

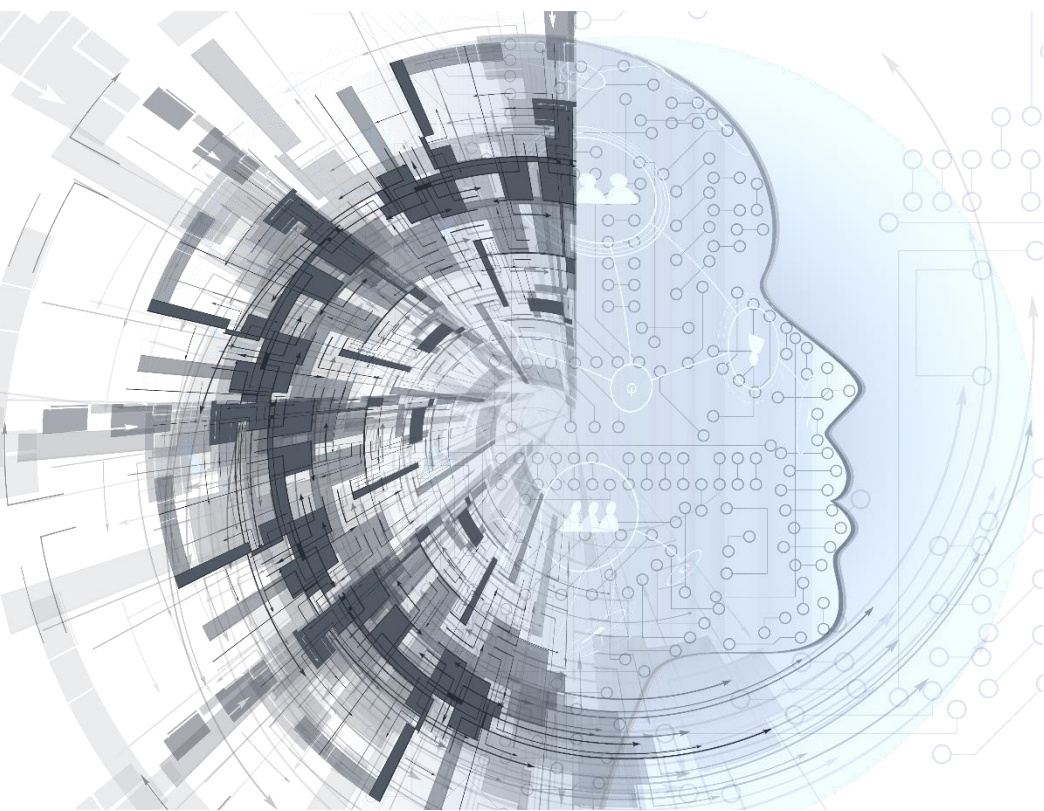
Scaling Artificial Intelligence and Machine Learning to Achieve Their Full Potential

Rohit Tandon and Stephanie Perrone Goldstein

The CIO Program

AI is inherently about augmenting humans *with* machines to reach greater heights

AI mimics the way humans perceive information, devise insights based on experience, and make decisions accordingly



OXFORD DICTIONARY DEFINITION:

ARTIFICIAL INTELLIGENCE (AI) is the theory and development of computer systems able to perform tasks normally requiring human intelligence

AI encompasses many technologies that work together to build innovative solutions that transform society and business...

Machine Learning

Natural Language Processing

Neural Networks

Virtual Assistants

Deep Learning

Predictive Analytics
Speech Recognition

Intelligent Automation

Robotics Process Automation

Unsupervised Learning

Computer Vision

It enables businesses to achieve greater value creation opportunities

AI can help surpass previously imagined value creation opportunities, by generating value across six key levers

1 Speed to Execution



2 Cost Reduction



3 Reduced Complexity



4 Transformed Engagement



5 Fueled Innovation



6 Fortified Trust



An increasing number of companies are moving from experimentation to AI at scale, increasing the lead versus late adopters

Where is your organization in your AI journey?



