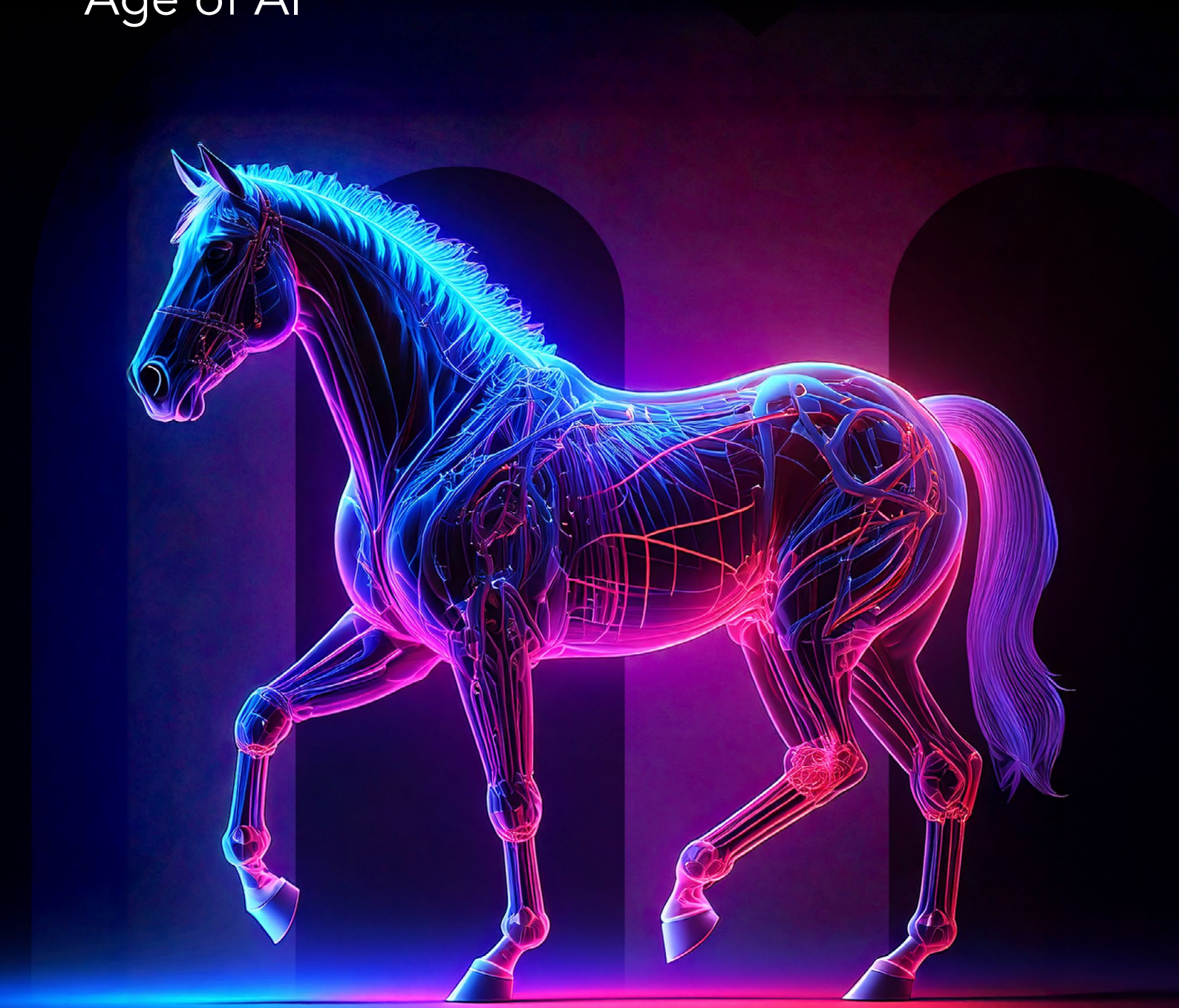
Beyond Faster Horses

Strategies for Radical Transformation in the Age of AI



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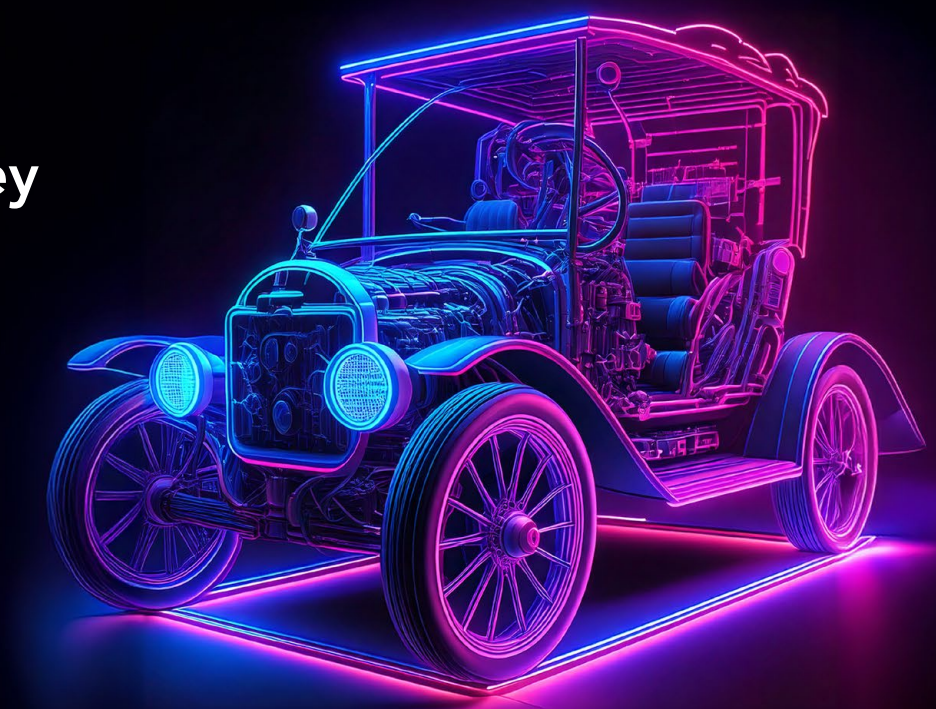
“If I had asked people what they wanted, they would have said faster horses”

