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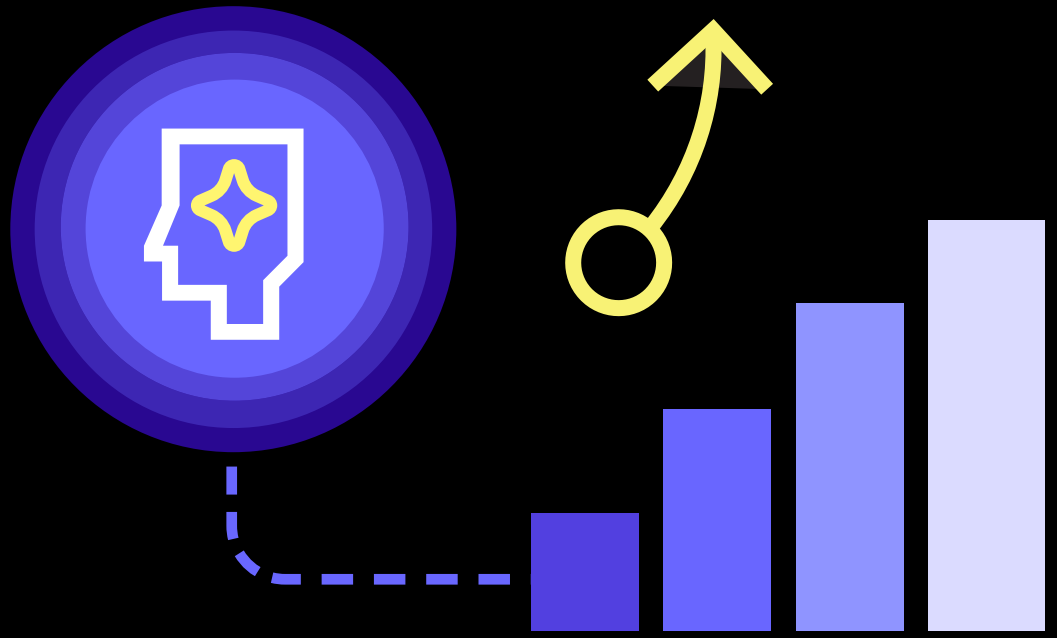

Scaling enterprise AI readiness:

A CIO’s playbook

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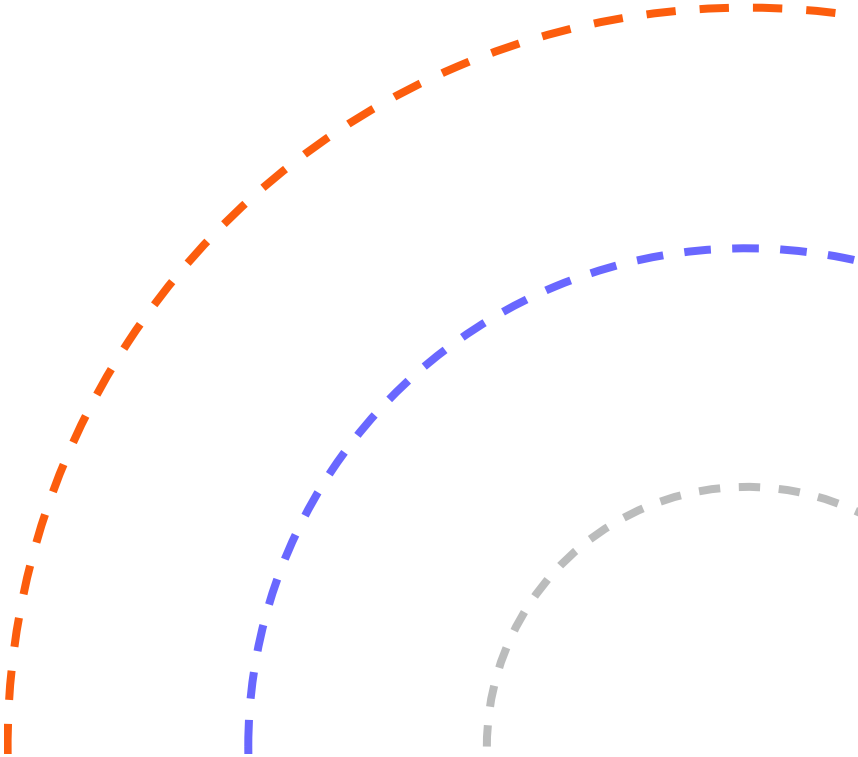
Introduction

Artificial intelligence (AI) has entered a new chapter. Where early tools were confined to productivity boosts and small, localized task automations, today's AI agents are being positioned to handle work that once seemed impossible to automate. Gartner forecasts that by 2028, at least 15% of daily work decisions will be made autonomously by AI agents. And, AI agents could see as much as $450 billion in economic value created through revenue growth and cost savings.

