



# AI Enigma Chapter Three

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# ΛΙΣΝΙΓΜΑ

**Decode**

**Community**

**Insights**

**Expertise**

**Solutions**

**Interact**

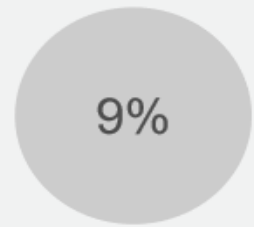
**Business**

# Upcoming Next

- Technology Challenges
- Business & People
- Thriving in the era of pervasive AI

# AI is still in early Adoption

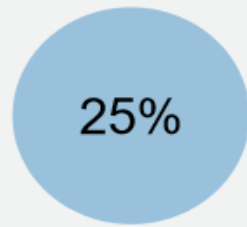
## Percentage of Respondents



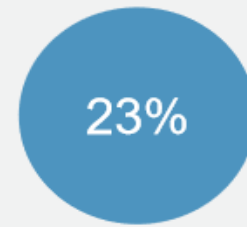
No interest



Plan to deploy 2-3 years



Will deploy 12-14 months



Will deploy next 12 months



Have already invested and deployed

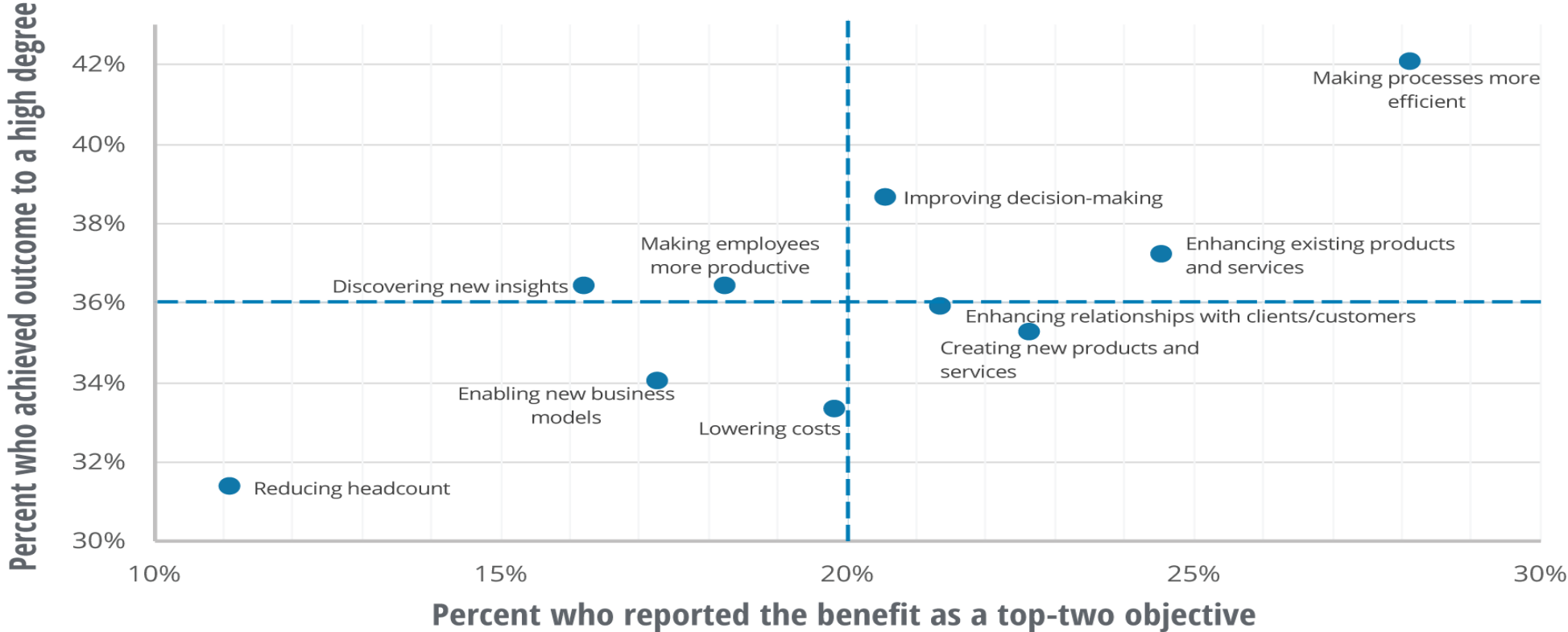
Q: What are your organization's plans in terms of artificial intelligence?

Base: All Answering, n = 2,882

Source: [Gartner 2019 CIO Survey](#)

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# Top Benefits achieved with AI

