Our Nation's Infrastructure Delivery is Built on a 40% Waste Factor.

The Construction Industry Institute (CII) estimates that **40%** of every dollar spent on capital projects is **lost to waste and inefficiency.**

This isn't a rounding error; it's a systemic failure of our current "Operating System 1.0"—the industrial-era model for building.

Imagine the critical infrastructure we could build— for climate, energy, and transport—if we reclaimed that 40%.

40%
WASTE FACTOR

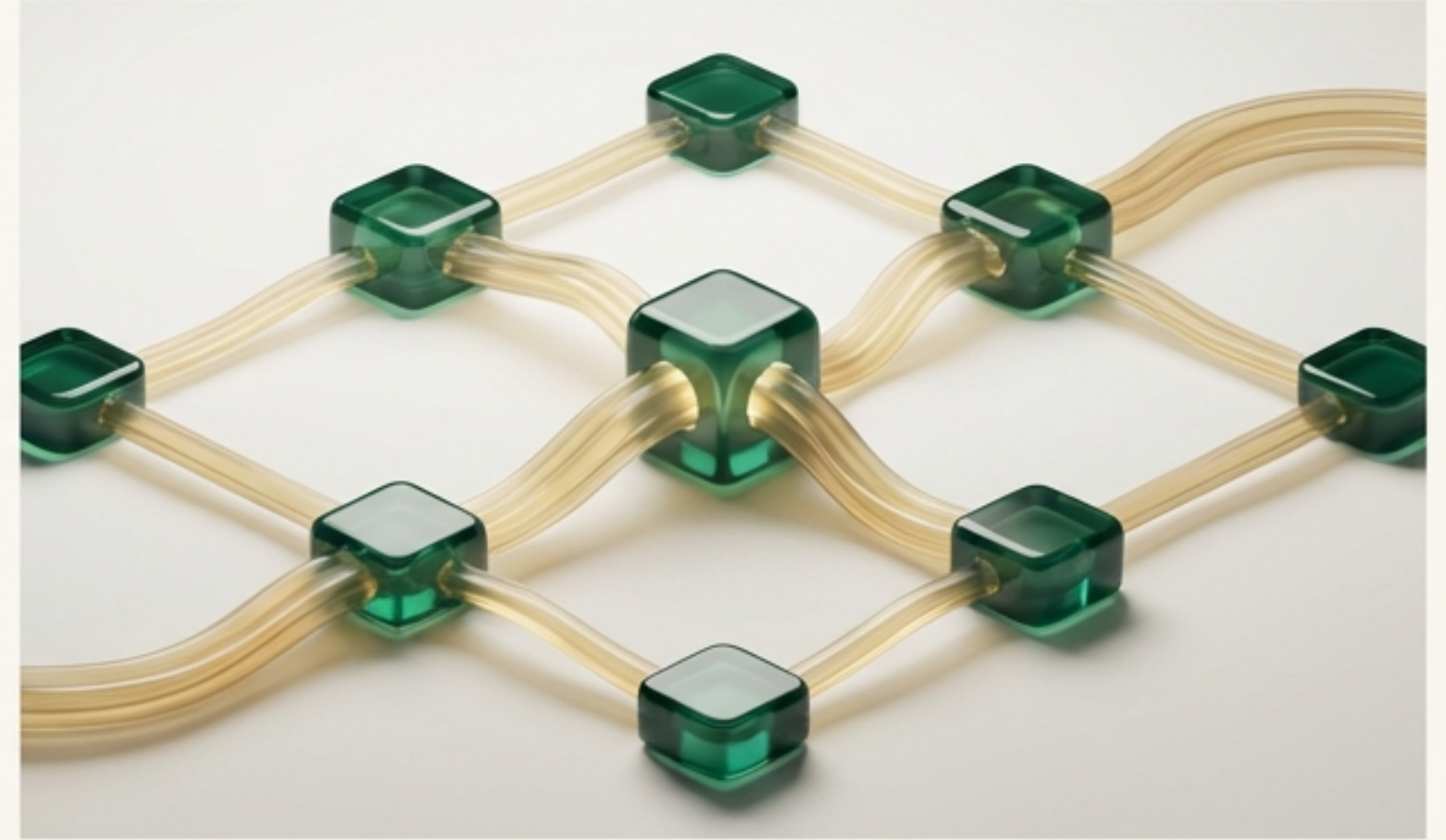NotebookLM

The System Runs on Friction, Not Flow.

