Analyzing AI's Impact: How Artificial Intelligence is Redefining the Insurance Landscape

Analyzing the Accelerating Trends and Future Trajectories

72% CEOs picked AI (including machine learning and GenAI) as the most important technology in helping them achieve their ambitions over the next three years.

- Every Survey Ever

2023 saw AI firmly establish itself as a "disruptive force" that is reshaping the workplace and redefining how work is accomplished.

The pace of change is expected to accelerate at an exponential rate, while the ability of enterprises to adapt appears to be slower, at a linear pace.

Integrating AI into a rapidly evolving business presents a complex, multidimensional challenge.

Given that the rapid pace of change driven by AI is expected to continue, if not accelerate further

Critical Question: How to orchestrate your enterprise and teams to thrive in an environment characterised by accelerating, AI-driven change???

From Horse Carriages to Automobiles – Drawing Parallels Through Historical Innovations in Transportation

Adoption

1946 onwards: Demand for automobiles started increasing after World War II

Today

Introduction

1886: German inventor Carl Benz constructs the modern car—a practical, marketable automobile for everyday use.

1908: American pioneer Henry Ford mass produces the Model T

1940s-1950s

Necessity

The car is an essential part of the developed economy

1760s-1810s

Invention

1769: Invention of steam-powered road vehicle and followed by invention of internal combustion-powered automobile (**1808**)

Early 20ᵗʰ Century

Innovation to Indispensability: Trend Across Technological Innovations

Computer

1871			**1984**	**1990s**	**Today**
Invention			**Introduction**	**Adoption**	**Necessity**

Streaming

1990s			**2007**	**2010s**	**Today**
Invention			**Introduction**	**Adoption**	**Necessity**

AI

1940s-1980s			**Early 2000s**	**2010 – Today**	
Invention			**Introduction**	**Adoption**	**Necessity**

Invention
The concept of AI was born, leading to Development of basic AI algorithms and models, with initial thoughts on potential applications in various fields

Introduction
Introduction of more sophisticated AI technologies, such as data mining and decision support systems, which began to be directly applied in various industries, including insurance.

Adoption
Gen AI Launched. Widespread adoption, Companies are leveraging AI to analyze large volumes of data for better insights, personalization and content generation.

AI Adoption in Insurance: On the Cusp of Adoption

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Introduction Milestone

Acceleration Lane

Infusing AI Into

Adoption Horizon

AI is anticipated to become an integral part of Insurance industry

Underwriting Operations	Claims Operations
Renewal Management	Reinsurance
Finance & Accounts	Operations

What is Accelerating the AI Adoption

The External Drivers

Data Explosion from Connected Devices	Robotics and Automation Advances
Cognitive Technology Developments	Digital Transformation Push

The Internal Drivers

Enhanced Customer Experience	Regulatory Compliance	Improved Risk Assessment
Cost Reduction	Offering Innovation	Fraud Detection and Prevention

5

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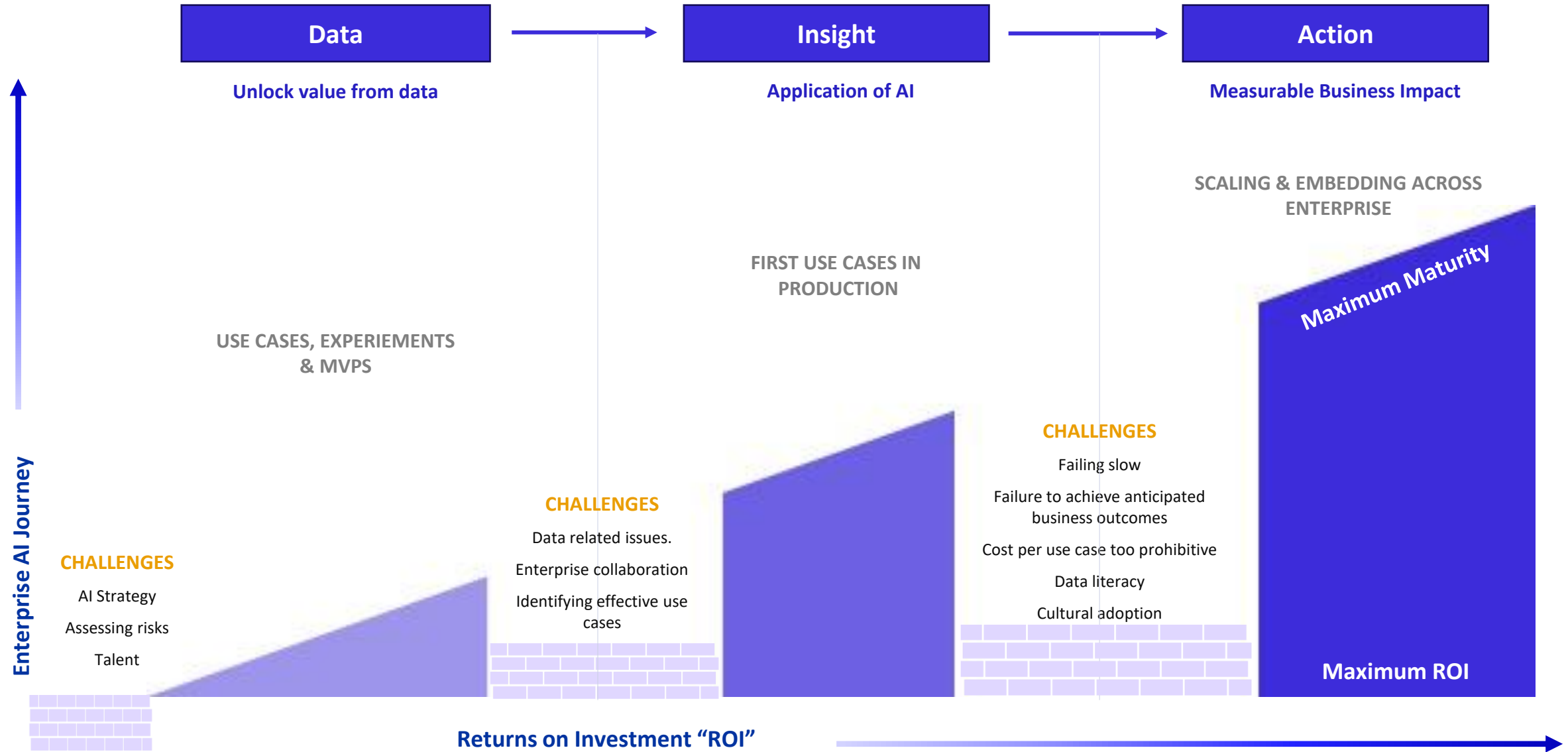# **Adoption of AI** within an enterprise

