



Request for Proposals

IP & Market Risk Assessment for a Sustainable Materials Company

Revised version as of July 4, 2025

This document serves to provide an overview of the underlying project relevant to the Subnational Climate Fund (SCF), context on data availability and goals of the mandate, as well as an estimated scope of work requested from the consultant. Final details of the mandate should be covered by the subsequent proposal submitted by the consultant.

1. The Subnational Climate Fund

The SCF is a blended finance impact fund formed to pursue attractive risk-adjusted returns for private investors while generating measurable and certified environmental and social impacts. The Fund is focused exclusively on pursuing investments in mid-size climate infrastructure with nature-based solutions in various developing countries across Latin America and the Caribbean, Africa, the Mediterranean, and Asia. The Fund is managed by Pegasus Capital Advisors, a commercial Private Equity impact fund manager and further benefits from a separate, grant-funded Technical Assistance facility managed by The International Union for the Conservation of Nature (IUCN) and implemented by Catalytic, IUCN, and Gold Standard.

2. Context of the Potential Study Agreement

Considering plastic's negative impact on global climate, lands, freshwater resources, oceans, marine life and human health, the SCF is considering a potential investment opportunity relating to the production of seaweed-derived alternatives to plastic.

SCF will collaborate with a US company that has developed patented technology suited to substitute plastic through commercial-scale grade seaweed-based resins. Products produced with those resins are home compostable, bio-degradable, and marine-safe.

Objectives

The company's commercial viability is based upon proprietary Intellectual Property (IP), encompassing resin formulations, processing techniques, and finished product performance attributes. The company has undertaken internal competitive landscaping and filed for various forms of IP protection.

To inform potential investment and partnership decisions, SCF's Technical Assistance Facility will commission an independent expert review to validate the defensibility and commercial value of the company's IP and the strength of its technological differentiation in the emerging bio-based materials market.

3. Scope of Work for a Pre-Feasibility Study

The consultant's work is expected to help answering the following core questions:

1. **Is the company's IP defensible and valuable?** (Does it create a competitive moat?)
2. **Is the technology truly differentiated?** (Can competitors easily replicate or work around?)

3. **What are the deal-breaking risks?** (What could kill the investment thesis?)
4. **What is the realistic commercial value?** (Is the investment opportunity sized correctly?)

PHASE 1: IP DEFENSIBILITY & VALUE ASSESSMENT (50% of effort)

1.1 Investment-Critical IP Analysis

- **Patent Strength Assessment:** Are the core patents likely to withstand challenges?
- **Competitive Moat Analysis (focusing on defensive strength):** Do the patents actually prevent competitor entry?
- **Freedom to Operate:** Are there blocking patents that could shut down the business?
- **IP-specific Risk Assessment:** What are the highest-probability scenarios that would destroy IP value?

1.2 IP Portfolio Valuation (Investment Focus)

- **Asset Value:** What is the IP worth as a standalone asset?
- **Strategic Value:** How much value does the IP add to the business case?
- **Licensing Potential:** Could IP licensing provide alternative returns?
- **Exit Value:** How would IP impact acquisition or IPO scenarios?

PHASE 2: TECHNOLOGY DIFFERENTIATION & COMPETITIVE THREATS (30% of effort)

Phase 2 activities are designed not only to inform the investment decision, but also to identify elements - particularly IP landscape benchmarking - that may, subject to confidentiality review, contribute to broader knowledge sharing and cross-sector insights on innovation trends in seaweed-based materials.

2.1 Competitive Threat Analysis

- **Global Seaweed-Based Alternatives Mapping:** Systematic identification and analysis of all companies developing seaweed-based alternatives worldwide, including development stage and IP positioning.
- **Technology Leapfrog Risk:** Could emerging technologies make this approach obsolete?
- **Big Player Entry Risk:** Could major chemical/packaging companies easily enter this space?
- **Performance Gap Analysis:** Are the claimed advantages real and sustainable compared to global competitors?
- **IP Landscape Benchmarking focusing on competitive positioning:** How does the company's patent position compare to sector-wide IP activity and protection strategies?

2.2 Market Context & Positioning Analysis

- **Customer Adoption Barriers:** What could prevent customers from switching, and how do these compare across the seaweed-based alternatives sector?
- **Regulatory Environment Assessment:** Cross-jurisdictional analysis of regulatory frameworks affecting seaweed-based alternatives and their impact on adoption.
- **Technology Maturity Comparison:** Where does this approach stand relative to other seaweed-based technologies in terms of commercial readiness?

PHASE 3: INVESTMENT DECISION FRAMEWORK (20% of effort)

3.1 Investment Risk Assessment

- **Deal-Breaker Identification:** What are the 3-5 highest risks that would kill the investment?
- **Risk Probability Assessment:** How likely are the identified critical risks?
- **Mitigation Strategies:** What can be done to reduce key risks before/after investment?
- **Red Flag Analysis:** Are there any immediate reasons to walk away?

3.2 Investment Decision Support

- **Valuation Reality Check:** Is the company's valuation justified by IP and technology assets?
- **Investment Thesis Validation:** Do the IP and technology support the projected returns?
- **Partnership vs. Acquisition Analysis:** Which investment structure maximizes value capture?
- **Due Diligence Priorities:** What additional investigations are critical before closing?

