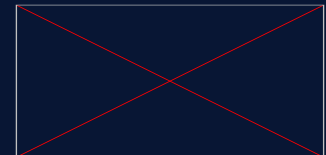


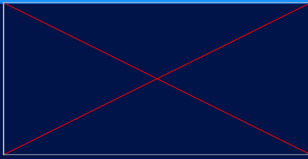
Enterprise Architecture Connects It All

Harish Parmar | Enterprise Architect | SAP

Connecting data, business context, applications, and AI into a coherent foundation for The Autonomous Enterprise



Today's Agenda



Enterprise Architecture Connects It All

01

Reality Check

The AI Investment Reality



94% of enterprises have deployed AI. Only 6% see transformative value. Why?

02

30 YEARS OF EVOLUTION

From Platforms to Intelligence



How technology, applications, and architecture have transformed — and where we are today

03

THE NEW IMPERATIVE

The Architect's Role Reimagined

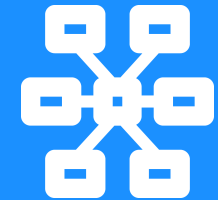


Mindset shifts, new skills, and responsibilities the modern Enterprise Architect must embrace

04

CONCLUSION

Connecting It All



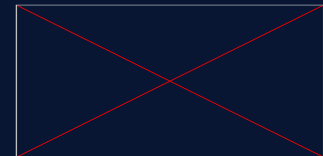
Three key takeaways
Data, AI, and the architecture that enables the autonomous enterprise

1

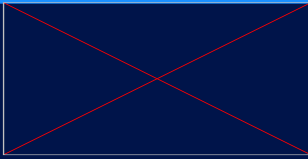
The AI Reality Check

Why are enterprises not getting the outcomes they expect?

01



AI Investment Reality



The AI Value Gap: Why Most AI Investments Fail to Scale

90%

~90% of large companies have deployed AI somewhere, but only ~6% report transformative business value at scale.

McKinsey

72%

72% of surveyed organizations are using GenAI, yet most report only middling ROI, only 5% using it enterprise wide

Gartner

\$13M

lost annually per enterprise to poor data

Gartner

26%

Have achieved a true data-driven culture

Forbes Business Council

Why Enterprises Underperform on AI

Root causes behind the gap between AI ambition and AI outcomes



Poor Data Quality

Siloed, inconsistent, and untrusted data means AI outputs cannot be relied upon for decisions



Missing Context

AI models lack the business semantics, processes, and company knowledge



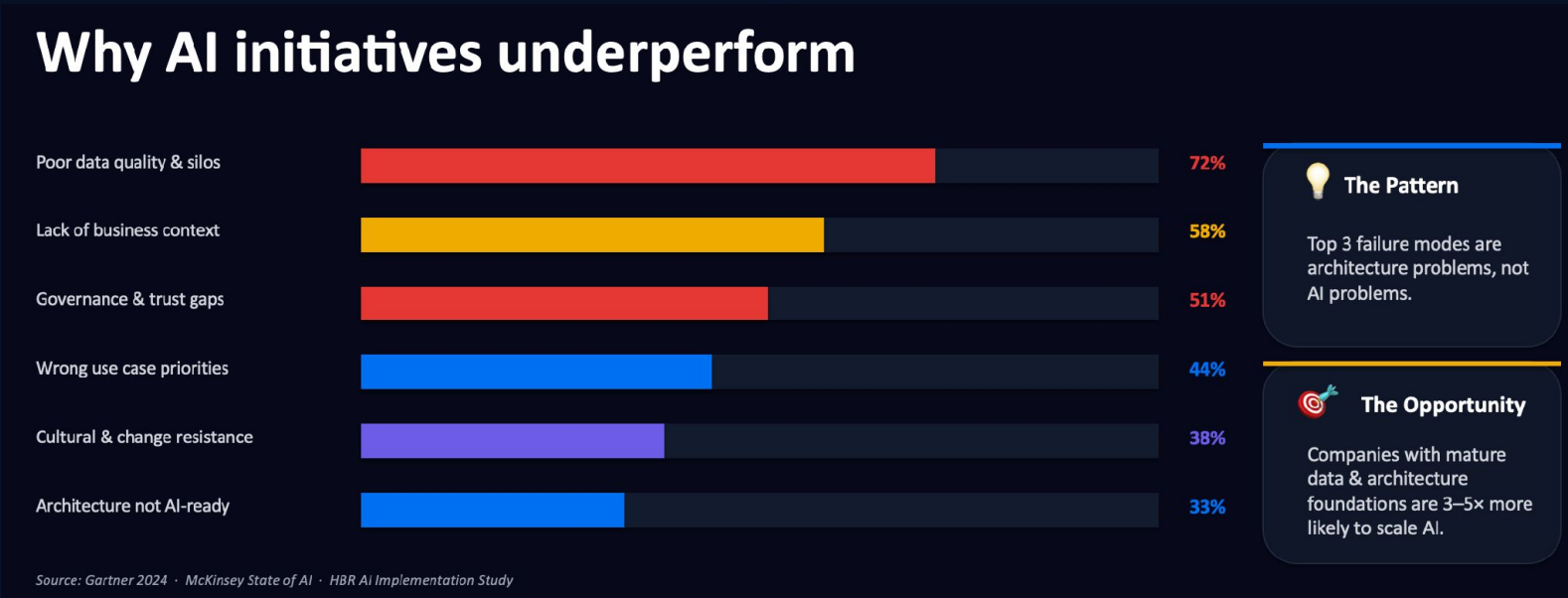
Architecture Debt

Legacy architectures were not designed for AI; they lack context, integration, and scalability