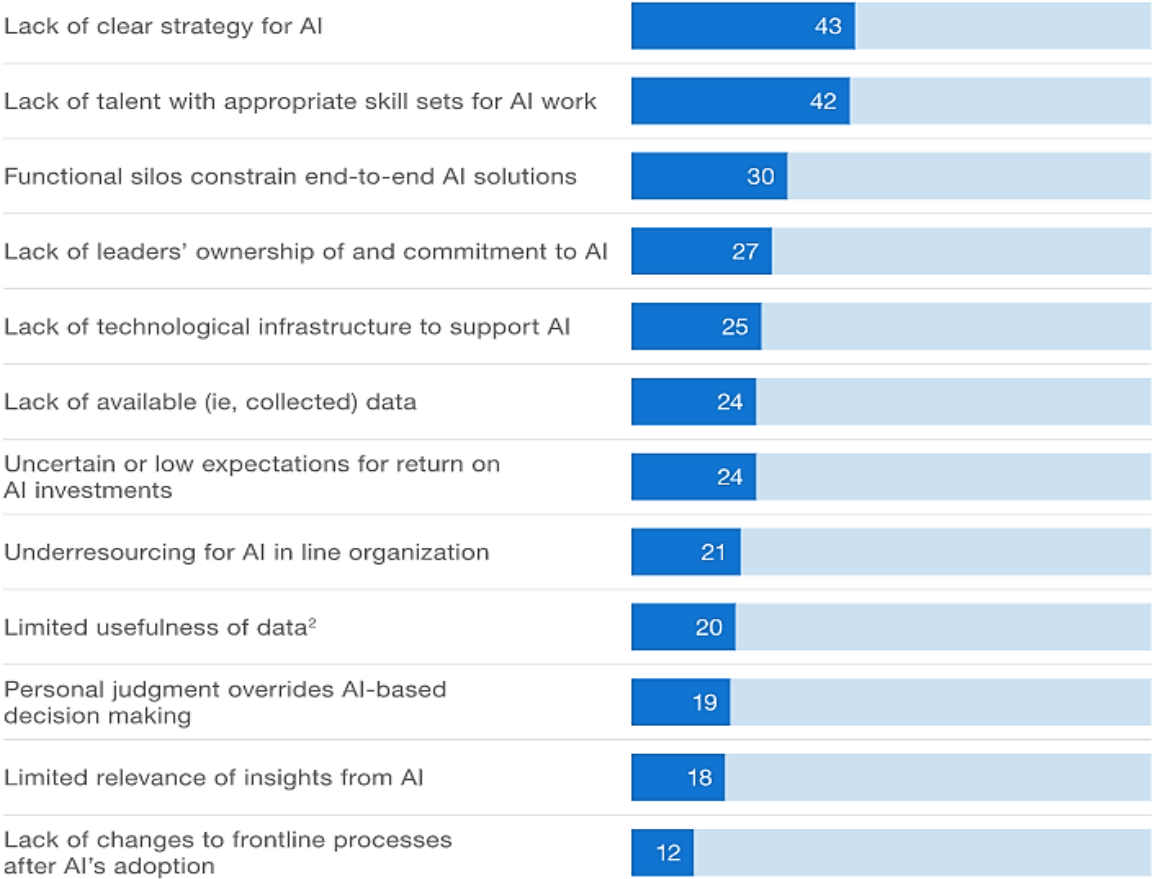


Note: Blue dotted lines represent the average of each dimension.

Source: Deloitte, *State of AI in the Enterprise, 3rd Edition, 2020*.

# Top Challenges for AI Adoption

Most significant barriers organizations face in adopting AI,<sup>1</sup> % of respondents



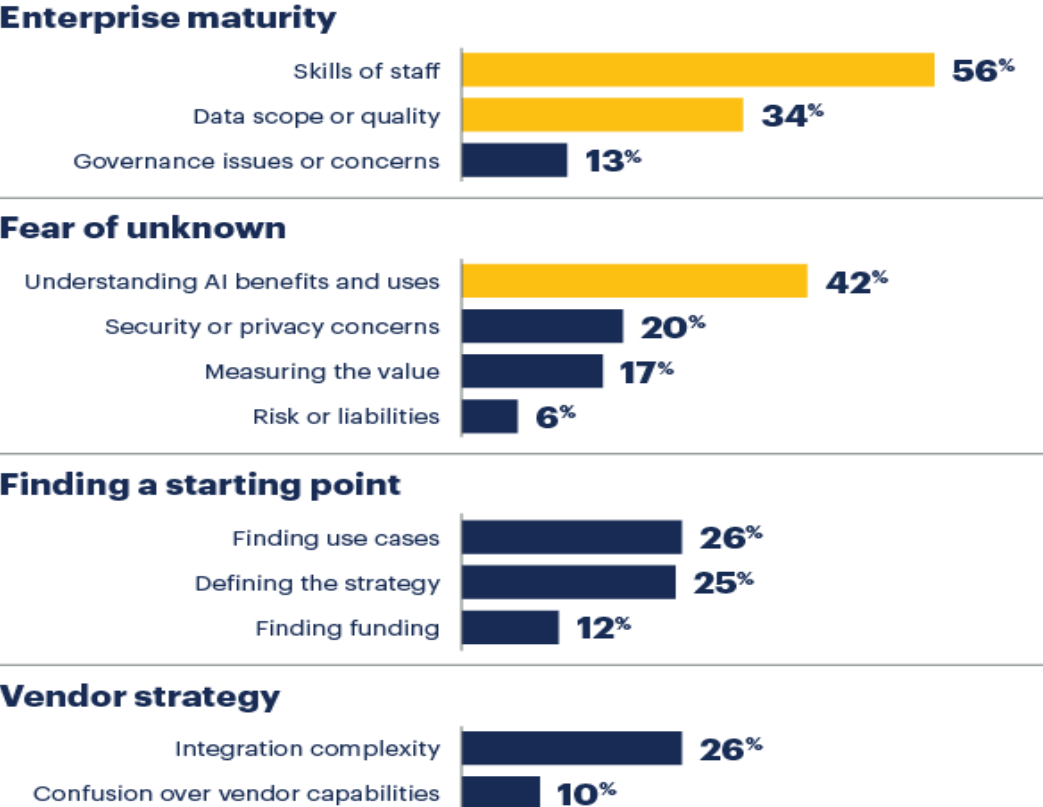
<sup>1</sup>This question was asked only of respondents who said their organizations have piloted or embedded AI in 1 or more functions or business units. Respondents who said "other" or "don't know/not applicable" are not shown; n = 1,646.

<sup>2</sup>That is, not accessible to or compatible with AI systems.

McKinsey&Company

## Top 3 challenges to AI/ML adoption

Sum of 1 to 3 rank



[gartner.com/SmarterWithGartner](https://www.gartner.com/SmarterWithGartner)