The Analog Reality (OS 1.0)

Adversarial Contracts: Based on distrust, risk-shifting, and protective layering.

Paper-Based Workflows: Manual, error-prone processes that are merely digitized, not truly digital.

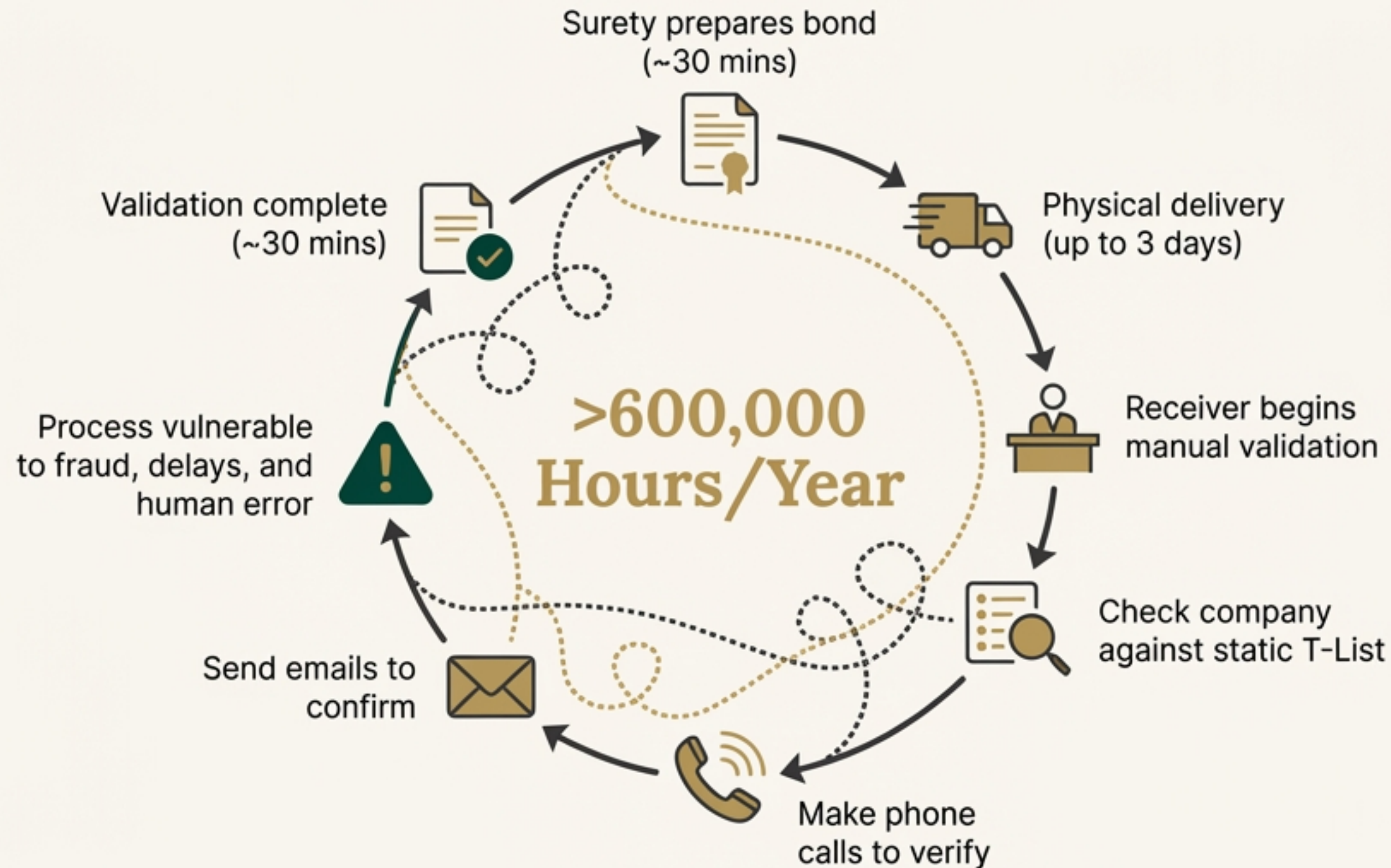**Siloed Data:** Information is trapped in PDFs and proprietary systems, creating endless "transitional waste".

The Digital Potential (OS 2.0)

Collaborative Ecosystems: Built on common goals, transparency, and shared data.

Automated, Actionable Data: Machine-readable information that flows seamlessly between stakeholders.

Open Standards: A common language (like XBRL, LEI) that enables interoperability and innovation.

