Case Study: Redesigning Demand Intake as an Adoption-Ready, Human-Centered System

Human decision-making · Workflow design · Adoption · AI-assisted systems

Problem

The organization's demand intake process had grown into a bottleneck that frustrated business partners, overwhelmed IT, and undermined governance outcomes.

Key symptoms included:

- Hundreds of active demands with long, unpredictable cycle times
- Incomplete or inaccurate submissions requiring repeated clarification
- Late involvement of the right stakeholders, leading to rework
- Vendors and solutions engaged prematurely, before design validation
- Low visibility into status, ownership, and next steps

Despite good intent and capable people, the system asked users to navigate complexity without guidance, creating friction at every step. Some demands encountered *hundreds of questions* before even becoming actionable, and average intake-to-approval timelines stretched beyond four months.

Core Insight

The failure was not compliance or effort — it was system design.

The intake process treated every idea as a full demand, asked for too much information too early, and sequenced decisions in ways that conflicted with how humans' reason about problems.

In effect, the system:

- Maximized cognitive load
- Hid decision logic
- Encouraged premature commitments
- Penalized honest uncertainty

This is the same failure mode seen in many AI-enabled products: powerful capability layered onto workflows that humans cannot easily navigate or trust.

Design Reframe

Instead of treating intake as a gatekeeping function, we reframed it as a sense-making and decision-routing system.

The design goal was to:

- Separate ideas from executable demand
- Reduce friction without sacrificing rigor
- Make decision paths visible and predictable
- Right-size governance based on risk and complexity
- Enable faster flow for "lighter" solutions while protecting the enterprise

The target ambition was explicit: reduce intake-to-approval to 30 days or less through better design, not enforcement.

Design Principles

Five principles guided the redesign:

1. Progressive disclosure - Ask for information only when it becomes decision-relevant.
2. Right-sized workflows - Not all demands deserve the same path.
3. Design before commitment - Validate solution design before contracts or funding are finalized.
4. Embedded guidance - Users should not need training to submit a good request.
5. Visibility builds trust - Status, ownership, and next steps must be obvious.

System Design

Intake Funnel: Idea → Demand

A new intake funnel was designed to:

- Capture ideas without immediately promoting them to demand
- Categorize, size, and prioritize before governance review
- Filter incomplete or misaligned requests early

This reduced noise in the system and prevented premature escalation.

Structured, Guided Intake

Standardized templates and a master question bank assured:

- Data was provided once, not repeatedly
- Questions were relevant to the decision stage
- Embedded guidance answered common questions in-flow

This reduced rework and improved submission quality without requiring training.

Corrected Decision Sequencing

The redesigned flow intentionally changed the order of operations:

- Solution design and architecture review occurred *before* sourcing
- Financial and funding validation happened earlier
- Sourcing was informed by validated design inputs

This prevented downstream churn, contract revisions, and reduced the occurrence of people being asked questions they could not yet answer.

Right-Sized Governance Paths

Demands could now be routed based on risk, complexity, and impact.

"Lighter" solutions moved quickly, while higher-risk work received appropriate scrutiny — a critical adoption improvement. This also created a distinctly fast-track path for innovation ideas to iterate within the constraints of the standard (reference) development environment architecture.

Feedback & Visibility

Dashboards, status tracking, and clear handoffs ensured:

- Submitters understood where their request stood
- Approvers could see all relevant information for decision-making at-a-glance
- Supporting teams could anticipate when resources would be needed
- Leaders had visibility into throughput and bottlenecks
- Participants could continuously improve the system

Governance became legible instead of opaque.

Outcomes

The redesigned intake system:

- Reduced unnecessary rework and redundant questioning
- Improved trust between business and IT
- Enabled faster progression from idea to approved demand state
- Created a foundation for continuous improvement
- Increased voluntary compliance by making the process usable

Most importantly, adoption improved without increasing enforcement.

Translating This Design to AI-Assisted Systems

This system design maps directly to AI-enabled workflows.

AI can:

- Help users articulate ideas more clearly
- Suggest missing context based on similar past submissions
- Classify and route work with confidence indicators
- Surface likely risks or review needs

Critically, AI should:

- Assist sense-making, not finalize decisions
- Defer under ambiguity
- Make its reasoning visible

Human judgment remains central but is significantly accelerated and standardized with AI augmentation.

AI Guardrails by Design

Key guardrails implied by this system:

- No automated promotion of ideas to demand
- Explicit confidence and uncertainty signaling
- Human review required for high-impact decisions
- Clear override and escalation paths

AI increases clarity — it does not replace accountability.

Key Takeaway

Demand intake fails when systems expect humans to behave like machines.

It succeeds when systems are designed to:

- Reduce cognitive load
- Clarify decision logic
- Sequence work the way humans reason
- Provide guidance *at the moment of need* without switching tools

If people don't understand how decisions are made, they won't trust the system — no matter how capable it is.

This principle applies equally to enterprise intake processes and AI-enabled products.

Why This Matters for AI Products

AI reduces ambiguity, amplifies confidence, and enables analysis at scale.

Designing for adoption requires:

- Human-centered workflows
- Transparent decision paths
- Right-sized governance
- Continuous feedback loops

This is the work I focus on.

The diagram below illustrates how I designed the intake system as a human-AI interaction model, with AI assisting sense-making while preserving human judgment and trust.