# INFOSYS
# APPLIED AI
# CLOUD

Digital giants as well as new-age AI startups and innovators have been harnessing the power of data and growing their AI investments to offer cutting-edge experiences. To take their initiatives to the next level, they need to reimagine their processes and capabilities. This requires bringing AI to the core of their digital and cloud acceleration initiatives.

However, the shift involves unique and multiple complexities. Many enterprises struggle to integrate AI with their core activities. Scaling and democratizing AI efficiently across organization, deploying cognitive intelligence in an ethical, explainable manner, and retraining the workforce constitute other challenging tasks.

As incumbents find ways to expand their AI pilots to improve customer experience and processes, they discover more ways in which AI can be applied along the value chain. Now, more than ever before, enterprises find themselves at an inflection point to build, scale, and future-proof their AI-power advantage.
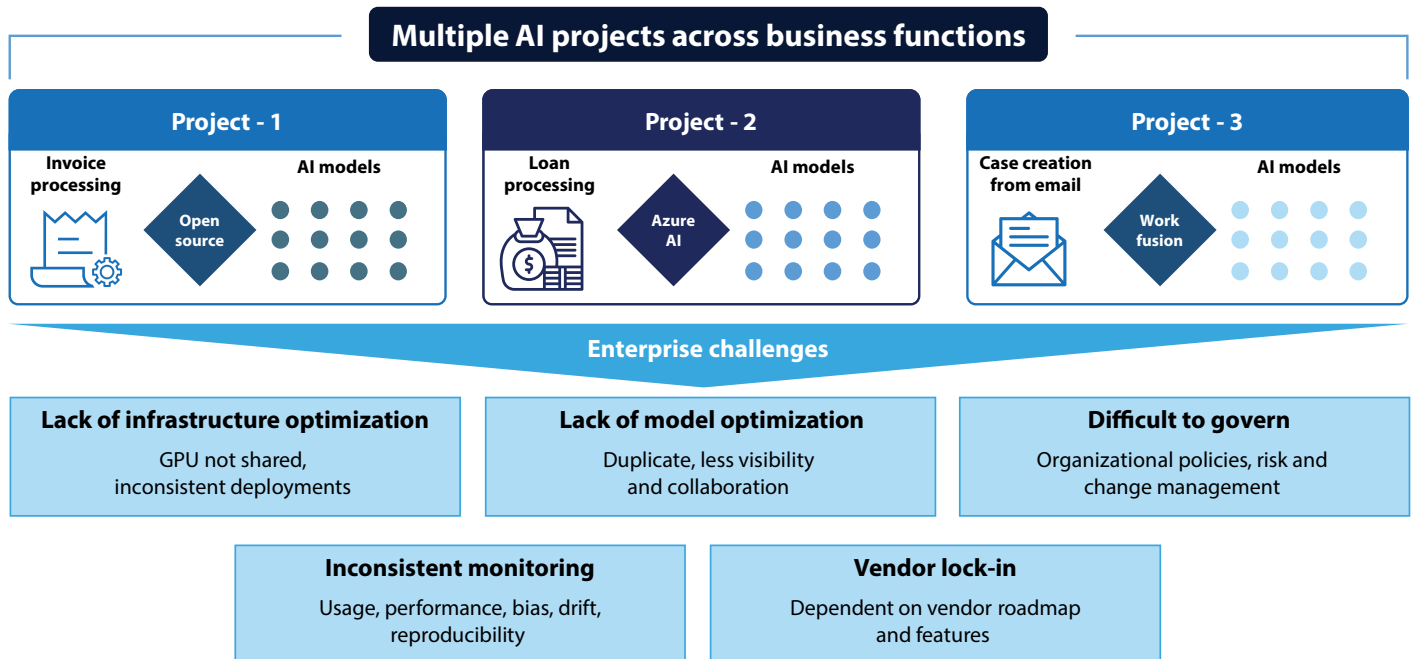
## Challenges in Scaling AI Enterprise-wide

Today, enterprises are leveraging AI mostly in isolated pockets where different business functions take a piecemeal approach to develop their own AI models. Hence solution architects tend to focus on fulfilling the requirements of individual projects and miss the bigger picture. (See Figure 1)

Existing siloed systems make it difficult for organizations to adopt AI best practices and hence limit the effectiveness of the technology. Further, these structural barriers slow down

organizations' efforts to keep pace with technological change. These difficulties have prevented enterprise AI from scaling well, working across business functions, and reacting quickly to fast-changing markets.