- Henry Ford (reportedly)



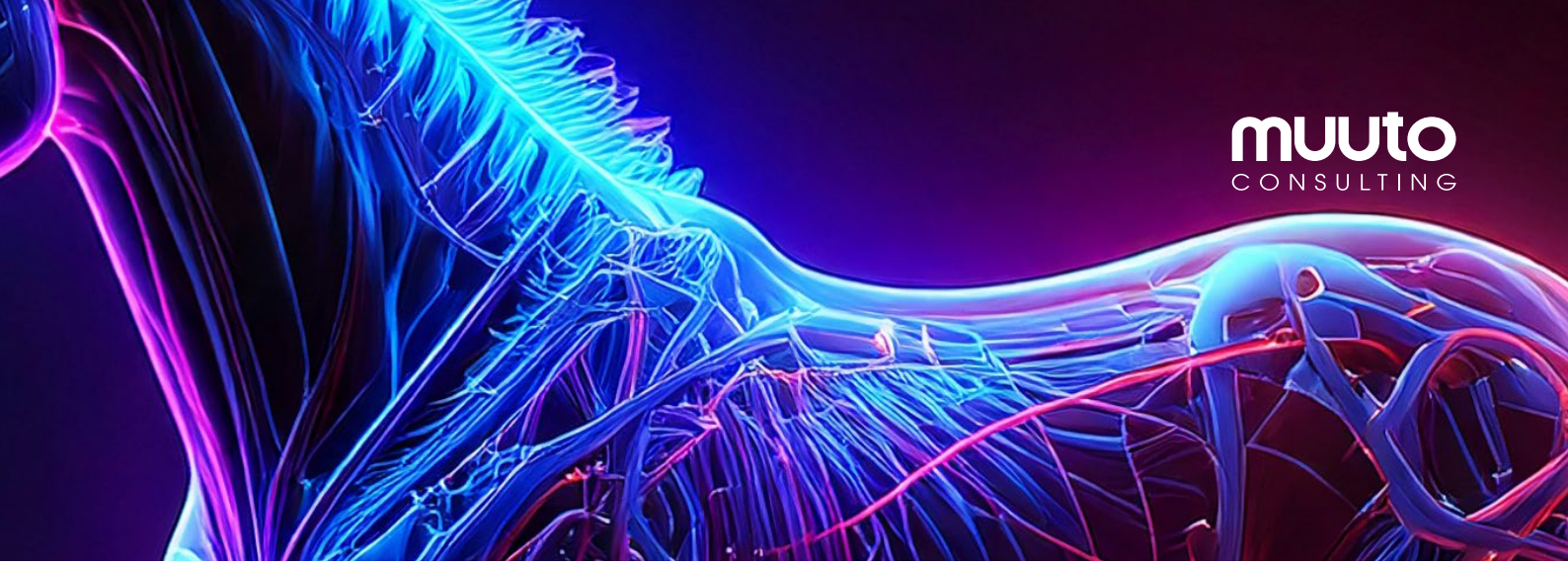
Executive Summary

This observation from Henry Ford resonates powerfully today as organisations grapple with artificial intelligence’s transformative potential.

While many focus on incremental improvements—the ‘faster horse’ approach—the AI revolution demands and enables a fundamental reimagining of how organisations operate, innovate, and create value.

Recent research underscores the magnitude of this opportunity. AI could boost global GDP by 14% by 2030, add up to $15 trillion in economic value across sectors, and more than double innovation rates in many industries. Yet the journey is not merely about adopting new technology; it requires **a comprehensive transformation of processes, people, mindsets, and organisational constructs**. Organisations that embrace this challenge are already seeing significant results. Those that delay risk falling irreparably behind, with the gap between AI leaders and laggards widening by roughly 15% each year.

Success in the AI era requires moving beyond incremental improvements to embrace fundamental transformation. Drawing on real-world examples, the concept of the **organisational digital twin** and emerging best practices, we explore why traditional approaches fall short, what comprehensive transformation looks like, and how organisations might navigate this uncharted journey.



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INTRODUCTION

The Adoption and Adaptation Imperative

In the era of AI, real transformation goes far beyond simply upgrading technology.

My own journey—from starting as a non-technologist, force-fed VB, Java, and UML in the noughties, to specialising in whole-business transformation—has taught me that genuine disruption demands a complete rethinking of how organisations operate. It's not enough to add new tools; every element from processes and people to culture, strategy, and tactics must evolve.

Organisations today stand at a crucial juncture. The comfort of incremental improvement offers the allure of safety and predictability. Yet this approach fosters hidden dangers: the risk of falling behind more nimble competitors, failing to attract top talent, and seeing business models become obsolete. The cost of inaction often exceeds the risks of brave experimentation.

RACING AGAINST TIME

AI's Rapid Impact

AI is advancing at breakneck speed, compressing transformation timelines dramatically.

Where breakthroughs once took decades, AI-driven innovations now reshape industries in mere years, or even months. For example, generative AI capabilities evolved from ChatGPT to GPT-4 in under four months, challenging even the most agile organisations to keep pace.

