

Knowledge Management in the Organization

Operating a 50,000-person organization
with the agility of an 8-person team.

The Core Challenge: The Time Paradox

Total Lifespan: 16-31 Years

The Product

Initiation & Negotiation:
2-3 Years

Execution & Development:
2-5 Years

Operational Support & Maintenance:
10-20 Years

The Workforce

2-3 Yrs

2-3 Yrs

2-3 Yrs

2-3 Yrs

2-3 Yrs

2-3 Yrs

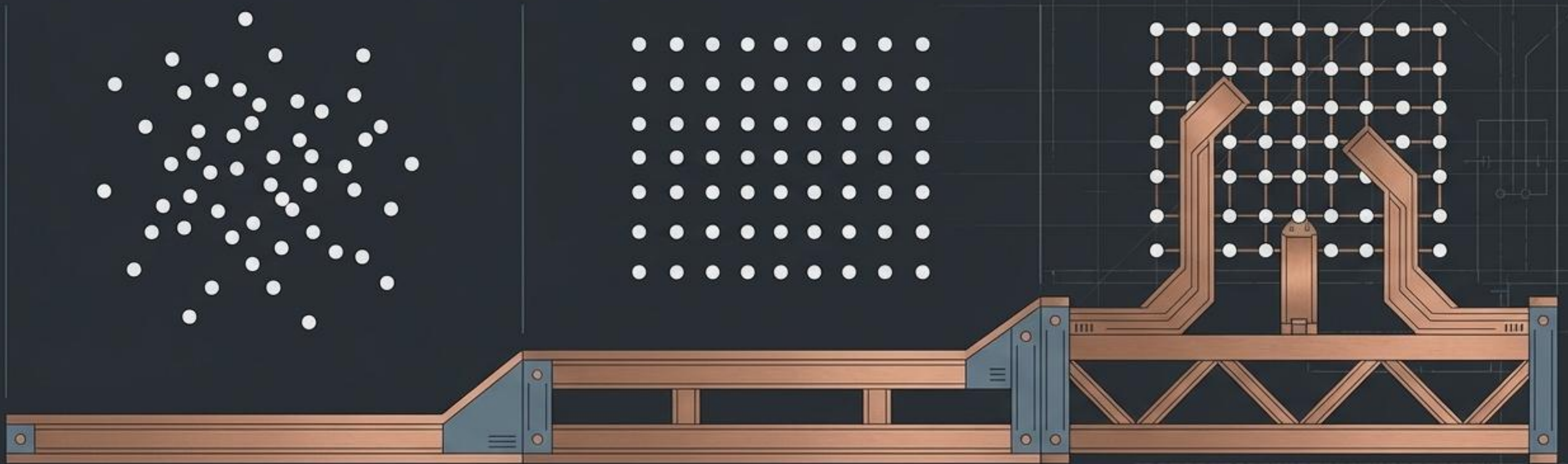
2-3 Yrs

2-3 Yrs

2-3 Yrs

2-3 Yrs

The Lexicon of Knowledge



Phase 1: Data

Raw facts and isolated numbers.

Phase 2: Information

Organized data endowed with specific meaning.

Phase 3: Knowledge

Interconnected information that answers complex questions and predicts future behavior. The ultimate goal is practical application.

