

The Contextual Decision Layer

Why Enterprise AI Needs More Than Data, Semantic Models, and Agents

A strategic architecture brief for CIOs, CDOs, CAIOs, and Enterprise Architects



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“The first generation of enterprise AI focused on making models smarter. The next generation will depend on giving AI a trusted understanding of how the business actually makes decisions.”

David Marmer - Chief Product Officer, Board

Executive Summary

Enterprise AI is entering a new phase.

Over the past several years, organizations have invested heavily in modern data platforms, semantic models, and foundation models.

Those investments have dramatically improved AI's ability to understand enterprise data, generate insights, and accelerate analysis.

Yet many organizations are discovering that intelligence alone doesn't produce trusted business decisions.

Business decisions depend on far more than data. They rely on planning assumptions, business rules, governance, ownership, scenarios, financial logic, and operational context—capabilities that rarely exist in a single system but are essential for AI to recommend and execute actions responsibly.

This brief explores why enterprise AI architectures are evolving beyond data and semantics toward a new architectural capability: **the Contextual Decision Layer.**

What You'll Learn



Why semantic models solve only part of the enterprise AI challenge.



Why decision context is becoming a distinct architectural capability.



Where enterprise planning fits within the modern AI stack.



How leading organizations are preparing for agentic planning and AI-assisted decision-making.

Enterprise AI is **changing** how organizations analyze information.

→ **The next challenge is helping AI participate in enterprise decision-making.**

The Architectural Shift

Enterprise AI is evolving faster than enterprise decision-making.

Over the past several years, enterprises have invested heavily in modern data platforms, semantic models, analytics, and foundation models. These investments have dramatically improved AI's ability to understand enterprise data, generate insights, and automate tasks.

Yet many organizations are discovering that making AI more intelligent is not the same as making enterprise decisions more effective.

The next challenge isn't access to data.

It's providing AI with the business context required to make trusted, governed, and coordinated decisions.

Four shifts are reshaping enterprise AI architecture.



1. Foundation models are becoming infrastructure.

Organizations increasingly have access to the same frontier models. Competitive advantage is shifting away from model selection toward how AI is grounded, governed, and operationalized inside the enterprise.



2. Data platforms have become the enterprise foundation.

Lakehouses, data fabrics, and semantic models have dramatically improved the quality and accessibility of enterprise data. They provide the trusted information AI needs—but not the business logic required to act on it.



3. AI is moving beyond analysis toward action.

Copilots explain. Agents recommend. Increasingly, AI is expected to simulate scenarios, coordinate workflows, and participate in operational decision-making. That changes the architectural requirements.



4. Enterprise decisions remain fragmented.

Business rules, planning assumptions, scenarios, ownership, policies, approvals, and financial logic remain distributed across spreadsheets, applications, and institutional knowledge—making it difficult for AI to produce decisions that are both trustworthy and explainable.

Enterprise AI doesn't just need access to enterprise data. **It needs an architecture for enterprise decision-making.**

The next evolution of enterprise architecture introduces a new capability:

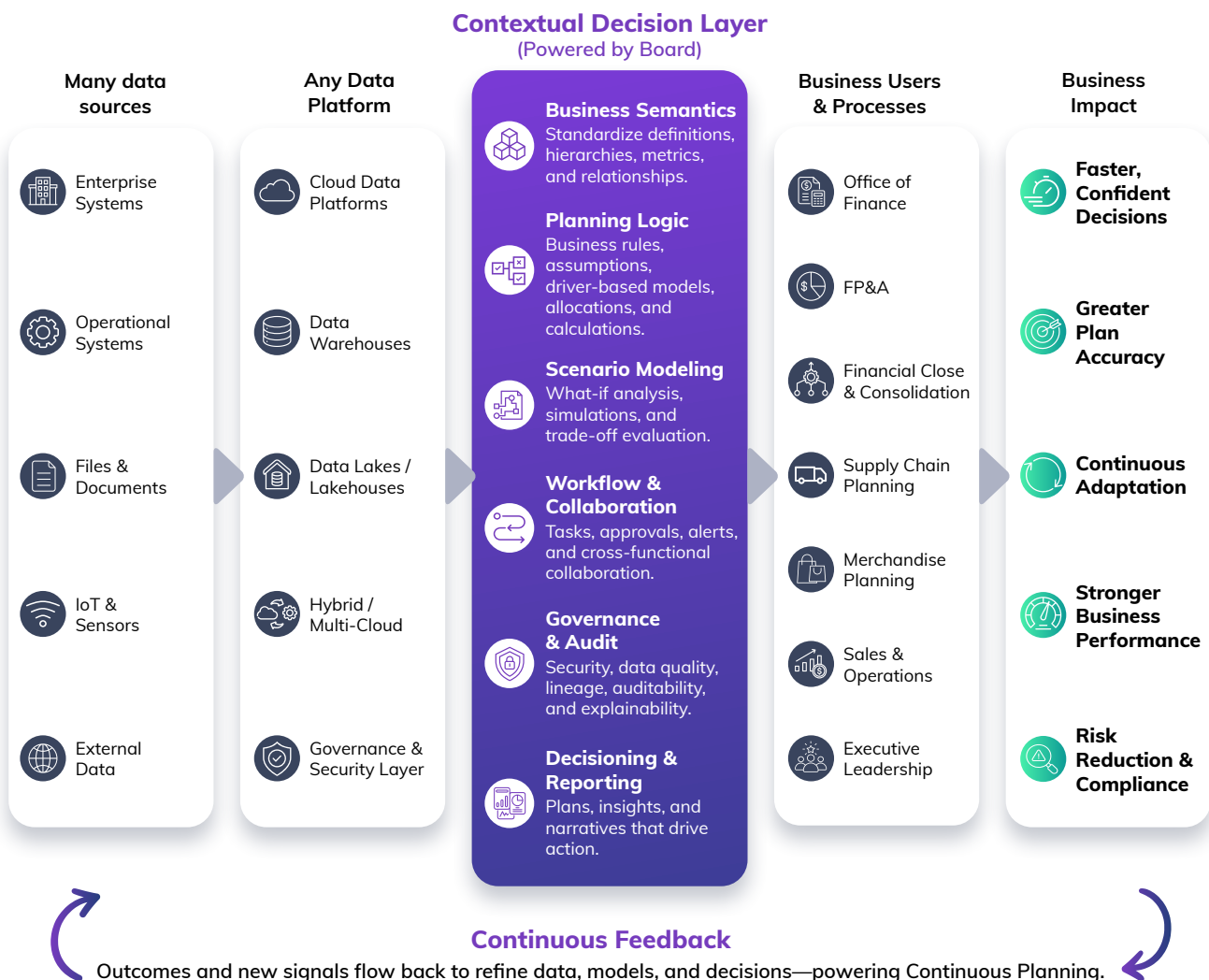
The Contextual Decision Layer



From Enterprise Data to Enterprise Decisions

The Contextual Decision Layer activates governed data, applies business context, and orchestrates continuous decisions across the enterprise.

Board sits between the enterprise data stack and business execution—translating data and AI into coordinated plans, actions, and measurable outcomes.



Why This Architecture Matters



Platform Agnostic

Works with your existing or preferred data platform.



Business First

Applies business context where decisions are made.



End-to-End

Connects data, logic, people, and processes to drive action.



Governed & Trusted

Ensures quality, security, and accountability.



Built for Scale

Supports complexity, growth, and change across the enterprise.



Key Takeaway

Board is the **Contextual Decision Layer** that turns governed enterprise data into **coordinated plans and actions**—delivering **better decisions, every time**.

Architectural Responsibilities

Clear boundaries. Shared outcomes.

Designed for enterprise governance and scale.

Data platforms and Board have distinct responsibilities across the architecture. Together, they ensure data is governed, trusted, enriched with business context, and operationalized into coordinated decisions.

Data Platforms



Provide a secure, scalable, and governed foundation of data and AI services that enterprises trust.