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Polling Question

Given the rapid pace of change driven by AI and the multidimensional challenges it presents, what are the key considerations that leaders should take into account for successful enterprise-wide AI adoption?

AI Adoption: Enterprises Face Critical Challenges Across Their AI Adoption Journey
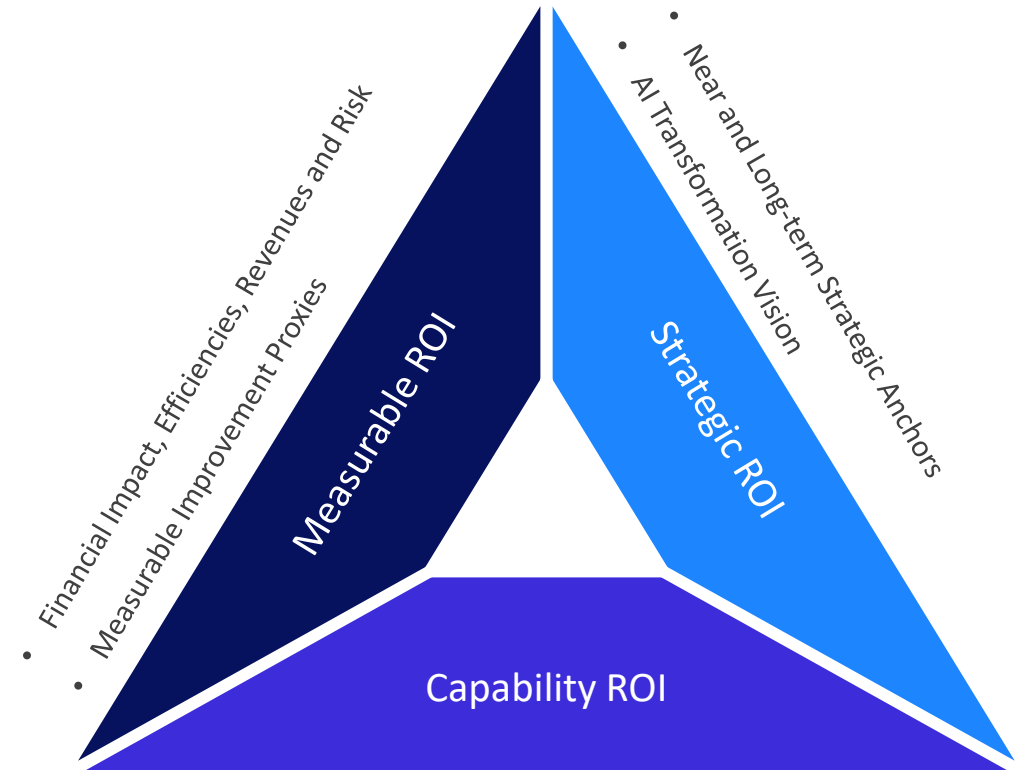
Data

Unlock value from data

Insight

Application of AI

Action

Measurable Business Impact

SCALING & EMBEDDING ACROSS ENTERPRISE

FIRST USE CASES IN PRODUCTION

Maximum Maturity

USE CASES, EXPERIEMENTS & MVPS

Enterprise AI Journey

CHALLENGES

Failing slow

Failure to achieve anticipated business outcomes

Cost per use case too prohibitive

Data literacy

Cultural adoption

CHALLENGES

Data related issues.