The Dual Axis of Knowledge Management

Project-Level Goals

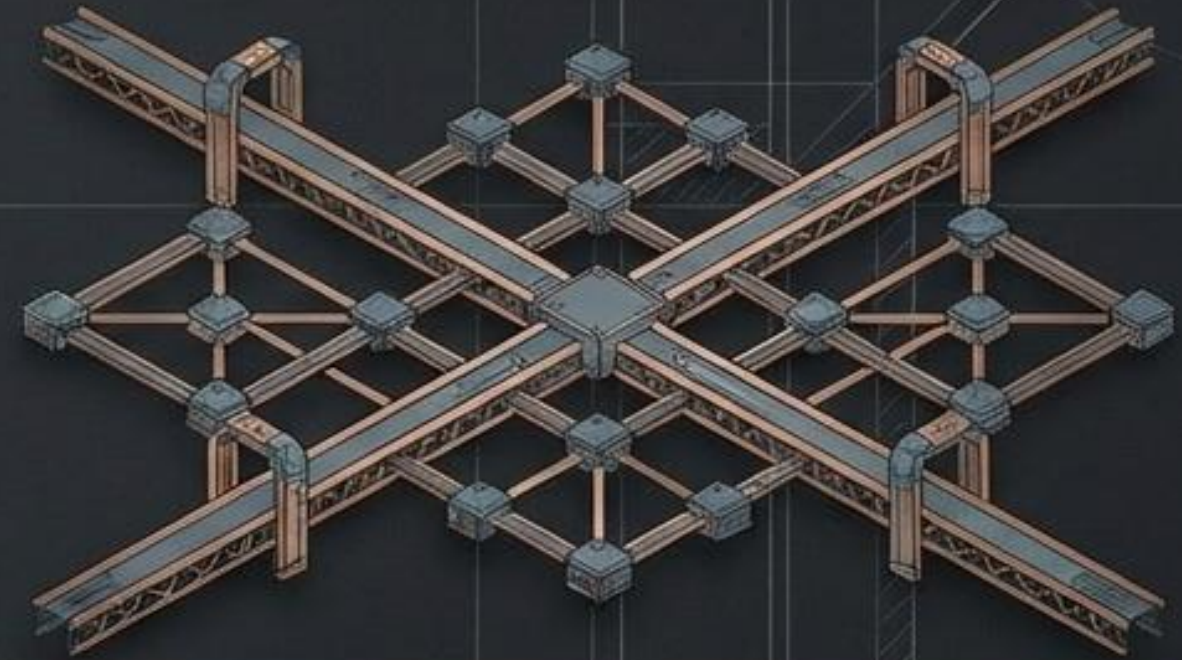


Synchronize concurrent development processes.

Survive continuous staffing changes without losing momentum.

Fulfill commitments for 20+ year long-term operational support contracts.

Organizational-Level Goals



Create accessible building blocks for entirely different divisions.

Enable future product updates and bug fixes by entirely new teams who were not part of the original development.

The Knowledge Engine: A 4-Step Process



Step 4: Reuse & Implement

The ultimate goal—driving application through technological group leaders.



Step 3: Share & Transfer

Distributing insights safely across the organization.



Step 1: Create & Collect

Gathering data continuously throughout the project lifecycle.



Step 2: Store & Organize

Securing data with high business and security sensitivity (managed centrally by R&D).