While long-term strategic planning remains critical, AI demands iterative execution cycles to match its pace. When it comes to AI, the goal is to invest minimally while learning maximally from each effort, whether the outcome is a success or a failure. AI's development curve is steepening exponentially; companies must stay as close to the curve as practical to avoid falling behind.

Emerging technologies such as quantum computing, the potential for fusion power, and move towards artificial general intelligence (AGI) promise to further accelerate breakthroughs. The integration of AI with quantum computing may lead to unprecedented processing speeds and efficiency, while the pursuit of AGI could eventually transform industries and society by creating systems that exceed human capabilities.

Adapting to this new tempo isn't simply about keeping pace, it's about positioning your organisation to lead in a future where agility is the ultimate competitive advantage.

Real-World Examples Breaking the Paradigm

Organisations are leveraging AI to enable radical reinvention across industries. The following examples demonstrate some of the broad applications, where AI can profoundly impact traditional methods and unlock significant value.

Toyota's Generative AI for Vehicle Design

Instead of fine-tuning existing methods—the classical Japanese manufacturing tradition—Toyota has rethought their entire design process.

Toyota's Research Institute (TRI) has developed a generative AI tool that integrates creative text prompts with hard engineering constraints, such as aerodynamic drag and chassis dimensions, from the very first vehicle design sketch. According to TRI, "Generative AI tools are often used as inspiration for designers but cannot handle the complex engineering and safety considerations that go into actual car design." This approach has cut design iterations by approximately 50%, enabling designers and engineers to work in much closer collaboration.

Merging design creativity with technical rigour obviously poses challenges, but this application of AI demonstrates the leaps that can be made when the process itself is reimagined from the fundamentals. Adapting to this new tempo isn't simply about keeping pace, it's about positioning an organisation to lead in a future where speed is the ultimate competitive advantage.

AI-Powered Digital Government in Estonia

Estonia has transformed engagement with public service via Bürokratt, a single, voice-enabled virtual assistant that now provides access to thousands of government services, via a single interface.

Now handling up to 80% of routine citizen queries, Bürokratt has dramatically simplified administrative processes—from ID renewals to tax filings—while ensuring that citizens do not have to navigate multiple legacy systems.

Estonia's Chief Data Officer noted that aligning legacy systems and achieving cross-agency collaboration was a significant hurdle. Yet, by breaking down these established organisational and data silos, Estonia has been able to pivot towards digitally enabled government and a wholesale rethinking of its service delivery.

BP's AI-Driven Predictive Maintenance

In the unforgiving conditions of offshore oil and gas production, BP has embraced AI to help transition from expensive reactive maintenance to a proactive, data-driven strategy. Through continuous analysis of sensor data via machine learning algorithms, BP has managed to reduce unplanned downtime by 25% and decrease maintenance costs by 15%. This has a material bottom-line impact.

Deploying technology like this on legacy infrastructure, in challenging conditions required overhauling sensor networks and integrating analytics into older systems. This was a major deployment change and needed both significant investment and a significant behavioural shift in maintenance practices.

Accelerated Drug Discovery from Insilico Medicine

Drug development traditionally spans several years of research, testing and regulatory approval. Insilco Medicine has managed to completely redefine this end-to-end process through the development of their AI platform, Chemistry42. By analysing massive biological datasets and predicting molecular interactions, Insilico has reduced the drug discovery timeline from 4 years plus to approximately 18 months.

The most impressive statistic is that they have also been able to reduce research and development costs to roughly 10% of conventional expenditures. Integrating AI projections with rigorous clinical and regulatory standards technically challenging, but industry reports and peer-reviewed research confirm that this approach is profoundly shifting pharmaceutical R&D. Embracing AI has the potential to fundamentally reshape innovation pipelines, rather than only improving existing process steps.

These examples illustrate the transformative potential of AI across various sectors. The future belongs to those who can adapt to technology advances and actively shape organisational systems to succeed in an AI-driven era.

SYSTEMS IMPACT

Reimagining Organisational DNA

The impact of AI on organisational systems goes far deeper than straightforward process automation. Traditional structures across HR, finance, operations, customer service, and beyond, were built for relative stability and predictable information flows. **AI fundamentally disrupts these assumptions**, demanding a complete reimagining of how these systems interact, share data, and evolve.

Talent Systems

The transformation begins with people systems. Traditional HR processes built around annual reviews, fixed job descriptions, and linear career paths need to evolve into dynamic systems that support continuous learning and role evolution.

AI doesn't just change how we recruit and develop talent; it demands innovative approaches to skill assessment/inference, career planning, and performance management, from both structured and unstructured data. For instance, leading organisations are moving from static job descriptions to dynamic role definitions, a dynamic skills ontology that evolves with new technological capabilities and shifting business needs.

Operations and Decision Systems

Operational systems face profound modification. AI enables real-time, data-driven decision-making at a scale previously unimaginable. This requires restructuring operational processes to handle both the speed and complexity of AI-enhanced decisions.