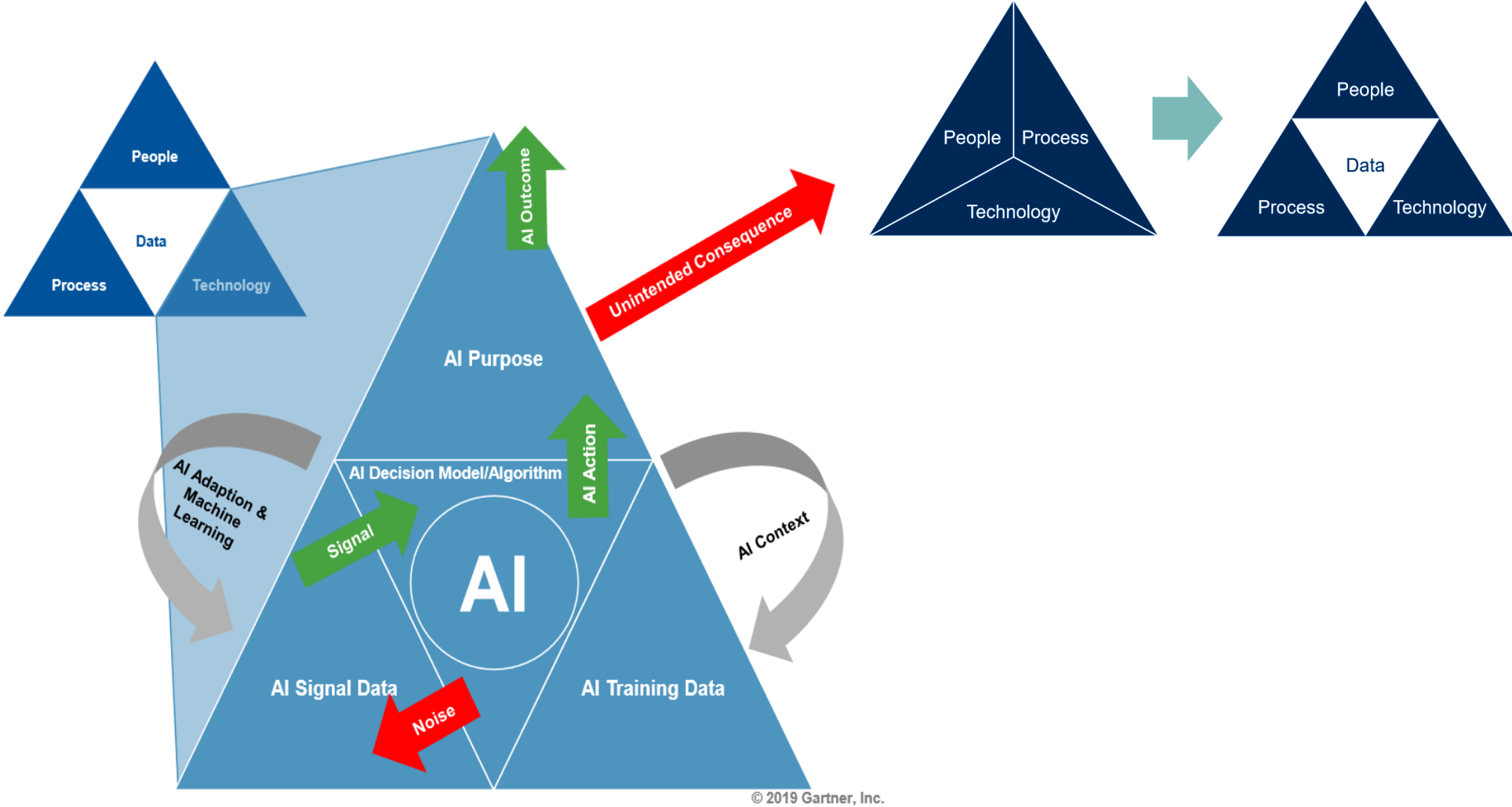
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Gartner

# Technology Challenges

# Defining Data Literacy:

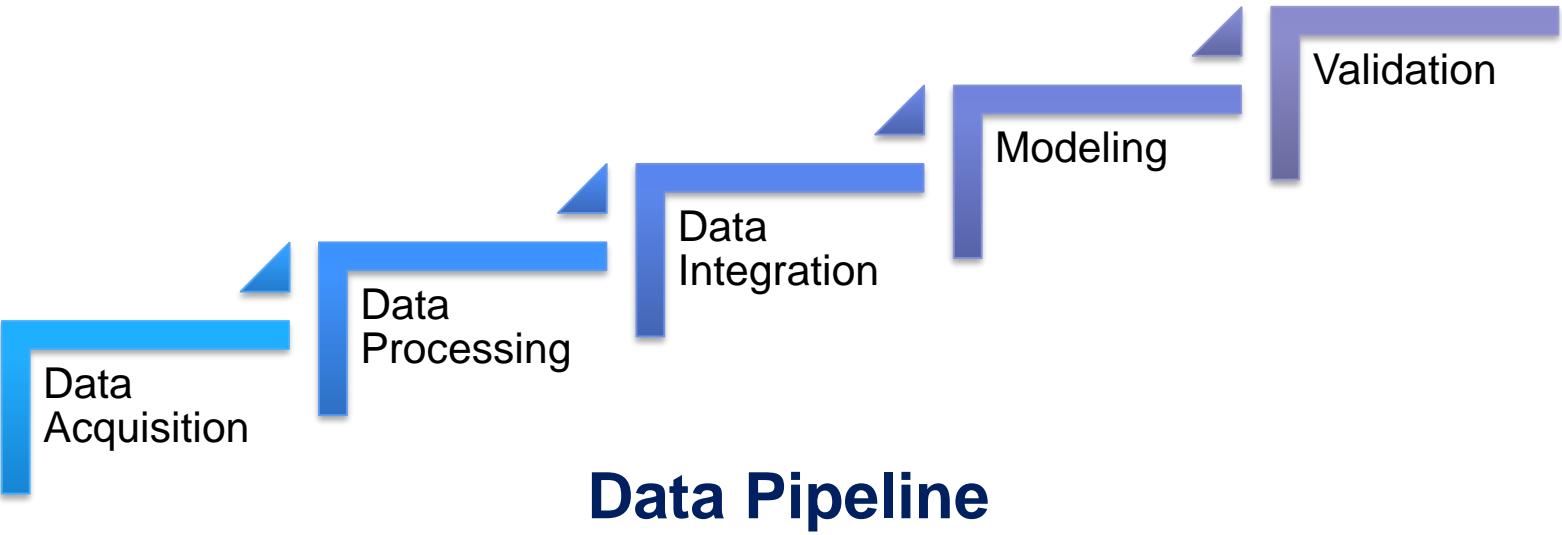
The New Core Capability of Digital Society



