# Decision Pipelines™

*The auditable decision-record infrastructure for federal programs — owner, rationale, evidence, and outcome captured at the moment of every consequential decision, and reconstructable on demand for oversight.*

**Radar surfaces the signal. The tower owns the decision — on the record.**

*Prepared for Members of Congress & oversight staff · June 2026*

## WHAT IT IS

**Decision Pipelines™ —** infrastructure that turns each consequential federal decision — award, denial, eligibility, recertification, payment authorization — into a structured, append-only record: named owner, rationale, evidence, and outcome, captured at the moment the decision is made. Built by DataVisuals™.

**Decision Semantics Engine —** the discipline the pipeline makes possible — decision rules govern ownership, time frames, reconstruct-ability, and capture of the linked outcomes they produce.

**Risk Signals Engine —** the screening layer on the pipeline — automated fraud risk screening for federal grants and entitlements. It surfaces fraud-risk signals at the decision for a named, on-record owner to decide. It surfaces risk; it does not declare fraud or move money.

## THE GAP IT CLOSES

Eligibility systems check the rules. Payment systems move the money. Audit finds the loss afterward. None capture the award decision itself — the reasoning and evidence behind it. That gap is where improper payments and fraud live.

- **Scale —** in FY2025, federal agencies estimated about $186 billion in improper payments across 64 programs — up $24 billion from the prior year; cumulative since FY2003, roughly $3 trillion. The bulk sits in a few large, often state-administered programs (Medicare, Medicaid, EITC, SNAP).
- **Fraud, specifically —** GAO separately estimates direct annual fraud losses to the government at $233–521 billion.

*Source: GAO payment-integrity reporting (GAO-26-108694, 2026) and GAO fraud-loss estimate (GAO, April 2024).*

## THE PIPELINE — FIVE STEPS, EVERY DECISION

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| **01** | **Signal** | *What entered the queue — application, renewal, or risk flag?* |
| **02** | **Owner** | *Who is accountable — named, at the moment of the decision?* |
| **03** | **Decision** | *Award, deny, hold, certify — on what rationale and evidence?* |
| **04** | **Action** | *What executed against the recorded decision?* |
| **05** | **Outcome** | *Did the result match the decision? Override quality becomes measurable.* |

## FIRST APPLICATION — FRAUD RISK SIGNALS

On grants and entitlements, the Risk Signals Engine is designed to screen each award at the decision against the federal sources oversight already uses:

**Treasury Do Not Pay** (pre-disbursement check), **SAM.gov** (exclusions & debarment), **HHS LEIE** (excluded parties), **SSA DMF** (deceased recipients), and **USAspending.gov** (duplicate and overlapping awards).

A flagged signal becomes an owned, on-record decision — rationale attached, captured at the decision rather than reconstructed after a loss. The engine surfaces the risk; a named owner makes the call.

*Status — working prototype: screening runs on real HHS FY2025 award data with planted synthetic test signals. Live federal-source integration and authorization to operate are gated on a sponsoring agency.*

## ANCHORED IN FEDERAL OVERSIGHT EXPECTATIONS

**Payment integrity** PIIA (2019), OMB A-123 App. C, Treasury Do Not Pay. **Authority** FAR 1.602 & delegation orders. **Reconstructability** OIG / GAO review on demand; NIST 800-53 (AU) logging. **Privacy & security** Privacy Act / SORN, FIPS 140-3, CAC / PIV, Section 508; designed for FedRAMP authorization.

## WHY IT MATTERS FOR LEGISLATIVE OVERSIGHT

- **Prevention over recovery —** governs the award before the improper payment, where GAO and IGs say action is most cost-effective.
- **A record committees can use —** gives GAO, Inspectors General, and oversight committees a reconstructable decision file — not a post-hoc email trail assembled under subpoena.
- **Accountability follows the dollar —** a State or contractor deciding how a federal grant moves is making a federal decision; Decision Pipelines™ captures it down the pass-through chain.
- **Aligns with the data-analytics build-out Congress has urged —** supports GAO's call for data-driven detection across susceptible programs.

*Reducing improper payments and fraud is a long-standing, bipartisan oversight priority. Decision Pipelines™ gives that oversight a structured, reconstructable record to work from — across grants, entitlements, eligibility, and payment authorization.*

**CITATION**
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**CONTACT & LINKS**
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