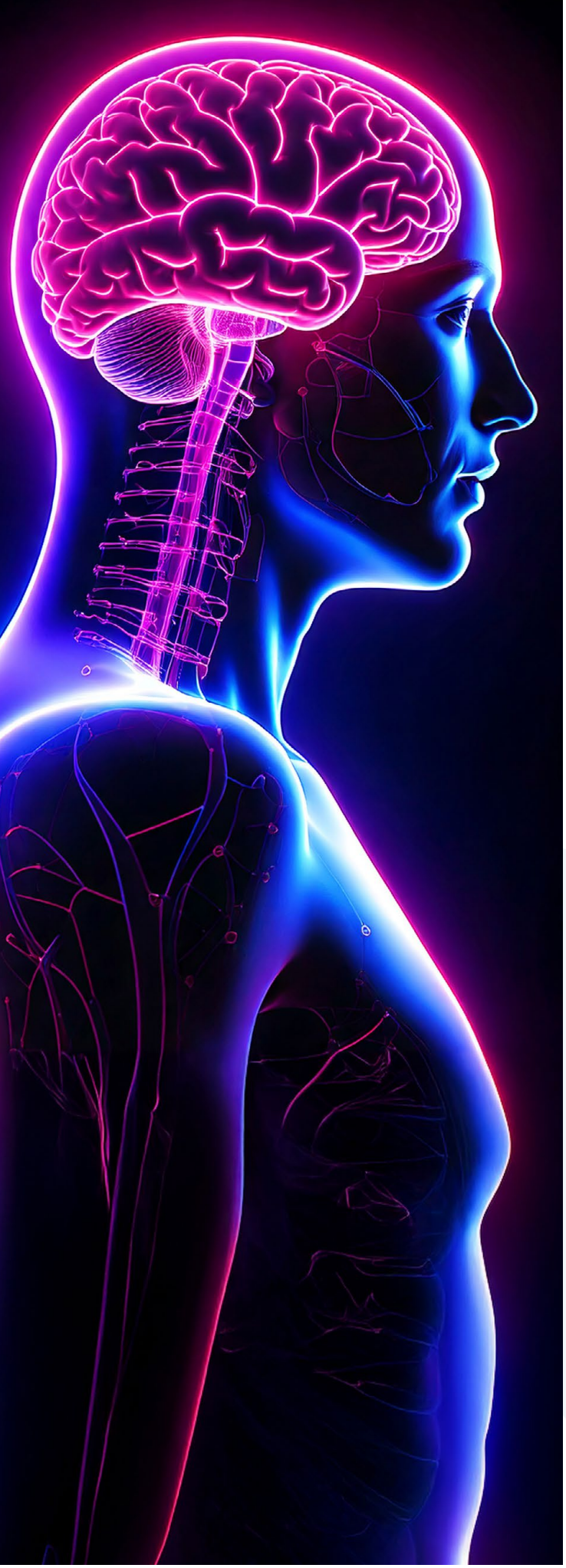
If you take supply chain management: AI doesn't just optimise existing processes, it enables entirely novel approaches to inventory management, demand forecasting, and supplier relationships that require fundamental changes to operational systems.

Financial Systems and Resource Allocation

Financial systems must evolve to support faster, more flexible resource allocation.

Traditional models are overly rigid for AI-driven innovation. Organisations need financial systems to provide:

- **Flexible Budgeting**: replace rigid annual budgeting cycles with dynamic resource allocation that respond to real-time data.
- **Experimentation Funding**: allocate resources for pilot projects and rapid iteration, balancing short-term efficiency with long-term transformation.
- **Value Measurement**: develop new metrics that capture the benefits of innovative, AI-driven initiatives (e.g., 'ROI of AI experiments' or 'time-to-value for new initiatives').



Knowledge Management and Learning Systems

Perhaps most critically, **organisations must rebuild their knowledge management systems**. AI transforms how organisations can capture, share, and leverage knowledge. Traditional document-based systems give way to networks that combine human ability with AI capabilities that need to deliver:

- **Dynamic Networks**: shift from static document repositories to interconnected knowledge networks that mix human insight with data analytics.
- **Collaborative Learning**: foster a culture where learning is expected and celebrated, and insights are shared across teams.
- **Innovation Scaling**: identify emerging trends and best practices, enabling quicker adaptation and replication of successful approaches.

The Potential of Organisational Digital Twins

Just as digital twins have revolutionised the management of physical assets, we're seeing the emergence of the **organisational digital twin**—comprehensive virtual models of the entire organisation that integrate people, processes, data, and systems. This approach enables:

- Greater visibility into **organisational dynamics**.
- **Predictive modelling** of structural or policy changes.
- Simulation of different **operational scenarios**.
- **Integration of disparate data** sources into a coherent whole.
- **Dynamic resource allocation** and optimisation across the enterprise.

The organisational digital twin represents more than just a technological innovation, it could provide a new way of understanding and managing organisational complexity. By creating a living digital mirror of a company's operations, leaders can better anticipate challenges, test interventions, and measure outcomes in a low-risk environment before implementing changes in the real world.

Yet even with such advanced modelling, it's worth noting that the hardest kind of change is still **people change**—shifting mindsets and behaviours.