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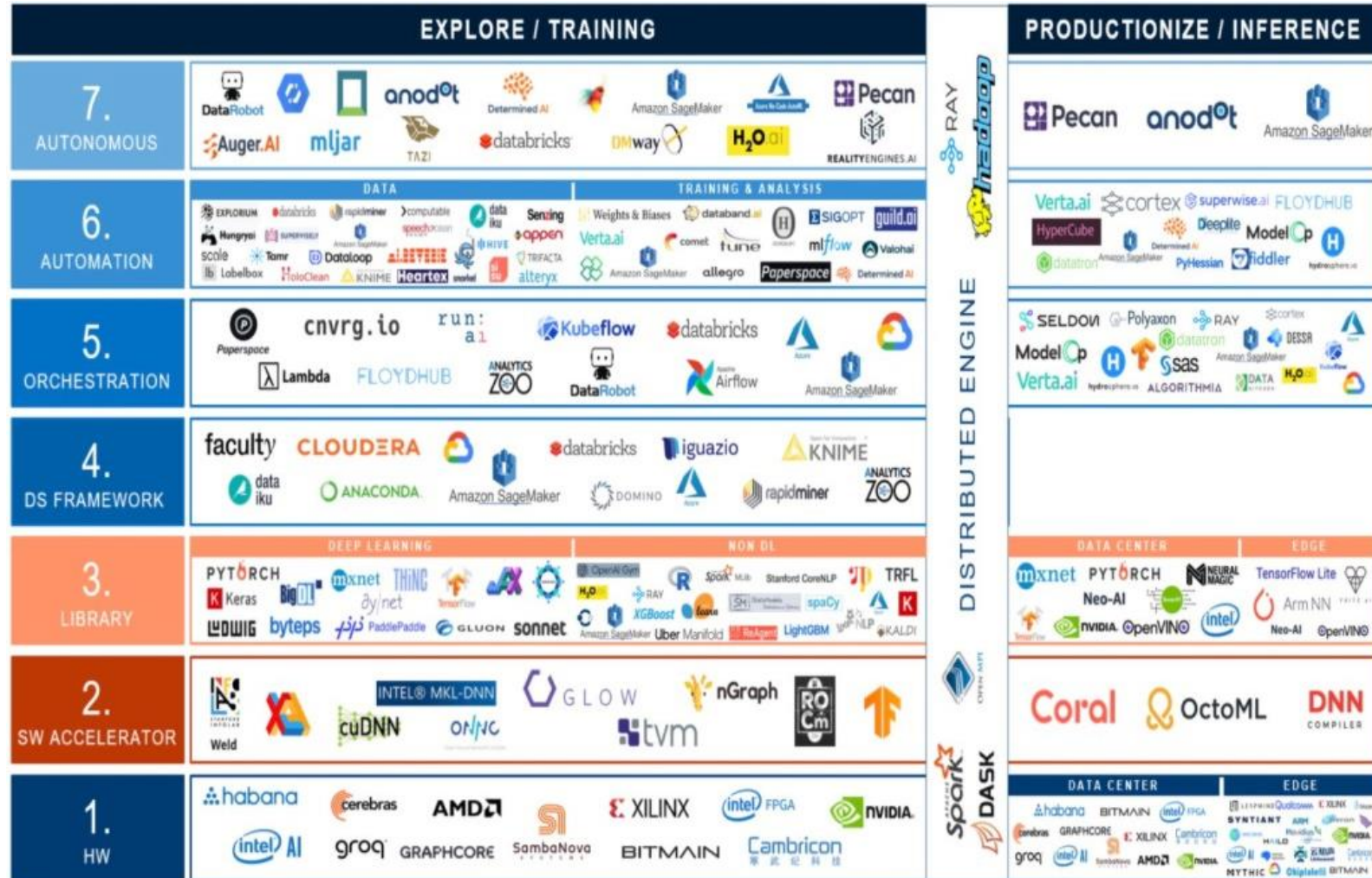


