

 narratize

AI in New Product Innovation

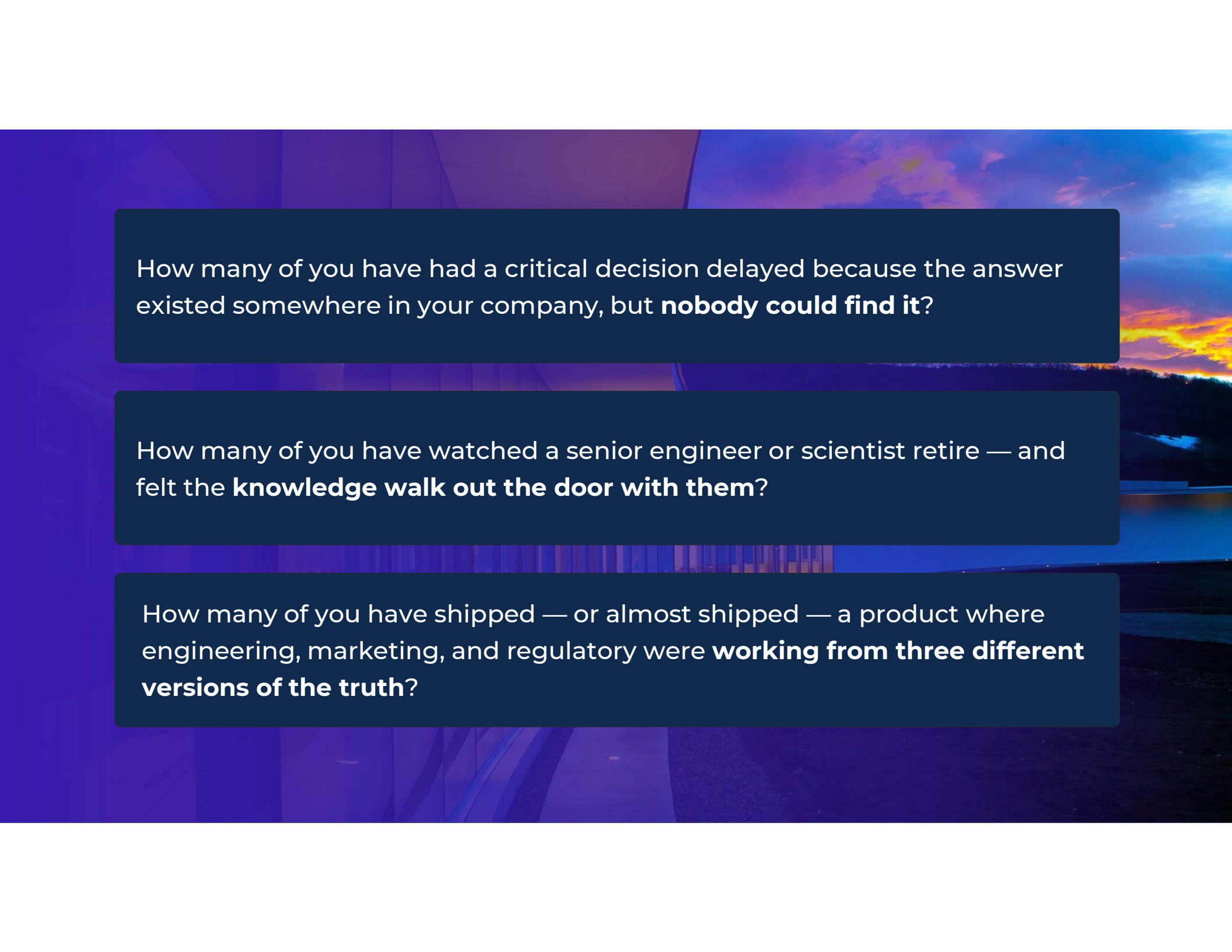
From Knowledge Chaos to Competitive Advantage

Katie Trauth Taylor, CEO & Founder, Narratize

IRI 2026

**INNOVATORS
SUMMIT**





How many of you have had a critical decision delayed because the answer existed somewhere in your company, but **nobody could find it**?

