



# How to Become an AI-Powered Company – and a Brief History of AI

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NEWSLETTER

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 By **Fabio Moioli**   
Leadership Advisor at Spencer Stuart; AI Forbes Techno...

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NEWSLETTER

# Intelligences: Curated Sharing

A Guide to Essential Resources on AI, Leadership, and Future-Ready Skills

 By **Fabio Moioli**   
Leadership Advisor at Spencer Stuart; AI Forbes Techno...



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NEWSLETTER

# Intelligences: Viral AI Topics

Welcome to My New Newsletter; A Fresh Perspective on Viral Topics related to AI

 By **Fabio Moioli**   
Leadership Advisor at Spencer Stuart; AI Forbes Techno...

Published weekly  
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# A Brief History of AI



1997

**COMPUTER DEFEATS CHESS WORLD CHAMPION**



A close-up photograph of a hand holding a black Go stone. A blue wireframe mesh is overlaid on the hand and the stone, suggesting a digital or artificial intelligence theme. The background is blurred, showing more Go stones on a board.

2016

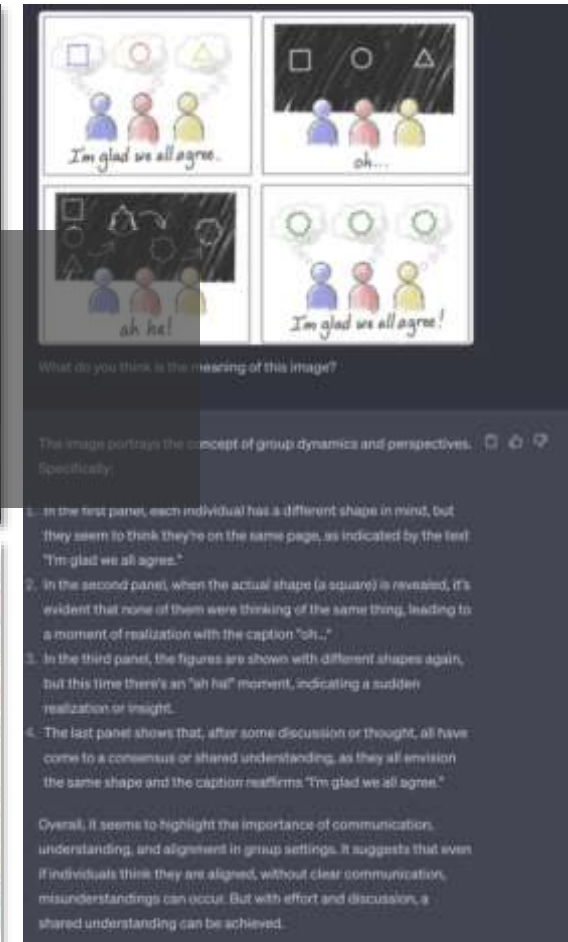
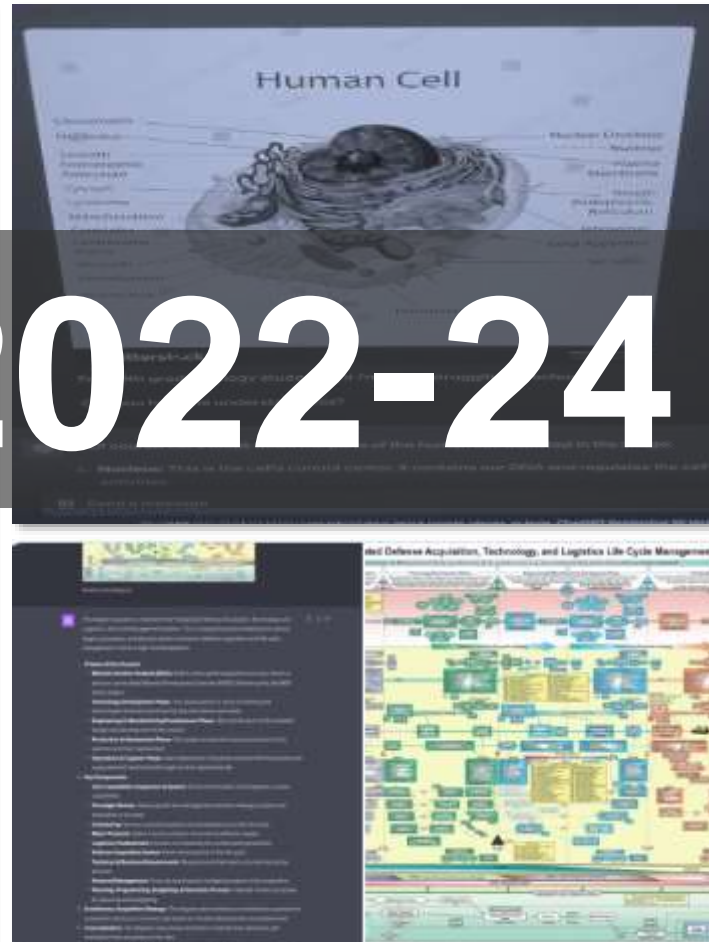
**ALPHA ZERO ALGORITHM DEFEATS GO WORLD CHAMPION**