# Data Quality



## Data Challenges

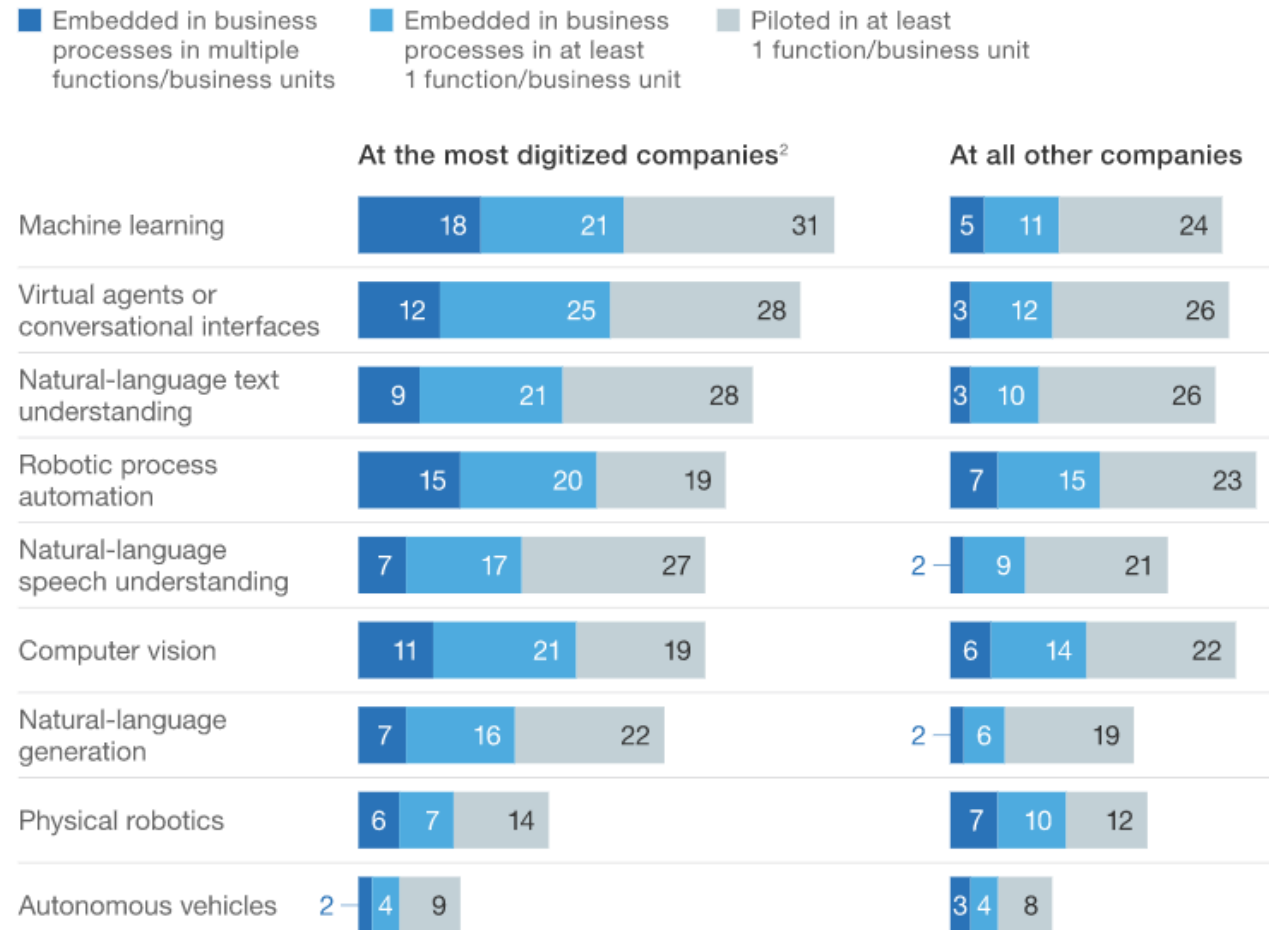
# Complex AI infrastructure stack



# Integration Complexity

**Organizations that are ahead in their digital transformation journey are also the ones successfully adopting AI solutions. But then there are Organizations with outdated IT infrastructure with clunky legacy systems, struggling to adopt AI/ML.**

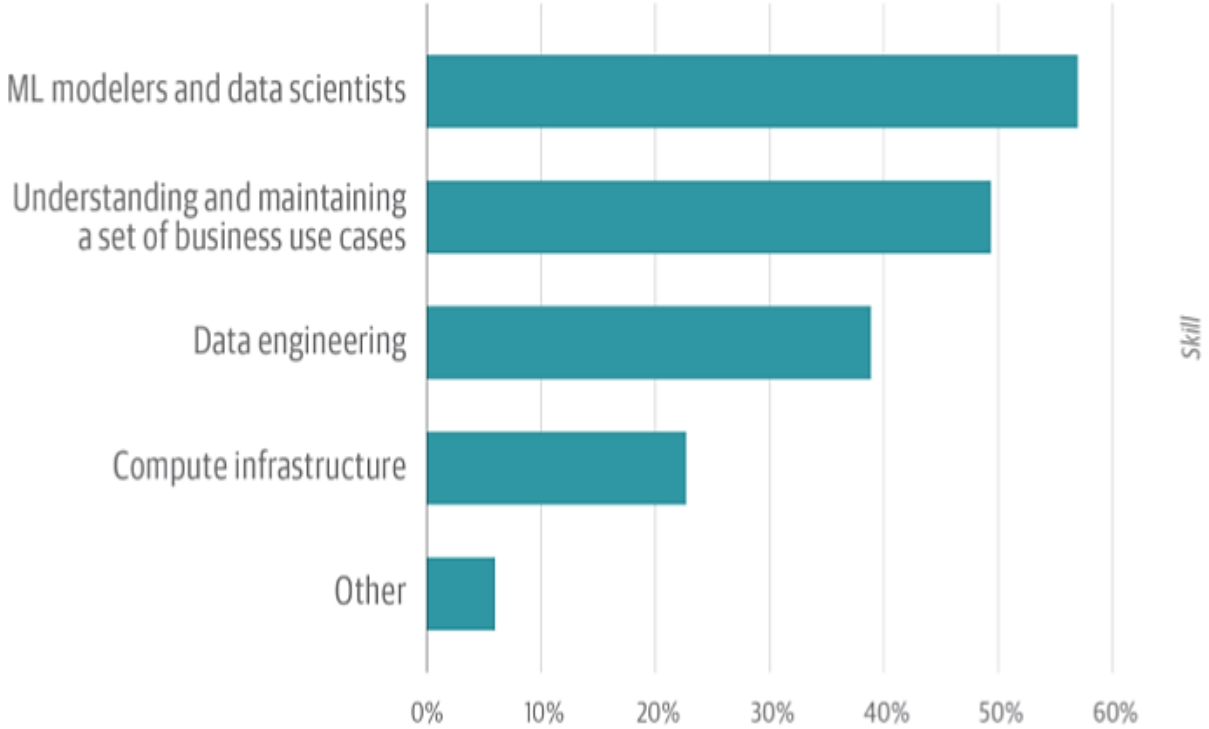
Organizations' adoption of AI capabilities,<sup>1</sup> % of respondents