A Microcosm of Waste: 600,000 Hours Lost Annually Validating Paper Bonds

Surety prepares bond (~30 mins)

Physical delivery (up to 3 days)

Receiver begins manual validation

Check company against static T-List

Make phone calls to verify

Send emails to confirm

Process vulnerable to fraud, delays, and human error

Validation complete (~30 mins)

>600,000 Hours/Year

The current process for validating surety bonds on over 600,000 annual federal and state contracts is entirely manual, involving checking names, making phone calls, and sending emails.

The T-List: A Foundational Tool for Federal Contracting, Trapped in a Static Past.

What is the T-List? (Circular 570)

- The U.S. Treasury's official, authoritative list of companies certified to provide surety bonds on federal projects.
- It is the bedrock of risk management and compliance for all federal construction and procurement.

The Limitation

- The T-List is published as a static web page or downloadable document.
- It contains static data (name, address, NAIC number) but no actionable digital data.
- This forces every stakeholder into the manual, 600,000-hour validation process and is the primary chokepoint for automation.

The Catalyst: Two Small Fields to Modernize the T-List and Unlock the Digital Ecosystem.
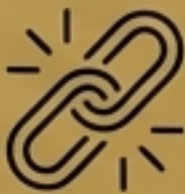
Surety Company Inc.

Name: Surety Company Inc.

Address: 123 Treasury Lane, Washington, D.C.

NAIC Number: 12345

Phone: (202) 555-0182

Legal Entity Identifier (LEI)

CNC20I6IOMGF7KY49D67

A globally unique, 20-character ID (ISO 17442 standard) that provides unambiguous, automated identification.

Validation URL

https://api.suretyco.com/validate

A secure web link or API endpoint that enables instant, real-time digital validation of a specific bond, replacing phone calls and emails.

From Manual Friction to Automated Trust: The Immediate Impact.

Enhanced Efficiency

Eliminates 600,000+ manual hours by enabling automated verification.

An API call replaces the entire manual process, returning instant, importable, actionable data.

Shortens contract execution times, especially critical for small businesses.

Superior Risk Management

Reduces fraud from forged or counterfeit bonds by linking to a canonical digital source.

Enables **real-time status checks**, instantly flagging suspended or revoked authorities.

Creates a **digital audit trail** for every verification event, supporting compliance and dispute resolution.

Improved Transparency

The LEI provides a **machine-verifiable link** between the T-List, state regulators, and global entity data.

Creates an unambiguous public record of surety identity and relationships (e.g., parent companies).

Leveling the Playing Field for Small & Disadvantaged Businesses

- **Lowers Compliance Burden:** Replaces complex, time-consuming paperwork with a simple, automated proof of bonding.

- **Accelerates Access to Capital:** Digital, high-integrity financial data improves underwriting information for capital markets, enabling better terms and conditions.

- **Expands Opportunities:** Allows small contractors to provide surety bonds to prime contractors and owners more easily, expanding their ability to bid on projects.

- **Removes Hidden Barriers:** Standardized, transparent validation reduces dependence on insider knowledge and favors merit-based competition.