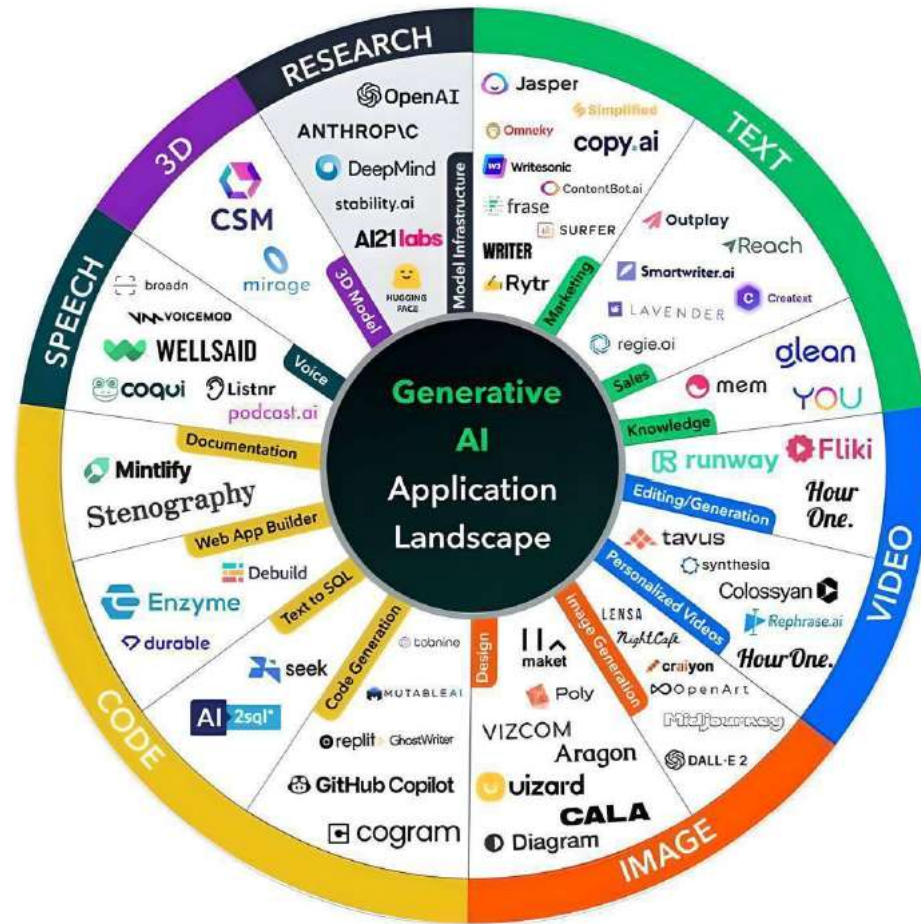


# Generative AI - ChatGPT Multi-modal

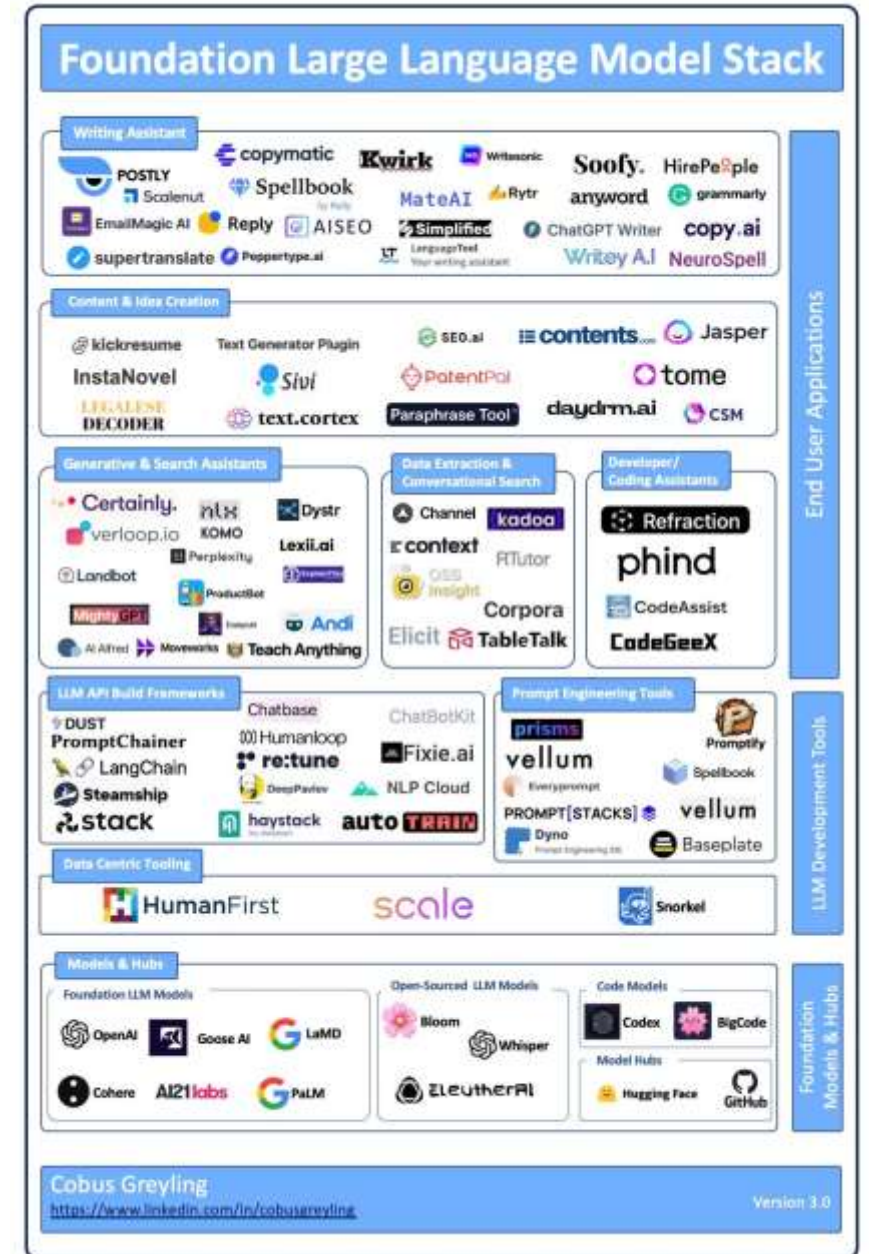
2022-24



# Thousands of AI Tools in 2023-2025



- TEXT
- IMAGE
- AUDIO
- CODING
- DATA ENTRY
- PPT
- MUSIC





# Pattern for Agentic Applications

2025

01

## Reflection

The LLM examines its own work to come up with ways to improve it

02

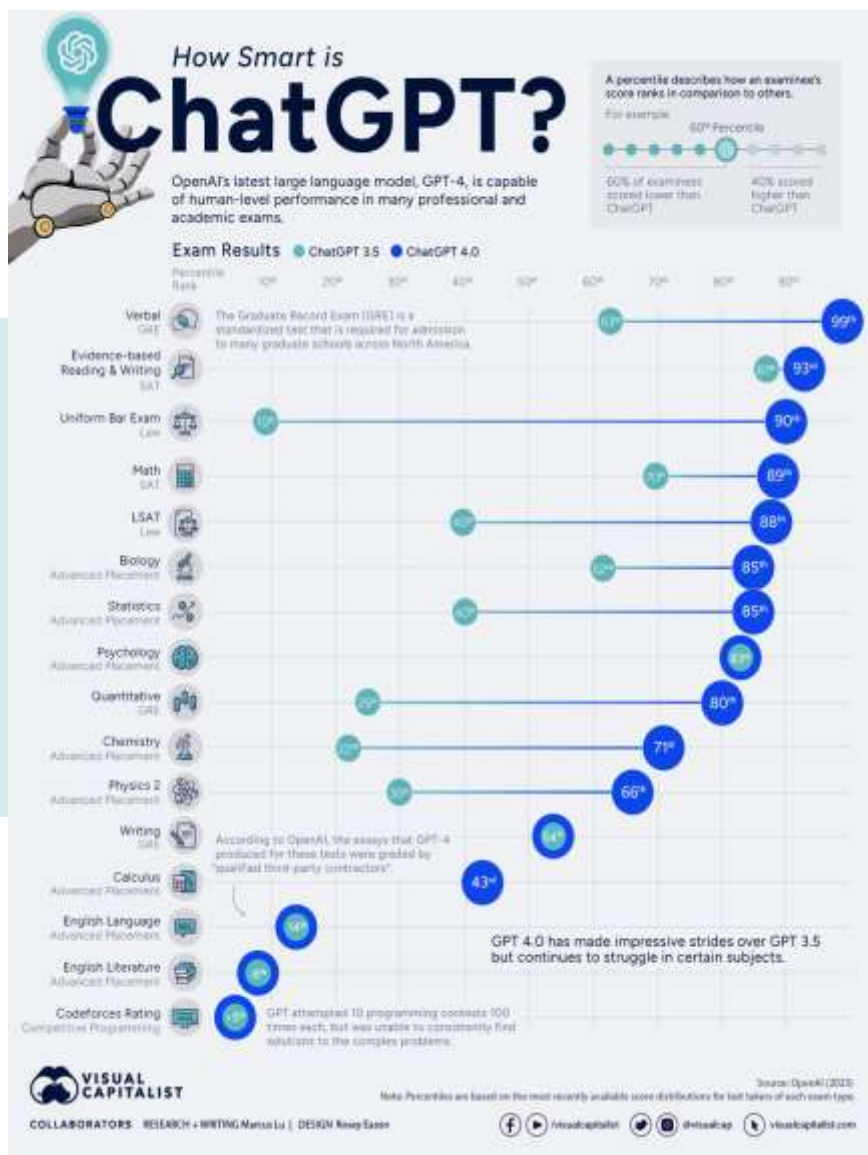
## Tools use

The LLM is given tools such as web search, code execution, or any other function to help it gather information, take action, or process data

03

## Planning

The LLM comes up with and executes, a multistep plan to achieve a goal (for example, writing an outline for an essay, then doing online research, then writing a draft, and so on)



The following table lists the results that we visualized in the graphic.

Category	Exam	GPT-4 Percentile	GPT-3.5 Percentile
Law	Uniform Bar Exam	90	10
Law	LSAT	88	40
SAT	Evidence-based Reading & Writing	93	87
SAT	Math	89	70
Graduate Record Examination (GRE)	Quantitative	80	25
Graduate Record Examination (GRE)	Verbal	99	63
Graduate Record Examination (GRE)	Writing	54	54
Advanced Placement (AP)	Biology	85	62
Advanced Placement (AP)	Calculus	43	0
Advanced Placement (AP)	Chemistry	71	22
Advanced Placement (AP)	Physics 2	66	30
Advanced Placement (AP)	Psychology	83	83
Advanced Placement (AP)	Statistics	85	40
Advanced Placement (AP)	English Language	14	14
Advanced Placement (AP)	English Literature	8	8
Competitive Programming	Codeforces Rating	<5	<5

# Measuring o1 IQ in Mensa

This site quizzes 9 Verbal & 4 Vision AIs every week | Last Updated: 01:30AM EDT on September 16, 2024