Business & People

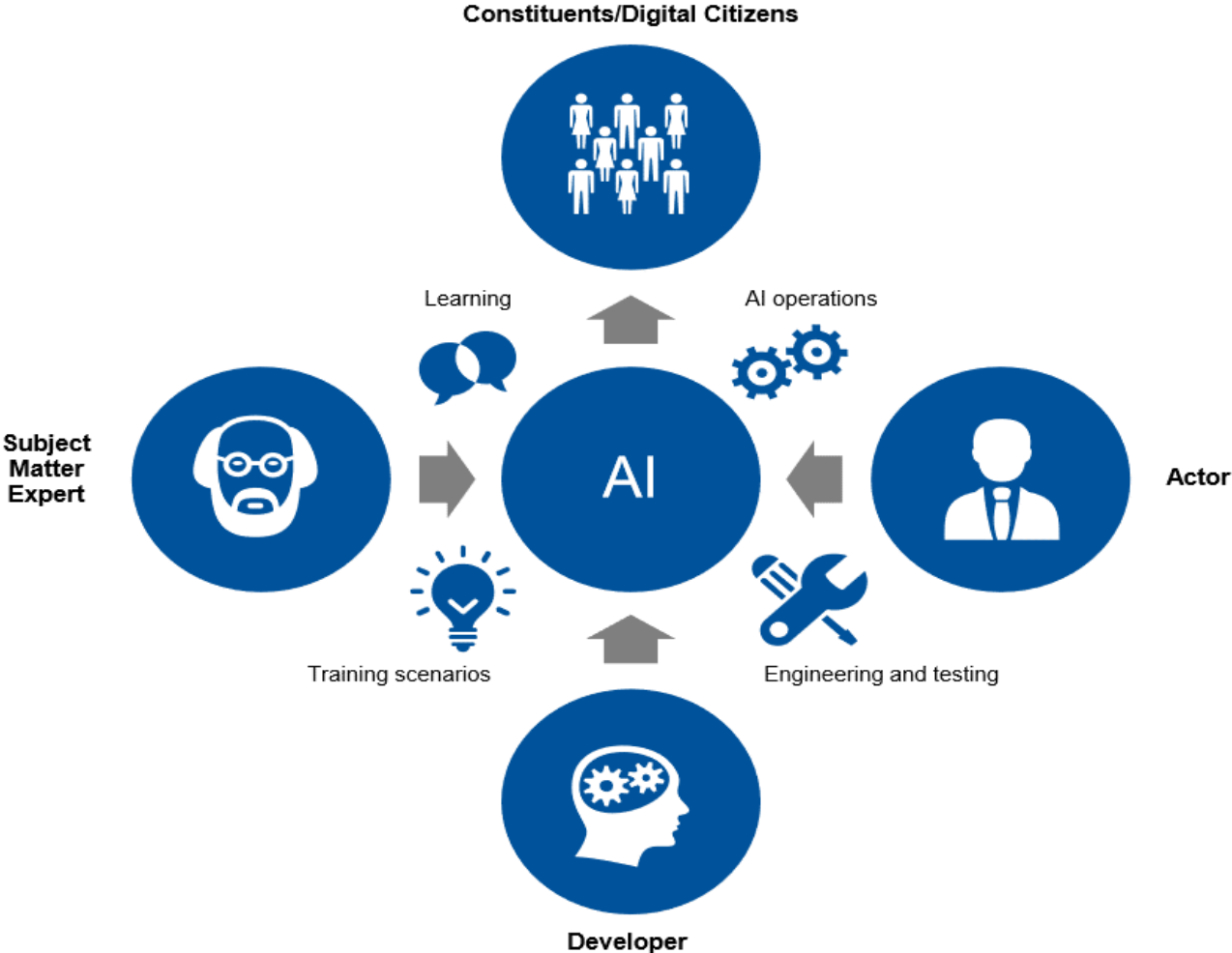
# Scarcity of Field Specialists

Where are the biggest skills gaps within your organization, related to machine learning and AI adoption?



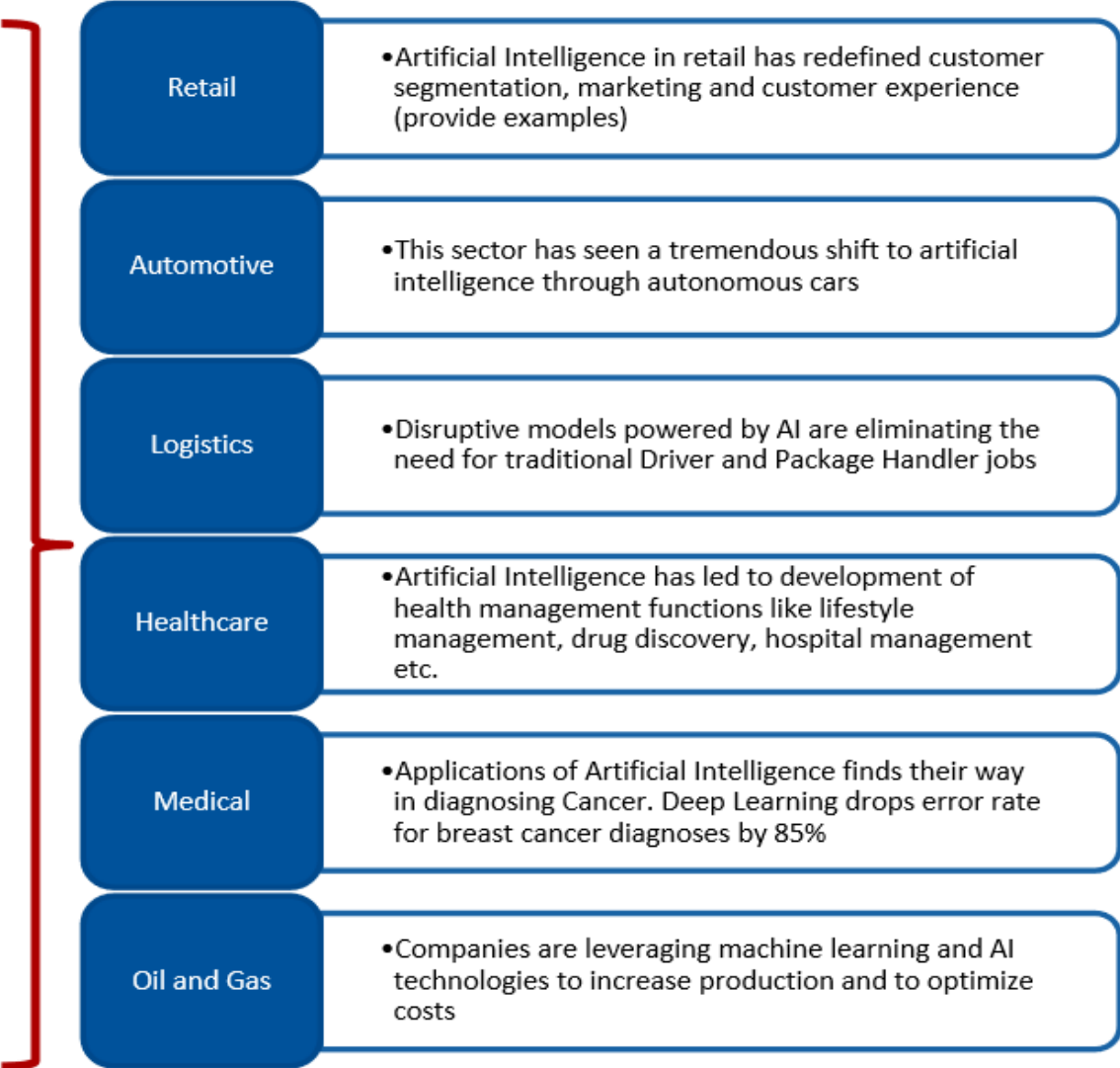
**The number of AI experts that know how to apply the tech to a given business problem is very limited So is the number of good data scientist**