How many of you have watched a senior engineer or scientist retire — and felt the **knowledge walk out the door with them**?

How many of you have shipped — or almost shipped — a product where engineering, marketing, and regulatory were **working from three different versions of the truth**?



3%

of companies qualify as
“innovation-ready” today.

Two years ago, that number was 20%.

BCG Most Innovative Companies, 2024

60%

of launches
succeed commercially

Unchanged across 30 years of
PDMA benchmarking.

BCG Most Innovative Companies, 2024



8.2

hours per person, per week spent

*searching for, finding, or recreating
knowledge that already exists internally.*

Source: APQC

THE THESIS

*This is a knowledge problem,
not a workflow problem.*

Companies have workflows. Companies have stage-gate processes. What they do not have is a systematic way to capture, organize, and compound the knowledge that actually determines whether a product succeeds.

The Innovation Knowledge Crisis



**The Retiring
Workforce**



**Knowledge is
Scattered & Siloed**



**Cross-Functional
Misalignment**

The Innovation Knowledge Crisis



The Retiring Workforce

Decades of design rationale, failure modes, and problem-solving approaches walk out the door at retirement.



**"When an engineer retires,
it's like a library burns."**

The Innovation Knowledge Crisis



Knowledge is Scattered & Siloed

Critical insights live across 5–10+ disconnected tools per team — and lose context as they move between them.



The Innovation Knowledge Crisis



Cross-Functional Misalignment

Engineering, marketing, regulatory, and manufacturing work from different versions of the same product truth.

Cross-functional teams are structurally misaligned.

ENGINEERING

"Spec calls for tolerance $\pm 0.05\text{mm}$, tested at 200°C ."

MARKETING

"Campaign claims tolerance $\pm 0.02\text{mm}$, performance to 250°C ."

REGULATORY

"Submission references prior generation's spec sheet, not current build."

Same product. Three different truths.

Only

12%

of organizations report

strong links between business and innovation strategies

BCG Most Innovative Companies, 2024



Stage-Gate was designed to reduce uncertainty.

COOPER'S ORIGINAL VISION

Assess whether the team has enough knowledge at every gate to justify the next investment.

WHAT ACTUALLY HAPPENED

Complete the business case. Fill out the market study. Check the boxes. Ship the document.

Generic AI was built for individual productivity, not Innovation Intelligence.



01 **It doesn't know your company.**

No memory of your products, portfolio, customers, or regulatory context.

02 **It doesn't capture knowledge.**

Only retrieves what's written down. Rationale, tacit judgment, context — invisible.

03 **It resets every session.**

Ask the same question twice, get two answers. Nothing compounds.

04 **It serves one user at a time.**

Cannot orchestrate knowledge across five cross-functional teams on a product.

THE RESEARCH FOUNDATION

It all started with IRI.

A decade of field research into how product innovation actually succeeds — and fails.

2021

Brilliant Failures

IRI-funded peer-reviewed study in Research-Technology Management. 12 thought-leader interviews, 13 case studies across six companies.

2022

Innovation Storytelling State of the Field

100 interviews + 145 survey responses. Innovators spend 30% of their week on storytelling work; large companies spend \$30K per employee per year.

2024

Innovation Leader Interview Series

100+ long-form interviews at NASA, Boeing, P&G, Disney, John Deere, LEGO, Polaris, Argonne, PayPal.

2026

Knowledge-Driven New Product Development Publication

Paper submitted to IRI's Research-Technology Management — the peer-reviewed anchor for the methodology.

A New Model For AI-Accelerated Innovation

- 01 The Five Knowledge Domains™** *Every knowable thing in NPD, mapped.*
- 02 The Atomic Facts™** *200+ atomic knowledge elements.*
- 03 Sequential Knowledge Progression™** *Right question, right time.*
- 04 Knowledge Sufficiency™** *The four-dimension measurement model.*
- 05 Knowledge State Indicators™** *A reliability signature per element.*

AI-Powered. Ownable, citable, teachable. Each layer unlocks the next.