Data Ingestion & Management

Ingest, store, and manage enterprise data using batch, streaming, and real-time pipelines.



Data Governance & Quality

Ensure data quality, lineage, metadata, access controls, and regulatory governance.



Analytics & AI/ML

Build, train, and operationalize models and ML pipelines at scale.



Data Products

Publish curated, governed data products for enterprise consumption.



Platform Operations

Maintain platform performance, availability, security, and cost optimization.

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Activate and enrich governed data with business context, planning logic, and workflow to drive coordinated decisions.



Business Semantics & Data Modeling

Apply business definitions, hierarchies, and dimensions that bring data to life.



Planning Logic & Calculations

Apply driver-based models, business rules, allocations, assumptions, and deterministic calculations.



Scenario Modeling & Simulation

Create what-if scenarios, compare options, and understand trade-offs.



Workflow & Collaboration

Manage planning processes, approvals, tasks, alerts, and collaboration.



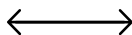
Governance, Audit & Writeback

Enforce planning governance, auditability, and controlled writeback to systems.



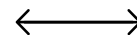
Decisioning & Reporting

Deliver plans, insights, and recommendations for action across the enterprise.



Integration Boundary

Board consumes governed data products from any data platform and can write back decisions, plans, and outcomes. All integrations use secure, governed interfaces.



Shared Responsibilities



Security & Compliance

Protect data, ensure privacy, and meet regulatory requirements.



Access & Identity

Manage identities, roles, and permissions across platforms.



Data Governance Alignment

Maintain consistent policies, standards, and governance across the stack.



Operational Excellence

Monitor performance, reliability, and support at enterprise scale.



Business Outcomes

Drive measurable impact through data-to-decision execution.



Key Takeaway

Data platforms secure and prepare the data. Board activates it with business context, planning logic, and workflow. Together, they create a governed, integrated architecture that scales AI-driven decision-making across the enterprise.

Why the Contextual Decision Layer Matters

Turning governed data into coordinated decisions at enterprise scale.

Enterprises have data, models, and tools, but turning insight into coordinated action remains hard.

The Contextual Decision Layer is the missing capability that bridges the gap between prediction and performance.

It applies the semantics, logic, workflows, and governance that AI and data platforms cannot provide on their own—ensuring every decision is trusted, explainable, and aligned to business outcomes.

What this enables



Trusted, Governed Decisions

Business rules, logic, and governance are applied consistently—ensuring compliance, auditability, and trust in every decision.



Faster, Confident Action

AI delivers insight instantly. Board turns it into coordinated plans and actions—so organizations respond faster.



Enterprise Alignment at Scale

Plans, assumptions, and decisions are connected across functions, so the entire enterprise moves in the same direction.



Continuous Optimization

Outcomes and operational data flow back to improve models, refine plans, and strengthen decision quality over time.



Measurable Business Impact

Better decisions drive financial performance, service levels, agility, and long-term growth.

What happens without it

- ✗ Insights exist, but decisions are fragmented.
- ✗ Siloed plans and assumptions cause misalignment.
- ✗ Manual processes slow response and limit agility.
- ✗ Lack of governance creates risk and low confidence.
- ✗ Missed opportunities and suboptimal business outcomes.

Data and AI without decision context lead to inconsistent answers, unreliable outputs, and decisions that don't scale.

Business outcomes that matter



30-50%

Faster time to insight and decision



10-20%

Improvement in forecast accuracy



5-15%

Increase in operational margin



20-40%

Reduction in manual effort



Higher

Employee and customer satisfaction

Proven Impact. Real Results.

Real customers. Real outcomes.

More confident decisions in a volatile world.

Leading organizations choose Board to power planning where it matters most—across finance, close, merchandise, and supply chain.

These customer stories show how our Contextual Decision Layer transforms complexity into clarity by helping teams anticipate change, act faster, and drive measurable impact.



Navigate the world's volatility with confidence.

From economic uncertainty to shifting demand and supply disruptions, our customers rely on Board to anticipate change, adapt faster, and act with clarity.