However, the numbers tell a different story. MIT research suggests that only around 5% of AI pilot programs ever accelerate revenue in a measurable way. The majority stall. They remain experiments that never scale into the business-critical systems CIOs are tasked with delivering.

This gap between potential and realized value has made the CIO's role more urgent than ever. It is no longer enough to sponsor AI pilots. CIOs are expected to ensure those pilots evolve into enterprise-ready systems that are orchestrated, governed, and tied directly to business outcomes.



The agentic AI reality gap

The vision for agentic AI is compelling. Ideally, intelligent agents can handle work that has traditionally resisted automation — like claims handling, policy servicing, collections disputes, and more. These processes have long been difficult to automate because they require judgment calls, exception handling, and coordination across multiple systems and stakeholders, or areas where rigid, rules-based automation tends to break down.

Executives see a future in which agents collaborate with humans to manage complexity to drive meaningful value, rather than just speed up routine tasks. Agents provide scale and speed, while humans supply context and final accountability. Together, they enable better orchestration of complex processes, and ensure that decisions are not just faster, but also more accurate, resilient, and aligned to business goals.

But the reality inside most enterprises looks very different. Agents are still deployed as narrow, low-autonomy assistants, limited to answering questions or retrieving information. They sit in silos, disconnected from one another and from core business processes. They are rarely trusted with decisions that carry material business risk.

This creates a familiar problem. The last wave of automation technologies promised transformation, but often resulted in fragmented implementations. Unorchestrated robotic process automation (RPA), for example, was a quick fix for task automation but led to bot sprawl, high maintenance costs, and technical debt. Without process orchestration, today's agentic AI deployments risk heading down the same path.

For CIOs, this is the defining challenge: how to transform isolated experiments into governed systems of record, where agents don't just perform tasks, but operate as part of transparent, auditable, end-to-end business processes.

Definitions used in this guide

Deterministic orchestration: Predefined, rules-based processes. Transparent, auditable, and repeatable. Best for compliance-heavy, low-variance workflows, such as regulated customer onboarding.

Dynamic orchestration: AI agents decide next steps in real time, adapting based on context, data, or goals. Useful for personalization and exception handling, but harder to audit, resource-intensive, and prone to inconsistency.

Agentic orchestration: Blends deterministic reliability with AI-driven adaptability. Agents act within structured business processes while retaining autonomy to manage subprocesses or adjust paths as needed. This model provides the right balance of trust, scalability, and flexibility for enterprise-grade AI adoption.

Key takeaway: CIOs should plan for agentic orchestration as the path forward, which merges control with adaptability to scale AI safely and effectively.

The CIO's roadmap to AI readiness

Scaling AI in the enterprise does not happen all at once. It unfolds in stages, each with its own requirements and risks. This agentic AI readiness roadmap provides a way to benchmark where your organization stands today and chart a course forward.

The roadmap evaluates maturity across five dimensions: vision, people, architecture, delivery, and measurement. Taken together, these dimensions determine how effectively an enterprise can transform pilots into business-critical, orchestrated AI systems.

Maturity Level	Vision	People	Architecture	Delivery	Measurement
Level 1: Ad Hoc and Isolated	Vague or absent; no alignment; early enthusiasts only.	Roles unclear; siloed teams; low AI knowledge and trust.	No orchestration; tooling is inconsistent and siloed.	Pilots only; no prioritization or executive support.	Anecdotal outcomes; no KPIs or governance.
Level 2: Defined and Piloting	Some localized business-aligned use cases scoped for early wins.	Growing collaboration; inconsistent executive buy-in.	Some local AI use; these localized experiments introduce risk due to lack of governance.	Pilots shipped with manual workarounds and human-in-loop.	Local metrics tracked, but not linked to strategic value.
Level 3: Governed and Scalable	AI seen as strategic differentiator with full leadership backing, clear goals, and ROI expectation.	Defined ownership; CoEs promote reuse and collaboration.	AI-powered, orchestrated processes; reusable models support autonomy.	Repeatable deployment of AI-infused processes with built-in guardrails at speed and scale.	Live dashboards tracking process impact, model drift, and reuse.
Level 4: Intelligent and Adaptive	Real-time insights evolve AI strategy; org aims for autonomy.	Fluent teams with global CoE support and resources.	Self-optimizing platforms with dynamic orchestration.	CI/CD for AI workflows; transparent process improvements.	Real-time insight into business, process, and AI performance.