Enterprise collaboration

Identifying effective use cases

CHALLENGES

AI Strategy

Assessing risks

Talent

Maximum ROI

Returns on Investment "ROI"

AI Adoption: AI Can Drive Three Kinds Of ROI Across The Enterprise

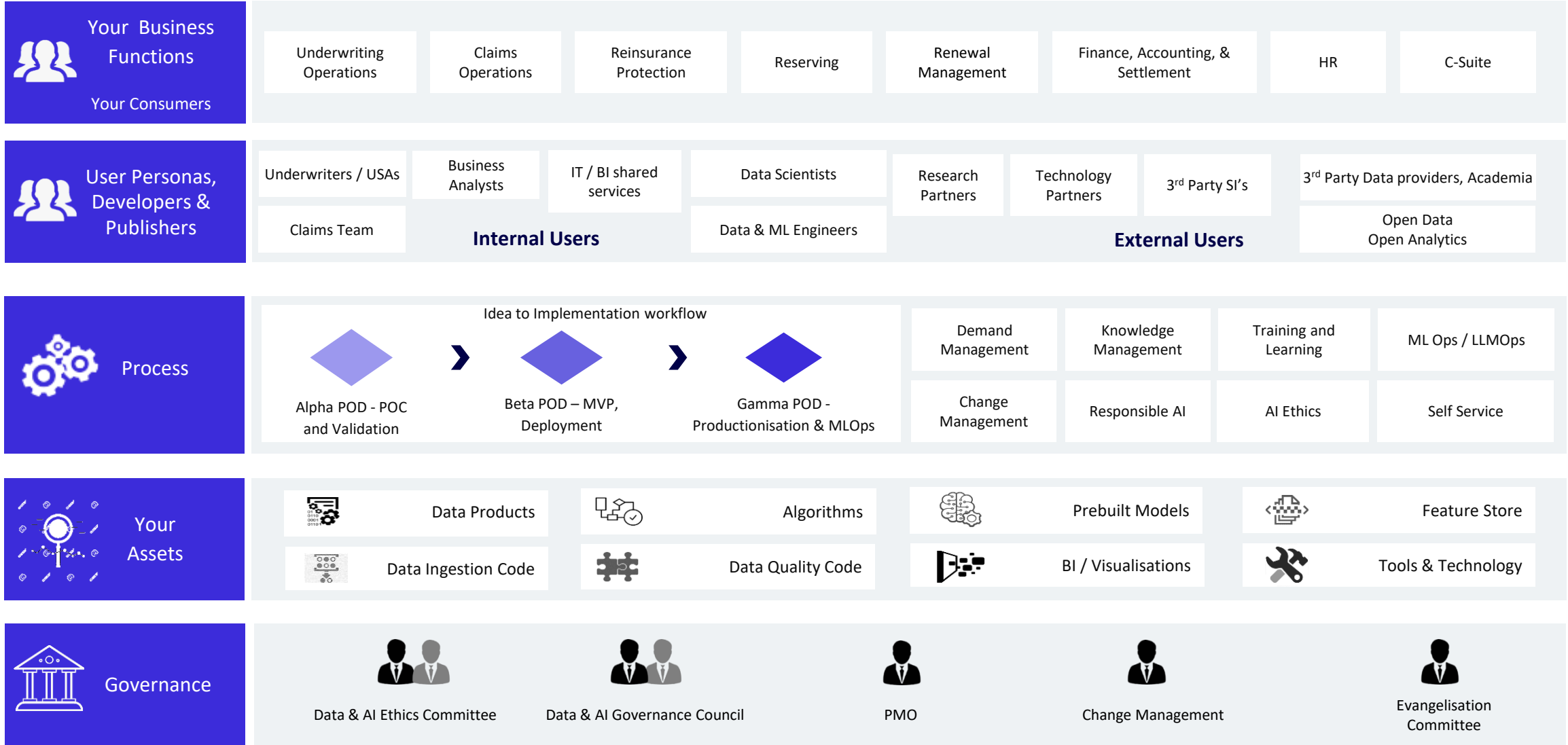**Treating technology as an enabler**
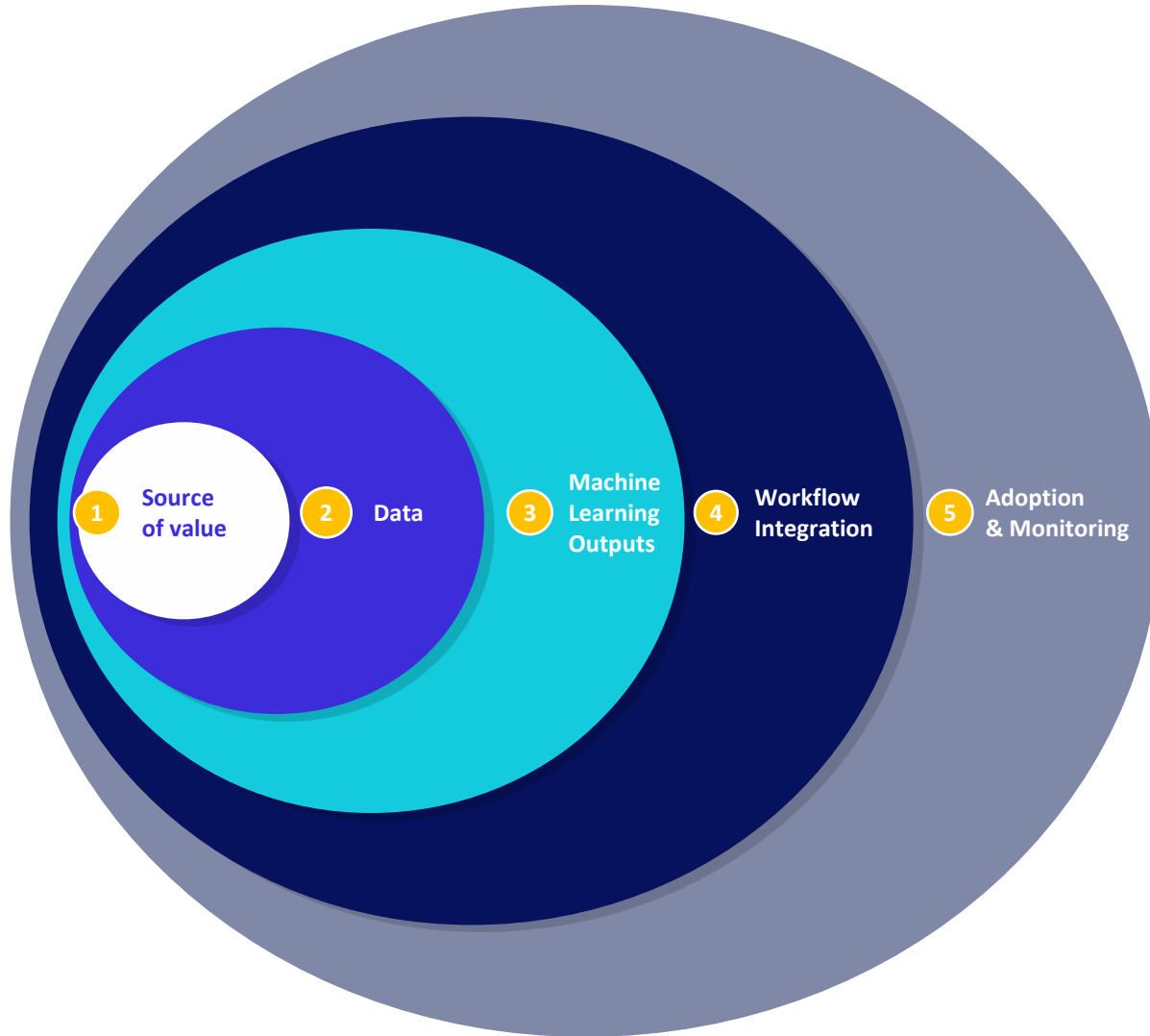
AI initiative should not only propel you towards immediate, quantifiable returns & strategic long-term results, but also significantly bolster your organisational capacity to leverage AI for market dominance.