The Five Knowledge Domains™

Every knowable thing in manufacturing NPD maps to one of these five domains.



People & Expertise

Who knows what — expertise boundaries, tribal knowledge, relationship maps, and decision-maker patterns.

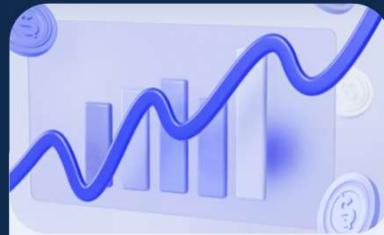
Loss Risk



Product & Technical

Specifications, design decisions, manufacturing parameters, test results, and failure learnings.

Loss Risk



Market & Customer

Customer needs in their own language, use cases including edge cases, competitive intel, and regulatory requirements.

Loss Risk



Business & Strategic

Cost structures, financial models, pricing rationale, strategic fit, and risk parameters with their assumptions.

Loss Risk



Process & Context

Decision rationales, failed experiments, timeline constraints, and political context — the "why" behind the "what."

Loss Risk



The Atomic Facts™

A Complete Taxonomy of Every Knowable Element in Manufacturing NPD



People & Expertise

- Experiential intuition of senior engineers
- Problem-solving heuristics (personal rules of thumb)
- Tribal knowledge: "why we do it this way"
- Decision-maker risk tolerance thresholds



Product & Technical

- Trade-off decisions (weight vs. cost, performance vs. DFM)
- Rejected alternatives and why they were rejected
- Critical process parameters with qualified ranges
- Failure mode signatures and root-cause chains



Market & Customer

- Customer verbatims and need hierarchy
- Stated vs. latent needs
- Jobs-to-be-done with full context
- Willingness-to-pay thresholds by feature



Business & Strategic

- BOM cost by component with rationale
- NPV/IRR with assumption register
- Strategic fit assessment
- Risk interdependencies



Process & Context

- Gate decision rationale, not just outcome
- Failed experiments and failure causation
- Dissenting views and unresolved concerns
- Schedule drivers and deadline origins

INDUSTRY-SPECIFIC OVERLAYS

Chemicals & Materials

CAS, TSCA/REACH · Reaction kinetics
· ICH stability · GHS classification

Aerospace & Defense

DO-178C/DO-254 · ARP4761 safety
AS9100 controls · NADCAP approvals

Medical Devices

21 CFR 820.30 DHF · ISO 14971 RMF
ISO 10993 biocomp. · IEC 62304 SW

Industrial Equipment

ISO 13849 PLs · IEC 62061 SIL
ISO 12100 risk · MTTF & diag. cov.

Energy Systems

60+ grid codes · IEEE 1547-2018
UL 1741 cert · UL 9540A safety

Sequential Knowledge Progression™

Every atomic fact, in sequential order so the right questions are answered at the right time — each stage unlocks the next.

| STAGE 0 | STAGE 1 | STAGE 2 | STAGE 3 | STAGE 4 | STAGE 5 | STAGE 6 | STAGE 7 |
|---------------------------------------|--|---|--|---|---|---|---|
| Foundation | Discovery | Scoping | Business Case | Development | Testing & Validation | Launch | Post-Launch |
| KEY QUESTION | KEY QUESTION | KEY QUESTION | KEY QUESTION | KEY QUESTION | KEY QUESTION | KEY QUESTION | KEY QUESTION |
| Who in our organization knows what? | What unmet need exists, and is there a market? | What specs, risks, and resources define this concept? | Do financials and strategic fit justify development? | Can we design and manufacture as specified? | Does the product meet specs and customer needs? | Is the org ready to manufacture, sell, and support? | What did we learn, and how does it feed the next? |
| UNLOCKS | UNLOCKS | UNLOCKS | UNLOCKS | UNLOCKS | UNLOCKS | UNLOCKS | UNLOCKS |
| <i>Team formation, expert routing</i> | <i>Opportunity sizing, concept direction</i> | <i>PRD, prelim specs, risk register</i> | <i>Investment decision, prioritization</i> | <i>Complete BOM, process flow</i> | <i>Design verification, mfg readiness</i> | <i>Market launch, sales enablement</i> | <i>Feedback into Stage 0 — compounding</i> |

Knowledge Sufficiency™

The new measure of progress — four questions that replace the document checklist.