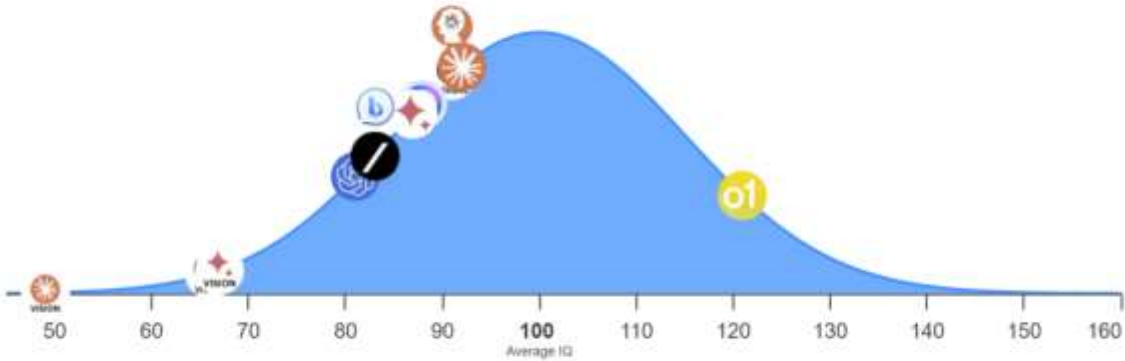
## IQ Test Results

Score reflects average of last 7 tests given

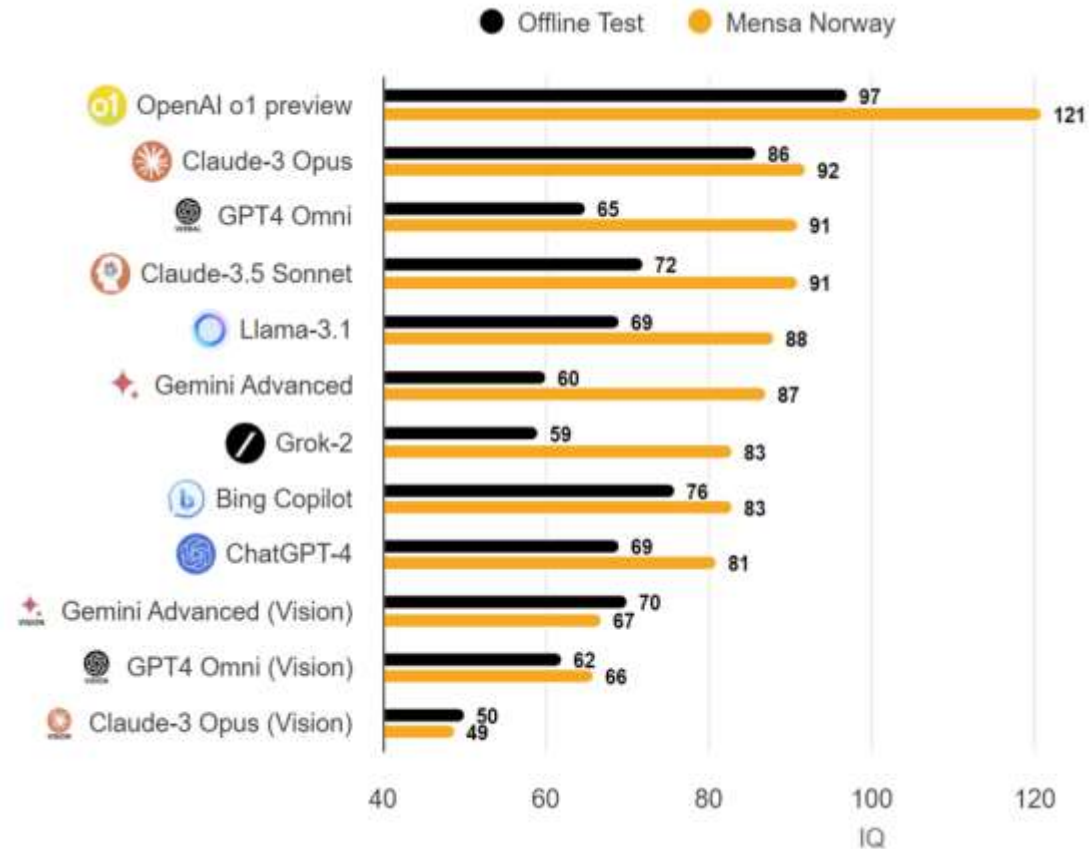
Reset

Show Offline Test

Show Mensa Norway



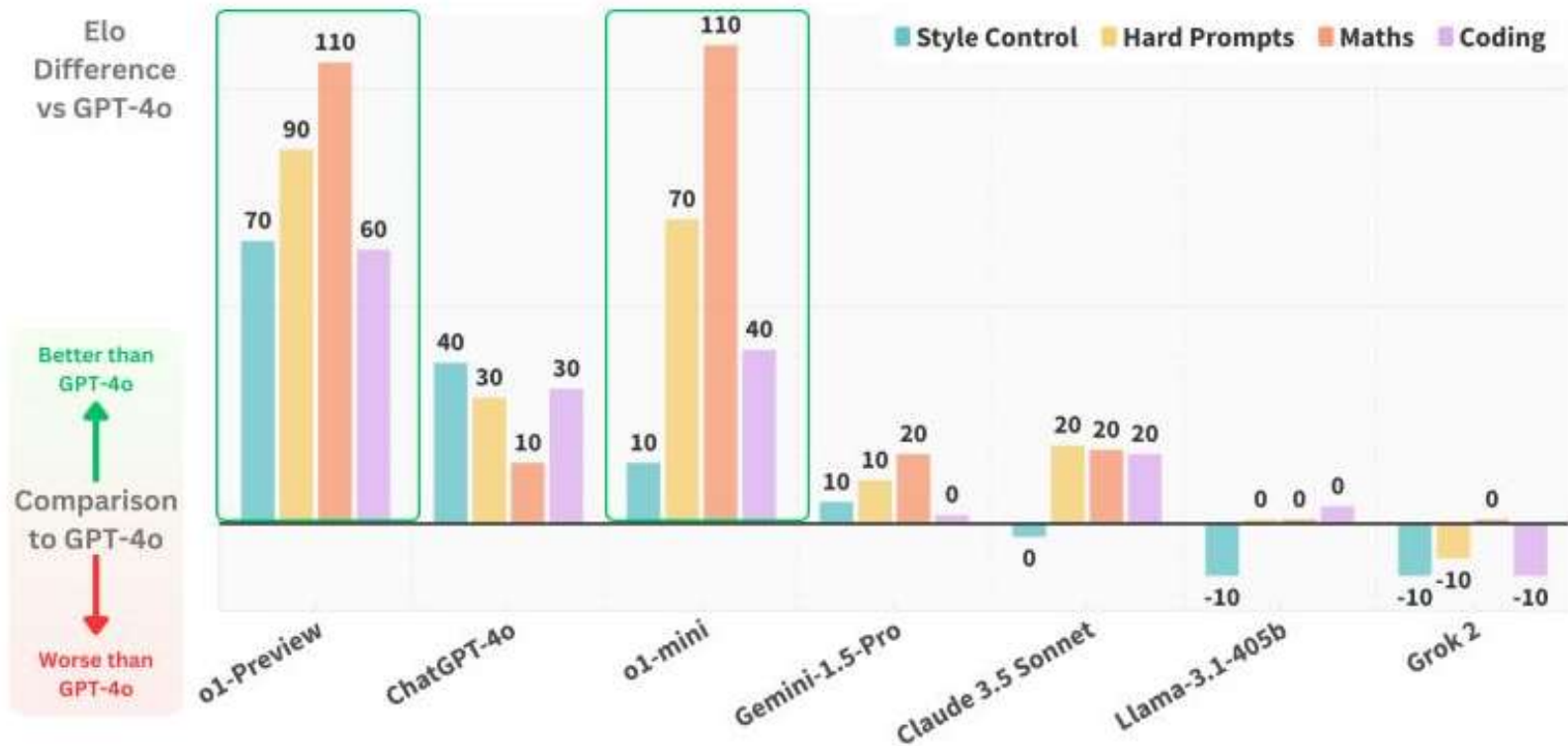
OpenAI o1 preview	GPT4 Omni (Vision)	GPT4 Omni
ChatGPT-4	Llama-3.1	Grok-2
Gemini Advanced (Vision)	Gemini Advanced	Bing Copilot