The Four Pillars of Managed Information

Technical Documents & Requirements

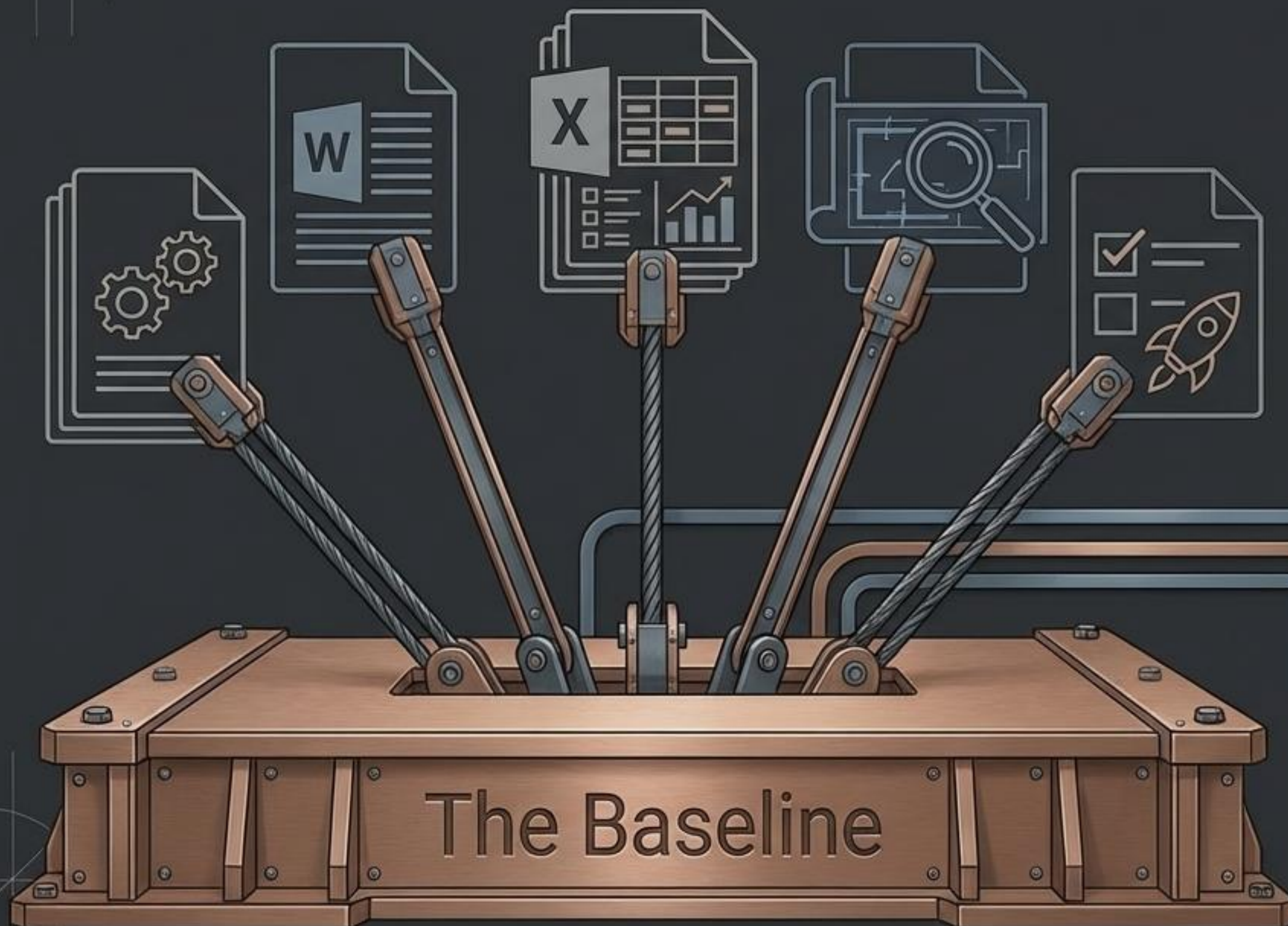
Discussions & Tasks

Trials & Design Approval

Investigations & Insights

Every piece of data generated fits into one of these enduring structural supports.

Pillar 1: Technical Documents & Requirements



Scope:

Includes analyses, development docs, testing protocols, and client specs.

The Tool:

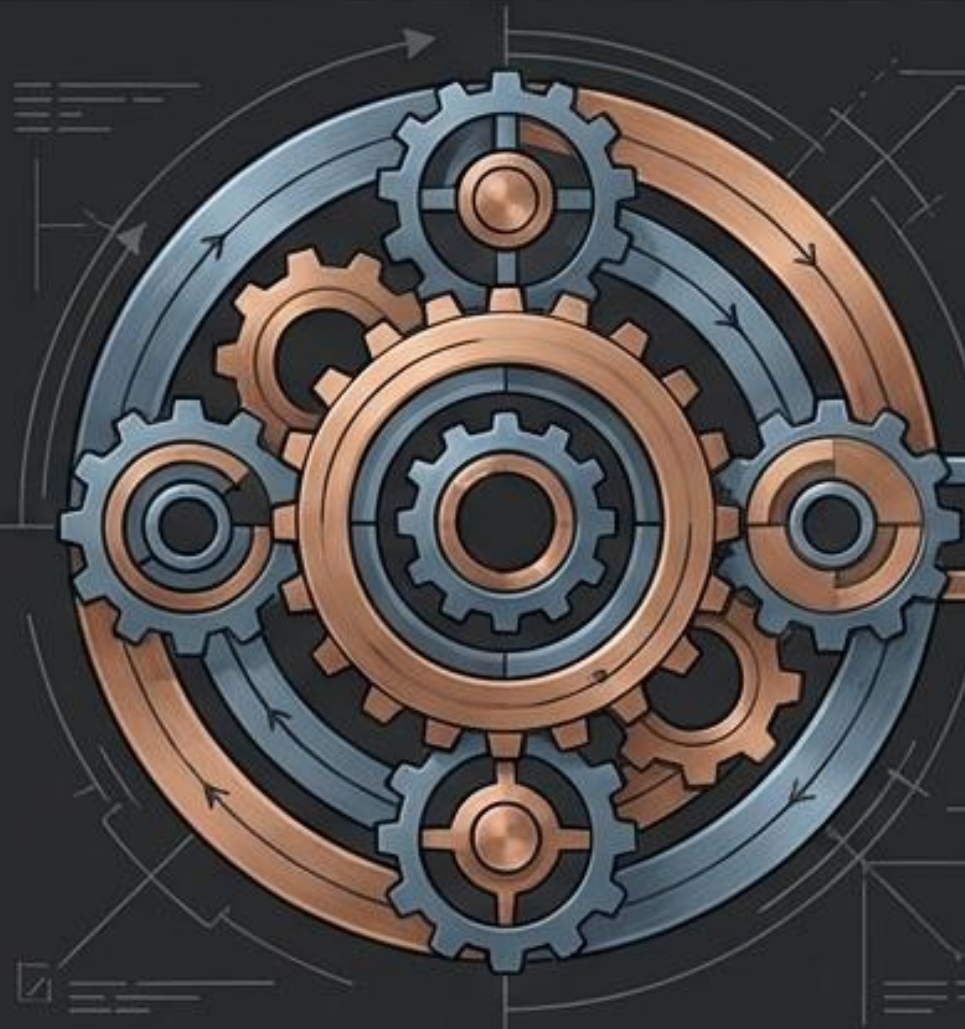
Managed via requirements management systems like DOORS.