1. Source of value
2. Data
3. Machine Learning Outputs
4. Workflow Integration
5. Adoption & Monitoring

- Financial Impact, Efficiencies, Revenues and Risk
- Measurable Improvement Proxies

Measurable ROI

Strategic ROI

- Near and Long-term Strategic Anchors
- AI Transformation Vision

Capability ROI

- Unlocking the value of your data & IT investments
- Building AI Capabilities through Projects

AI Adoption: What Good Looks like

A defined & governed operating model driving data driven culture across your organisation

Your Business Functions
Your Consumers

Underwriting Operations	Claims Operations	Reinsurance Protection	Reserving	Renewal Management	Finance, Accounting, & Settlement	HR	C-Suite

User Personas, Developers & Publishers

| Underwriters / USAs | Business Analysts | IT / BI shared services | Data Scientists | Research Partners | Technology Partners | 3rd Party SI's | 3rd Party Data providers, Academia |
| Claims Team | | | Data & ML Engineers | | | | Open Data Open Analytics |

Internal Users — **External Users**

Process

Idea to Implementation workflow

Alpha POD - POC and Validation → Beta POD – MVP, Deployment → Gamma POD - Productionisation & MLOps

Demand Management	Knowledge Management	Training and Learning	ML Ops / LLMOps
Change Management	Responsible AI	AI Ethics	Self Service

Your Assets

Data Products	Algorithms	Prebuilt Models	Feature Store
Data Ingestion Code	Data Quality Code	BI / Visualisations	Tools & Technology

Governance

Data & AI Ethics Committee	Data & AI Governance Council	PMO	Change Management	Evangelisation Committee

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Four Pillars To Enterprise AI Adoption

01

Strategy & Process:
Defining a vision, creating a strategic roadmap, and establishing policies, procedures, and principles to guide the safe and responsible AI systems.