Claude-3.5 Sonnet	Claude-3 Opus	Claude-3 Opus (Vision)





# Measuring o1 IQ in LMS arena

New OpenAI o1 are excellent in Maths, Coding and Hard Tasks  
o1 models is a leap ahead of the competition on toughest tasks



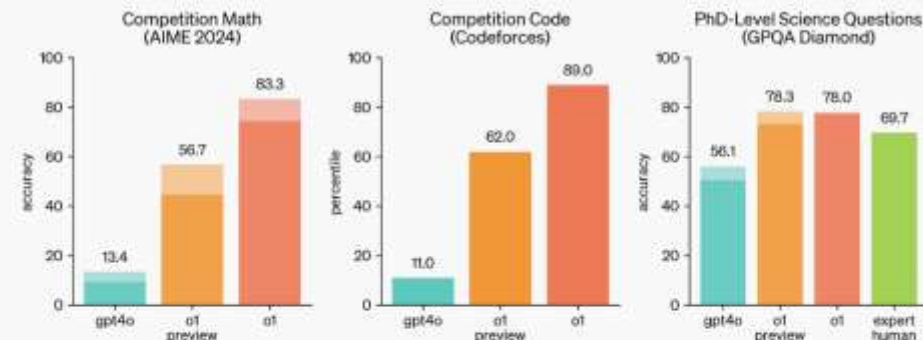
Source: LMSYS Chatbot Arena  
Analysis by: Peter Gostev (<https://www.linkedin.com/in/peter-gostev/>)