The Rule:

Systems must support strict Baseline freezing and permissions. Exported files must be inextricably linked back to their original Baseline version to prevent version drift.

Pillar 2: Discussions & Tasks

The Chaos: Short-Term Action



Fleeting, daily technical discussions led by Systems Engineers.

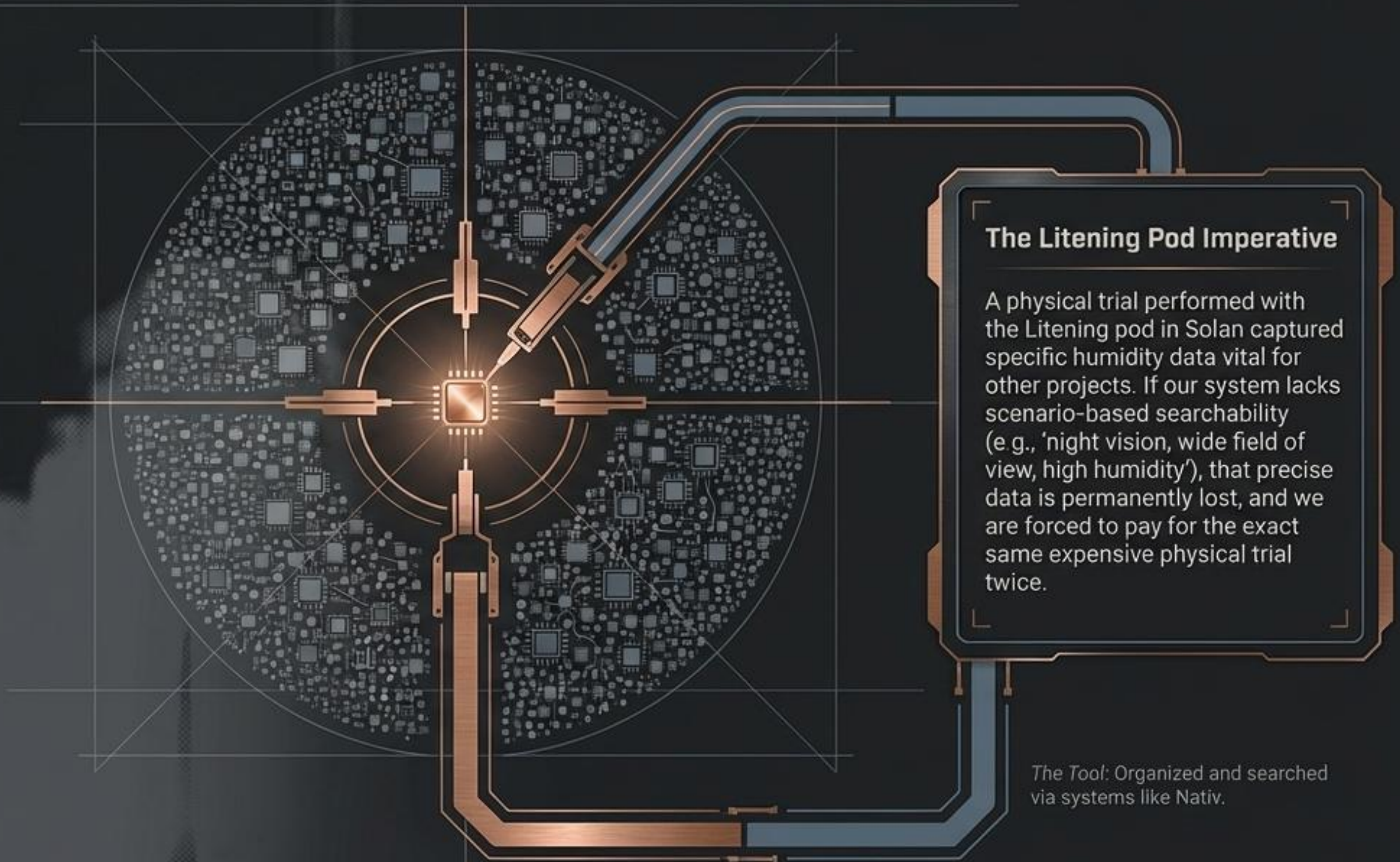
The Ledger: Long-Term Requirements



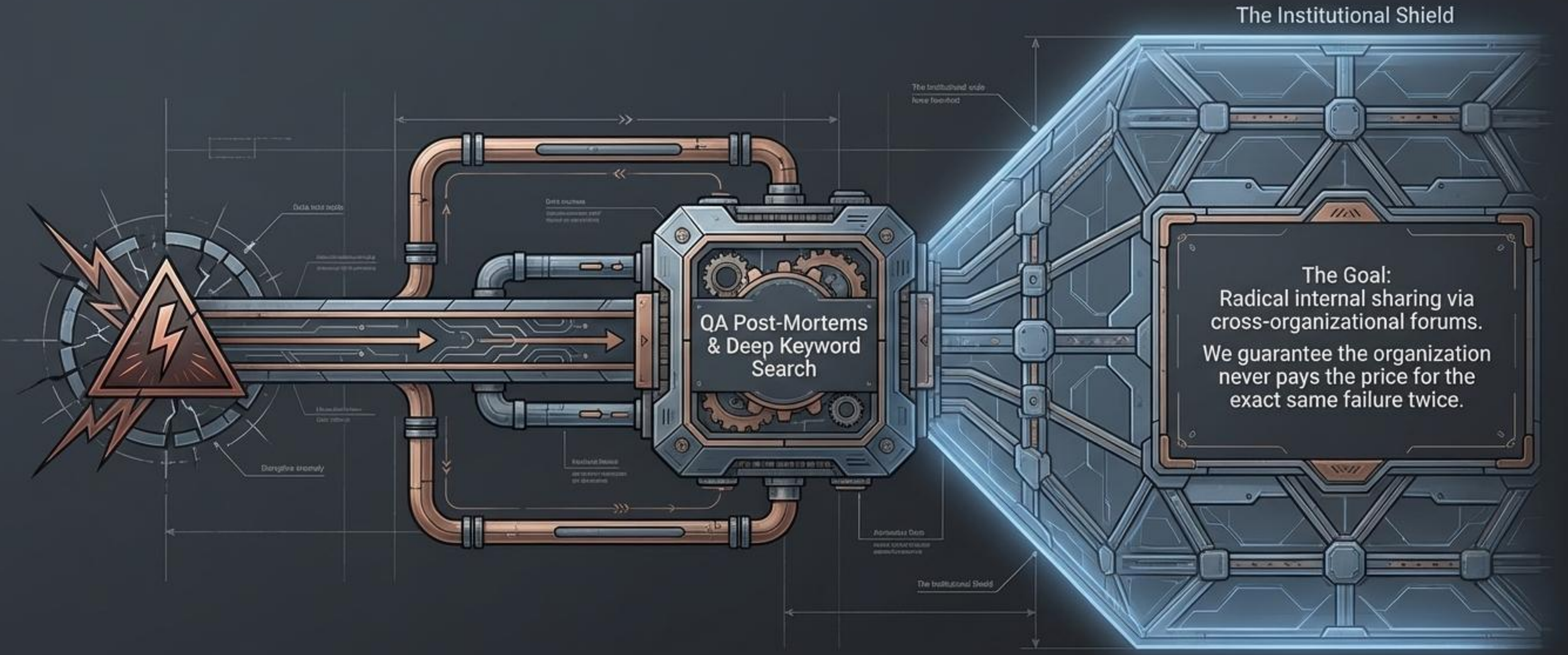
Stable, long-term contractual and managerial requirements.