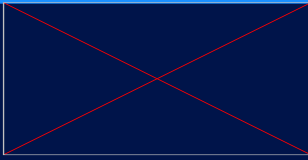
Governance Gaps

No clear accountability for AI decisions, no data lineage, no audit trail – missing trust

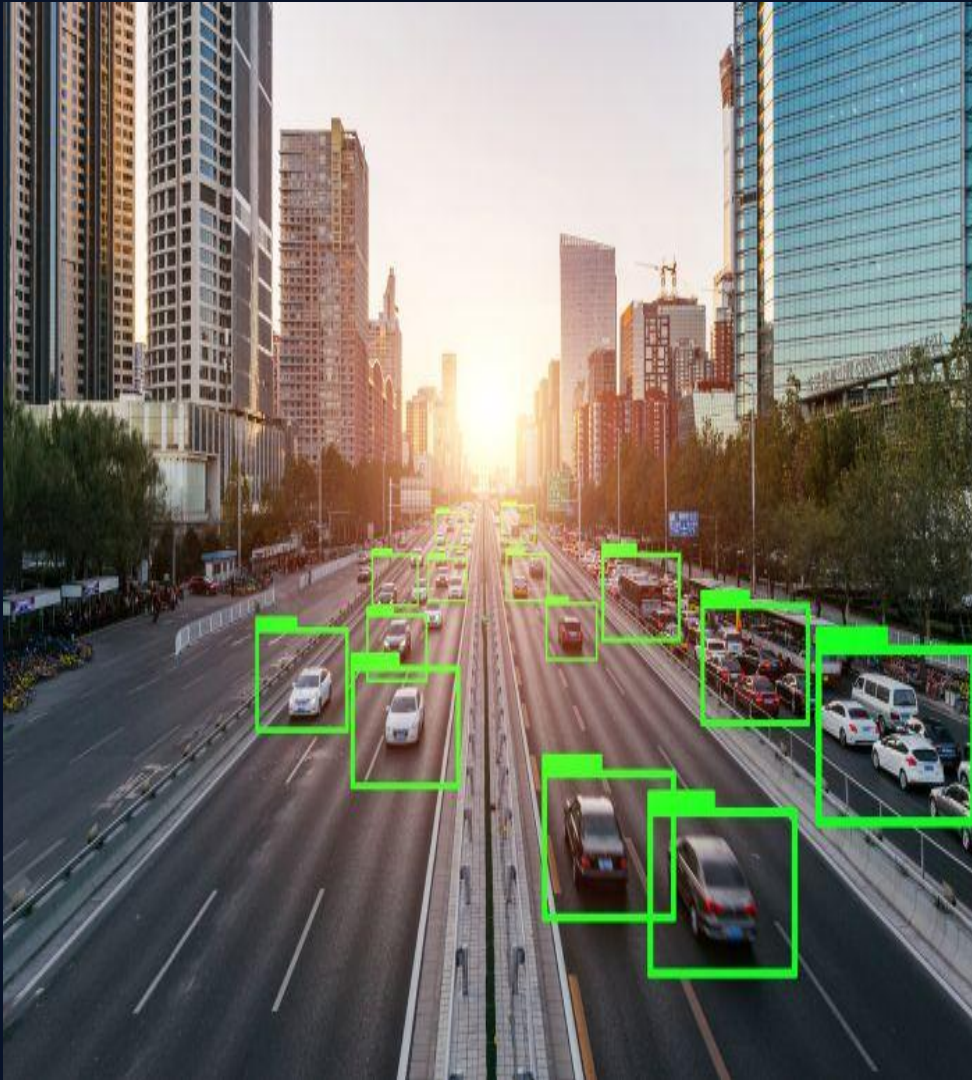


AI does not have a context problem, enterprises have a representation problem

The AI race is no longer a model race. It's a data trust race.



The most sophisticated AI model is only as good as the data on which it operates



80%

of AI project time is spent on data preparation, cleaning, and integration

3x

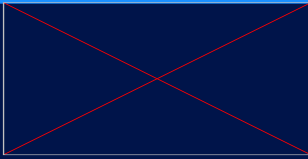
more likely to achieve AI ROI when data governance is in place

70%

of AI failures trace back to data quality and availability issues

"Trusted data is not simply a technology requirement — it is the foundation for responsible AI action." — Harveer Singh

Decision Making Reimagined: From Data to Insight to Action



Inspired by 'Data Inspired' — Dr. Sebastian Wernicke

Level 1: Data Reporting

What happened?

