ANNEX

1. ANNEX 1

Financial Metrics	Before P4G Funding (Takazuri UK 2023 FY)	After P4G Funding (Takazuri UK & KE Q2 2024- Q4 2025)	Notes
Revenue	$2,191	$110,000	
Gross Profit	$1,878	$22,000	
EBITDA	($5,388)	TBD	After P4G funding: pending financial consolidation across project activities and operational cost centers
Net Income	($7,990)	TBD	After P4G funding: pending financial consolidation across project activities and operational cost centers
Operating Expenses	N/A	$18,000+	Monthly Operating Expenses/ burn rate for Takazuri Holdco & Takazuri Kenya
Number of Consumers	1	10	Number of clients
Number of Offtake Agreements	1	13	Number of purchase agreements signed
Client Growth Ratio YoY	1	9	Increase of clients in the last year
Gross Margin Ratio	86%	0.2	Gross Profit / Revenue x 100
Investment Achieved	$299,560	$288,000	After P4G funding: includes direct funding from P4G towards the business partner

ESG Metrics	Before	After	
Carbon Emissions (tonnes CO2e)	0 tonnes	51.9	CO2 emissions based: - on use of recycled vs. virgin PP (2.5 Kg of CO2 per kg of recyclate used) - Solar deployment (0.409 kg per kWh) per national grid emission factor
People positively affected	N/A	500	Direct Impact: Users in current client installs (Battery swapping- ~70 users/ month; Recreational- ~ 400 users/ month) Value chain - 20 people collecting - 4 people manufacturing - 6 people installing
Jobs created	N/A	17	Jobs created outside of the commercial partner (including part time)
Gender Diversity (% female employees)	55%	67%	Percentage of female employees
Compliance and Risk Management	N/A	- KRA (VAT, income tax, WHT) compliant - KEBS certified	Compliance Report (Laws and Regulations) Risk practices (processes and responsibilities) Risk management documentation (identification, mitigation and control) Audit policies (internal - external)
ESG Reporting and Transparency	- General ESG guidelines	- Updated ESG policy (including annual review) - Updated governance structure liked to entities - Dashboards developed and available	Frequency of ESG reporting (# reports per year), Adherence to Standards (GRI, SASB, TCFD) Clear governance structure Integration with financial reporting
Board Diversity	33.30%	33.30%	% of Women of the board members

2. Annex 2: Testimonials

Jignesh Patel, CEO, D.Manji Construction

"We are extremely pleased with the innovative roof tiles "Climatile" installed by Takazuri Ltd. The quality of the materials and the professionalism of the installation team exceeded our expectations. Not only do the tiles look fantastic, but they also offer excellent durability and performance. We highly recommend Takazuri Ltd to anyone looking for cutting-edge roofing solutions."

Susan Scull-Carvalho, Founder/Enterprise Advisor, Kwale Recycling Centre

"This P4G Partnership has been instrumentally pivotal to both partners! Our Commercial partner progressed comprehensibly and robustly to become well-poised to attract investors, while our Administrative partner significantly expanded its supply value chain networks as well as its capacities of processing waste plastic recyclates."

Kenneth Mawira Mureithi, Powerhive

"...there are so many the advantages of using Climatile, ... from environmentally friendly, cost efficient, and you can collect clean water!

Stephen Kimathi, Fundi

"I believe Climatile is something that most of us want to use to build their homes, It's a good product."

2. Annex 3: Pictures of Projects

	
→ Canopies over battery-swapping stations	→ Residential Canopy in Kilifi

	
→ Solar canopy over a padel court in Nairobi	→ Off-grid cantilever structure in Nanyuki.
	
→ Residential Retrofit of Cottage	→ Plug-and-Play System: Gazebo that powers residential home