# The lack of AI know-how among non-technical employees hinders AI adoption in many fields



# Select Right Business use case

Search engines	Sentiment analysis (or opinion mining)	Information Retrieval	Spam filtering for email
Speech and handwriting recognition	Spoken language understanding	Stock analysis	Structural health monitoring
Syntactic pattern recognition	Topic spotting: categorize news articles	Weather prediction	Face Detection
Finance – Derivatives Trading	Game playing	Platform/Software As a Service	Internet fraud detection
Machine translation	Medical diagnosis	Mood analysis	Brain machine interface in prosthetics
Optical character recognition	Recommendation systems	Robot locomotion	Advertising - Targeting
Bioinformatics	Automatic word completion	Classifying DNA Sequences	Computer Vision – Object Recognition
	Customer Segmentation	Detecting Credit Card Fraud	



# Difficulty assessing Vendors

**Product / Services**

**Vendor track record**

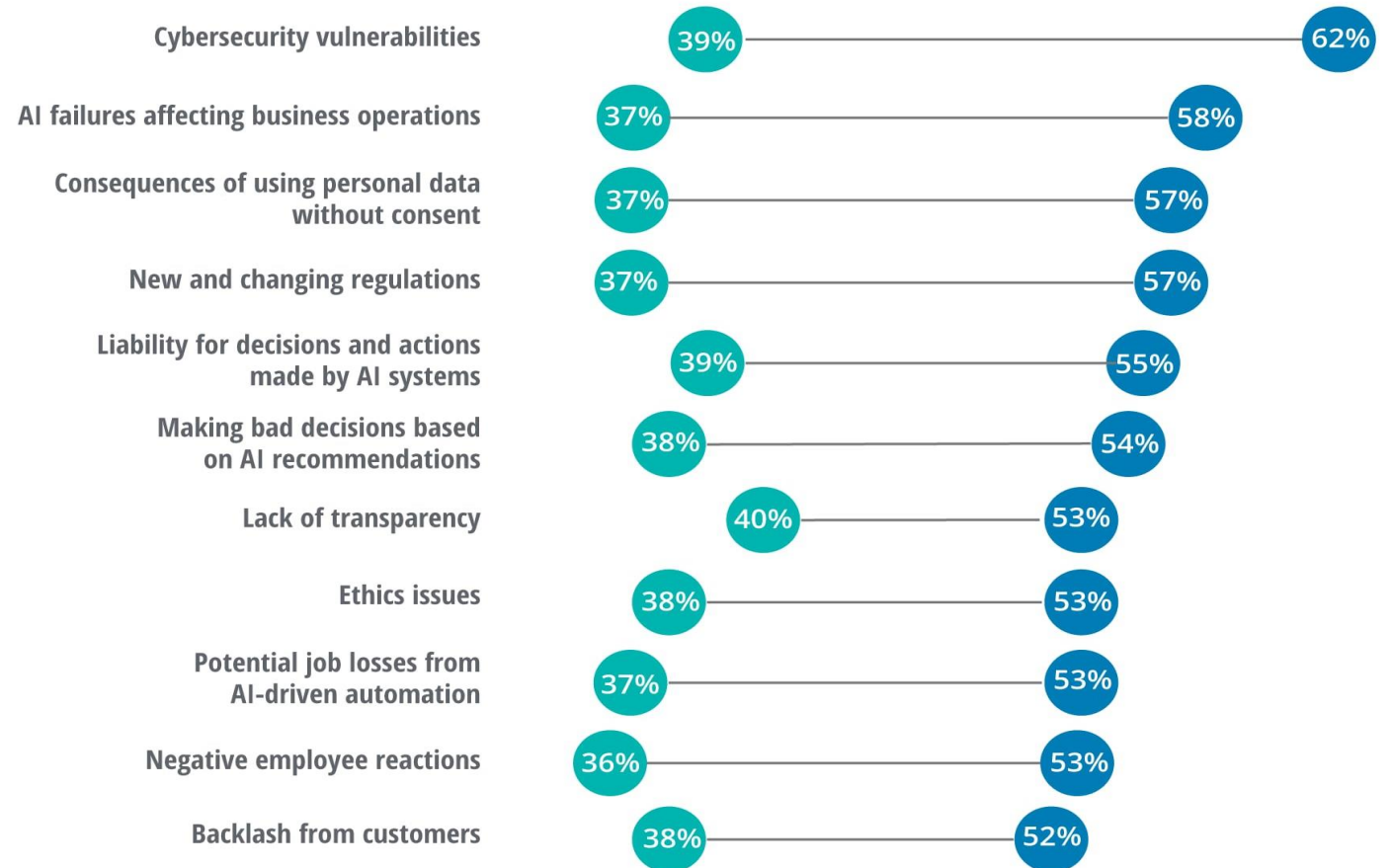
**Time & Cost**





# AI Implementation Risks

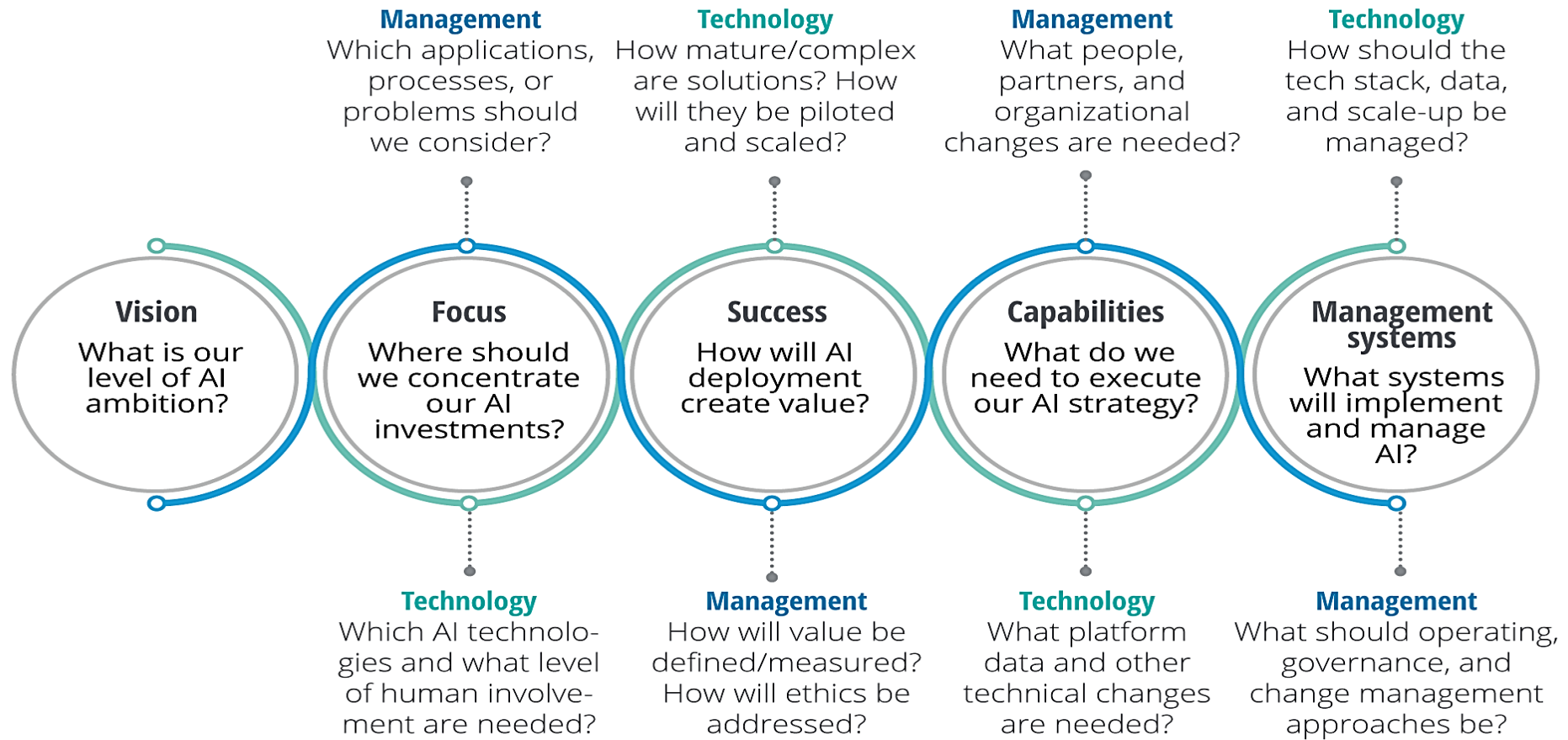
■ Fully prepared ■ Major/extreme concern



Source: Deloitte, *State of AI in the Enterprise, 3rd Edition, 2020*.

Thriving in the era of pervasive AI

# AI Strategy



The keys to a successful AI strategy are to have a well-defined business problem to solve and to have a sound data management program in place to ensure you have the data to solve the business problem.

# Pursue Data Driven Culture

- What is the data required for the project ?
- Where will this data come from?
- Is internal data enough or external data ?
- What data do you already have?

- How to ensure data is stored in a secure way?
- Who's responsible for data-handling?
- How to make sure your use of data is GDPR-compliant as well as ethical?
- What data shouldn't be used even if it's in your database?
- How to identify bias in your data?

- How is data collected, stored, and organized?
- Do you have an efficient data pipeline?
- What technologies are you considering for your project?
- what are the technical requirements (like hardware, software)?
- How will the results provided by the model be interpreted?

# Choosing the right Vendor for AI Solution

Make sure vendor has true AI capabilities

Provide vendor with clear business requirements

