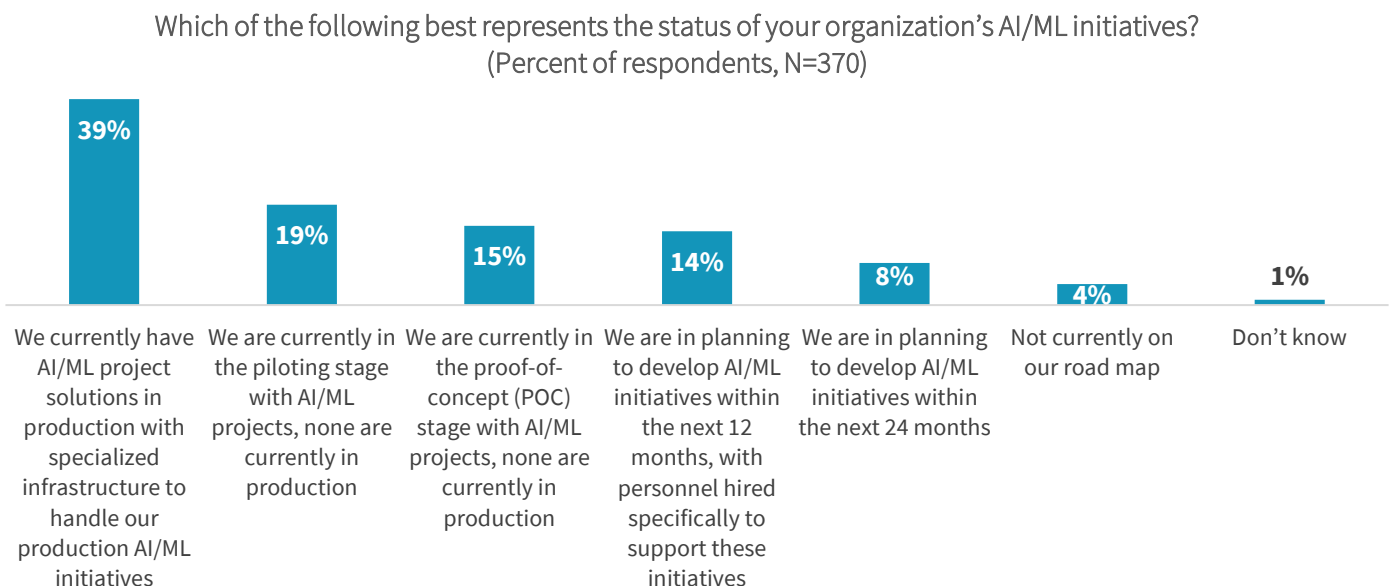## ESG BRIEF

AI Adoption Trends

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ABSTRACT: While AI is still considered nascent, the impact it is having on organizations that are embracing it early and often is profound. This serves as a key component to why organizations continue placing bets on AI. Even as skills gaps remain when it comes to incorporating AI into the business, organizations simply cannot afford to wait in adopting the technology as they risk being disrupted by the competition using AI today. With the rise of AI tools that simplify and automate several, if not all aspects of the AI lifecycle, expect adoption of AI to continue exploding for years to come.

The Status of AI Initiatives

Whether turning to AI to provide more predictive insights into future scenarios/outcomes or developing AI-based products and services to capture new revenue opportunities, businesses are continuing to emphasize the importance of AI adoption as a game-changer for the modern business. ESG recently completed a survey on AI initiatives and the underlying modern infrastructure stack. The survey was completed by 325 IT professionals at midmarket (i.e., 500 to 999 employees) and enterprise (i.e., 1,000 or more employees) organizations across North America (United States and Canada).[1] As part of this research, ESG sought to understand current adoption trends of AI. According to Figure 1, nearly four in ten (39%) organizations currently have AI project solutions in production with specialized infrastructure to handle their production AI initiatives. Organizations want smarter and faster ways to gain value from their data, so it comes as no surprise that nearly another half are either currently in the piloting stage with AI projects (19%), in the proof-of-concept stage with AI projects (15%), or planning to develop AI initiatives within the next 12 months (14%).