POLL
ACTIVITY

UNDERACHIEVERS

- **High** number of full-scale deployments but number of AI outcomes achieved is **low**

STARTERS

- **Low** number of full-scale deployments and **low** number of AI outcomes achieved

PATHSEEKERS

- **Low** number of full-scale deployments, yet **high** number of AI outcomes achieved

TRANSFORMERS

- **High** number of full-scale deployments and **high** number of AI outcomes achieved

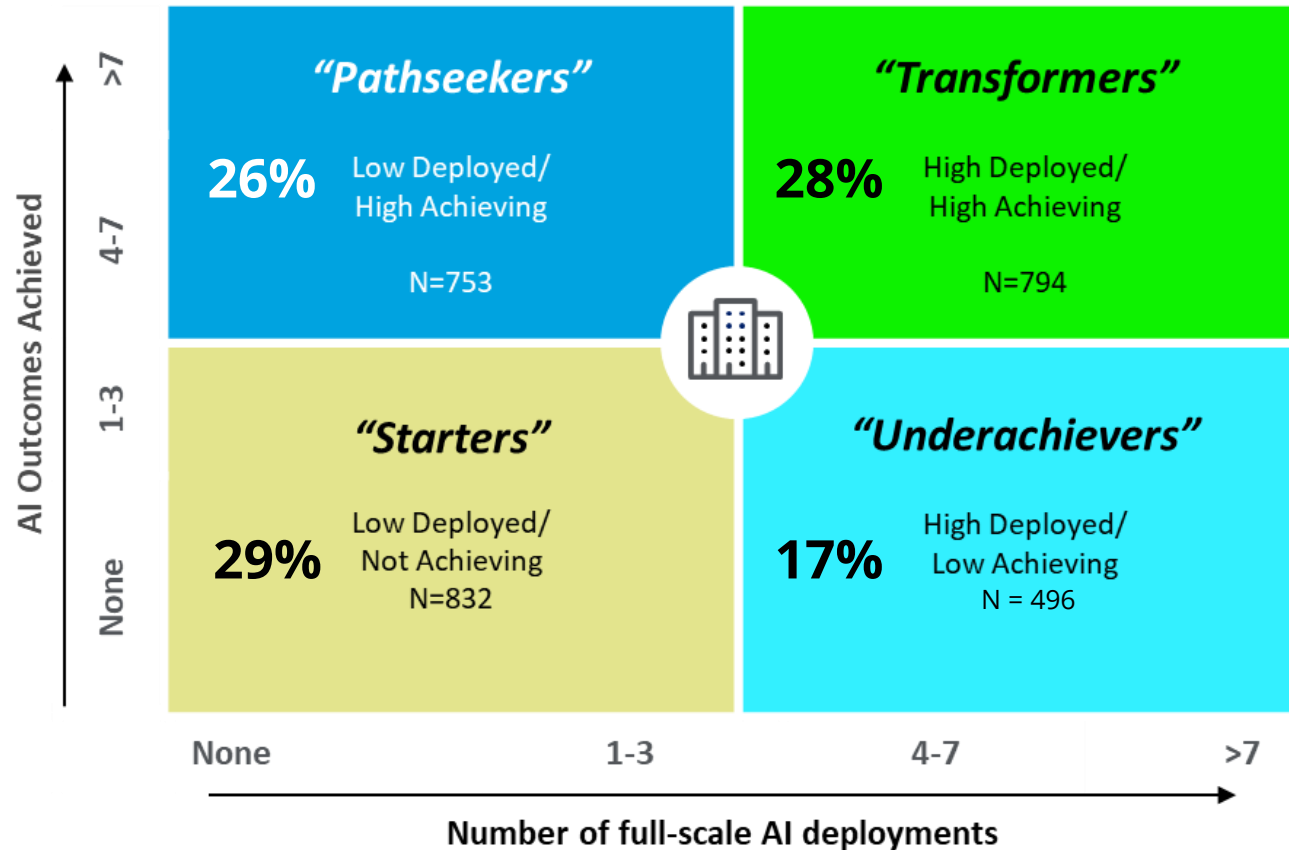
1. Survey respondents of organizations surveyed as part of State of AI in the Enterprise, 3rd Edition, Deloitte surveyed 1,900 business and IT leaders from 7 countries who are creating the future of AI in the enterprise
2. Deloitte Analysis

Results from our 2021 State of AI survey



Transformers have:

- Deployed the highest number of AI application types at full scale, and
- Achieved the highest number of AI outcomes



