



# AI/ML Maturity Model

Cognizant's AI/ML Maturity Model is a transformative framework designed to elevate an organization's AI and machine learning capabilities. Our model seamlessly blends advanced technical expertise with critical organizational change management strategies, fostering a culture of AI excellence. This comprehensive approach empowers you to unlock the true potential of AI across your entire enterprise.

## Model overview

Cognizant's AI/ML Maturity Model is a game-changing framework meticulously crafted to provide organizations with a blueprint for driving not only technical prowess but also transformative change. It delves deep into key pillars of AI maturity, touching upon data strategy, model development, infrastructure scalability, talent cultivation, ethical compliance, business integration, innovation, continuous improvement, advanced analytics and data dependencies. By traversing these pillars, businesses can holistically evaluate their AI readiness and pave the path to AI excellence that extends beyond traditional technical domains.

## Common pain points and challenges in AI adoption

- **Understanding the baseline:** Knowing what data is available to a particular organization, along with its limitations and data gaps, can help in devising strategies and solutions that will advance the strategic goals of the company.
- **Inadequate data strategy and governance:** Rudimentary data strategies often result in suboptimal data quality, privacy concerns and inadequate governance mechanisms. Silos persist across business units, limiting data access.
- **Data security:** Ensuring that the data is secure at rest and in transit can be a challenge for an organization, especially if this data is confidential and should only be accessible to a limited set of eyes.
- **Model development limitations:** A common challenge is the reliance on basic machine learning models, hampering the adoption of advanced frameworks. Hyperparameter tuning, optimization and CI/CD are often neglected.

- **Infrastructure scalability and disaster recovery:** Inefficiencies in resource allocation and a lack of comprehensive disaster recovery strategies hinder scalability. A broader data-dependent perspective is required.
- **Talent and skills shortage:** A shortage of AI/ML experts within the organization is a significant barrier, and extending AI capabilities beyond technical teams is challenging.
- **Ethical compliance and data governance:** Addressing fairness, bias mitigation, ethical guidelines and transparency is complex, and requires a holistic approach.
- **Business integration and data dependencies:** Integrating AI into core processes and measuring ROI require cross-functional collaboration and AI democratization. Data access must be evaluated for adaptability and fitness for purpose.
- **Innovation and research:** Nurturing AI talent, investing in R&D, forming partnerships, patenting innovations and proactively adopting emerging AI technologies are of paramount importance.
- **Continuous improvement and data access:** Enabling robust post-implementation reviews, monitoring AI system health, conducting technology audits and ensuring data availability across the organization are essential.
- **Advanced analytics:** Leveraging advanced diagnostic, predictive and prescriptive analytics can significantly impact data-driven decision-making.

## Benefits and opportunities of this model

- **Data strategy and governance:** A sophisticated data strategy enables robust data quality, privacy and governance—breaking silos and fostering cross-organizational data availability and access.
- **Model development:** Utilizing advanced frameworks, automated hyperparameter tuning and implementing CI/CD pipelines ensure models that adapt to business needs.
- **Infrastructure scalability, security and data dependencies:** Highly scalable, secure and automated infrastructures with comprehensive disaster recovery ensure uninterrupted operations and break data dependencies silos.
- **Talent and skills:** By democratizing AI, organizations unlock the potential of their non-technical teams, promoting a culture of technical excellence.
- **Ethical compliance:** Establishing comprehensive ethical guidelines, addressing fairness and bias mitigation while ensuring AI governance is part of organizational DNA.
- **Business integration:** Requires integrating AI across business units and establishing data dependencies that are fit for purpose, while ensuring adaptability and escalation to fit diverse needs.
- **Innovation and research:** Investing in AI R&D, forming partnerships, patenting innovations and nurturing innovations across an organization.
- **Continuous improvement:** Through post-implementation reviews, real-time monitoring and regular technology audits, organizations ensure high AI maturity levels, addressing technical and data access maturity.
- **Advanced analytics:** Implementing advanced diagnostic, predictive and prescriptive analytics drives root cause analysis and forecasting that impacts strategic and operational decisions.