To ensure that the next-generation AI proves transformational, companies need to invest in centralized platforms that can grow and learn from all the business data rather than deploying multiple models that work in isolation.



**Multiple AI projects across business functions**

| Project - 1 | Project - 2 | Project - 3 |
| --- | --- | --- |
| Invoice processing — Open source — AI models | Loan processing — Azure AI — AI models | Case creation from email — Work fusion — AI models |

**Enterprise challenges**

| Lack of infrastructure optimization | Lack of model optimization | Difficult to govern |
| --- | --- | --- |
| GPU not shared, inconsistent deployments | Duplicate, less visibility and collaboration | Organizational policies, risk and change management |

| Inconsistent monitoring | Vendor lock-in |
| --- | --- |
| Usage, performance, bias, drift, reproducibility | Dependent on vendor roadmap and features |

# Our Three-pronged 'Achitecture First' Approach

Through our diverse engagements with clients, we have discovered that the most effective reference architecture needs to be supported by three strong pillars:
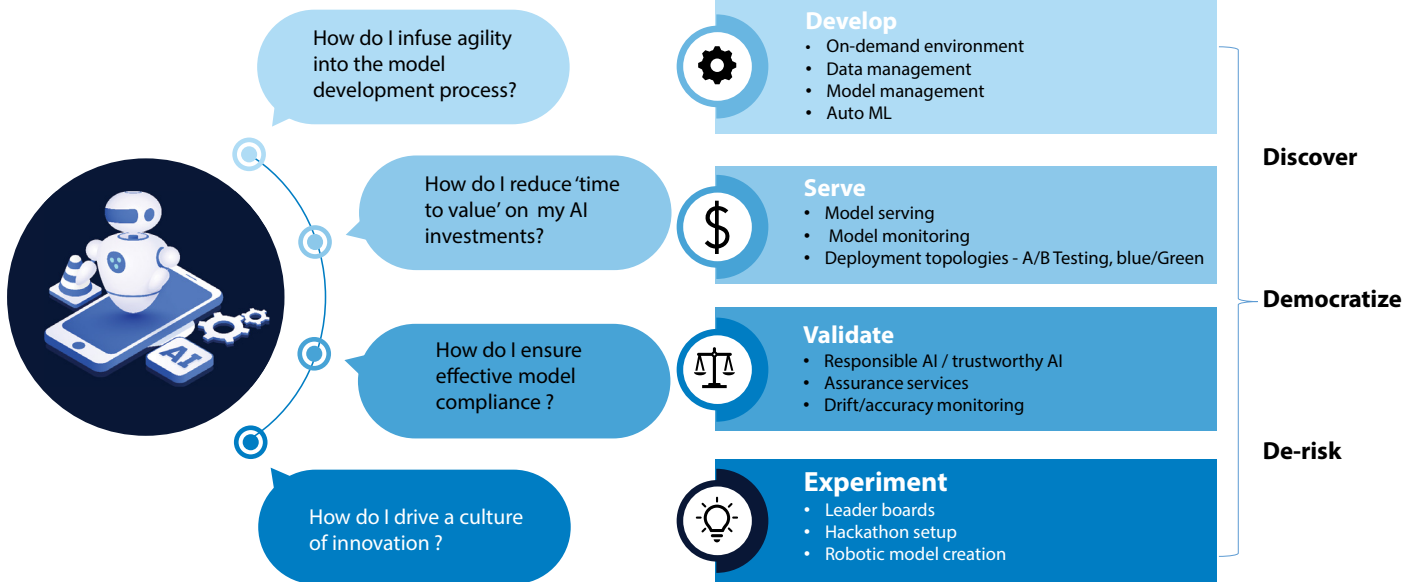
- Layered architecture to future-proof the AI

- Crowdsourcing to democratize the technology

- Cloud-native agile systems to scale AI enterprise-wide

Our 'Architecture First' approach in building your AI platform ensures that the scaling of AI is completely aligned with your company's business goals. With cloud-native and agile methodologies, the platform retains the nimbleness of AI development, remains equipped to accommodate future technology upgrades and is free of vendor limitations.