THE OLD GATE QUESTION

"Are the documents complete?"

THE KNOWLEDGE-DRIVEN GATE QUESTION

"Do we know enough to justify the next investment?"



Coverage

BREADTH OF INQUIRY

Have we addressed the critical knowledge questions in each relevant domain?

MEASURES

Atomic elements required at this stage that are meaningfully captured across all five domains.



Confidence

VALIDATION DEPTH

What is our validation level for each knowledge claim?

MEASURES

Where each claim sits: Hypothesized → Tested → Validated → Proven. Every answer gets a state, not a check.



Currency

TEMPORAL RELEVANCE

Is our knowledge still current, or has the landscape shifted?

MEASURES

Whether market data, regulations, and assumptions reflect today's reality — not yesterday's.



Integration

CROSS-DOMAIN FIT

Does knowledge in one domain connect appropriately to others?

MEASURES

Whether technical capabilities align with market needs and regulations flow through to specs.

Knowledge State Indicators™

Every piece of knowledge carries a reliability signature across five dimensions

INDICATOR 1

Validation Status

Confidence in decisions made on this knowledge.



INDICATOR 2

Currency

Whether knowledge still applies to today's reality.



INDICATOR 3

Explicitness

Accessibility — and transfer risk when experts leave.



INDICATOR 4

Certainty

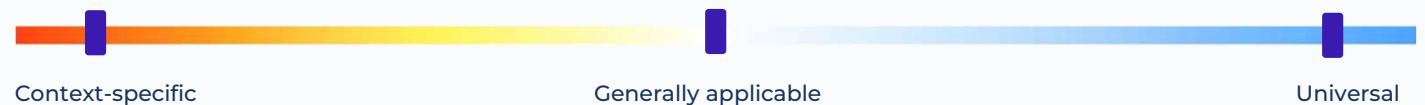
Risk of acting on this knowledge at the next gate.



INDICATOR 5

Scope

Where knowledge can be applied across portfolio.





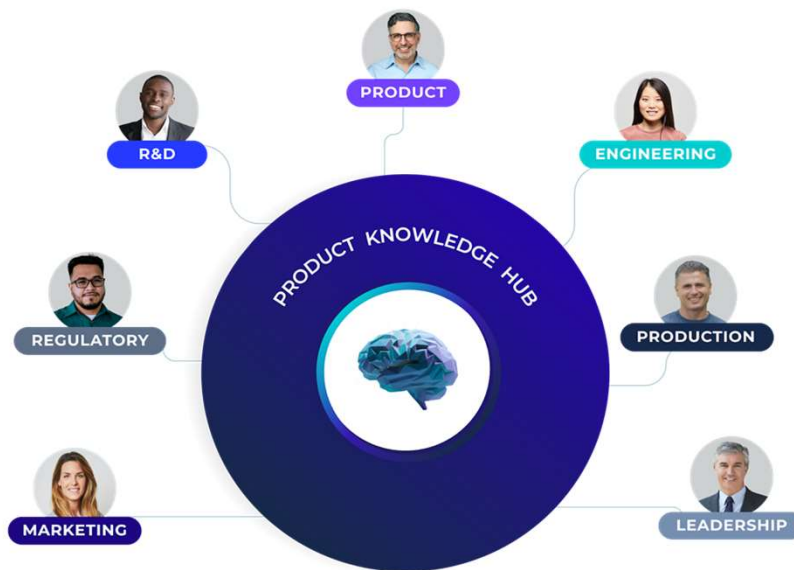
We turned this framework into

The System of Intelligence for NPD & Innovation

Centralized Intelligence for Enterprise Portfolio Growth



Centralized, Compounding Intelligence



Everyone contributes. Everyone benefits. Knowledge persists.

Innovation Accelerates.