Level 2: Dashboards

What is happening now?

Level 3: Analytics

Why is it happening?

Level 4: Data-Inspired

What should we do?

Level 5: Agentic AI

Act autonomously with context

"Better decisions begin with better thinking about data" — use data early, use it intentionally, and let it inspire rather than just report.

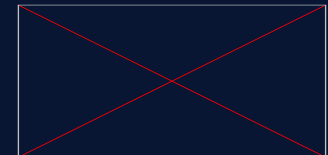
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THREE DECADES OF TRANSFORMATION

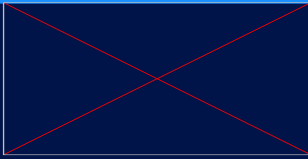
Three decades of Technology innovations From Platform to Intelligence

How architecture practice, applications, and
data have evolved — and the new layer AI
demands

02



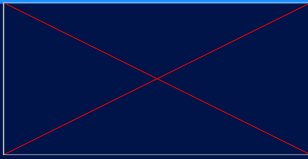
Platform Evolution



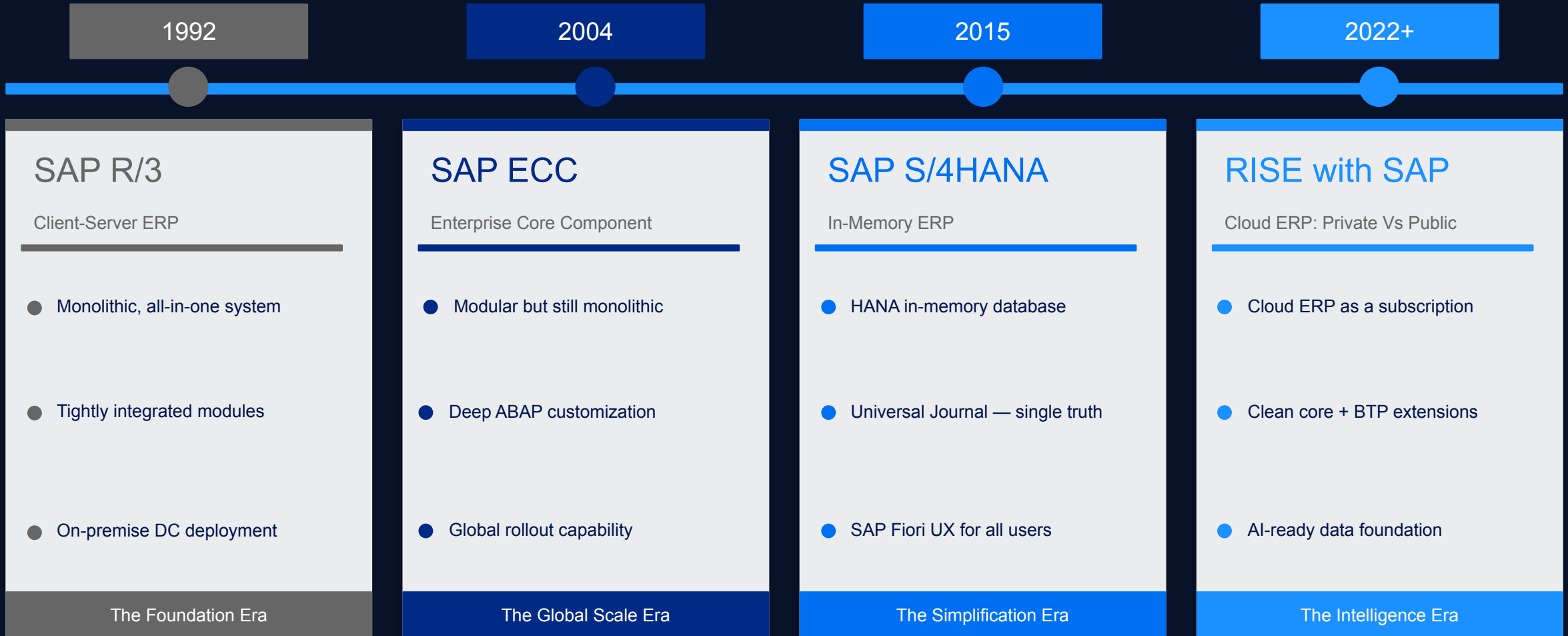
From on-premise data centers to cloud-native, composable platforms