The Scale Paradox: Agility in Large vs Small Organisations

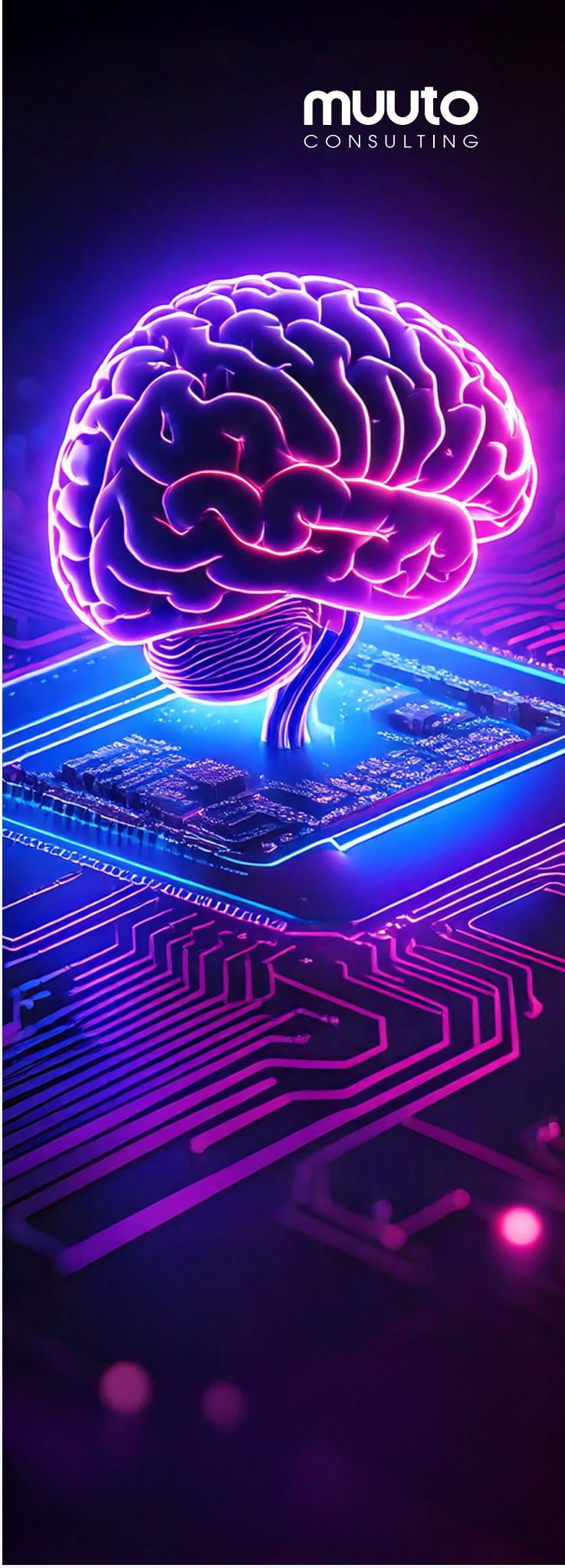
My experience running a smaller organisation (Muuto Consulting) has highlighted a crucial paradox in AI adoption. Smaller organisations, with their inherent flexibility and shorter decision chains, can move quickly and experiment freely with new AI tools and approaches.

Our team is encouraged to experiment, within clear protocols for managing confidential data, leading to rapid learning and adaptation to ways of working.

In contrast, larger organisations often find themselves constrained by the very systems established to ensure stability and control. Multiple approval layers, rigid procurement processes, and complex compliance requirements, whilst important, can significantly slow the pace of innovation and experimentation. This creates a challenge for big companies: how to keep necessary controls while also enabling the kind of rapid experimentation that AI adoption requires. Key differences include:

- **Decision Speed**: small organisations can often implement new tools and processes in days or weeks, while larger organisations might require months of review and approval.
- **Risk Tolerance**: smaller organisations can take calculated risks with limited downside, while larger organisations must consider enterprise-wide implications.
- **Resource Allocation**: smaller organisations might have limited resources, but they can deploy them more flexibly than larger organisations with substantial but rigid budgets.
- **Policy Adaptation**: smaller organisations can quickly adjust policies to accommodate new technologies, while larger organisations must navigate complex policy frameworks.

Success in large organisations, therefore, requires finding ways to create '**pockets of quickness**'—teams or pilot projects that can experiment within defined guardrails—while gradually evolving the broader systems to support faster innovation. In essence, big companies need to learn how to act a more like startups in certain areas, without compromising the stability that their scale demands.



ORGANISATIONAL CONSTRUCT

From Hierarchy to True Networks

The advent of AI demands structural changes that go beyond a simple reorganisation. Traditional hierarchical structures, designed for control and efficiency in a stable environment, must give way to more flexible, adaptive forms that harness AI's potential. In practice, this means rethinking how teams are formed, how decisions are made, and how information flows through an organisation.

The Emergence of Hybrid Structures & Teams

Leading organisations are adopting hybrid structures that combine:

- **Stable core teams** to support essential operations and continuity.
- **Dynamic project teams** that form and re-form around specific AI enabled opportunities or experiments.
- **AI-enhanced coordination mechanisms** that enable rapid resource allocation and decision-making across teams.
- **Cross-functional pods** that bring together diverse experts (product, data, operations, etc.) and AI capabilities to tackle problems end-to-end.

This blend allows a company to preserve the reliability of a core hierarchy while gaining the agility of networked, project-based teams.

Decision Rights and Governance

The distribution of decision-making authority must evolve along with structure. AI can facilitate more decentralised decision-making, but organisations need consistency. New governance models are appearing to balance autonomy with alignment, for example by defining:

- **Clear frameworks for AI-assisted vs. human decisions** – knowing which kinds of decisions can be delegated to algorithms and which require a 'human in the loop'.
- **Distributed governance mechanisms** that grant teams autonomy while ensuring they adhere to core principles and policies.
- **Real-time monitoring and feedback loops** so leadership can see outcomes and adjust strategies quickly.
- **Ethical guidelines and guardrails** to govern AI decision-making and maintain trust.

The Role of Middle Management

Perhaps most significantly, the role of middle management is transforming from one of control and coordination to one of enablement. In an AI-driven organisation, middle managers focus less on enforcing rules and more on:

- **Capability building and team development**: coaching teams to build new skills (like data literacy or AI fluency) and to work effectively with intelligent tools.
- **Context setting and strategy translation**: ensuring that frontline teams understand the broader strategy and how their experiments align with company goals.
- **Ecosystem orchestration and partnership management**: managing relationships and integrations with external partners, startups, or platforms in the AI ecosystem.
- **Innovation facilitation and scaling**: helping successful pilots scale up and removing roadblocks that hinder new initiatives.