4. Deliverable

Investment Decision Report (35-40 pages)

Note: Deliverables will be subject to review by SCF and its partners. Any content intended for external publication or broader sharing will require prior approval and may be redacted to protect confidential or strategic information.

Executive Summary & Investment Recommendation (3-4 pages)

- Go/No-Go Recommendation with clear rationale
- Key Value Drivers and competitive advantages
- Critical Risk Factors and mitigation strategies
- Recommended Investment Structure (partnership, acquisition, licensing)

IP Asset Analysis (12-15 pages)

- Patent Portfolio Strength: Defensibility and enforcement prospects
- Competitive Moat Assessment: How effectively patents block competitors
- IP Valuation: Asset value and strategic premium
- Freedom to Operate: Critical blocking risks and costs

Technology & Market Position (12-15 pages)

- Technology Differentiation: Real vs. claimed advantages
- Competitive Threat Analysis: Who can challenge this position and when
- Global Seaweed-Based Alternatives Landscape: Comprehensive sector mapping and competitive benchmarking
- Regulatory Environment Analysis: Cross-jurisdictional regulatory frameworks assessment
- Technology Maturity Benchmarking: Comparative analysis of sector-wide technology readiness
- Market Adoption Reality: Customer switching barriers and adoption timeline
- Supply Chain & Manufacturing Viability: Including sector-wide supply chain analysis and bottlenecks

Investment Risk Framework (5-8 pages)

- Deal-Breaker Risks: Highest probability threats to investment thesis
- Risk Mitigation Roadmap: Actions to reduce key risks
- Due Diligence Priorities: Critical additional investigations needed
- Scenario Analysis: Best/worst case outcomes for investment

Appendices (5-8 pages)

- Key Patent Summary: Core patents with strength ratings
- Competitive Landscape Map: Direct and indirect competitors
- Global Seaweed Alternatives Database: Comprehensive competitor and technology mapping suitable for sector reference
- Sector Knowledge Contributions: Summary of insights with potential for broader industry relevance, subject to redaction and approval by SCF. This may include anonymized IP benchmarking insights that highlight patterns in protection strategies, innovation clusters, and gaps in the seaweed-based materials sector.
- Assumptions and Limitations: Outline of the analysis boundaries and data sources used.

5. **Requirements:**

In their proposal, applicants should demonstrate that the team meets the following requirements and expertise. Applicants may submit proposals as individual experts, teams, or consortia combining complementary expertise.

Key requirements

- Demonstrated experience in IP analysis and technology valuation
- Demonstrated experience with biotechnology and materials science patents
- Proven track record in bio-based materials or sustainable packaging sectors
- Experience with early-stage technology commercialization assessment
- Strong analytical and quantitative valuation skills

Preferred Qualifications:

- Advanced degree in chemical engineering, materials science, or biotechnology
- Patent prosecution or patent litigation experience
- Management consulting experience with technology companies
- Previous work with seaweed/algae-based technologies
- Experience with investment due diligence projects

6. **Indicative Timeline**

Work is expected to commence immediately after the consultant is appointed. The work is expected to be completed within 6-8 weeks after signing the service contract. The delivery of services and reporting timeframes are anticipated to be as follows:

Activity / Deliverable	Indicative timeline
Kick-off meeting Establish communication channels for initial information exchanges, confirm the project schedule, data intake, define key questions.	Week 1
IP Analysis, Initial Risk Mapping	Week 2-3
Technology Benchmarking, draft Risk Framework	Week 4
Synthesis of findings, first draft of report	Week 5
Feedback round, finalize report	Week 6

7. Form of Proposal & Requirements

Please prepare a brief proposal for the performance of this work, including the scope of work, project team and qualifications, and estimated costs.

- 1) **Scope of Work:** The scope of work should include a description of the specific activities that will be performed to accomplish the required tasks identified in Section 3. This should include any proposed site visits/reconnaissance, documents to be reviewed, interviews, etc. If the Consultant feels that additional tasks or components within a required task are suggested or warranted, these should be stated and delineated as “Optional Tasks”.
- 2) **Project team and qualifications:**
This should include the name of the principal staff members and any sub-contractors, and a brief description of their role within the project team. Qualifications of staff should include relevant technical capabilities, full CVs, specific previous experience like this assignment, specific in-country experience and knowledge.
- 3) **Estimated costs:**
A total time and expenses cost estimate (not to be exceeded), in US Dollars, must be provided for the required scope of work. A breakdown of the estimated costs by task must also be presented in tabular format and should include Direct Labour Costs (number of hours or days per staff and their associated unit costs). Travel costs will be covered by the SCF separately from the consultancy fee under “Indirect Labour Costs”. Please note that “Per Diems” are not an eligible expense under our travel expense policy. Please also note that Catalytic is exempt from VAT. Your financial proposal should therefore not include VAT.
- 4) **Contract & Payment:**
Contract will be on a lump-sum / fixed-price basis and in US Dollars. Catalytic will pay the consultant in two or three payment tranches. The contract will be based on Catalytic’s standard terms of engagement.
- 5) **Conflict of interest, KYC:**
As part of the proposal, the Consultant will need to confirm that they do not have a conflict of interest and that they are able to provide an adequate, accurate and objective review. We will also ask the consultant to provide a passport copy for a KYC check before formal engagement.



8. Submission

Please submit your proposal by **July 15** COB CET by sending it to project@catalyticfinance.org