Application Evolution: From R/3 to Autonomous Enterprise

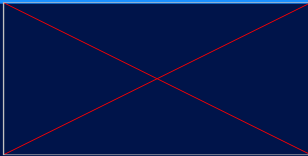


Three decades, one constant - continuous transformation

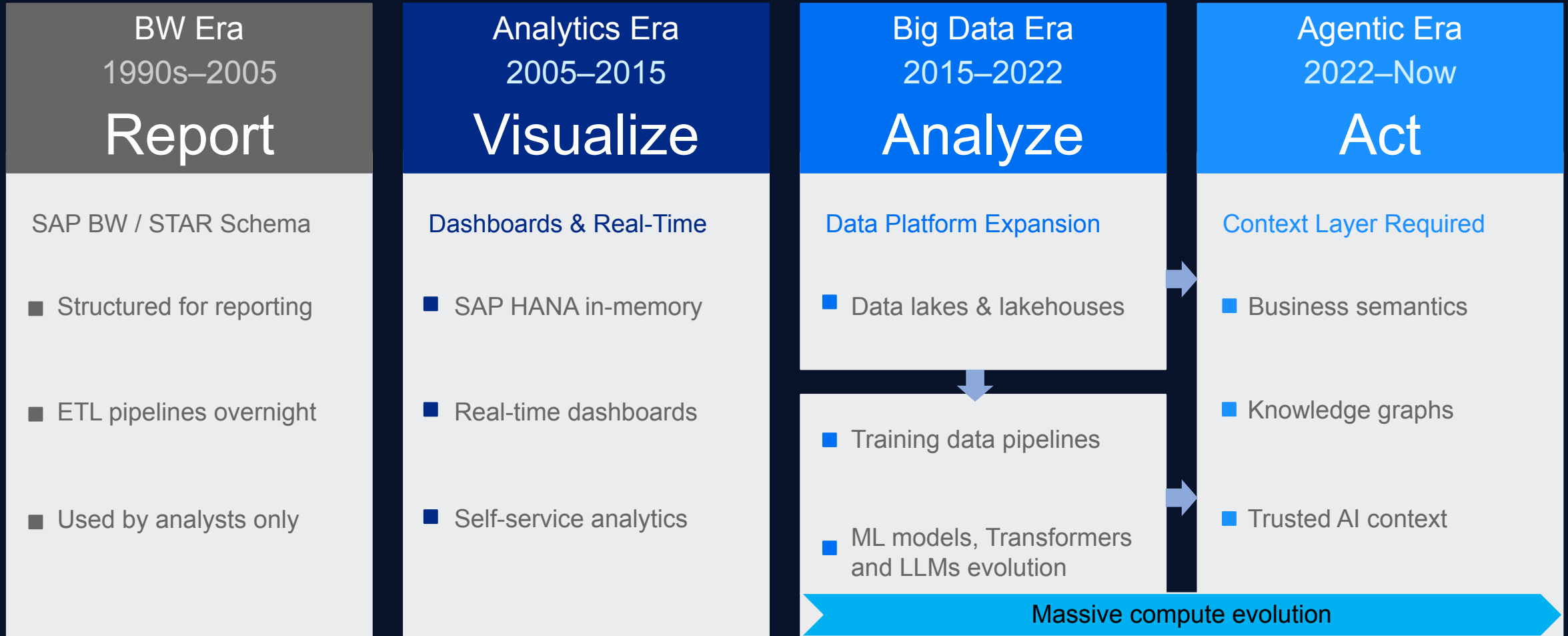


Clean Core Principle: Standard SAP + extensions via BTP = scalable, upgradeable, AI-ready enterprise core

Data Platform Evolution: From Reporting to AI Foundation

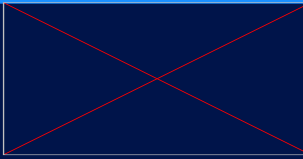


From reporting to intelligence — the journey that led us here



The data foundation has evolved from a reporting platform into the context engine that powers intelligent, autonomous decision-making

The next enterprise platform isn't another application layer. It's a context layer.



From:

3-Layer Architecture

User Experience

Fiori, Portal, UI5

Data

BW, HANA, Databases

Applications

S/4HANA, Ariba, SuccessFactors

To:

4-Layer Architecture

User Experience

Joule, Fiori, Custom AI Interfaces

Data

Datasphere, HANA, Lakehouses, Vector Stores

Applications

S/4HANA, Ariba, SuccessFactors, BTP Apps

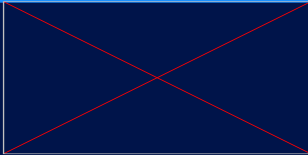
Business Semantics · Knowledge Graph · Company Memory

Enables AI to understand business intent, and act with...