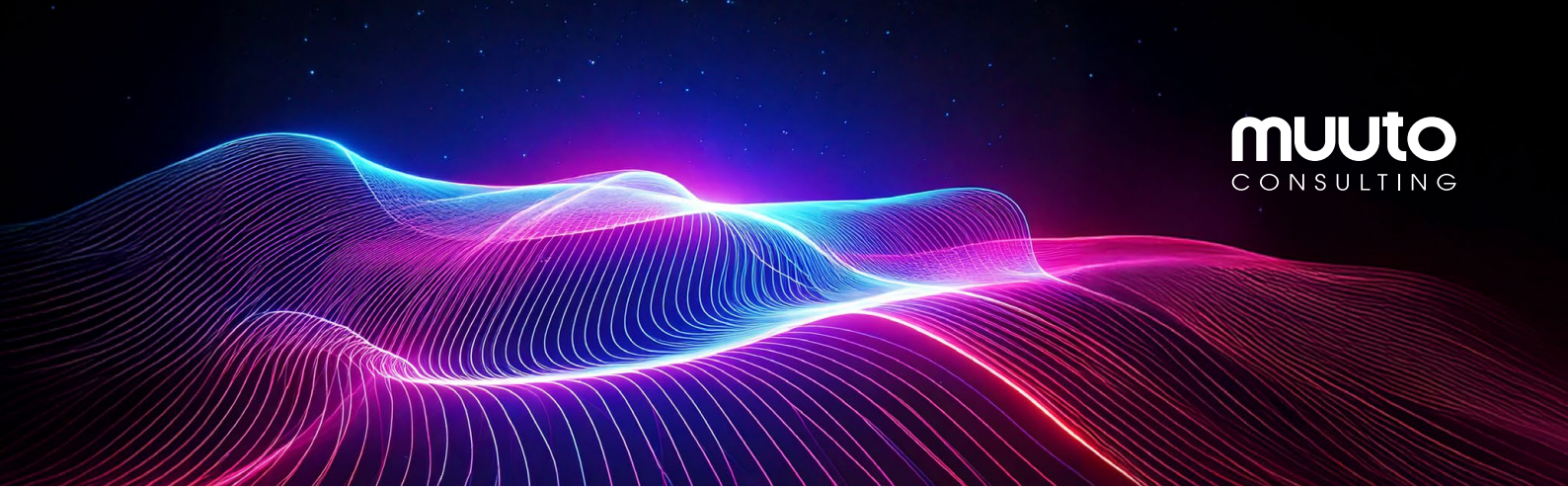
This shift requires re-training managers and redefining success metrics for management roles.

Four Pillars of AI Transformation

Organisational evolution in the AI era requires careful attention across four critical dimensions:

1. **Power Dynamics & Authority**: ensure agile teams have decision-making autonomy proportionate to their responsibilities. Example: Grant cross-functional pods authority to allocate budgets for rapid prototyping.
2. **Real-Time Information Flow**: design systems where AI-derived insights directly inform decisions (e.g., sensor data triggering automated supply chain adjustments). Break silos that delay data sharing.
3. **Cultural Shifts**: reward collaboration (e.g., metrics for cross-team innovation) and experimentation (e.g., celebrating 'smart failures'). Penalise territorial behaviour that stifles agility.
4. **Incentive Alignment**: tie compensation and promotions to learning velocity and scaled innovations, not just short-term efficiency. For instance, reward managers for mentoring teams in AI fluency.

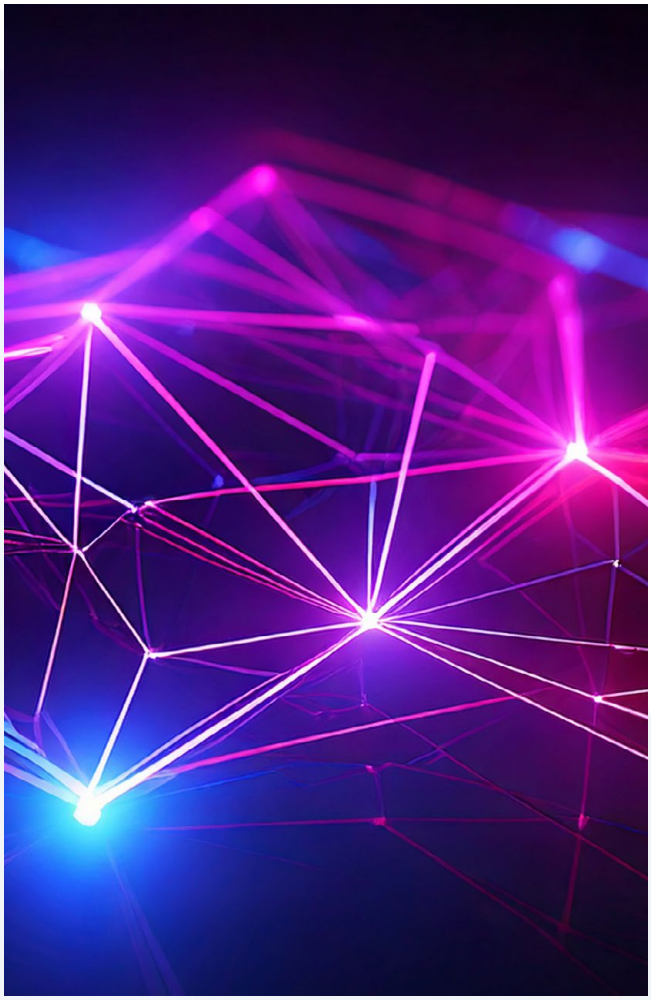
Why does this matter? Misalignment in any pillar risks creating friction. Agile teams without authority become frustrated, data-driven decisions without cultural buy-in face resistance, and incentives misaligned with transformation goals encourages stagnation.



