THINK BOLD, BUILD SMART. SHAPE TOMORROW.

Problem Statement 1

Construction Waste Management Platform

Construction waste (rubble, concrete, debris) is frequently dumped illegally due to a lack of a unified system to coordinate collection, processing, and reuse. The process is fragmented, lacking traceability, which makes recycling high-effort and commercially unattractive for processors[3]. This results in land degradation, high material costs for builders, and lost economic opportunity.

Expected PoC Solution

The hackathon goal is to build a minimal platform that acts as the single, auditable connection point between all stakeholders.

₹1 LAKH PRIZE | INDUSTRY MENTORSHIP | CHANCE TO SHOWCASE AT EMERGE 2026

Registrations Close	Pitching & Shortlisting	Mentorship Phase	Grand Finale Demo EMERGE 2026
Nov. 15, 2025	Nov. 25, 2025	Dec 2025	Jan 9-11, 2026

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nexus core

Detailed Context

Effective management of building and construction waste is absent because there is no single, auditable platform that (1) tracks waste at the site, (2) schedules and enforces pickups by processing facilities, and (3) links processors to reuse buyers with verifiable, time-stamped records—so although many initiatives exist, the high operational effort required for recycling prevents reliable reuse and scalable commercial solutions.

- The construction sector generates large volumes of rubble, tiles, ceramics, concrete, and mixed debris that are frequently dumped in open sites, near water bodies, and forest edges.

- Numerous localized efforts, pilot projects, and recycling pilots exist; some deliver localized benefits while many stall because processing and reuse require intensive sorting, transport, and consistent feedstock quality.

- There is no unified system to coordinate site-level collection, reverse logistics, processor intake, and demand-side reuse across projects and stakeholders.

Core pain points

- **Loss of material traceability**: Waste generated at sites is not tracked to pickup or processing, causing leakage to illegal dumping.

- **High handling burden**: Sorting, cleaning, and pre-processing costs make recycling commercially unattractive for many waste streams.

- **Fragmented supply-demand**: Processors lack reliable, predictable feedstock and buyers lack simple access to recycled materials.

- **Inefficient logistics**: No coordinated scheduling, routing, or accountability for pickups and drop-offs.

- **Low adoption friction**: Contractors and sites lack easy tools to log waste, request pickups, and claim reuse credits.

- **Regulatory and audit gaps**: No tamper-evident records to prove lawful disposal or recycled-material consumption.

IMPACT

Continued illegal dumping and land degradation.

Lost economic opportunity to create reverse-logistics and recycling businesses at scale.

Higher material costs for builders and missed savings from reuse.

Weak environmental outcomes and poor regulatory enforcement data.