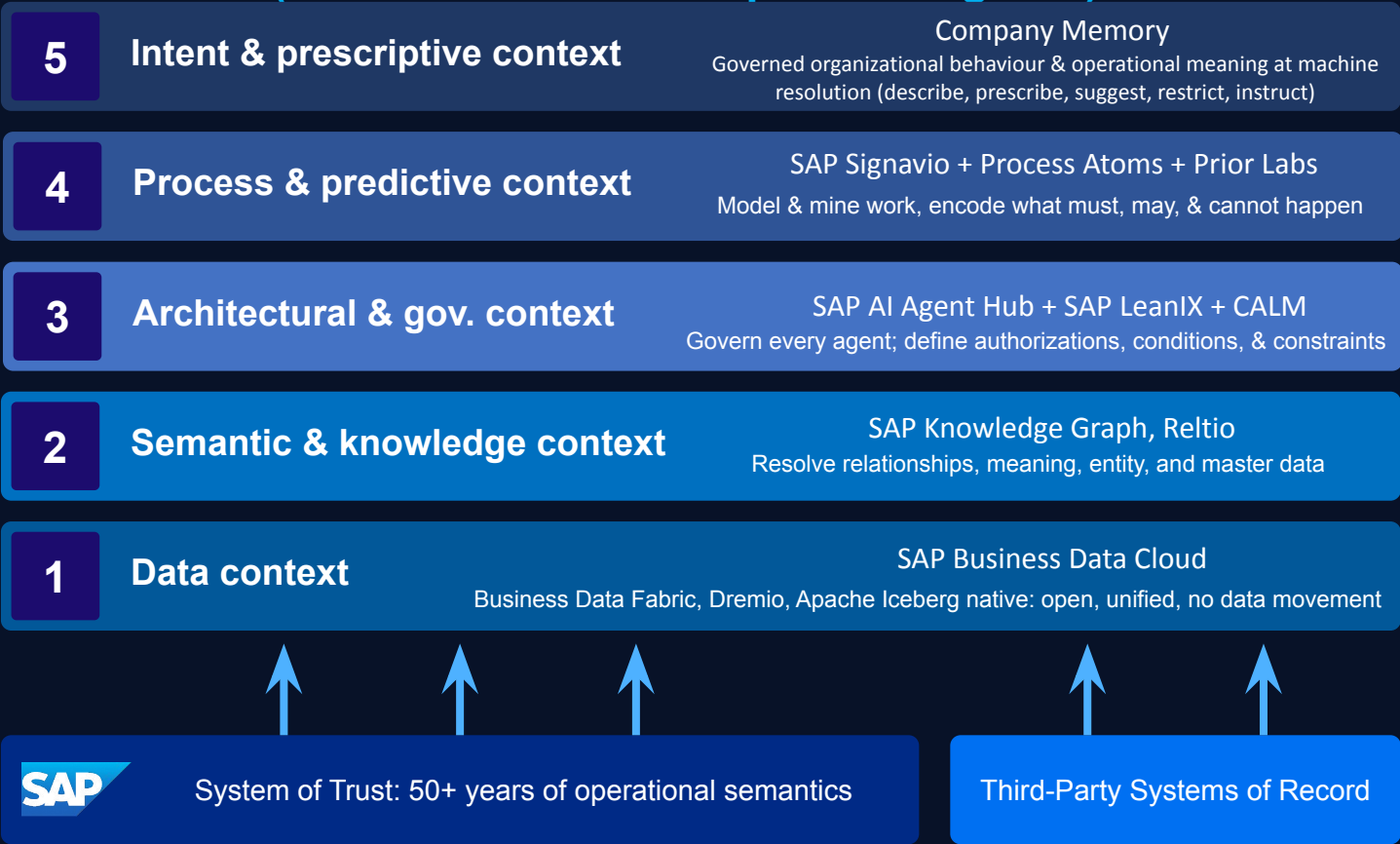
Context

"The companies that win in the Intelligence Age make their enterprise understandable to AI, giving it the trusted context to make better decisions and act responsibly." — [Manish Sood](#)

Context as a System : Trusted Fabric



Execution Surface: Action on governed context (SAP Joule / All Enterprise AI Agents)