The Core Connection:
The system must inextricably link the context of the fleeting discussion directly to the actionable task and the long-term requirement.

Pillar 3: Trials & Design Approval



Pillar 4: Investigations & Insights



The NASA Standard: External Validation

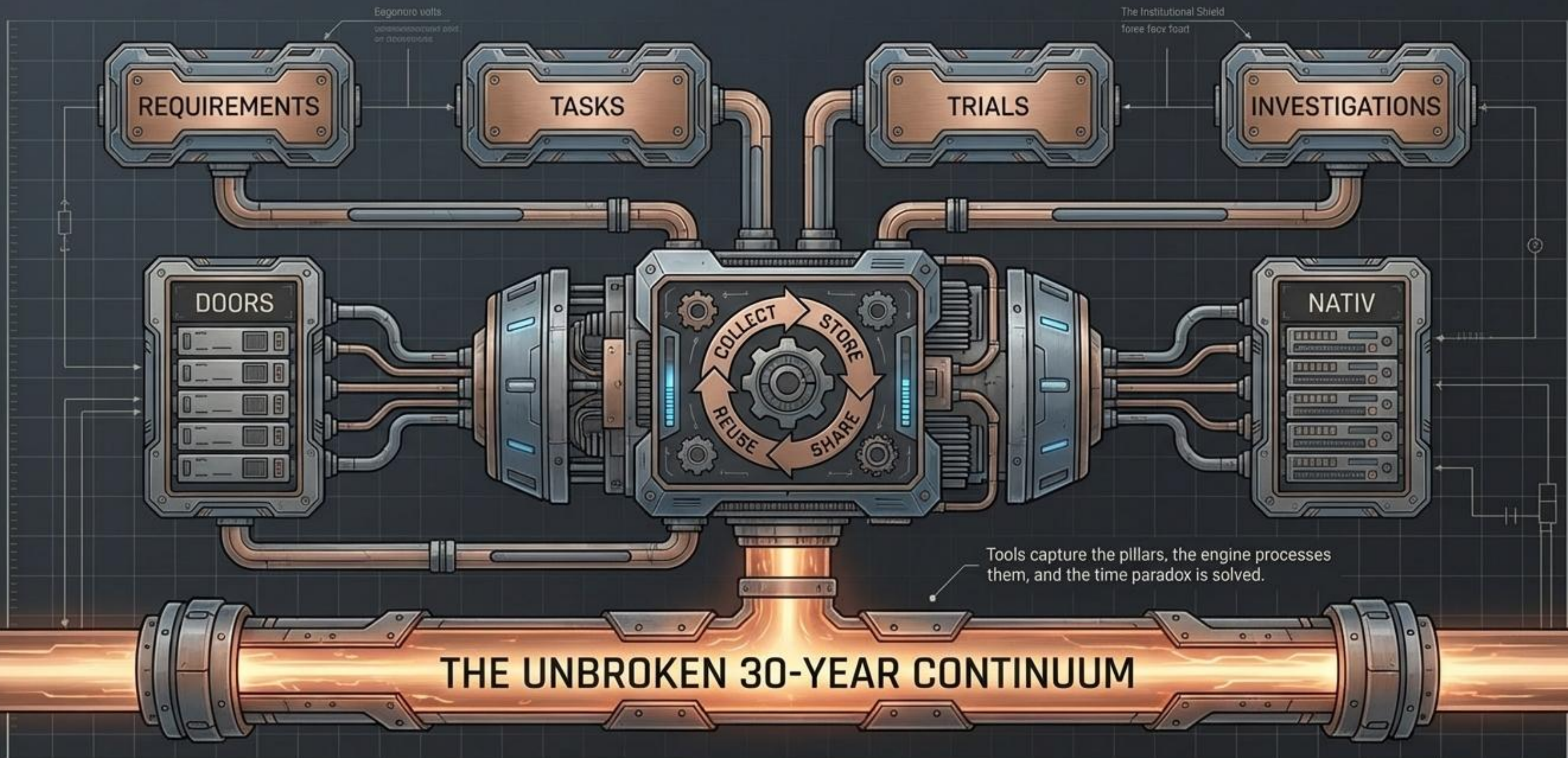
The Technical Data Package (TDP)