Powering Product + Portfolio Intelligence

4

Innovation Orchestration Layer

Coordinates multi-step workflows, cross-functional handoffs, and portfolio-level intelligence

3

Agentic AI Layer

15+ specialized agents: Stage-Gate Decision, Compliance, Market Readiness, Red Team

2

Knowledge Intelligence Layer

Product Knowledge Hubs as single source of truth. Smart prompting. Full source traceability.

1

Integration Layer

PLM/PDM, R&D tools, compliance platforms, market research—native connectors

Your Innovation Intelligence Toolkit

Purpose-built AI agents, documentation templates, and stage-gate workflows that accelerate every phase of product development.



Innovation Intelligence Agents

10+ Specialized Agents

- Knowledge Capture
- Alignment Checker
- Gap Assessment
- StageGate Decision
- Compliance Verification
- Market Readiness & Launch
- Red Team Analysis
- Portfolio Assessment
- Documentation Automation
- Market Intelligence



Documentation Templates

70+ Ready-to-Use Templates

Discovery

Pitch, Market Opportunity Analysis, Problem Statement, Interview

Scoping

PRD, Feasibility Study, Risk Assessment, VOC Summary, ROI Projections

Development

BOM, Process FMEA, DFM Analysis, Quality Control Plans

Testing

Design Verification, Validation Report, Regulatory Standards

Launch

Creative Brief, Case Study, Sales Deck, Launch Checklist

+ Custom Template Builder



Stage-Gate Workflows

Intelligent Process Orchestration

- **Pre-Built Industry Templates**
Standard Stage-Gate, Medical Device, Chemicals & Materials
- **Visual Progress Tracking**
See every stage, input requirement, and deliverable at a glance
- **Smart Stage Advancement**
Non-blocking alerts surface gaps before they become blockers
- **Template-to-Stage Mapping**
Right templates tied to the right development phases
- **Role-Based Task Guidance**
Each contributor sees what to work on next
- **Approval & Gate Reviews**
Structured decision points with documented rationale

All capabilities are configurable to your organization's unique innovation processes and industry requirements.

Superior Products. Faster Launches. Stronger Portfolio Growth + Performance.



67%

**Faster
Innovation Cycles**

Accelerated
progression through
development stages

\$1.5B

**Portfolio Value
Orchestrated**

Cumulative product
portfolio value
orchestrated by
Narratize among
enterprises to date.

\$500M

**Acceleration
Market Impact**

Product growth
(revenue capture
advantage 3-5%) via
lifecycle progression
aggregated across
enterprise customers.

\$9M

**Productivity
Value**

Annual value from 9
hours saved per user
per week.

*Narratize Customer Success builds a strong foundation for **scalable adoption** and **sustained innovation**.*



Beloved Global Pet Nutrition Enterprise

INDUSTRY

CPG

EXISTING SOLUTIONS

Gemini
(enterprise-embedded)

✓ Expanding

R&D, clinical, and tech comms teams **accelerate R&D workflows by 74% and AI-enable product portfolio decision-making** — for vets, consumers, and global teams — without leaving their knowledge hub.

CHALLENGE

Scientific output needs to be world-class. Getting it to vets, consumers, and global markets was slow, manual, and inconsistent. R&D cycles and JTBD are moving 72% faster.

HOW THEY USE NARRATIZE

- **Centralize peer-reviewed manuscripts, clinical trial reports, and product dossiers** in AI-native **Product Knowledge Hub**.
- Teams generate vet-facing summaries, field training modules, and consumer Q&A — in multiple languages — directly from the same source.
- Custom R&D Slide Deck and Pitch Deck templates live in production.

RESULTS

- First-draft audience-specific content cut from weeks to hours.
- Scientific experts shifted from authoring to approving.
- Brand and scientific accuracy maintained across every market.