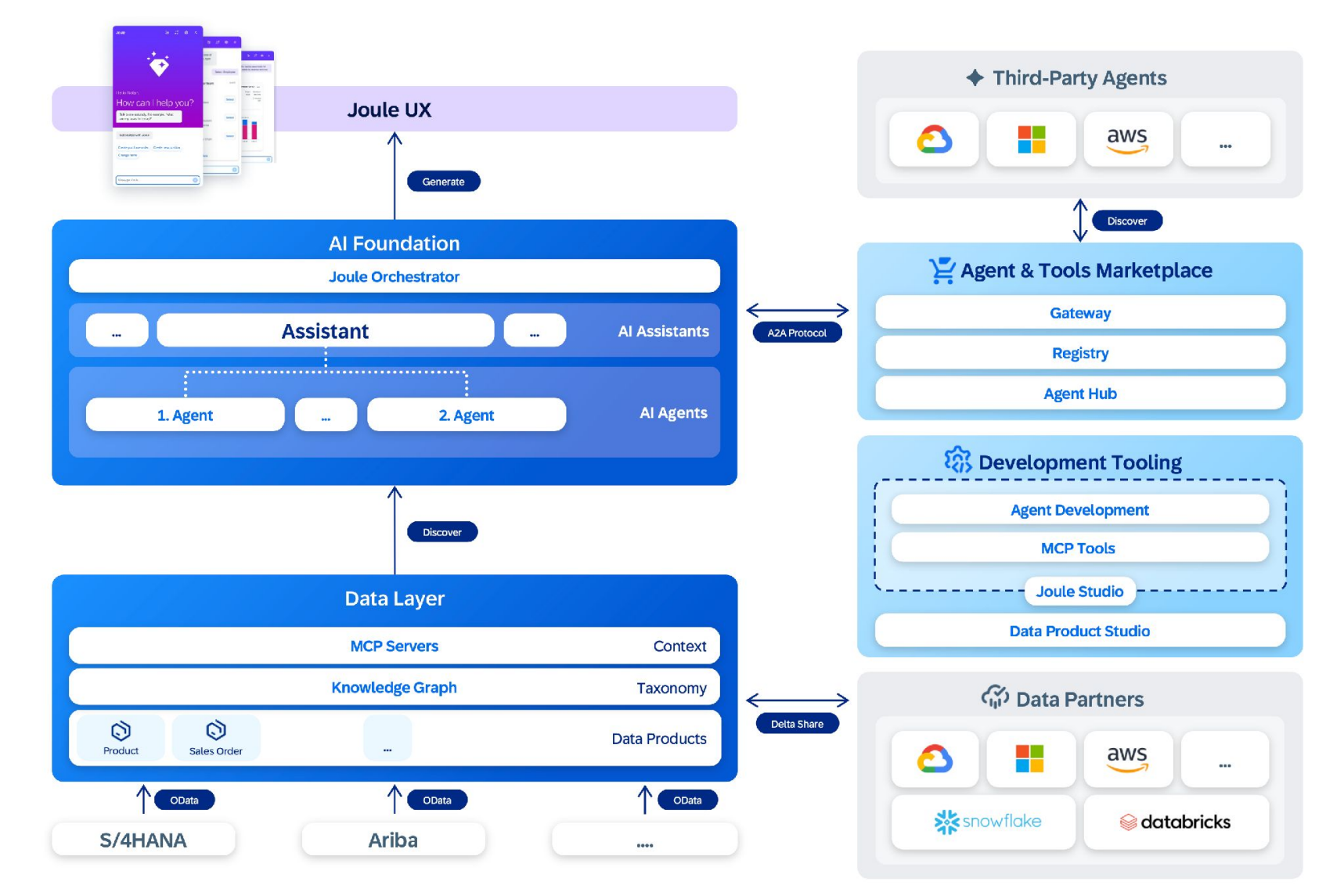
Every layer built into the context stack is a layer that you never need to send at runtime

The context burden moves from agent run time to the context stack and is supported by high fidelity artifacts

Enabling better **economics**, **governance**, enterprise **scale**, and **safety** for AI deployments

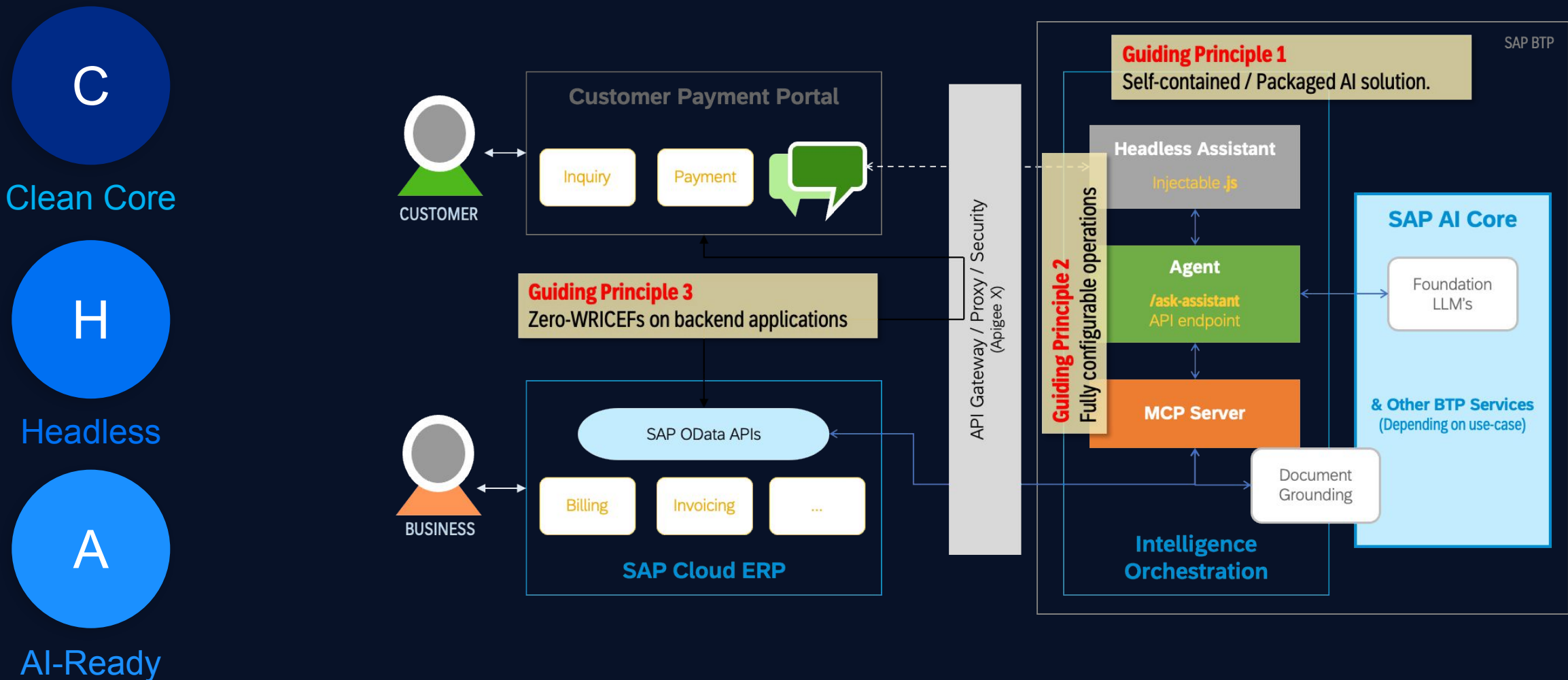
Deterministic to Cognitive System

The shift from systems defined by static, pre-coded logic to cognitive systems that can perceive, learn, reason, and act.