**Figure 1. Nearly 4 in 10 Organizations Have AI Projects in Production**

Which of the following best represents the status of your organization's AI/ML initiatives?
(Percent of respondents, N=370)

We currently have AI/ML project solutions in production with specialized infrastructure to handle our production AI/ML initiatives	39%
We are currently in the piloting stage with AI/ML projects, none are currently in production	19%
We are currently in the proof-of-concept (POC) stage with AI/ML projects, none are currently in production	15%
We are in planning to develop AI/ML initiatives within the next 12 months, with personnel hired specifically to support these initiatives	14%
We are in planning to develop AI/ML initiatives within the next 24 months	8%
Not currently on our road map	4%
Don't know	1%

Source: Enterprise Strategy Group

[1] Source: ESG Master Survey Results, *Supporting AI Initiatives with a Modern Infrastructure Stack*, May 2021.

The Immaturity of AI

While AI has been discussed for several years, AI environments are still evolving and, for many organizations, relatively new. In fact, nearly three-quarters (73%) of organizations currently using AI have only had the environment in place within the last 9 months (see Figure 2). Very few (11%) have had the environment in place for longer than a year. Moreover, the estimated mean amount of time that these organizations have had their infrastructure to support the development, training, testing, and tuning of machine learning models is 8.5 months. Most organizations simply have not had the technology in place long enough to leverage its full capabilities, never mind see the game-changing value promised to them. As organizations look to move from fulfilling a certain function or satisfying an initial use case to more pervasive adoption across the business, expect confidence to grow in AI throughout the business as organizations continue to place data at the heart of business evolution and modernization.
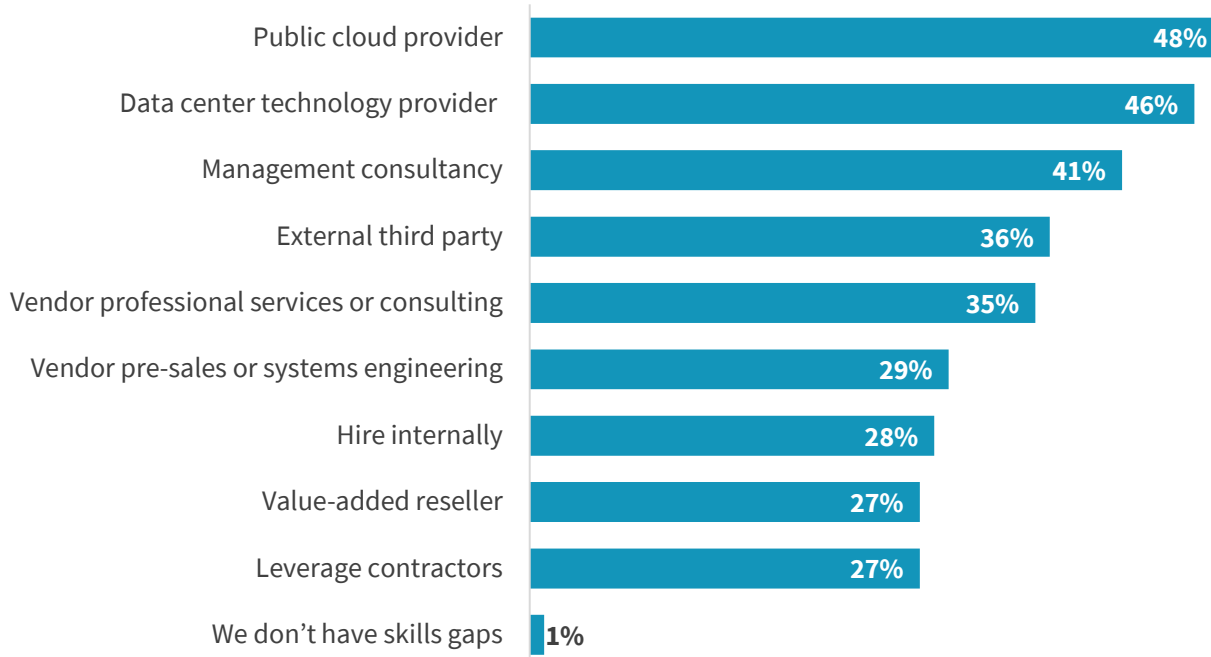
Figure 2. AI Environment Maturity