At the lowest level (Level 1), organizations experiment in isolation with scattered pilots, inconsistent leadership support, and anecdotal results. To contrast, the highest level (Level 4) is what some call the "autonomous enterprise," or an environment where humans, systems, and agents operate in fluid collaboration, supported by real-time insights and self-optimizing processes.

Most organizations, however, never reach that benchmark. Many stall between Level 2 and Level 3 — between scattered pilots and governed scale. This is where the CIO's leadership makes the biggest difference. Advancing maturity requires deliberate governance, process orchestration, and a clear way to measure how AI initiatives map to business outcomes.

> Wherever you are in your AI readiness journey, see which technology elements enable you to level up.

The four stages of AI readiness

Level 1: Ad hoc and isolated

Organizations at this stage are experimenting in silos and focused on a personal productivity level as opposed to business-critical processes. This means teams might build chatbots, run pilots, and test models, but without business alignment or orchestration. The results are often anecdotal, making it hard to prove real impact. CIOs here must create visibility, set a vision tied to outcomes, and identify narrow, high-value use cases that can serve as a foundation for growth.

Level 2: Defined and piloting

At this level, the enterprise begins to see AI as a tool for specific business-aligned pilots. Document extraction, customer sentiment analysis, and generative AI Q&A bots might appear. Collaboration between teams improves, but governance remains patchy. CIOs must standardize business process models, introduce guardrails such as human-in-loop checks, and ensure traceability of AI outputs. Without these steps, progress risks stalling.

Level 3: Governed and scalable

In this stage, AI becomes a strategic differentiator. Leadership fully supports initiatives, and teams begin to centralize resources, knowledge, and procedures for their organization's AI automation and process orchestration practice. Best practices emerge to drive consistency and reuse. Process orchestration connects agents into end-to-end business processes, and metrics are linked directly to business KPIs. CIOs at this stage treat AI assets (such as prompts, models, and agents) like enterprise services with service-level agreements (SLAs). The challenge is to avoid over-customization and ensure governance keeps pace with adoption.

Level 4: Intelligent and adaptive

At the highest level, enterprises begin to realize the vision of an autonomous enterprise. Business processes learn from themselves, adapting in real time. Agentic orchestration helps AI agents act with autonomy but within orchestrated guardrails, blending deterministic process orchestration's reliability with dynamic adaptability. CIOs here invest in continuous integration and delivery for AI-powered processes, closed-loop feedback systems, and global Centers of Excellence (CoE) closely aligned with process automation and orchestration. Success means monitoring ROI in real time and embedding adaptability into the culture itself.

The CIO's action framework

Each stage of maturity demands a different kind of leadership. CIOs should view AI readiness as a staged journey, instead of a sudden leap.

Level 1: Ad hoc and isolated

- **State:** Siloed pilots, anecdotal results, no alignment.
- **CIO Actions:** Stop "emotional AI buying." Tie AI to business outcomes. Identify 1–2 high-value use cases with measurable goals. Create visibility into existing AI use. Begin modeling business processes where humans and agents could collaborate.
- **Avoid:** Fragmented pilots, hidden AI usage, employee resistance.

Level 2: Defined and piloting

- **State:** Business-aligned pilots, early collaboration, patchy governance.
- **CIO Actions:** Standardize AI-infused process models. Introduce guardrails such as human-in-loop checks and escalation paths. Push for consistent executive sponsorship. Start local measurement (e.g. accuracy, response time, workload reduction).
- **Avoid:** AI outputs without traceability, unmanaged prompts or models.

Level 3: Governed and scalable

- **State:** AI becomes a strategic differentiator, CoEs or other knowledge-sharing established, orchestration and reuse in place.
- **CIO Actions:** Centralize resources, knowledge, and orchestration practices. Build reusable prompt/model libraries. Define policies for confidence scoring and human review. Link AI-enabled processes directly to KPIs. Treat AI assets as services with SLAs.
- **Avoid:** Over-customization that limits reuse, relying on LLMs without safety nets.

Level 4: Intelligent and adaptive

- **State:** End-to-end intelligent processes, continuous optimization, autonomous enterprise vision.
- **CIO Actions:** Invest in closed-loop learning infrastructure. Apply CI/CD to AI-powered business processes (retrain, redeploy, version-control). Use agentic orchestration to blend deterministic guardrails with dynamic adaptability. Scale CoEs or other knowledge-sharing frameworks globally with templates and reusable building blocks. Monitor ROI in real time with dashboards.
- **Avoid:** Overreliance on unchecked autonomy, culture misaligned with adaptive practices.