02

Technology & Data:
Ensuring the organisation has the necessary technology infrastructure, data quality, security, and access in order to build differentiated AI capabilities.

03

Product & Services:
A digital, reusable asset-based approach allowing AI initiatives to be managed and fulfilled through a central data supply chain.

04

Culture & Adoption:
Improving data literacy, managing change effectively, and preparing the workforce with the appropriate skills and mindset for efficient AI usage.

Enterprise AI Adoption: Strategy & Process

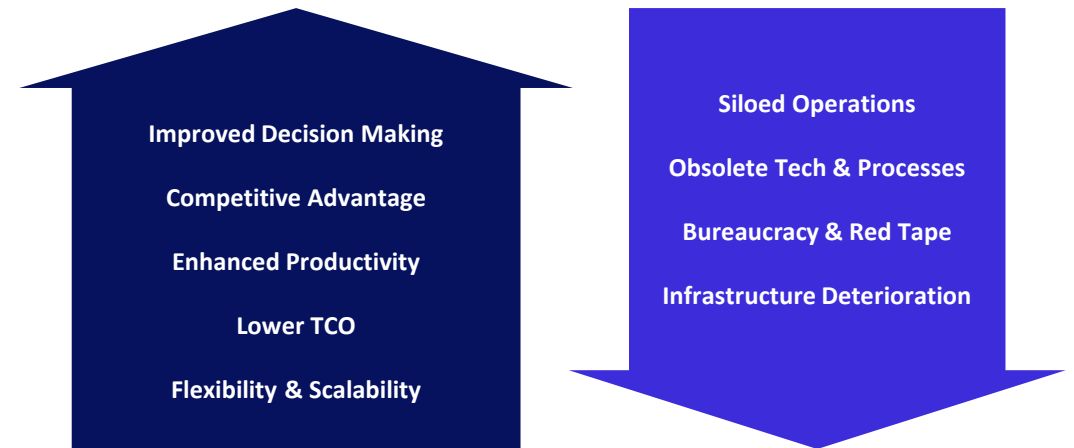**Data & AI Strategy That Is Congruent With Enterprise Strategic Objectives**

What good looks like

Effective Change Management

Strategic Alignment

Collaboration & Partnerships

- Vision
- Value
- Sponsorship
- Cross-Functional Collaboration
- Risks

Continuous Improvement

Investment in Technology & Innovation

Data Driven Decision Making
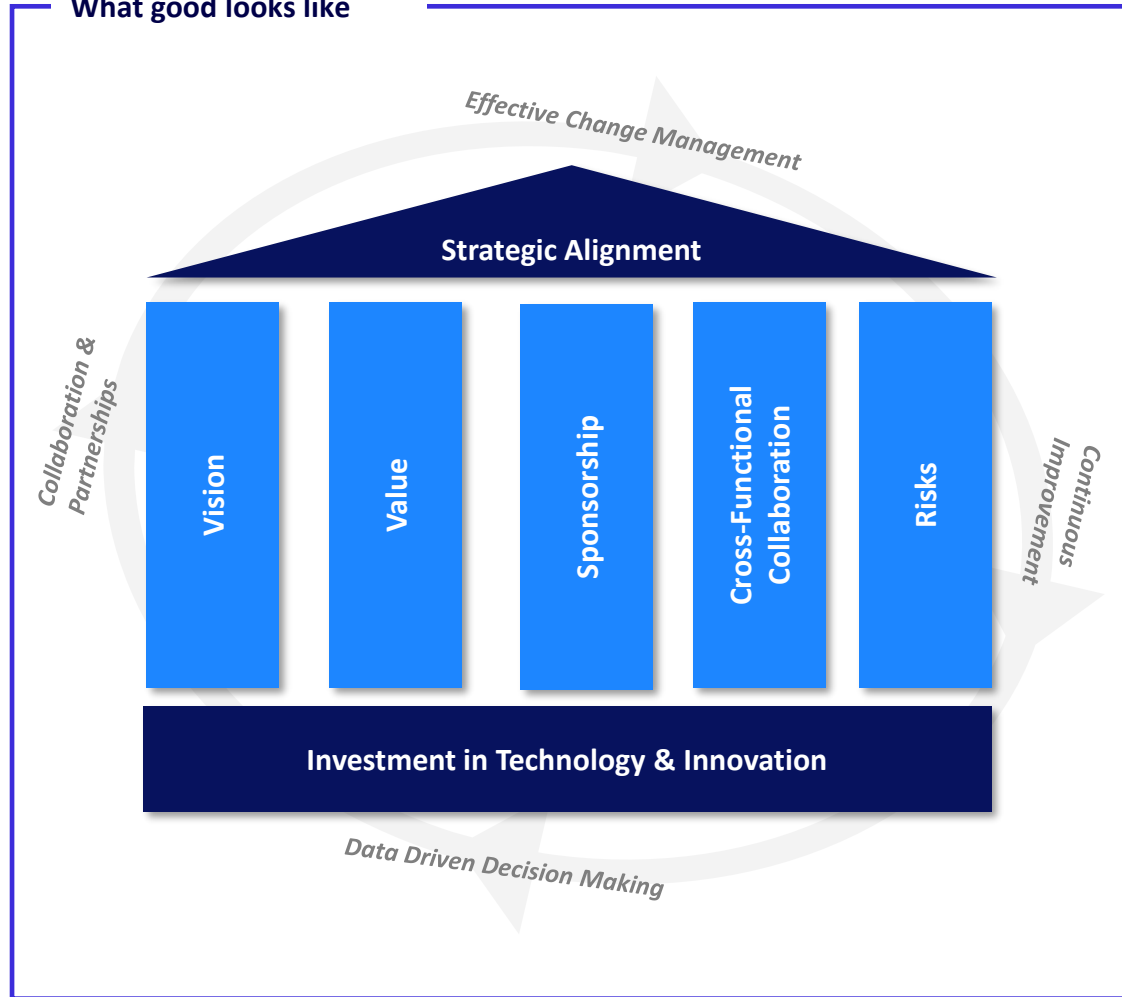
Considerations