You indicated that you currently use AI within your organization and have a specific infrastructure to support the development, training, testing, and tuning of machine learning (ML) models. How long has this environment been in place? (Percent of respondents, N=146)
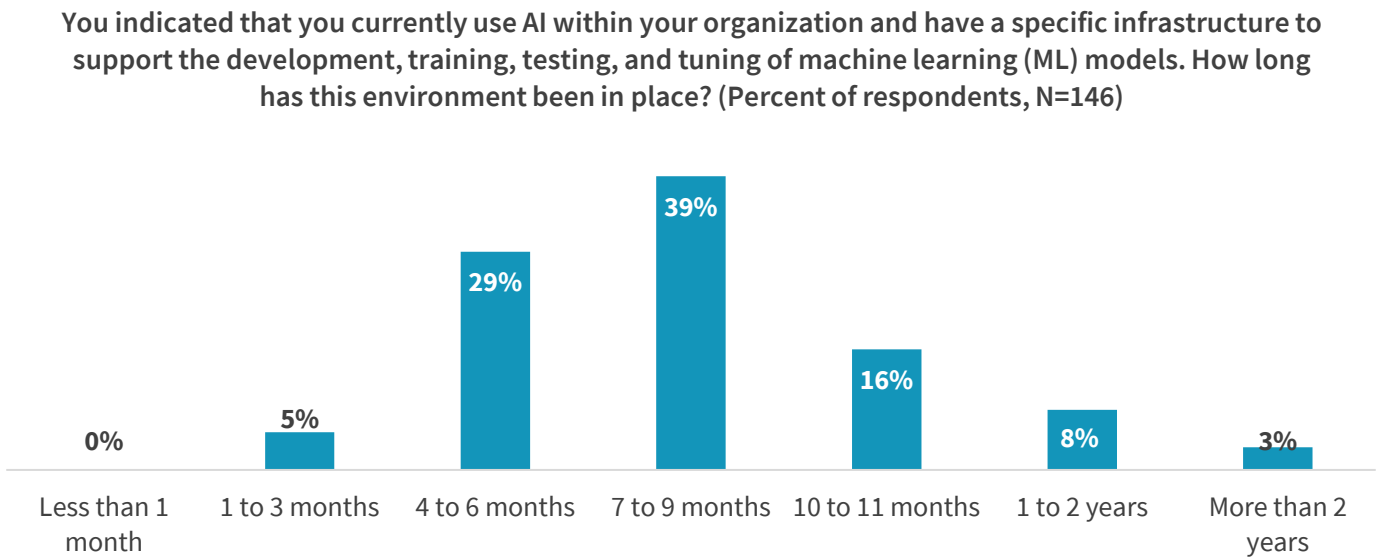
Source: Enterprise Strategy Group

Addressing AI Skills Gaps

Understanding AI skills gaps are ever present, respondents were asked about how their organization plans to address skills gaps and where they are turning for help in the selection, implementation, and management of infrastructure supporting AI technologies. According to Figure 3, organizations are planning on leveraging public cloud providers (48%), data center technology providers (46%), and management consultancy (41%). As organizations recognize the importance of a tightly integrated and optimized AI infrastructure, including both hardware and software, they are arming themselves with more resources from several third-party entities to not only close gaps in their workforce but also more quickly ramp up AI initiatives. This is part of the reason that managed services are becoming more common than ever before. Rather than focusing on building and maintaining infrastructure, managed services are delivering significant advantages by enabling higher levels of productivity, effectiveness, and time management for the overburdened AI experts of the business.

Figure 3. Addressing AI Skills Gaps

How is your organization planning to address any skills gaps or help needed regarding the selection, implementation, and/or management of infrastructure supporting its AI technologies? (Percent of respondents, N=325, multiple responses accepted)

Category	Percent
Public cloud provider	48%
Data center technology provider	46%
Management consultancy	41%
External third party	36%
Vendor professional services or consulting	35%
Vendor pre-sales or systems engineering	29%
Hire internally	28%
Value-added reseller	27%
Leverage contractors	27%
We don't have skills gaps	1%

Source: Enterprise Strategy Group

The Bigger Truth

The AI space continues to grow, and the fear of missing out is pushing organizations to rapidly invest in and expand the way AI can help the business evolve with differentiable and customized value. As technology vendors continue to offer products and services that simplify all aspects of the AI lifecycle from development to deployment, organizations will begin seeing value from their AI investments faster than ever before. Today's adoption rates and the fact that few organizations have been leveraging AI for several years highlights AI's nascency; many organizations are on the track to implement AI within the next year. As the number of organizations that utilize AI grows, the availability of use cases and underlying implementation frameworks in support of those use cases will enable businesses to have more confidence in the way they should deploy and leverage AI to support and improve the modern business.