# o1 Learning to Reason with LLMS

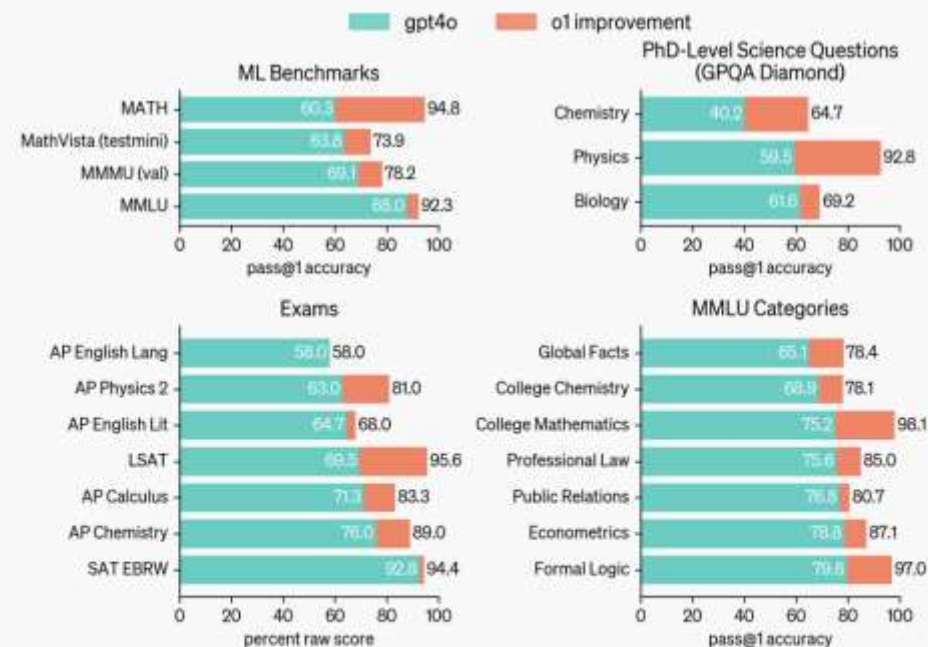
We are introducing OpenAI o1, a new large language model trained with reinforcement learning to perform complex reasoning. o1 thinks before it answers – it can produce a long internal chain of thought before responding to the user.

Our large-scale reinforcement learning algorithm teaches the model how to think productively using its chain of thought in a highly data-efficient training process. We have found that the performance of o1 consistently improves with more reinforcement learning (train-time compute) and with more time spent thinking (test-time compute). The constraints on scaling this approach differ substantially from those of LLM pretraining, and we are continuing to investigate them.

SpencerStuart



o1 greatly improves over GPT-4o on challenging reasoning benchmarks. Solid bars show pass@1 accuracy and the shaded region shows the performance of majority vote (consensus) with 64 samples.



o1 improves over GPT-4o on a wide range of benchmarks, including 54/57 MMLU subcategories. Seven are shown for illustration.

# Novel Research by an LLM. Is it possible?

## Can LLMs Generate Novel Research Ideas? A Large-Scale Human Study with 100+ NLP Researchers

Chenglei Si, Diyi Yang, Tatsunori Hashimoto  
Stanford University  
{cisi, diyi, tashim}@stanford.edu

### Abstract

Recent advancements in large language models (LLMs) have sparked optimism about their potential to accelerate scientific discovery, with a growing number of works proposing research agents that autonomously generate and validate new ideas. Despite this, no evaluations have shown that LLM systems can take the very first step of producing novel, expert-level ideas, let alone perform the entire research process. We address this by establishing an experimental design that evaluates research idea generation while controlling for confounders and performs the first head-to-head comparison between expert NLP researchers and an LLM ideation agent. By recruiting over 100 NLP researchers to write novel ideas and blind reviews of both LLM and human ideas, we obtain the first statistically significant conclusion on current LLM capabilities for research ideation: we find LLM-generated ideas are judged as more novel ( $p < 0.05$ ) than human expert ideas while being judged slightly weaker on feasibility. Studying our agent baselines closely, we identify open problems in building and evaluating research agents, including failures of LLM self-evaluation and their lack of diversity in generation. Finally, we acknowledge that human judgements of novelty can be difficult, even by experts, and propose an end-to-end study design which recruits researchers to associate these ideas into full projects, enabling us to study whether these novelty and feasibility judgements result in meaningful differences in research outcome.<sup>1</sup>

### 1 Introduction

The rapid improvement of LLMs, especially in capabilities like knowledge and reasoning, has enabled many new applications in scientific tasks, such as solving challenging mathematical problems (Trinh et al., 2024), assisting scientists in writing proofs (Collins et al., 2024), retrieving related works (Ajith et al., 2024; Press et al., 2024), generating code to solve analytical or computational tasks (Huang et al., 2024; Tian et al., 2024), and discovering patterns in large text corpora (Lam et al., 2024; Zheng et al., 2023). While these are useful applications that can potentially increase the productivity of researchers, it remains an open question whether LLMs can take on the more creative and challenging parts of the research process.

We focus on this problem of measuring the research ideation capabilities of LLMs and ask: are current LLMs capable of generating novel ideas that are comparable to expert humans? Although ideation is only one part of the research process, this is a key question to answer, as it is the very first step to the scientific research process and serves as a litmus test for the possibility of autonomous research agents that create their own ideas. Evaluating expert-level capabilities of LLM systems is challenging (Bakhtin

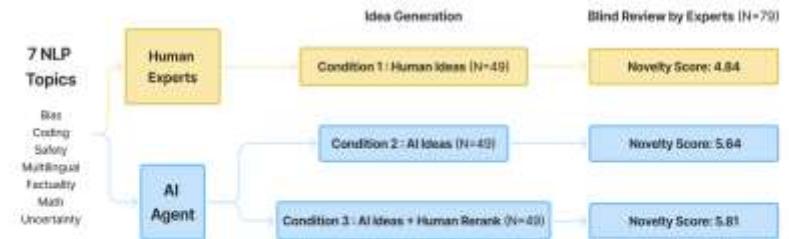


Figure 1: Overview of our study: we recruit 79 expert researchers to perform blind review of 49 ideas from each of the three conditions: expert-written ideas, AI-generated ideas, and AI-generated ideas reranked by a human expert. We standardize the format and style of ideas from all conditions before the blind review. We find AI ideas are judged as significantly more novel than human ideas ( $p < 0.05$ ).