KOMATSU

FP&A

A global machinery manufacturer unifying financial and operational planning to accelerate forecasting and decision-making.



Forecasting cycles accelerated by 10-15%

Faster planning with less manual effort.



80% reduction in manual data preparation

Eliminated days of consolidation work every reporting cycle.



One trusted planning platform

Real-time visibility across finance, sales, and operations.

“With Board, we’ve moved from collecting data to truly understanding it. That shift has transformed how we support the business.”



ZENTIVA

FCCR

A leading European pharmaceutical manufacturer streamlining financial close and consolidation with confidence and control.



Monthly close shortened by two days

Faster close with automation and standardized processes.



Higher data accuracy and compliance

Improved trust, auditability, and regulatory readiness.



One platform connecting HQ and local entities

Unified planning, management reporting, and financial consolidation across the organization.

“Board has significantly strengthened our ability to respond to market changes.”



GOLDEN GOOSE

Merchandise Planning

A global luxury fashion brand optimizing allocation, replenishment, and inventory decisions across channels.



Improved stock availability across channels

Better allocation decisions across stores, product lines, and markets.



Reduced excess inventory and markdowns

More accurate replenishment helps minimize waste and end-of-season stock.



Faster response to changing demand

Automated, data-driven planning improves agility across the global retail network.

“A single planning platform gives teams greater visibility into inventory and demand, enabling better allocation decisions and supporting profitable growth.”



KUKA

Supply Chain Planning

A global industrial automation leader improving supply chain resilience and operational performance.



End-to-end visibility across the supply chain

Real-time insights for demand, supply, and inventory.



Standardized planning with automated workflows

Greater control, transparency, and reduced manual effort.



Improved resilience and operational agility

Better coordination across planning teams.

“In the past, planning was an activity that was separate in every way. It has since blossomed into true teamwork.”

What Enterprise Leaders Should Do Next

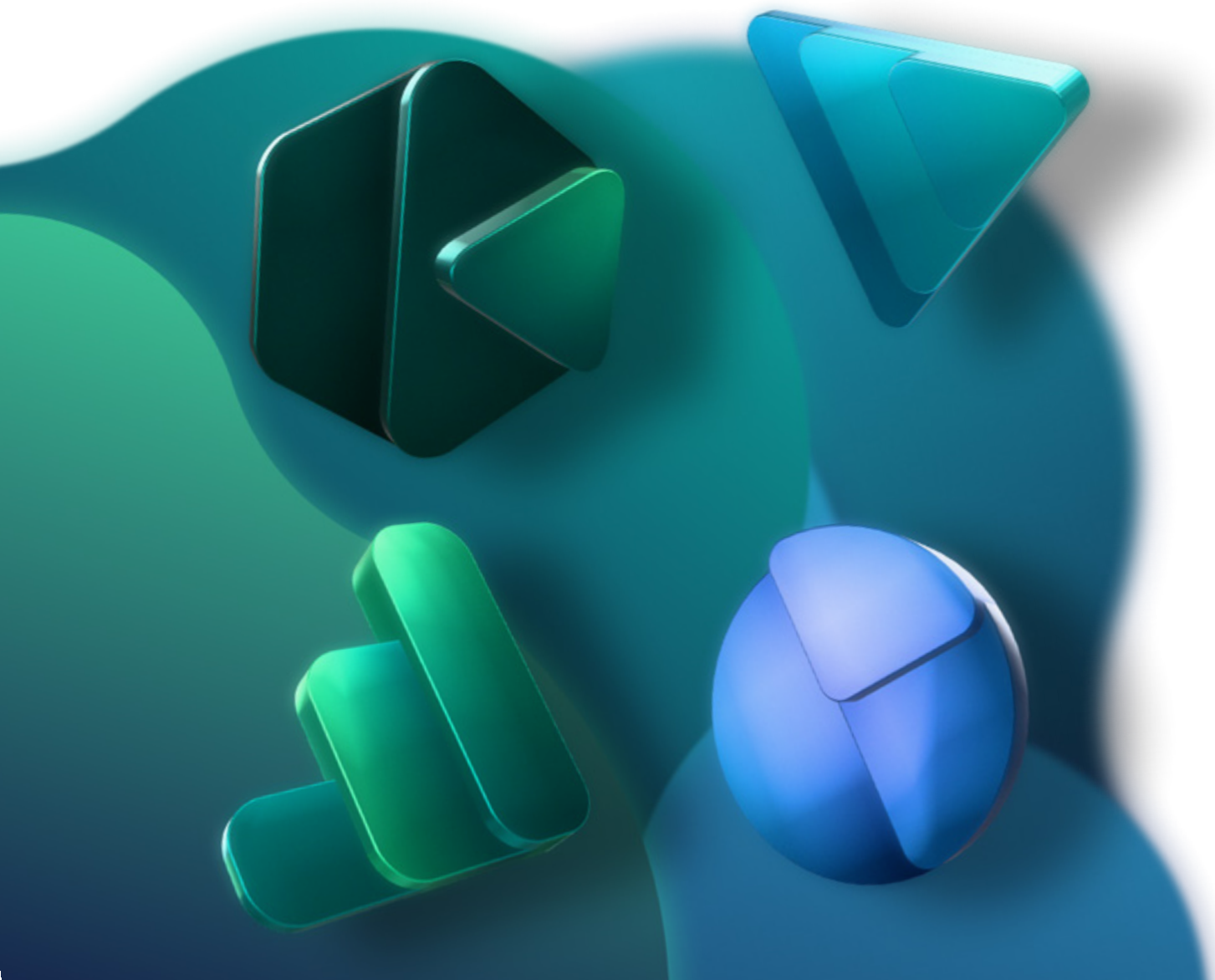
Designing for the Next Generation of Enterprise AI