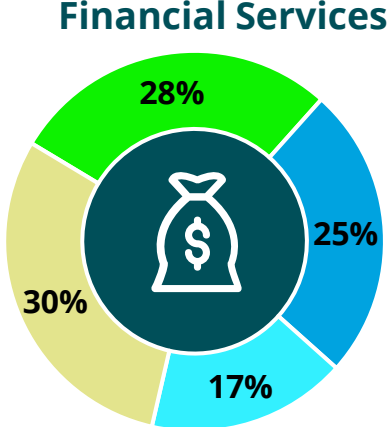
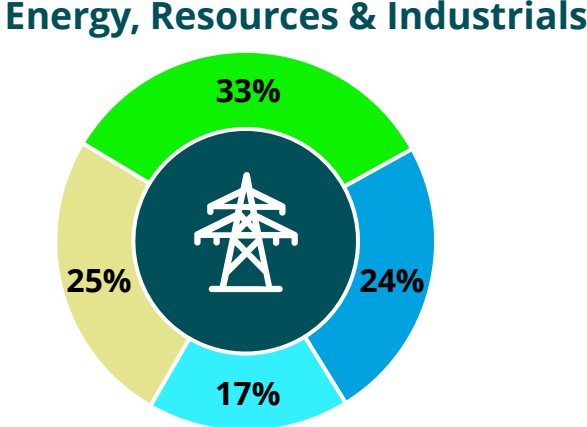
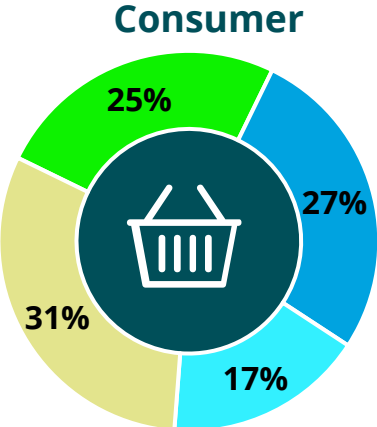
SURVEY STATS:

- 2,875** IT and line-of-business executives were surveyed between March and May 2021
- 11** Countries
- 17** Qualitative interviews with AI specialists from various industries
- All** Participating companies have adopted AI technologies and are AI users

Respondents were required to meet one criteria:

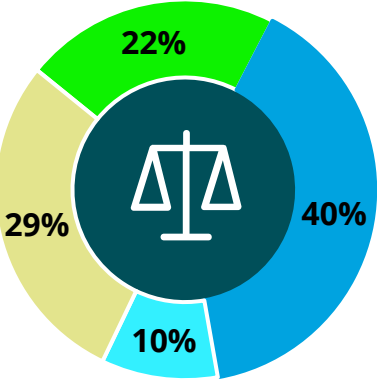
- Responsible for AI technology spending or approval of AI investments
- Developing AI technology strategies, managing or overseeing AI technology implementation
- Serving as an AI technology subject matter specialist, OR
- Making or influencing decisions around AI technology

Percentage of segments within each industry

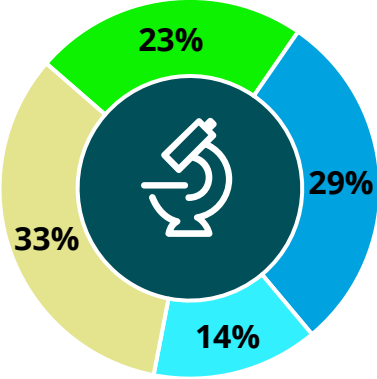


- Transformers
- Pathseekers
- Underachievers
- Starters

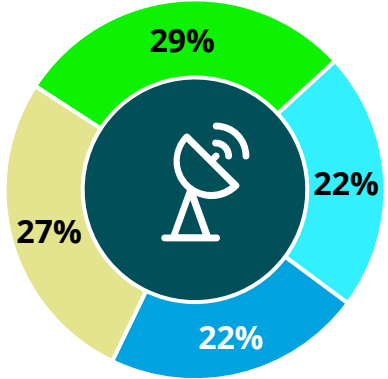
Government & Public Services



Life Sciences & Health Care



Technology, Media & Telecom



Source: State of AI in the Enterprise, 4th Edition, Deloitte

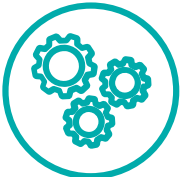
What Transformers do differently to get ahead, compared to Starters



Strategy

Transformers are...