What good looks like

Level 3: Governed and scalable

At Level 3, AI moves beyond pilots and into the bloodstream of the enterprise. For example, a global financial services firm at this stage would no longer be testing isolated use cases. Instead, AI agents would be embedded in high-stakes processes such as Know Your Customer (KYC), customer onboarding, and fraud detection, spanning hundreds of teams and multiple business lines.

The breakthrough at this stage for most organizations is orchestration. A governed orchestration layer connects legacy core systems with modern cloud services, allowing prompts, models, and agents to be reused like enterprise building blocks. For example, AI agents could verify and identify documents, flag anomalies, and escalate edge cases automatically, while human reviewers step in where risk demands. Governance at this stage is formal: prompts and models are treated like services, backed by SLAs and supported with audit trails and lineage that make each AI decision traceable.

The returns are tangible. Using the financial services example above, KYC onboarding times would shrink from days to minutes. Document verification costs would drop by a quarter. Developers and compliance teams could reclaim hours once spent on repetitive checks. Most importantly, the enterprise would reduce regulatory exposure with stronger compliance posture.

Still, the path forward requires discipline. Over-customization at this stage risks breaking composability. Deploying large language models without confidence thresholds or safety nets can undermine trust. Organizations that succeed at Level 3 strike the balance: they scale quickly, but never at the expense of control.

What this looks like in practice:

- **Leadership explicitly positions AI as a differentiator in the digital transformation roadmap.**
- **Federated Centers of Excellence act as hubs, sharing best practices, reusable workflows, and lessons learned.**
- **Standardized onboarding templates accelerate delivery, moving ideas into production in weeks instead of months.**
- **Metrics such as escalation rates, decision accuracy, and cycle-time reductions are tracked at the process level, not just the project level.**

Level 4: Intelligent and adaptive

By Level 4, the enterprise runs on orchestrated intelligence. What was once a collection of governed processes has evolved into a real-time "sense-decide-act" fabric that binds humans, systems, and AI agents together. Processes adapt continuously.

Using the financial services firm example above, KYC and fraud detection would become perpetual, adjusting dynamically to live risk signals. If fraud patterns spike, AI agents would reroute onboarding flows automatically. If market trends shift, thresholds would update in near real time. Optimization in this environment would happen daily, not quarterly.

The enabler in this scenario is a best-in-class orchestration platform that combines deterministic guardrails with AI-driven adaptability. At this stage, enterprises need platforms that support the full lifecycle of agents — helping teams design, deploy, automate, optimize, and govern them with both intelligence and control.

In this model, feedback loops could retrain models automatically, while independent AI agent audits would ensure accountability. CI/CD principles would extend to the AI lifecycle: prompts, policies, and models would be versioned, tested, and redeployed with full transparency.