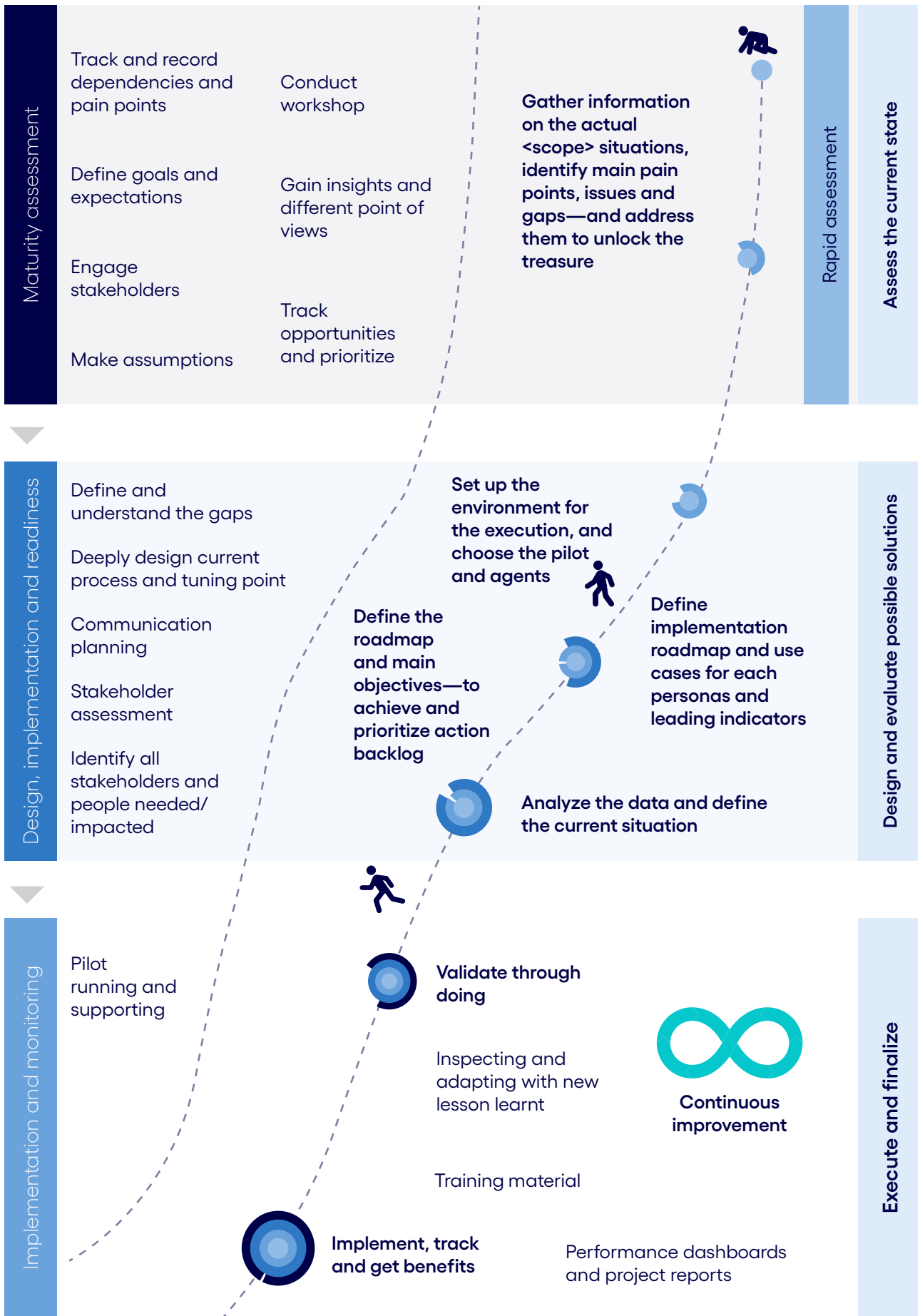


## Our approach to unlock clients' potential

We help clients unlock value within their business processes by harnessing the power of data to discover insights that will guide their transformation journey. In that sense, the maturity assessment is the first step, gathering the building blocks that indicate the current state of their processes. At the same time, we gain insights about their goals and expectations. Using this information, we provide an agile, data-driven and high-level diagnostic approach—to identify the challenges and dependencies that can impact the actions required to bridge the gap between their current situation and their desired outcomes. This is the blueprint that guides the design of the transformation roadmap.

The second stage involves detailed design for enhanced results. This includes prioritizing initiatives and establishing measurable KPIs that define the expected improvements for each project. The roadmap also requires the identification of significant milestones to track progress and the impact of the prescribed measures.

The final step is the implementation of the transformation plan while closely monitoring the deployment of each project—tracking challenges, gains and lessons learned to facilitate agility and foster a culture of continuous improvement.



Our approach to unlock all the potential value

The only way to improve in AI/ML readiness is to have an iterative approach. It involves measuring the starting point with a tailored assessment, setting goals and a vision, analyzing the assessment and data to identify gaps and recommendations, designing a roadmap and action backlog, actively supporting initiatives, measuring progress, inspecting and adapting based on lessons learned, reassessing and restarting the cycle .



Cognizant’s AI/ML Maturity Model empowers organizations to achieve comprehensive technical maturity while addressing the critical aspects of organizational change, democratizing AI across non-technical teams and breaking down silos in data availability. This comprehensive approach ensures that AI becomes an integral part of an organization’s DNA, providing an enduring foundation for excellence in the AI landscape.

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