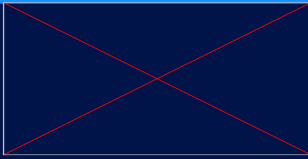
Building AI Solutions Through a Product Mindset

How EAs must re-think application strategy for the AI-enabled enterprise



Treat the enterprise platform as a living product, purpose-built for AI innovation and continuous evolution

Governance & Security Cannot Be an Afterthought



Build governance BEFORE you scale AI.

Once AI is embedded at scale, retrofitting governance is expensive, disruptive, and often incomplete.

"An AI that looked at bad data and an AI that acted on it are two different problems — governance is what separates them."
— Harveer Singh

Data Governance

Data quality rules, ownership, lineage, and lifecycle management before AI ingestion

AI Model Governance

Version control, bias monitoring, explainability, and rollback capability

Identity & Access

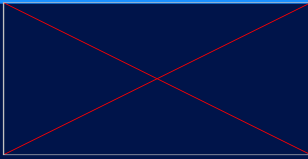
Zero trust architecture — agents and users access only what they need

Compliance & Audit

Every AI action traceable, logged, and auditable for regulatory readiness

To enable adequate representation of the enterprise and control agentic execution

Human accountability is Non-Negotiable



Trust is built through transparency.

Employees trust AI when they can see its reasoning, challenge its outputs, and know a human is accountable for the outcome.

"An agent can be responsible for what it does; only a human is accountable for what it means."
— Harveer Singh

Build trust incrementally

Start with AI assisting decisions, not replacing them. Increase autonomy as trust grows

Remove fear through understanding

When employees understand how AI works, fear transforms into empowerment

Define accountability clearly

Every AI use case must have a clearly identified human accountable for outcomes — not the algorithm

Design for override

Every AI recommendation must be challengeable, overrideable, and reversible

AI assists decision-making, but human accountability remains the foundation of trust.

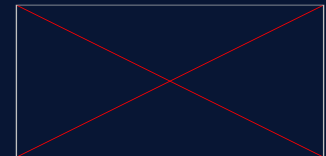
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THE ARCHITECT'S NEW IMPERATIVE

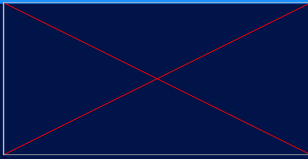
Mindset, Skills & The New Normal

Five shifts every Enterprise Architect must make for the Autonomous Enterprise

03



The Enterprise Architect's New Skill Set



Storytelling and AI education are as critical as technical knowledge

The Architect



Educator

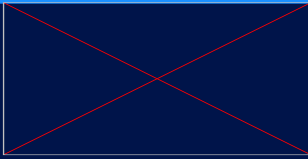


Storyteller



Autonomy without architecture is chaos

Architecture designed annually is already obsolete



Enterprise Architects must be agile, prompt, and ready to adapt — constantly

BEFORE AI



Years

Program lifecycle from concept to production



Phases

Waterfall delivery — requirements → design → build → test → deploy



Resources

Large teams, long ramp-up, specialist silos



Decisions

Architecture decided upfront, slow to change

WITH AI



Months

AI-assisted development compresses delivery to weeks and months



Agile + AI

Iterative, continuous delivery — architecture evolves with learnings



Small Teams

AI augments capabilities — smaller, empowered teams deliver more

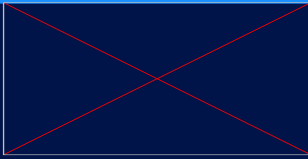


Continuous

Architecture is a living system — EA must adapt in real time

**The pace of technological change continues to accelerate.
EA who cannot adapt at the speed of AI will be left behind.**

Embrace Experimentation



AI prototypes will fail. That is not a flaw; it is part of the innovation process.

Not every
AI prototype
will succeed.

That is expected.
That is healthy.
That is how innovation works.

Build a culture where prototyping is celebrated,
not penalized

1

Define "done" for AI pilots

Set clear success metrics before starting — and accept partial success as valid

2

Timebox everything

AI pilots should deliver learnings within 6–8 weeks. If not, pivot

3

Document failures

Failed prototypes contain institutional knowledge. Capture what did not work and why

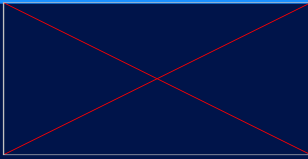
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Leadership must protect space

If executives penalize failure, experimentation stops. Leaders must shield innovation teams

Every AI prototype creates value through either measurable outcomes or actionable learning.