- More than 3x as likely to have an **enterprisewide AI strategy**
- More than 2x as likely to **use AI in a differentiating way**
- More than 2x as likely to have **senior leaders that communicate a bold vision.**



Operations

Transformers are...

- Over 3x as likely to **document and enforce MLOps**
- Nearly 3x as likely to **have created new roles or changed operations to take advantage of AI**



Culture & Change Management

Transformers are...

- 2x as likely to **invest in change management**



Ecosystems

Transformers are...

- 1.4x as likely to **build diverse ecosystems relationships**

POLL ACTIVITY

87% of AI projects never make it to production due to common pitfalls:

- Challenges in Integration
- Lack of Trustworthiness & Lack of Explainable AI
- Sluggish AI Development
- Tedious Model Upkeep
- Lack of Expertise
- Limited Access to AI Assets
- Shortage of Talent
- Unclear Intended Business Value
- Tech Driven vs. Business Driven Approach
- In-House Build vs. Partner Mindset

What major challenges are you facing in implementing AI?

Select all that apply



There is no single way to adopt AI; much depends on what an organization is trying to achieve and the culture within which it operates

Consider these **high-level guidelines..**

Map use cases to pain points:

Begin by creating a portfolio of value opportunities matched to identified data bottlenecks, scaling challenges, and computing power

Monitor continuously:

Monitor demand funnel, poc/test results, model performance, ecosystem trends and resulting benefits

Establish executive alignment:

Recognize that AI models will not achieve results without the mandate that clears hurdles, and drives priorities, culture, processes and integration

Know your internal strengths:

Leverage internal strengths and identify appropriate partnerships

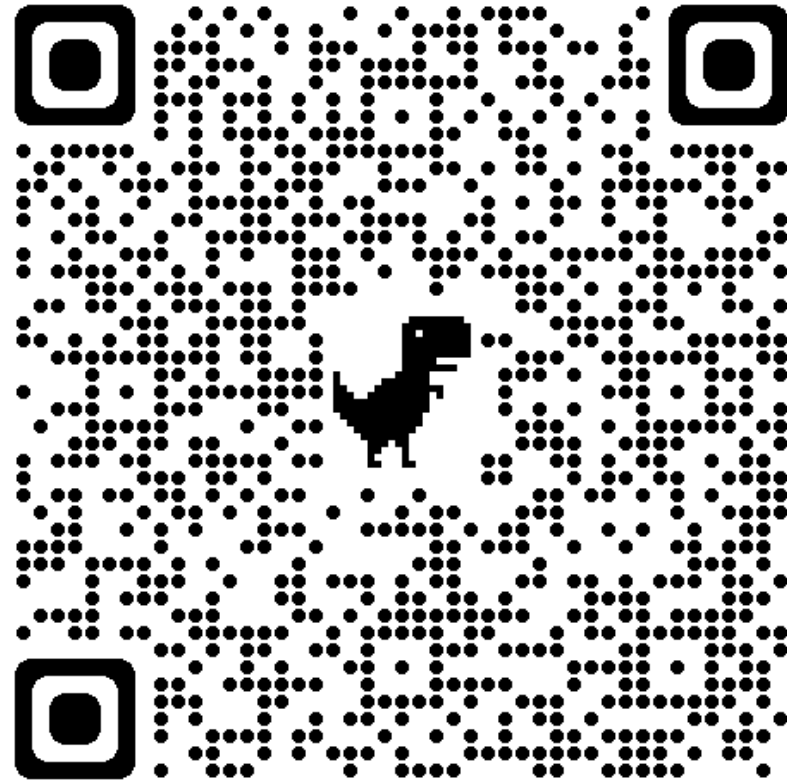
Consider the full-range of benefits:

Remember that AI technologies are not just about cost-cutting automation applications; they are about smarter, better predictive insights

Structure durable teams for scale:

Consider a variety of talent mix needed to model, integrate, translate and apply AI solutions. Op models may vary (localized vs federated)

Sign up to receive an advance copy of *State of AI in the Enterprise, 5th Edition*



<https://www2.deloitte.com/us/en/pages/consulting/articles/deloitte-state-of-ai-enterprise-survey-subscribe.html>



Thank you.

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