- Invest in the right technologies & establish relationships with the right partners

- Establish mechanisms to collect and analyse feedback to identify areas for improvement, drive innovation & enhance service quality.

- Foster collaborations to share expertise, resources, and knowledge.

- Develop a robust change management strategy to ensure smooth transitions during implementation.

How this will help

Improved Decision Making

Competitive Advantage

Enhanced Productivity

Lower TCO

Flexibility & Scalability

Siloed Operations

Obsolete Tech & Processes

Bureaucracy & Red Tape

Infrastructure Deterioration

Enterprise AI Adoption: Technology & Data

Better AI Needs Better Data

What good looks like

- High quality, fit-for-purpose data assets are available to authorised consumers, in the right formats, at the right time.

- Internal Customers perceive data office as the trusted partner.

- Executive buy-in of a formal data & AI strategy covering governance, quality assurance and data stewardship.

- Organisation structure, policies, processes and tools are established to effectively enforce accountability for the treatment of data through the lifecycle.
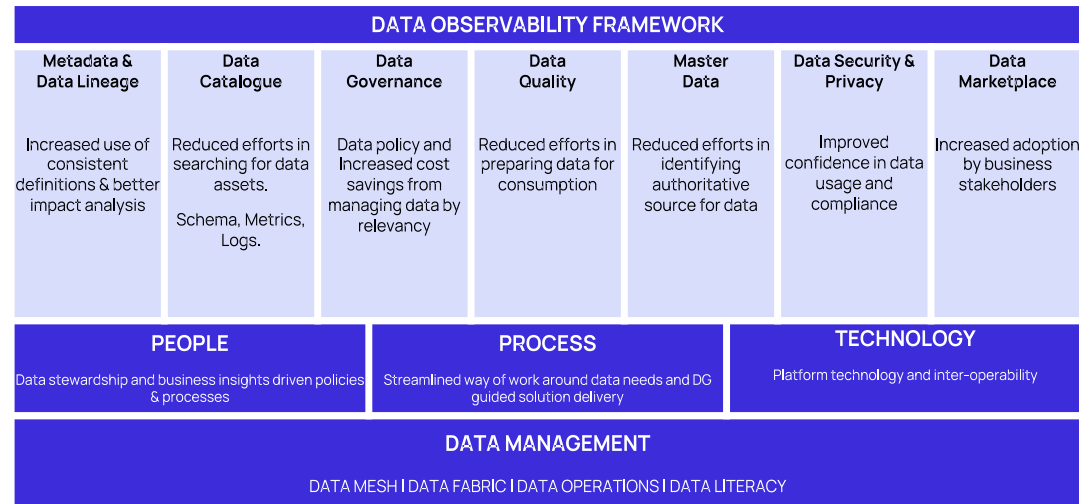
Considerations

- Formalising an Enterprise Data Observability / DG framework with relevant KPI's.

- Data auditability a core requirement of the technical solution.

- Centralised approach to master data management (Customer, Product etc)