"Small business being able to provide surety bonds to project owners and prime contractors will expand their opportunities and provide risk management protection to the project."
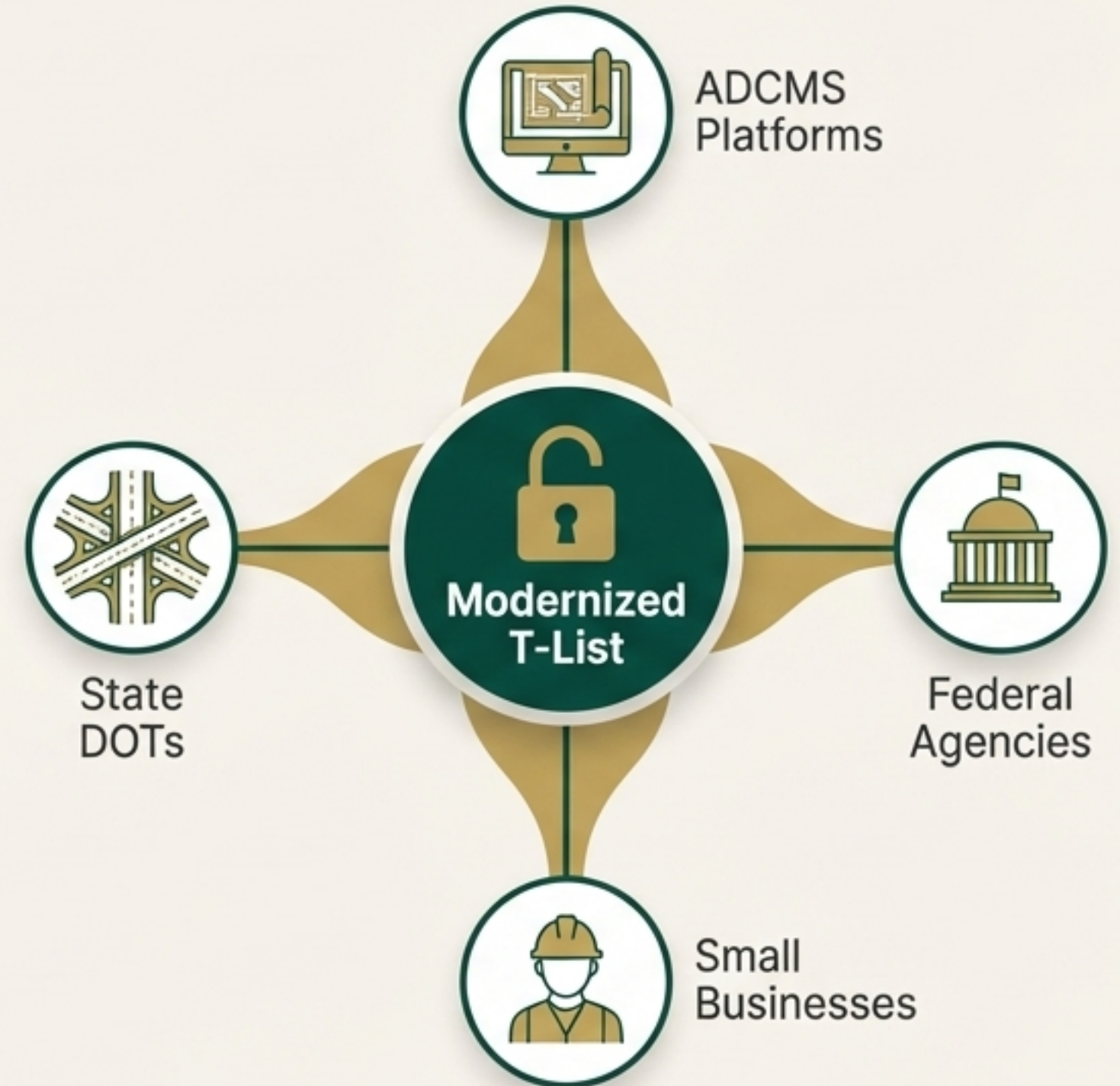
A Strategic Enabler for National Digital Infrastructure Goals.

The Synergy

Modernizing the T-List is a low-cost, high-impact catalyst that directly supports the goals of the FHWA's **Advanced Digital Construction Management Systems (ADCMS)** grant program.

How it Aligns with ADCMS Grant Objectives

- **Maximizes Interoperability:** The LEI and URL allow T-List data to flow directly into ADCMS platforms, enabling automated workflows.

- **Enhances Transparency & Trust:** Provides ADCMS users with immediate, reliable assurance of surety authorization.

- **Boosts Productivity:** Eliminates a key digital bottleneck, streamlining project delivery from day one.

- **Encourages Technology Adoption:** Creates a clear business case for DOTs and contractors to integrate digital verification into their systems, leveraging ADCMS funds.

ADCMS Platforms

State DOTs

Modernized T-List

Federal Agencies

Small Businesses

The T-List is the First Domino in a National Infrastructure Data Ecosystem.

Waste Reclaimed

1. Modernize the T-List (The Catalyst)

2. Enable Digital Surety Bonds

3. Unlock High-Integrity Financial Data

4. Fuel a Competitive Ecosystem

5. Achieve the OS 2.0 Vision

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The Path Forward: A Clear Mandate for Modernization.

Policy

The Treasury should formally proceed with modernizing Circular 570 to mandate the inclusion of the Legal Entity Identifier (LEI) and a verifiable URL for all listed sureties.

Technology

Promote the adoption of open standards like XBRL in synergy with the LEI to create machine-readable data sets for the entire project lifecycle.

Implementation

Leverage the ADCMS grant program as a convening platform to encourage DOTs and industry partners to build automated bond verification into their digital workflows.

This is a foundational, low-cost step that serves the public interest by advancing building science and technology to improve the built environment. Let's align for impact.