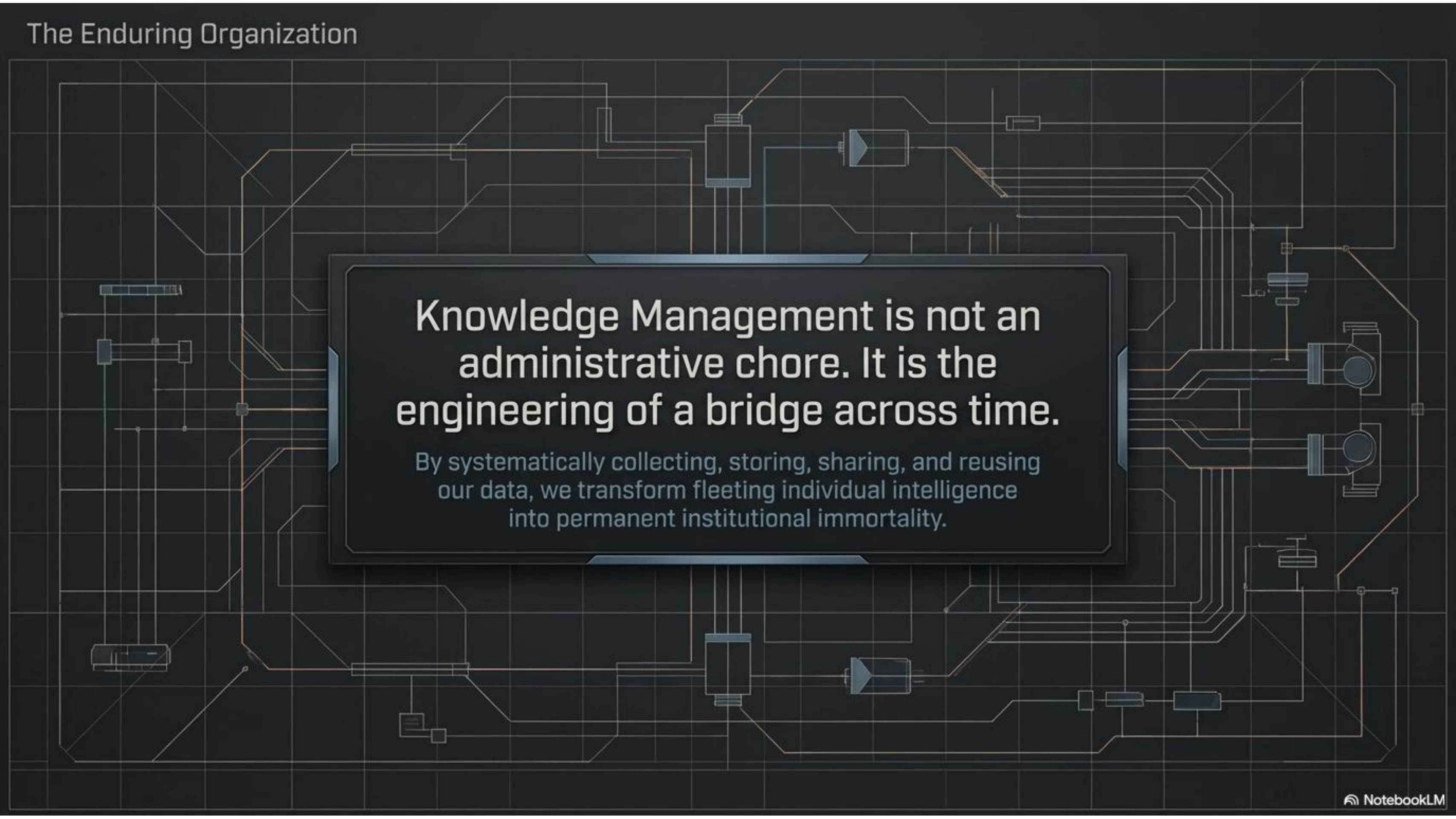
Defines the required design configuration (drawings, specs, standards) to ensure item performance and logistical support.

NASA Data Collection Checklist

- Has the frequency of collection and availability been determined?
- Is the timeline from origin to storage established?
- Who is explicitly responsible for data input?
- Who is explicitly responsible for storage, retrieval, and security?
- Are the supporting tools acquired and ready?

Synthesis: The Knowledge Ecosystem Map





Knowledge Management is not an administrative chore. It is the engineering of a bridge across time.

By systematically collecting, storing, sharing, and reusing our data, we transform fleeting individual intelligence into permanent institutional immortality.