Business Models, Ecosystems, and Network Effects

In the era of AI, the way organisations create and capture value is undergoing a fundamental shift. Traditional business models built on stability, efficiency, and scale are being upended by AI's ability to process vast amounts of data and learn continuously. AI-driven models not only streamline internal operations but also enable entirely new products, services, and revenue streams, often disrupting established sectors in the process.

At the heart of this transformation is a move toward platform and ecosystem-based business models. Instead of offering a single product or service, leading companies are building interconnected platforms where multiple stakeholders—customers, suppliers, developers, partners—all contribute to and benefit from shared AI-driven technology and data. Value is created collaboratively and grows as the network expands (classic network effects amplified by AI insights).

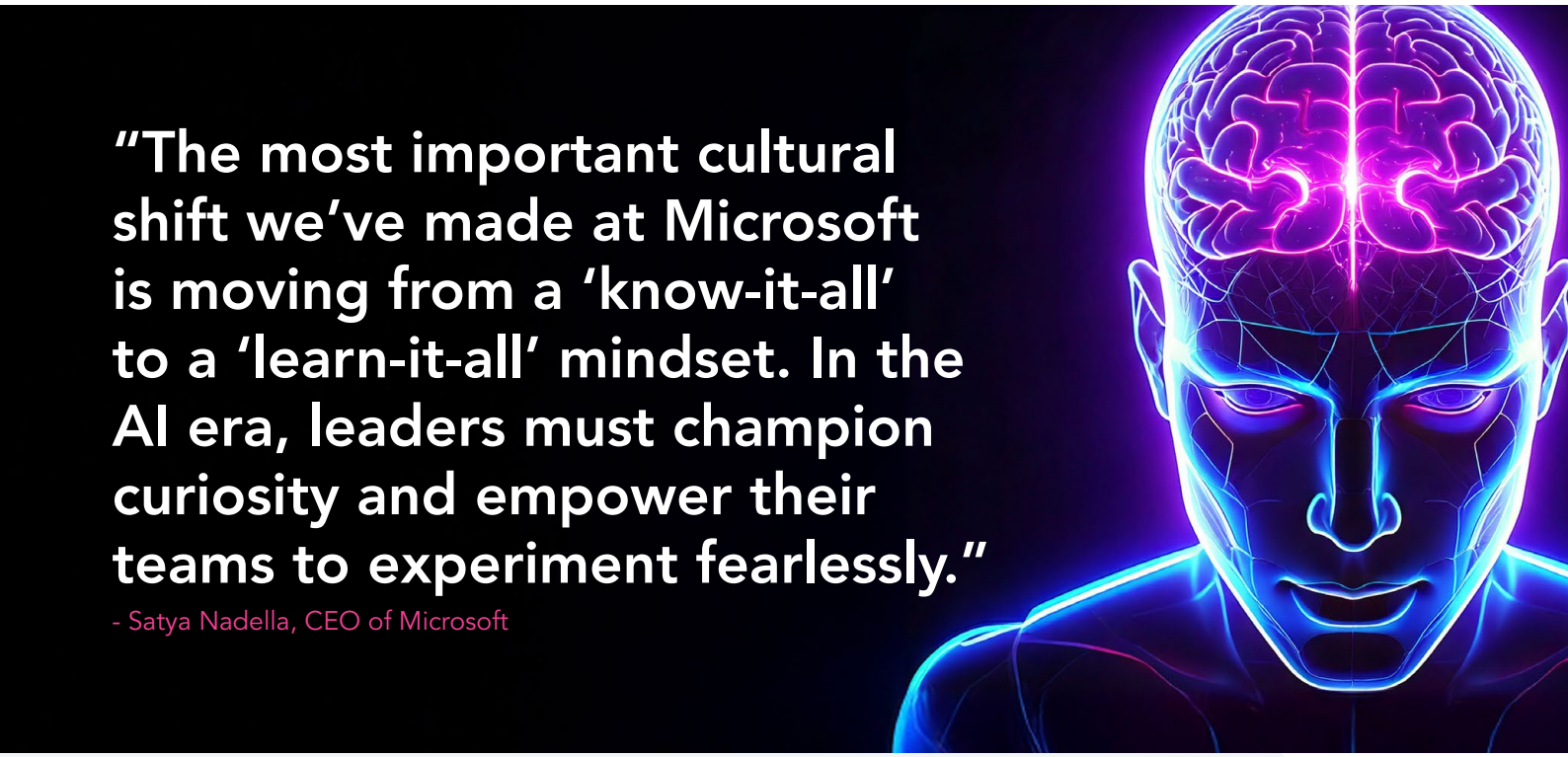


Another important trend is the rise of openness and shared innovation. Imagine an AI company releasing a powerful model to the open-source community. DeepSeek, an AI research lab, did exactly this by openly sharing its reasoning model R1 rather than keeping it proprietary. This move sparked widespread adoption and innovation far beyond what a 'closed' innovation can achieve with only internal resource achieved alone. This is great for consumers, and pressures competitors with closed models to catch up and level the playing field.

The implication is clear; **AI enables new ways of doing business**. Companies that harness platforms, ecosystems, and data network effects can create self-reinforcing growth loops, whereas those clinging to traditional models may find themselves outpaced by more connected, AI-powered rivals.