- Certifying data assets for data consumers

- Reducing efforts of data office and other teams in data quality fixes.
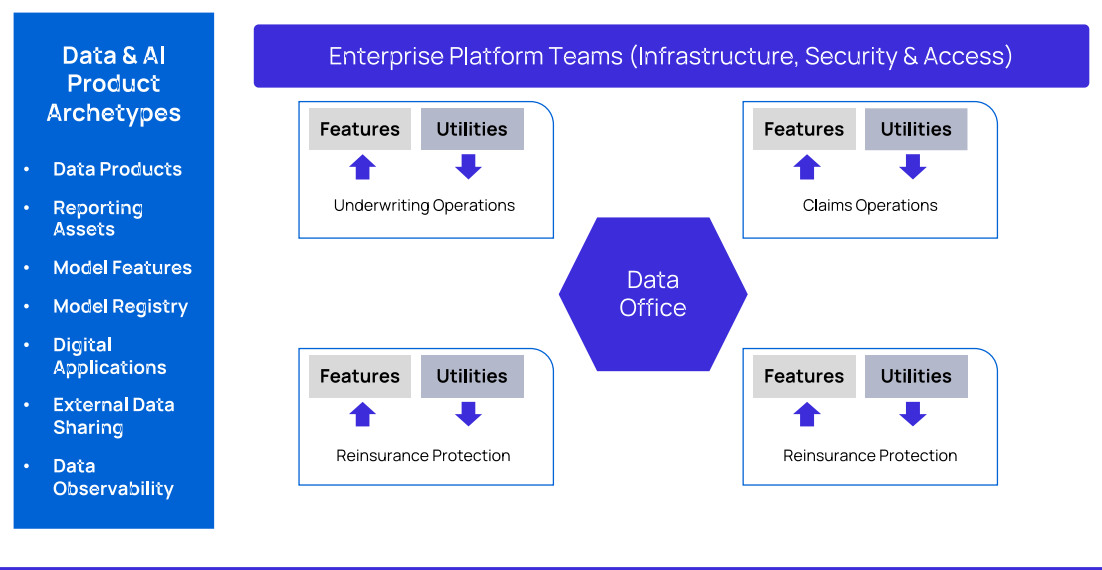
How this will help

- A formal DO / DG framework brings best practices in observability, governance process design, development and adoption.

- A mature MDM & DQ solution will help modernise enterprise's data management to establish an authoritative source of truth for asset profiles.

- DQ profiling dashboards will inform users about state of the data and what needs to be done to enhance usability.

- ML/GenAI driven DQ solutions offer the potential to drastically lower human efforts in discovering, addressing and pre-empting quality issues.

DATA OBSERVABILITY FRAMEWORK

Metadata & Data Lineage	Data Catalogue	Data Governance	Data Quality	Master Data	Data Security & Privacy	Data Marketplace
Increased use of consistent definitions & better impact analysis	Reduced efforts in searching for data assets. Schema, Metrics, Logs.	Data policy and Increased cost savings from managing data by relevancy	Reduced efforts in preparing data for consumption	Reduced efforts in identifying authoritative source for data	Improved confidence in data usage and compliance	Increased adoption by business stakeholders

PEOPLE	PROCESS	TECHNOLOGY
Data stewardship and business insights driven policies & processes	Streamlined way of work around data needs and DG guided solution delivery	Platform technology and inter-operability

DATA MANAGEMENT
DATA MESH | DATA FABRIC | DATA OPERATIONS | DATA LITERACY

13

Enterprise AI Adoption: Product & Services

Treating Data As An Enterprise Asset

What good looks like

- Advocate a common data model, defines frameworks, standards and best practices for data processing, commissions data product investments, approves platform and tooling's as well as architecture blueprints and data consumption archetypes.

- Data office is the go-to Data Product partner for functions & LOBs.

- New insurance products are built on the back of data products.

- AI initiatives are driven and fulfilled via the central data supply chain.

Data & AI Product Archetypes

- Data Products
- Reporting Assets
- Model Features
- Model Registry
- Digital Applications
- External Data Sharing
- Data Observability

Enterprise Platform Teams (Infrastructure, Security & Access)

| Features | Utilities |
Underwriting Operations

| Features | Utilities |
Claims Operations

Data Office

| Features | Utilities |
Reinsurance Protection

| Features | Utilities |
Reinsurance Protection

Considerations

- A Data Factory approach which focuses on data-as-a-product creation emphasising rapid delivery, high consistent quality and dependable scalability.

- Applying product thinking to data to create reusable data assets.

- Data assets ready for consumption via the enterprise data platform.