With this effective approach, Infosys Applied AI Cloud helps enterprises accelerate AI democratization by providing AI engineering, technology, and industry-specific services.

## Our Offering

**AI Factory approach to …..**

How do I infuse agility into the model development process?

How do I reduce 'time to value' on my AI investments?

How do I ensure effective model compliance ?

How do I drive a culture of innovation ?

**Develop**
- On-demand environment
- Data management
- Model management
- Auto ML

**Serve**
- Model serving
- Model monitoring
- Deployment topologies - A/B Testing, blue/Green

**Validate**
- Responsible AI / trustworthy AI
- Assurance services
- Drift/accuracy monitoring

**Experiment**
- Leader boards
- Hackathon setup
- Robotic model creation

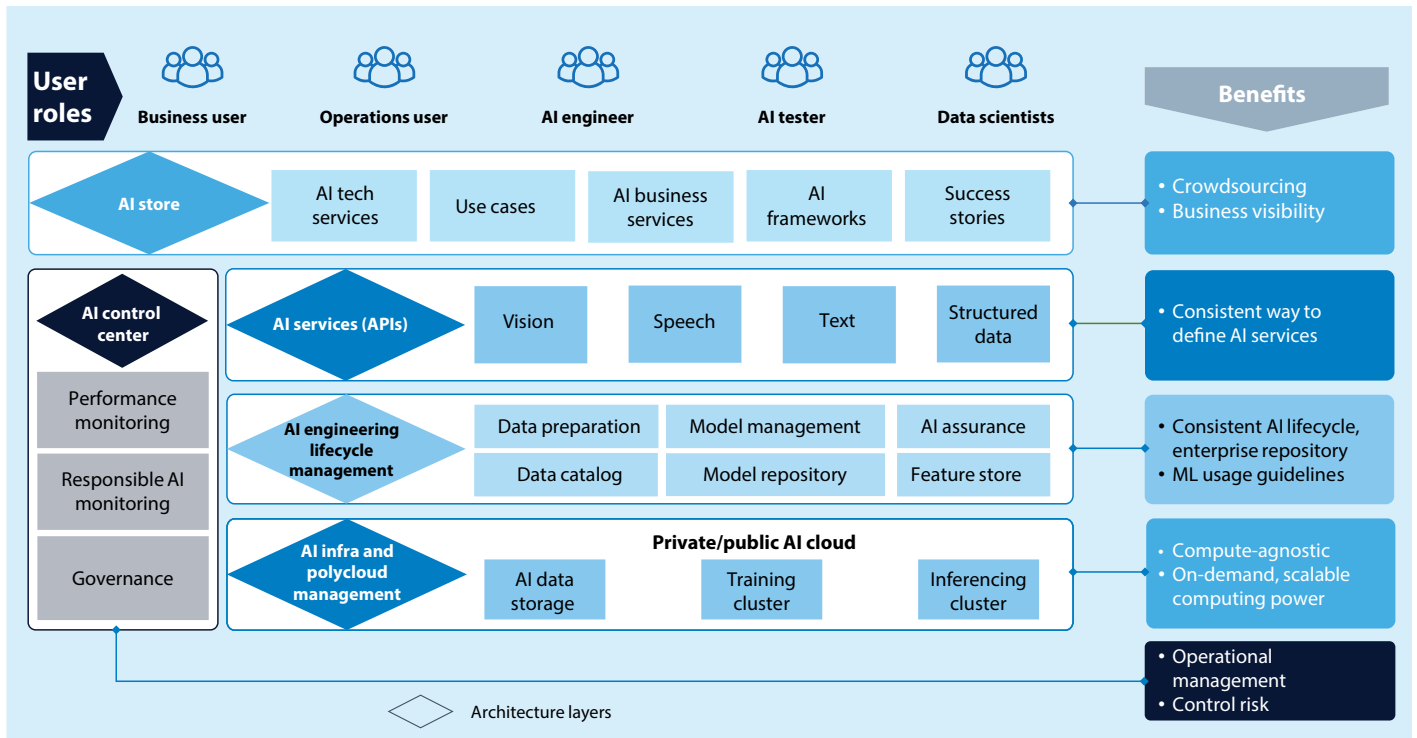**Discover**