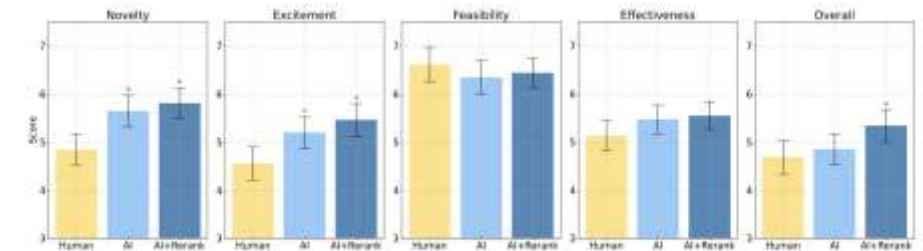


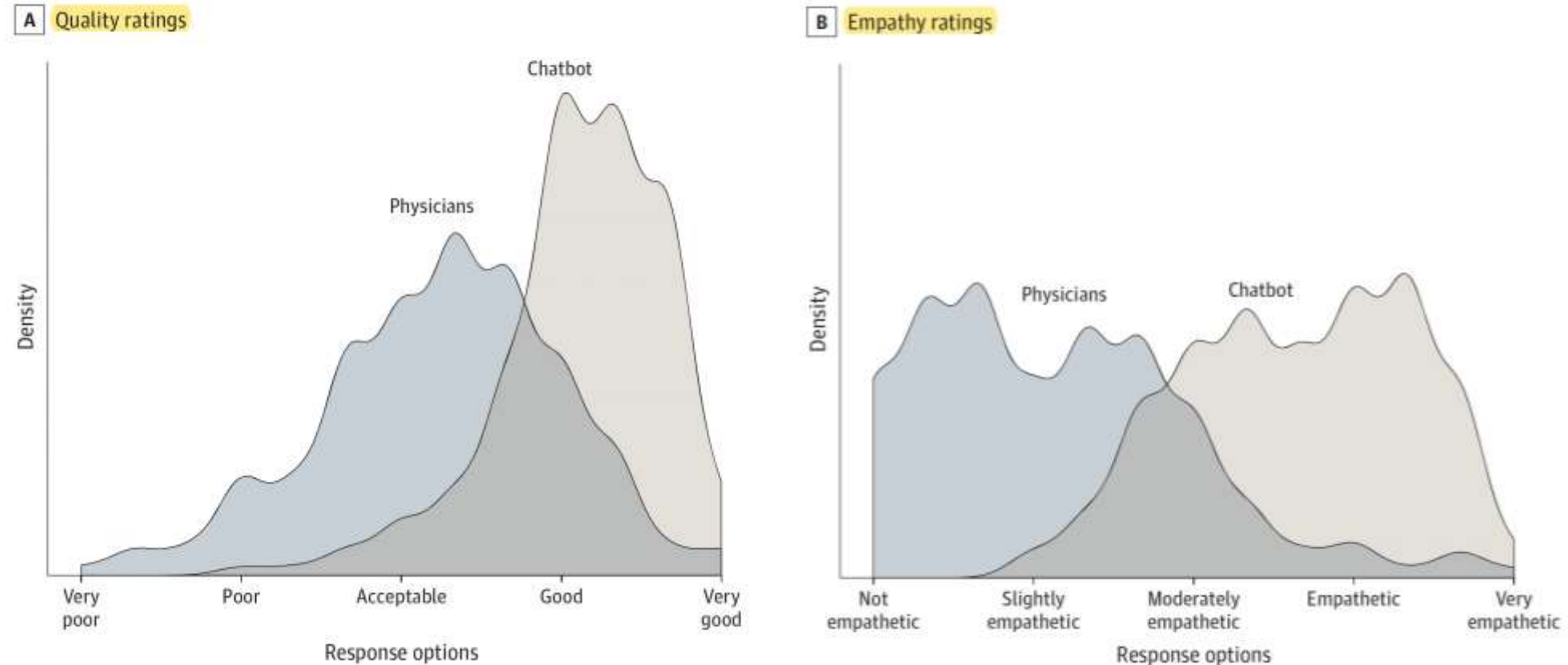
Figure 2: Comparison of the three experiment conditions across all review metrics. Red asterisks indicate that the condition is statistically better than the Human baseline with two-tailed Welch’s t-tests and Bonferroni correction. All scores are on a 1 to 10 scale. More detailed results are in Section 5.

6 Sep 2024



# Comparing Physician and Artificial Intelligence Chatbot Responses to Patient Questions

Figure. Distribution of Average Quality and Empathy Ratings for Chatbot and Physician Responses to Patient Questions



<https://erictopol.substack.com/p/when-patient-questions-are-answered>

# 将进酒

君不见黄河之水天上来，奔流到海不复回。  
君不见高堂明镜悲白发，朝如青丝暮成雪。  
人生得意须尽欢，莫使金樽空对月。  
天生我材必有用，千金散尽还复来。  
烹羊宰牛且为乐，会须一饮三百杯。  
岑夫子，丹邱生，将进酒，杯莫停。  
君歌一曲，请君为我倾耳听。  
钟鼓馔玉不足贵，但愿长醉不复醒。  
三杯落，五斗色，惟有饮者留其名。  
陈王昔时宴平乐，斗酒十千恣欢谑。





# QUANTUM COMPUTING

February 19<sup>th</sup>, 2025



**Satya Nadella** • Following  
Chairman and CEO at Microsoft  
15h •

A couple reflections on the quantum computing breakthrough we just announced...