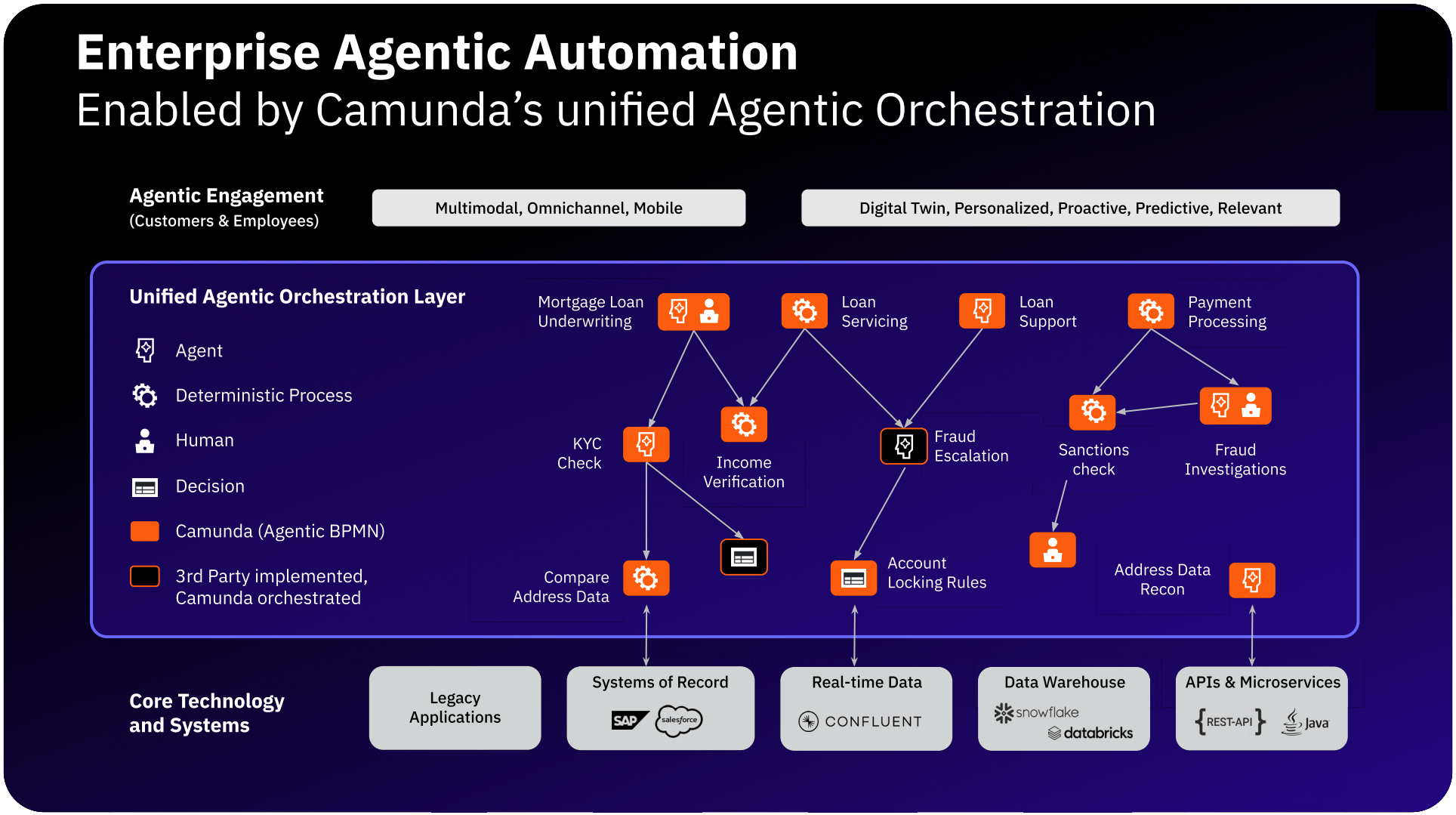
The business results in this phase are clear. The financial services firm might experience a 20% revenue lift from faster onboarding and proactive fraud prevention, significant reductions in cost per transaction, and measurable boosts in customer satisfaction. Developer productivity would climb sharply as deployment pipelines become automated and reliable.

Governance evolves too. Governance policies at this stage would be expressed as code, and embedded directly into process orchestration pipelines. Intelligent change management would align business process adaptations with strategy. Independent audits and rollback mechanisms would keep human oversight intact. The enterprise in this phase avoids the trap of unchecked autonomy by ensuring alignment between agents, people, and business outcomes.

Level 4 represents what many call the "autonomous enterprise," or an organization that is not only governed and scalable, but adaptive. Think about systems where humans and AI collaborate in continuous, transparent loops, learning and improving together.

At this stage, several things stand out:

- **Strategy is fluid, adjusting continuously based on live performance data.**
- **The workforce is fluent in both process orchestration and AI, with global Centers of Excellence training teams and sharing advanced templates.**
- **Business outcomes are monitored in real time, with dashboards linking AI improvements directly to revenue lift, customer experience, and cost per transaction.**



What a Level 4 bank organization could look like: the implementation of capabilities is a clever mix of applications, processes, agents, bots, and humans.

Key takeaways

The path to AI readiness is neither automatic nor guaranteed. While pilots may look impressive, only orchestrated, governed, and measurable AI initiatives will transform how enterprises work. CIOs are uniquely positioned to lead this change by bridging business vision, technical architecture, and operational delivery.

The lesson is simple: scale comes not from small wins, but from the discipline of agentic process orchestration. CIOs who embrace this principle will not only unlock AI's potential but will also prepare their enterprises for a future where autonomy and trust go hand in hand.

Schedule a customized demo to see how Camunda can help scale your AI readiness and adoption.

Book now

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About Camunda

Camunda is the leader in enterprise agentic automation, orchestrating complex business processes, including high-value knowledge work, across agents, people, and systems. By creating production-ready, enterprise-grade agents with built-in governance, Camunda uniquely delivers trusted AI agents for business-critical processes. Over 700 leading innovators like Atlassian, ING, and Vodafone, rely on Camunda to slash time-to-value from months to days, boost operational efficiency, and elevate customer experiences. Ready to become an AI-first enterprise?

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