**Democratize**

**De-risk**

# Maximize Business Value with Infosys Applied AI Cloud

Infosys Applied AI merges the power of AI, cloud and analytics to maximize value for businesses through 'AI from incubation to industrialization'. It addresses real-world problems of your business and creates material impact through adoption at scale. With this offering, enterprises can easily access, deploy, and contextualize services from Infosys Applied AI Cloud.
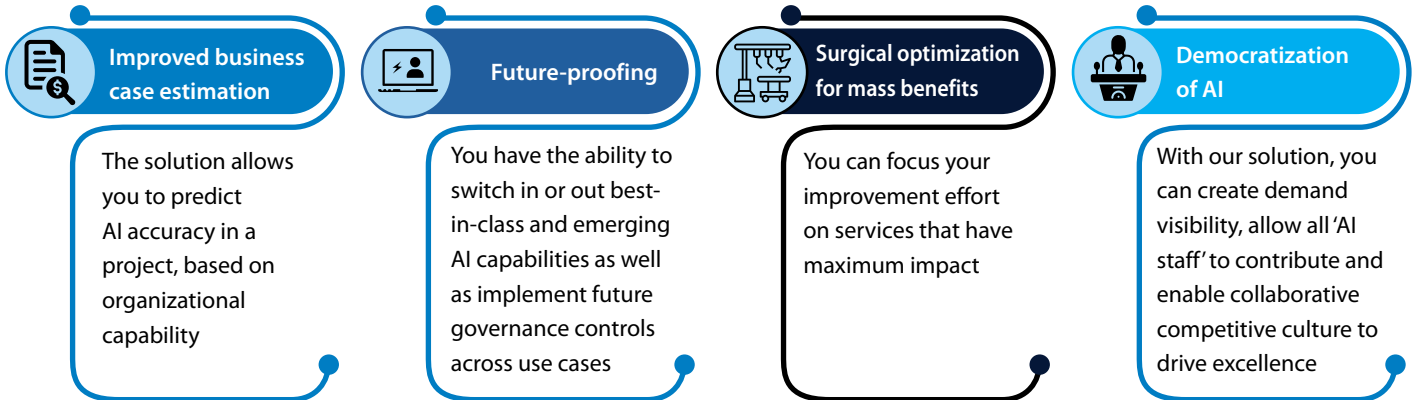
We have created reference architecture to help you build your own AI cloud, access open-source AI software-as-a-service on your hybrid cloud infrastructure and harness cutting-edge AI capabilities. The solution includes pre-trained language models using GPT J/Co-Pilot/Codex models which are designed on billions of parameters. A library of cognitive business services, models, datasets, open-source based frameworks, tools, and platforms drive grass-roots innovation and ensure a future-proof AI stack developed in a responsible manner.