Global Consumer Goods & Beauty Giant

INDUSTRY

Personal Care / CPG (Global)

EXISTING SOLUTIONS

Manual Processes

STATUS

✓ Expanding

*"Using Narratize helps ensure clear communication, **meaningful innovation knowledge sharing**, and accelerated innovation across the R&D organization."*

A global personal care R&D organization standardized NPD outputs, accelerated early-stage cycles, and **knowledge agents centralize intelligence across all R&D in the Americas and ensure agentic portfolio intelligence.**

CHALLENGE

StageGate workflows and documentation varied wildly across brands and regions. Scientists spent more time on meetings than science. Critical learnings from one category rarely reached adjacent projects.

HOW THEY USE NARRATIZE

- 93 active users across R&D, regulatory, and innovation management.
- Product Knowledge Hubs for every active NPD initiative. Custom Stage-Gate templates — including Kirei-style reflection workflows — generate concept briefs, business cases, FMEAs, and technical docs.
- Team members generate the documents they own directly from the hub.

RESULTS

- Stage 0–2 outputs produced faster with clearer, more consistent narratives.
- Scientists spend less time drafting, more time on experimental design.
- Cross-functional stakeholders understand R&D work without requiring translation from scientists.



Global Tire Manufacturer

INDUSTRY Automotive

EXISTING SOLUTIONS Co-Pilot (enterprise) + Siemens TeamCenter PLM

STATUS ✓ Expanding

A global tire manufacturer with Co-Pilot and best-in-class PLM chose Narratize to **centralize product knowledge and accelerate R&D rapid learning cycles by 84%.**

CHALLENGE

Product knowledge lived across PLM, Co-Pilot, and disconnected systems. Co-Pilot only knows the Microsoft ecosystem. TeamCenter only knows the PLM data. Nothing connected it all.

HOW THEY USE NARRATIZE

- Product Knowledge Hubs with custom Rapid Learning Cycle (RLC) workflows that centralize product knowledge across systems.
- Cross-product visibility across the entire innovation pipeline that no single tool in their stack provides.

RESULTS

- Product knowledge centralized across systems that couldn't communicate before.
- Cross-portfolio intelligence unlocked at the executive level.
- Deal cleared every procurement layer; presented to CTO for final approval.

Time to rate your organization.

Score Your Organization Across the Five Knowledge Domains™

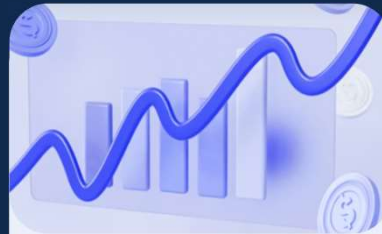
Rate each statement from 1 (strongly disagree) to 5 (strongly agree)



People & Expertise
When senior experts leave, their decision heuristics, problem-solving intuition, and **tribal knowledge stay** with our team.



Product & Technical
Design trade-offs, rejected alternatives, process parameters, and failure modes are **captured and searchable** across products.



Market & Customer
Customer verbatims, jobs-to-be-done, and willingness-to-pay thresholds are **centrally available** — not locked in individual decks.



Business & Strategic
Cost assumptions, NPV assumptions, strategic fit, and risk interdependencies are **transparent** to anyone making gate decisions.



Process & Context
Gate decision rationale, dissenting views, failed experiments, and schedule drivers are **captured** — not just outcomes.

BENCHMARKS

Most enterprise R&D teams are strong in two or three domains — and fragmented in the rest.

Add up your scores.

20–25

Complete Knowledge Coverage

Strong across all five domains. Ready to compound with AI-powered innovation intelligence for portfolio-wide advantage.

12–19

Strong in Some, Fragmented in Others

Critical gaps in two or three domains. Most enterprise R&D teams land here. The weakest domain determines the ceiling.

5–11

Domain-by-Domain Fragmentation

Knowledge exists in pockets but doesn't connect. No cross-domain integration. Substantial capacity lost to retrieval and rework.

TABLE DISCUSSION — 5 MINUTES

Discuss with your table.

01

—

Is there a pattern in which domain scored weakest — by industry, by role, or across the board?

02

—

For that weakest domain, what does the gap cost — in time, in rework, in missed market windows?

Your **weakest domain** is where AI delivers the **fastest ROI**.

That's where you start.



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