

# 8 Steps CIOs Must Take To Transform With Artificial Intelligence

Companies across the globe are embracing artificial intelligence (AI) within their organizations — 51% of firms have already implemented or are expanding their implementation of AI. An additional 20% plan to implement AI in the next 12 months. However, to ensure success and mitigate the risks, CIOs must take the lead and engage the lines of business on their AI initiatives, modernize IT, and ultimately drive the AI agenda.

CIOs are optimally positioned to build the organization's overall AI capabilities as the data, applications, server, accelerator, fabric, and storage infrastructures that they manage are critical for driving business value with AI. However, their IT teams will need to transform. CIOs need to invest in new software applications, infrastructure, and platforms necessary for AI, and modernize existing systems to better support the increasing number of AI initiatives. Simultaneously, they must track the business outcomes AI is driving, to sustain and grow further investments in AI.

Dell EMC commissioned Forrester Consulting to examine AI and its impact on the IT teams, technologies, and processes within their IT transformation efforts. Forrester conducted a global online survey with 353 respondents with decision-making responsibility for AI technologies to explore this topic.

**This checklist is designed to help CIOs lead the AI strategy to drive business outcomes and reduce risk across the enterprise.**



## METHODOLOGY

Dell EMC commissioned this study to examine AI implementation plans and understand the impact these plans have on IT infrastructure modernization.

To achieve these objectives, Forrester conducted an online survey with 353 enterprise IT and business management decision leaders in North America, EMEA, and Asia Pacific.

# Become the nexus for AI initiatives across the enterprise.

*Take stock of ongoing AI initiatives, learn from them, and shape them into a cohesive and transparent AI program.*



## 1. ENGAGE THE LINES OF BUSINESS ON THEIR AI NEEDS

- › **Take stock.** Lines of business completely bypass IT departments 15% to 20% of the time on their AI initiatives. Start assimilating ongoing AI projects into IT processes, assess the capabilities that have been developed, and engage business units on their AI goals, challenges, and unmet needs.
- › **Earn your seat at the table.** Embrace the lines of business' momentum and learn from their progress. Leverage your central point of visibility within the organization to provide transparency to the rest of the business on the full suite of AI initiatives. Disseminate knowledge synthesized from each of these initiatives and continuously challenge yourself to understand the new applications of AI — and the vendors developing these solutions — and how they can impact your enterprise.
- › **Shape your company's AI initiatives.** Leverage your vantage point to become the bridge between stakeholders to reduce silos, and coordinate the investment, energy, and development of AI. Use this role to proactively drive AI conversations throughout your company. Become the trusted partner on AI initiatives not just by listening to the lines of business' AI needs and desires, but by investing your budget into meeting those needs.



## 2. START MEASURING AI'S IMPACT AND TRACK ITS PROGRESS

- › **Identify, study, and track the key performance indicators (KPIs) that matter most to your company, as they are impacted by AI initiatives.** These metrics will serve as a common language to assess and justify AI initiatives across the enterprise.

# Modernize and automate your infrastructure.

*Improve operational efficiency and invest in the new infrastructure and technologies needed for AI.*

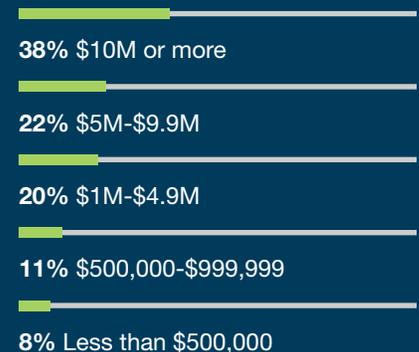


## 3. MODERNIZE YOUR INFRASTRUCTURE FOR EXISTING WORKLOADS

- › **54% of firms reported that antiquated software was a challenge in driving their AI initiatives.** Begin to move off costly legacy technologies that cannot be upgraded to ones that can grow and scale with your business. Between half and three-quarters of firms found their AI initiatives challenged by a lack of automation; an estimated 73% of tech spend is going to keeping the lights on.<sup>1</sup> Invest in automation and self-service to free up the resources that you will need to support new AI initiatives.

51% of companies with an average spend of \$36M in AI expect an ROI of up to 5 times their AI investment.

### Expected ROI or business value delivered by AI investments



Base: 302 global IT management and line-of-business leaders driving AI projects  
Source: A commissioned study conducted by Forrester Consulting on behalf of Dell EMC, January 2018

- › **Modernize your data management technologies, simultaneously.** Data is the foundation for successful AI strategies — ensure that your data integration, database, and data warehouses are ready to power your AI initiatives.

#### ✓ 4. DEPLOY PLATFORMS FOR BUILDING AI SOLUTIONS

- › **Deploy platforms that can enable multiple lines of business to build AI solutions and leverage components from each other's solutions.** For example:
  - › Deploy predictive analytics and machine learning platforms that enable data engineers and data scientists to collaborate on models and data pipelines across teams, and streamline the provisioning of infrastructure to train, deploy, and manage their models in production.
  - › Deploy text analytics, natural language processing, and speech analytics platforms that can be applied to use cases ranging from customer service, marketing, sales, and R&D.
  - › Standardize on virtual agent frameworks that support the creation of chatbots for both internal (such as HR) and external (such as customer service and sales) use cases.