- Product PODs v/s competency PODs

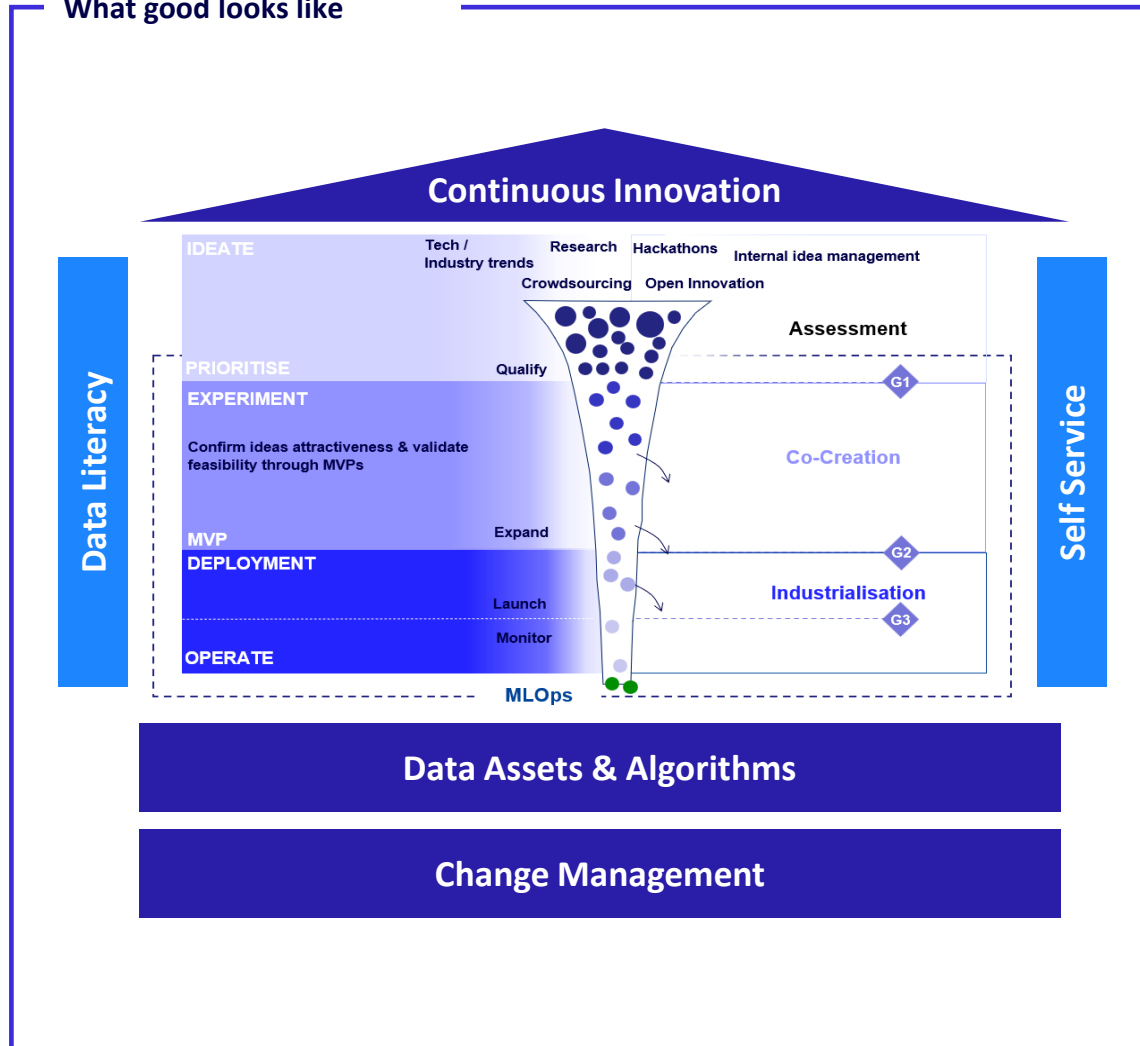- Feature registry, Model registry and a Model marketplace.

How this will help

	Traditional Project Based Approach	Data Product Based Approach
STRATEGY	**Fragmented and disconnected projects** across the enterprise. Highlighted with Big Bang Releases	**Standardised & integrated portfolio of products** characterised with continuous delivery of value with short iterative releases
PEOPLE	**No ownership of final outcome.** Little visibility across entire outcomes from customer value to team inputs	**Empowered with ownership and accountability**
PROCESS	**Process focused** with limited integrations and collaborations between business units	**Outcome and Value focused.** Performance designed for outcomes rather than a focus on activity management
PLATFORMS	**Focus on scope** with little for reusability or shared uplift across other projects	**Focused on increasing value of technology** reusable components, codes and utilities

Enterprise AI Adoption: Culture & Adoption

Innovation With AI Is An Iterative Continuous Process

What good looks like

Continuous Innovation

IDEATE — Tech / Industry trends, Research, Hackathons, Internal idea management, Crowdsourcing, Open Innovation

Assessment

PRIORITISE — Qualify

EXPERIMENT — Confirm ideas attractiveness & validate feasibility through MVPs

Co-Creation

G1

MVP — Expand

DEPLOYMENT

G2

Industrialisation

Launch

G3

Monitor

OPERATE

MLOps

Data Literacy

Self Service

Data Assets & Algorithms

Change Management

Considerations

- A culture of continuous iterative innovation

- Effective change management process to ensure smooth transitions to an AI based system.

- AI/ML/Generative AI is widely adopted and embedded in the operations of how enterprise collects, processes, analyses and derives intelligence from its data.

- A strategic framework is adopted to scale AI/ML operations – from POC to production – and mobilise data citizens.

- - ideate & prioritise, experiment & MVP, deploy & operate
  - solutioning envisioning workshops

- Implement MLOps / LLOps for streamlining and automating the ML lifecycle

- Lower cost of innovation

How this will help

Data-driven Organisation

Sharing, Collaboration & Transparency

Business Agility & Responsiveness

Focus On Measurable Business Impact

Failing Slow

Redundancy

Resource Wastage

Time Delays

Siloed Experiments

Group Discussion Question

In the context of AI-driven change, cultural adoption is the most crucial element for effective AI Adoption.

How can leaders, practitioners, business all collaborate to foster a culture of data literacy and cultural adoption within their enterprises?

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Culture & Adoption

Product & Services

Technology & Data

Strategy & Process

Thank You

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