Enterprise AI is rapidly becoming part of every enterprise architecture. The organizations that create lasting advantage won't simply deploy more models or more agents. They will design architectures that combine trusted data, shared business meaning, governed decision-making, and continuous execution. For CIOs, CTOs, and CAIOs, the question is no longer whether AI belongs in the enterprise.

The question is whether your architecture, powered by the Contextual Decision Layer, is ready for AI to participate in business decisions.

“AI doesn't replace decision-making. It amplifies it when it is grounded in business context, governed processes, and connected to execution.”

David Marmer - Chief Product Officer, Board



Four priorities for enterprise leaders



1. Build a trusted data foundation.

Continue investing in governed enterprise data, metadata, lineage, and quality. AI is only as trustworthy as the information it receives.



2. Separate business meaning from business decisions.

Semantic models establish consistent business definitions. Decision layers operationalize those definitions through planning models, governance, workflow, and business logic. Treat them as complementary architectural capabilities—not competing ones.



3. Design AI around governance, not prompts.

Enterprise AI should operate within policies, approvals, auditability, security, and human oversight. Governance should be part of the architecture, not an afterthought.



4. Treat planning as enterprise infrastructure.

Planning is no longer simply a finance process. It is becoming the operating context that enables AI to coordinate decisions across finance, supply chain, merchandising, and operations. Organizations that recognize this shift will be better positioned to operationalize AI at enterprise scale.

Architecture Readiness for AI-Enabled Decisions

1

Trusted Data

Unified, governed, and high-quality data across the enterprise.

2

Business Semantics

Consistent definitions, hierarchies, metrics, and relationships create shared understanding across the business.

3

Contextual Decision Layer

Business logic, planning models, governance, and workflows turn meaning into decisions AI can reason with and act upon.

4

Continuous Planning

Scenarios, simulations, and driver-based plans adapt in real time as conditions change.

5

Business Execution

Decisions are operationalized across the enterprise, driving measurable outcomes and feedback that improve future decisions.

The Takeaway

Board's **Contextual Decision Layer** provides the architectural foundation that enables **trusted, coordinated, and continuous decisions**—turning enterprise AI into confident outcomes.

Organizations that build this foundation now will be the ones that lead in speed, accuracy, resilience, and performance.

Learn more at
www.board.com