The reference architecture of Infosys Applied AI Cloud future-proofs your AI investments, allowing you to leverage the best of open-source and proprietary technology in the world.

| User roles | | | | | | Benefits |
|---|---|---|---|---|---|---|
| | Business user | Operations user | AI engineer | AI tester | Data scientists | |
| **AI store** | AI tech services | Use cases | AI business services | AI frameworks | Success stories | • Crowdsourcing<br>• Business visibility |
| **AI control center** | **AI services (APIs)** | Vision | Speech | Text | Structured data | • Consistent way to define AI services |
| Performance monitoring | **AI engineering lifecycle management** | Data preparation | Model management | AI assurance | | • Consistent AI lifecycle, enterprise repository<br>• ML usage guidelines |
| Responsible AI monitoring | | Data catalog | Model repository | Feature store | | |
| Governance | **AI infra and polycloud management** | **Private/public AI cloud** | | | | • Compute-agnostic<br>• On-demand, scalable computing power |
| | | AI data storage | Training cluster | Inferencing cluster | | |
| | | | | | | • Operational management<br>• Control risk |

◇ Architecture layers

# Harness the Power of AI

**Improved business case estimation**

The solution allows you to predict AI accuracy in a project, based on organizational capability

**Future-proofing**

You have the ability to switch in or out best-in-class and emerging AI capabilities as well as implement future governance controls across use cases

**Surgical optimization for mass benefits**

You can focus your improvement effort on services that have maximum impact

**Democratization of AI**

With our solution, you can create demand visibility, allow all 'AI staff' to contribute and enable collaborative competitive culture to drive excellence

## Our AI Success Stories

A large US-based telco used Infosys Applied AI Cloud to successfully build a self-service AI platform that allows hosting business AI apps, collaboration, democratization, and abstraction of technology. They deployed 100+ use cases into production and built 1000+ models.

A US-based telco has set up and scaled their machine learning operations (ML Ops) platform as well as capabilities to productionize ML use cases. The company finalized their future state AI architecture and created an ML Ops playbook.

A Europe-based energy company has succeeded in migrating and scaling their quantitative models into a robust ML Ops production platform on Azure. They also completed their first edge device implementation for one of their video/image ML models.

A US-based financial company has been effectively driving an enterprise document digitization program. They increased adoption and scale using our AI platform to manage multiple roll-outs across geographies.

# Leverage the Value of Enterprise AI

AI technology with its immense, and almost unlimited, potential has driven many enterprises to rush and deploy a medley of AI models, often triggering chaos in the organization. The right approach to benefit from the power of AI is to focus on the architecture and not lose sight of the bigger picture. Infosys Applied AI Cloud enables you to drive the AI evolution at the enterprise level through a centralized platform, capable of expanding and learning from all your business data. It empowers your business with these unique AI capabilities:
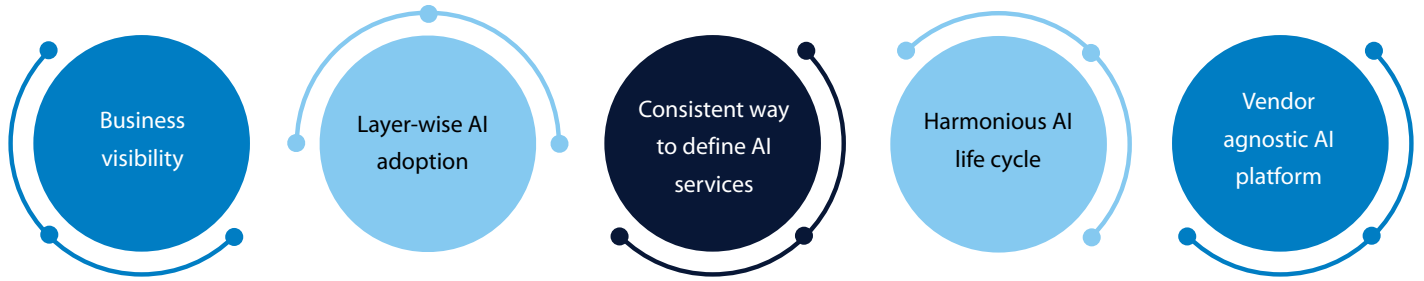
- Business visibility
- Layer-wise AI adoption
- Consistent way to define AI services
- Harmonious AI life cycle
- Vendor agnostic AI platform

For more information, contact askus@infosys.com

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