Assure vendor can provide support for your users

How is the product superior to current options that have no AI?

Once the product installed, how will its performance improve through AI?

How should I expect to devote staff and time to such improvements?

How can I see that will happen with data that is related to my project?

What data and compute requirements will I need to build the models for the solution?

What resources are available to gather and refine data that the AI solution can use such that its outcomes improve?

# How AI Adaptors manage the risks of AI Implementation?

		Starters	Skilled	Seasoned
<b>Improved knowledge</b>	Keeping a formal inventory of all AI implementations	32%	35%	35%
	<b>Better alignment</b>			
	Aligning AI risk management with broader risk management efforts	32%	37%	43%
	Having a single executive in charge of AI-related risks	22%	27%	28%
<b>Auditing and testing</b>	Conducting internal audit and testing	39%	38%	43%
	Using outside vendors to conduct independent audit and testing	32%	37%	36%
<b>Addressing ethics</b>	Training practitioners how to recognize and resolve ethical issues around AI	36%	39%	43%
	Collaborating with external parties on leading practices around AI ethics	31%	35%	43%
	Ensuring that our AI vendors provide unbiased systems	29%	32%	39%
	Establishing policies or a group/board to guide AI ethics	35%	34%	37%

Source: Deloitte, *State of AI in the Enterprise, 3rd Edition*, 2020.

# Quick Wins



Source: Deloitte, *State of AI in the Enterprise, 3rd Edition, 2020*.

## Early Adaptors use or integrate existing platforms for short term goals

Partnership with another company

Use outside team to get a bird's-eye view of the complete technology infrastructure and suggest necessary changes in one go

The background of the slide is a dark blue and purple digital tunnel. The walls of the tunnel are composed of a grid of glowing dots and lines, creating a sense of depth and perspective. The dots are arranged in a pattern that recedes into the distance. The lines are horizontal and also recede, creating a strong sense of motion and technology. The overall color palette is dominated by deep blues and purples, with some lighter, glowing points of light.

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