

# Unlock success: 5 pitfalls to avoid in AI advancement

Cognizant® AI Factory

## AI is in all the headlines, but...

**67%** say AI environments are too complex to manage.<sup>1</sup>

**95%** agree that safeguards and guardrails are needed for governing AI<sup>2</sup>

**50%** say lack of budget is a top AI adoption challenge.<sup>3</sup>

<sup>1</sup> The Register, Over half of AI projects are shelved due to complex infrastructure, January 2026.

<sup>2</sup> Harvard Business Review, Survey: How Executives Are Thinking About AI in 2026, January 2026.

<sup>3</sup> Gartner, Gartner Survey Finds 54% of Infrastructure & Operations Leaders Are Adopting AI to Cut Costs, October 2025.

## An AI factory approach helps avoid common pitfalls

### 01

#### Underestimating infrastructure complexity

Failure to plan for high-performance compute, storage and networking can result in bottlenecks, downtime and poor return on AI investments.

#### Infrastructure built for AI

##### High-performance infrastructure

GPU-based systems with a high-speed network and high-performance storage provide ultra-low latency and optimized throughput.

##### Centralized policy and orchestration

Use a single control plane for infrastructure and security policies across clusters.

##### Hybrid and multicloud flexibility

Seamlessly integrate environments and consume and manage services via one single management plane.

#### Begin with scaling in mind

##### Hybrid cloud architecture

Scale across cloud and on-premises with a validated architecture without upfront investments.

##### Multi-tenant GPU architecture

Logical GPU slicing, Kubernetes clusters, and microsegmentation.

##### Performance SLAs

Ensure predictable scaling without degrading reliability and resilience.

### 02

#### Failing to plan for scalability

Single-tenant setups fragment resources, limiting growth and increasing the costs of expansion.

### 03

#### Treating AI as a siloed initiative

One-off efforts fail to deliver enterprise-wide impact.

#### Develop an integrated AI lifecycle

##### Cognizant AI Factory

End-to-end infrastructure, platforms and intelligent assets.

##### Cognizant Agent Foundry

1600+ prebuilt AI agents and blueprints for rapid deployment.

##### Unified AI roadmap

Leverage Cognizant's industry experience to embed AI into the enterprise operating model, not as a stand-alone project.

#### FinOps strategy

##### Visibility and cost control

Real-time dashboards for budgeting, cost attribution, forecasting and predictive analytics along with show-back models.

##### Pay-as-you-go

Pay for tokens or GPU you consume with Cognizant AI Factory as a service model.

##### Dynamic resource optimization

Model tiering, batching and serverless refactoring.

### 04

#### Lacking cost visibility

Without visibility, AI costs can be unpredictable and spiral out of control.

### 05

#### Ignoring governance early

Lack of governance leads to security and compliance risks along with operational chaos that can derail AI.

#### Built-in governance

##### An AI platform built for resilience

Unified observability, audit trails, and risk management for agentic workloads.

##### Built-in security and guardrails

Zero-trust security, IAM, RBAC, OPA, ISO/IEC 42001:2023 compliance.

##### Managed services

End-to-end governance throughout the AI lifecycle.

## Measurable outcomes

Cognizant AI Factory, underpinned with Dell Technologies infrastructure and NVIDIA acceleration, brings together robust, enterprise-level infrastructure with comprehensive domain expertise and AI services for building, securing and scaling technology systems from pilot projects through to enterprise-wide integration.

**45%**  
lower TCO

compared to managed public cloud

**30%**  
faster

AI processing speeds and reduced latency compared to cloud workloads

**56%**  
lower

power consumption with high-density CPU and GPU farms

**25%**  
lower

overall costs

Source: Internal Cognizant testing results.

## Create a springboard for AI innovation with Dell Technologies, NVIDIA and Cognizant

Learn more: <https://www.cognizant.com/us/en/services/cloud-solutions/ai-factory>