AI Has Removed the Barriers to Learning



Every employee can now learn, build, and innovate — the only requirement is an open mind

Anyone can code

AI copilots enable non-developers to build applications and automations with natural language

Anyone can analyze

AI-powered analytics tools make data science accessible to every business professional

Anyone can architect

AI assists in design patterns, architecture decisions, and documentation — lowering the entry barrier

Learning is continuous

Promote a culture where learning is ongoing, AI makes it faster, and there is no excuse not to grow



Stay curious. Embrace change. Never stop learning. In the age of AI, imagination is the ultimate competitive advantage.

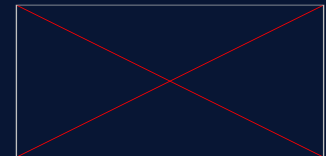
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CONCLUSION

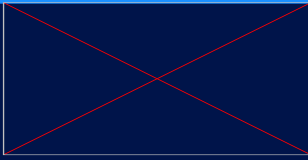
Connecting it All

Three key takeaways that define the path to the autonomous, AI-enabled enterprise

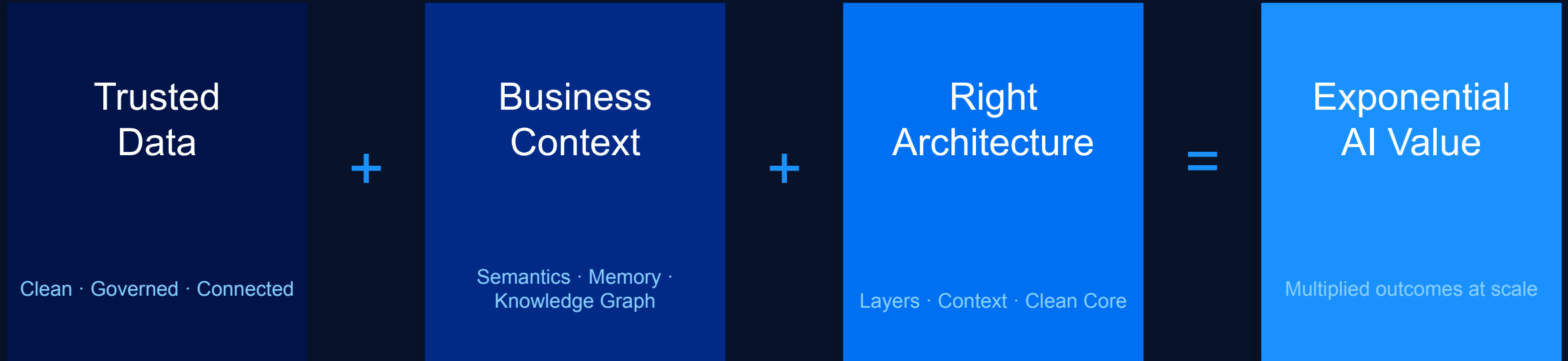
04



Data + Context + Architecture = Exponential AI Value



The multiplier effect of getting the foundation right



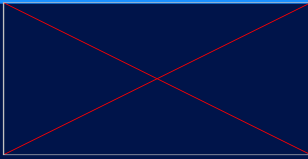
Without trusted data, AI produces unreliable outputs.

Without context, AI cannot understand the business meaning of that data.

Without the right architecture, AI cannot scale or connect across the enterprise.

Get all three right and the output of your AI use cases improves not incrementally — but by an order of magnitude.

AI Is Technology — Humans Are Accountable



AI amplifies human capability; it does not replace human judgment or accountability

What AI Contributes

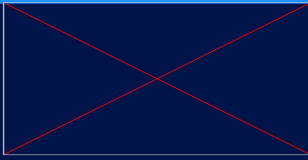
- Skills and capabilities via LLMs
- Reasoning across large knowledge sets
- Context from business data and memory
- Speed — act at machine scale
- Pattern recognition beyond human scale

What Humans Contributes

- Ethical judgment and moral accountability
- Business intent and strategic direction
- Contextual wisdom beyond training data
- Trust — validating and approving AI actions
- Meaning — interpreting what results signify

"An agent can be responsible for what it does; only a human is accountable for what it means." — Harveer Singh

EAs are The Captains of the Autonomous Enterprise



Let's Build the Autonomous Enterprise Together

From: Connecting Systems



To: Connecting Intelligence



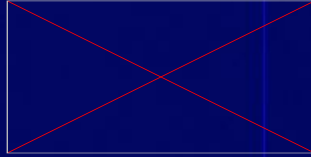
“Enterprise Architecture is no longer documenting the enterprise. It is teaching the enterprise how to think”.

Thank You!

Masterclass



DATADRIVEN



“AI is the intelligence, data is the fuel.
**Enterprise Architecture is the
connective tissue that turns
intelligence into outcomes.”**

Harish Parmar

Principal Enterprise Architect
SAP



September 9, 2026 in Chicago, IL