#### ✓ 5. INVEST IN INFRASTRUCTURE FOR AI AT SCALE

- › **Invest in the infrastructure hardware required for successful AI transformation.** Machine learning, and especially deep learning, require a new level of computational horsepower, as well as high-bandwidth, low-latency networking and storage.
- › **61% of firms surveyed are challenged by a lack of servers with purpose-built processors like GPUs and FGPA.** 81% pointed to the need for new servers for high-performance computing. 80% noted the need for accelerators to cut down model training times from days and weeks to minutes and hours. The demand for upgraded infrastructure will only continue to intensify as enterprises deploy more AI building blocks. CIOs must invest now in highly scalable, high-performance computing servers with accelerators to support the AI demands of the business.

## Lead the charge on driving business outcomes with AI.

*Champion ongoing AI initiatives, support them internally, and initiate new projects for driving value with AI. Start with projects that have mature use cases and a proven ROI.*

#### ✓ 6. TAKE CHARGE OF THE COMPANY'S AI STRATEGY

- › **As you embed yourself as an integral partner on AI initiatives, take responsibility for driving the overarching AI strategy for the company.** Ultimately, the successes — or failures — of your company's AI ventures will fall on your shoulders, whether you started the AI project or a business unit did.

**“Which of the following benefits have you achieved or do you anticipate to achieve as a result of your IT infrastructure modernization investments?”**

(Percent represents a rank of 1-5 for each item)

**30%** Faster customer response times leading to better customer experiences

**29%** Real-time processing

**27%** Increased control over compute workloads

**25%** Lowered our dependency on legacy infrastructure

**24%** Improved reliability and redundancy

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## 7. BUILD THE IT DEPARTMENT — AND THE COMPANY'S — AI CAPABILITIES SIMULTANEOUSLY

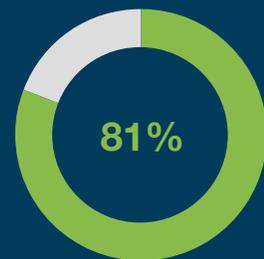
- › **Assess AI projects you can support effectively.** Begin with technologies that have well-defined use cases, a proven ROI, and relatively mature commercial solutions.
  - › Increase the scale of robotic process automation projects to maximize operational efficiencies in IT processes and leverage this expertise to help internal stakeholders automate their business processes.
  - › Deploy internal chatbots to drive productivity for shared services functions (e.g., alleviating HR and accounting inquiries). Then, leverage that learning to build external chatbots that can increase the productivity of sales and customer service teams.
  - › Deploy new machine learning-based text and speech analytics platforms to help customer care, sales, marketing, and product teams extract new, valuable customer insights.
  - › Help stakeholders select and implement off-the-shelf AI solutions for their domains, where available. For example, help marketing adopt a social listening platform that leverages image analytics for brand insights and to better target marketing spend.
- › **Use the KPIs you identified at the onset to track and broadcast AI efforts across the company to keep senior leadership — and other stakeholders — apprised.** It is particularly important to track the business outcomes that the IT team helps drive across the company to spark a virtuous cycle of business value and further investment. The IT department will not be able to sustain ongoing support for AI initiatives without recognition of the value it is creating and with a clear, ongoing case for allocating resources to AI projects.
- › **Build capability in IT with data science, data engineering, DevOps, and developer skills necessary to build these solutions.** Guide them toward the most valuable, tractable problems. For example:
  - › For IT, build predictive models to improve IT operations. For instance, predictive maintenance, application performance, and security are excellent areas to evaluate.
  - › Outside of IT, leverage these teams to improve sales and customer attrition with predictive analytics algorithms for lead scoring and risk scoring. Help marketing and customer care with new customer insights from unstructured data, and enable operations with better models for inventory management and predictive maintenance.
- › **Make sure that the platforms and infrastructure are in place to put these models into production (see 4 and 5), all the while.**

### AI requires specialized infrastructure

Agree AI data integration pushes infrastructure needs.



Agree AI drives modernization of servers and high-performance computing.



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## 8. CONTINUOUSLY BUILD THE BUSINESS CASE FOR FURTHER AI INVESTMENTS

- › **Identify, study, and track the business performance metrics that matter most to your company on an ongoing basis — especially as they are impacted by AI initiatives.** Proving the positive impact of AI to the business will drive increased investment. This will build a virtuous circle of increased investment, which will in turn drive more value with AI. With meticulous tracking and reporting, the business case for AI investments will be impossible to ignore.
- › **Regularly scan for new business opportunities — find new investments, before the lines of business even know about them.** Our study found that more mature organizations invest more and get more in return. For instance, approximately half of businesses with an average spend of \$36M in AI expect an ROI of 2-to-5 times their AI investment. Be ready to invest significant portions of the IT budget into new endeavors; it won't be cheap, but the CIO must drive these new investments and put the priorities of the business as a whole above those of the IT department.

## Endnotes

<sup>1</sup> Source: “Forrester: The Global Tech Market Outlook For 2018 To 2019,” Forrester Research, Inc., January 5, 2018.

To read the full results of this study, please refer to the Thought Leadership Paper commissioned by Dell EMC titled “CIOs Need To Take The Lead On AI For Transformational Outcomes Across The Company”

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