Overcoming Muscle Memory

Cultural inertia remains one of the most formidable barriers to organisational transformation. Change is inherently uncomfortable, and it is human nature default to familiar routines and mindsets. Leaders must counteract this tendency by modelling a growth mindset, a philosophy exemplified by Microsoft CEO Satya Nadella, who spearheaded the company's AI-driven reinvention.



"The most important cultural shift we've made at Microsoft is moving from a 'know-it-all' to a 'learn-it-all' mindset. In the AI era, leaders must champion curiosity and empower their teams to experiment fearlessly."

- Satya Nadella, CEO of Microsoft

This learner ethos goes beyond the outdated adage of mimicry ("What my boss is interested in, I am fascinated by") and instead asks that leaders embody active curiosity, signalling that adaptation and innovation are not merely encouraged but essential. By prioritising learning over legacy practices, executives can dissolve resistance, inspire organisation-wide optimism, and align teams with the rapid evolution demanded by AI.

At the same time, it's important to remember that the people doing the work often know best how to improve it. Frontline employees have invaluable insights into the practicalities of their jobs, so empowering them is essential.

Equipping middle managers with the tools and authority to drive change further ensures that innovation is rooted in real-world experience. When middle managers become champions of innovative ideas (rather than gatekeepers of the old ways), a culture of continuous improvement can genuinely take hold.

In short, overcoming an organisation's 'muscle memory' requires both top-down and bottom-up efforts: **executives who walk the talk** of innovation, and empowered employees at all levels who feel ownership in the transformation.

Experiment, Learn, and Scale: A Practical Framework

In the fast-paced world of AI, the key to transformation is to experiment quickly and learn continuously.

A straightforward, three-step framework can help organisations manage risk while driving innovation:

Phase	Description
Experiment	Start with small, low risk experiments that require minimal investment. The goal is not perfection on the first attempt but rapid learning. These pilots allow you to evaluate new ideas and approaches without overcommitting resources.
Evaluate	Gather data from each experiment. Every pilot, whether a success or a setback, offers valuable insights. Evaluating outcomes rigorously helps refine your understanding of what works and what doesn't, ensuring that each subsequent attempt is better informed.
Scale	Once an experiment has proven its worth, build on the momentum by scaling the solution. The insights gained during the pilot phase provide a solid foundation for broader implementation, transforming small wins into significant, organisation-wide improvements.

Limitations and Navigating the Hype Cycle

Although AI holds considerable promise, it comes with challenges that must be acknowledged.

Current systems still struggle with issues such as algorithmic bias, data integration difficulties, and the need for robust governance. Frankly, recognising these shortcomings internally not only builds credibility with stakeholders but also helps the organisation prepare for inevitable hurdles.

As OpenAI's CEO Sam Altman recently noted, AI will "empower people more than ever before," yet the transition may be "pretty painful." This captures the dual nature of our moment. On one hand, **AI agents are already taking on tasks that once demanded high-level human expertise**, redefining roles and processes across industries. On the other hand, these advancements introduce unprecedented disruption and uncertainty. Organisations must not only harness these new capabilities but also brace for the operational and cultural upheaval accompanying such rapid change.

It's important to remember that not every experiment will yield a breakthrough—and that's perfectly fine. In fact, each failure can offer insights that refine future approaches. The organisations that thrive will be those that **embrace measured risk**, **learn from failures**, **and iterate quickly**. Managing the hype means tempering optimism with realism: celebrating AI's potential while candidly addressing its pitfalls and learning from each step of the journey.

The Call to Transform

The AI revolution demands more than technological adoption—it requires a fundamental reimagining of organisational purpose, structure, and culture.

Success hinges on bold leadership, systemic experimentation, and an unwavering commitment to continuous learning. Organisations that embrace this transformation will thrive; those that hesitate risk obsolescence as the gap between AI leaders and laggards widens relentlessly.

For leaders, this means:

- **Champion Bold Experimentation**: start with targeted pilots, small in scale but ambitious in vision, to test AI's potential. Treat each initiative as a learning opportunity, not a solution.
- **Embed a Learner Mindset**: replace rigid hierarchies with cultures that prioritise curiosity over compliance, rewarding teams for asking "What if?" rather than adhering to "This is how we've always done it."
- **Empower Teams with Autonomy and Tools**: equip frontline employees and middle managers with the authority, data, and AI tools to drive change.
- **Build Ecosystem Partnerships**: no organisation can transform in isolation. Forge alliances with startups, academia, and even competitors to share data, talent, and AI insights.
- **Invest in Lifelong Learning at Scale**: upskill relentlessly. From the C-suite to frontline staff, prioritise AI fluency, data literacy, and adaptive leadership. Measure success not by static efficiency metrics but by learning velocity—the speed at which new skills are acquired and applied.

The Stakes of Inaction

The cost of incrementalism grows daily. Organisations clinging to legacy models will struggle to attract top talent, lose ground to agile competitors, and face existential threats as AI reshapes industries.

Conversely, those that act decisively—replacing 'faster horses' with transformative actions—can unlock unparalleled productivity, innovation, and resilience.

In closing

The path forward is not defined by a single grand plan but by relentless iteration. Every experiment, success, and setback is a step toward a future where AI is not just a tool but a catalyst and enabler for reinvention.

As Henry Ford's axiom reminds us: **The future belongs not to those who breed faster horses, but to those bold enough to build something different**.

About the Author

Chris Tomlinson is the Managing Director of Muuto Consulting, and a transformation leader with over 20 years of experience in navigating complex organisational change. He brings strategic vision and implementation expertise to AI-enabled transformation.

Throughout his career, Chris has led transformation teams across multinational organisations, specialising in redesigning operating models, managing post-merger integration, and aligning C-suite leaders. He can be contacted at chris.tomlinson@muuto.co.uk and here.

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