Most of us grew up learning there are three main types of matter that matter: solid, liquid, and gas. Today, that changed.

After a nearly 20 year pursuit, we've created an entirely new state of matter, unlocked by a new class of materials, topological materials, that enable a fundamental leap in computing.

It powers Majorana 1, the first quantum processing unit built on a topological core.

We believe this breakthrough will allow us to create a truly meaningful quantum computer not in decades, as some have predicted, but in years.



# How to become an AI-powered Company

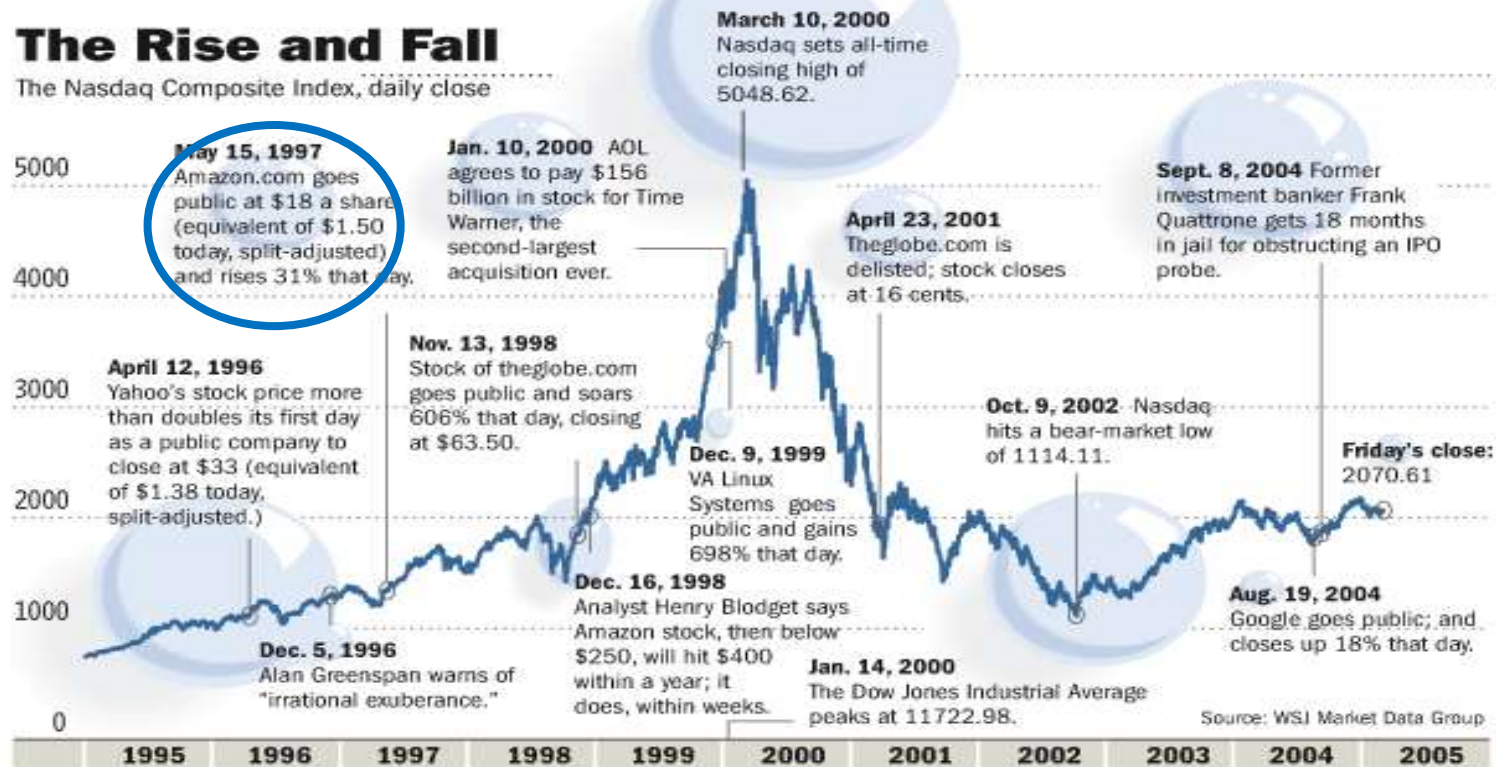


# HOW TO CREATE AN AI-POWERED COMPANY



## The Rise and Fall

The Nasdaq Composite Index, daily close



HOW NOT TO  
CREATE AN  
AI-POWERED  
COMPANY



# How to create an AI-powered company

**Strategy**

**Organization**

**Processes**

**Culture**

**Technology**

**Skills**

# How to create an AI-powered company

**Strategy**

**Organization**

**Processes**

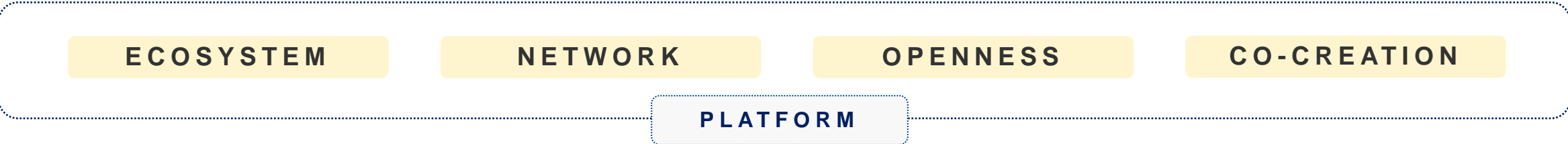
**Culture**

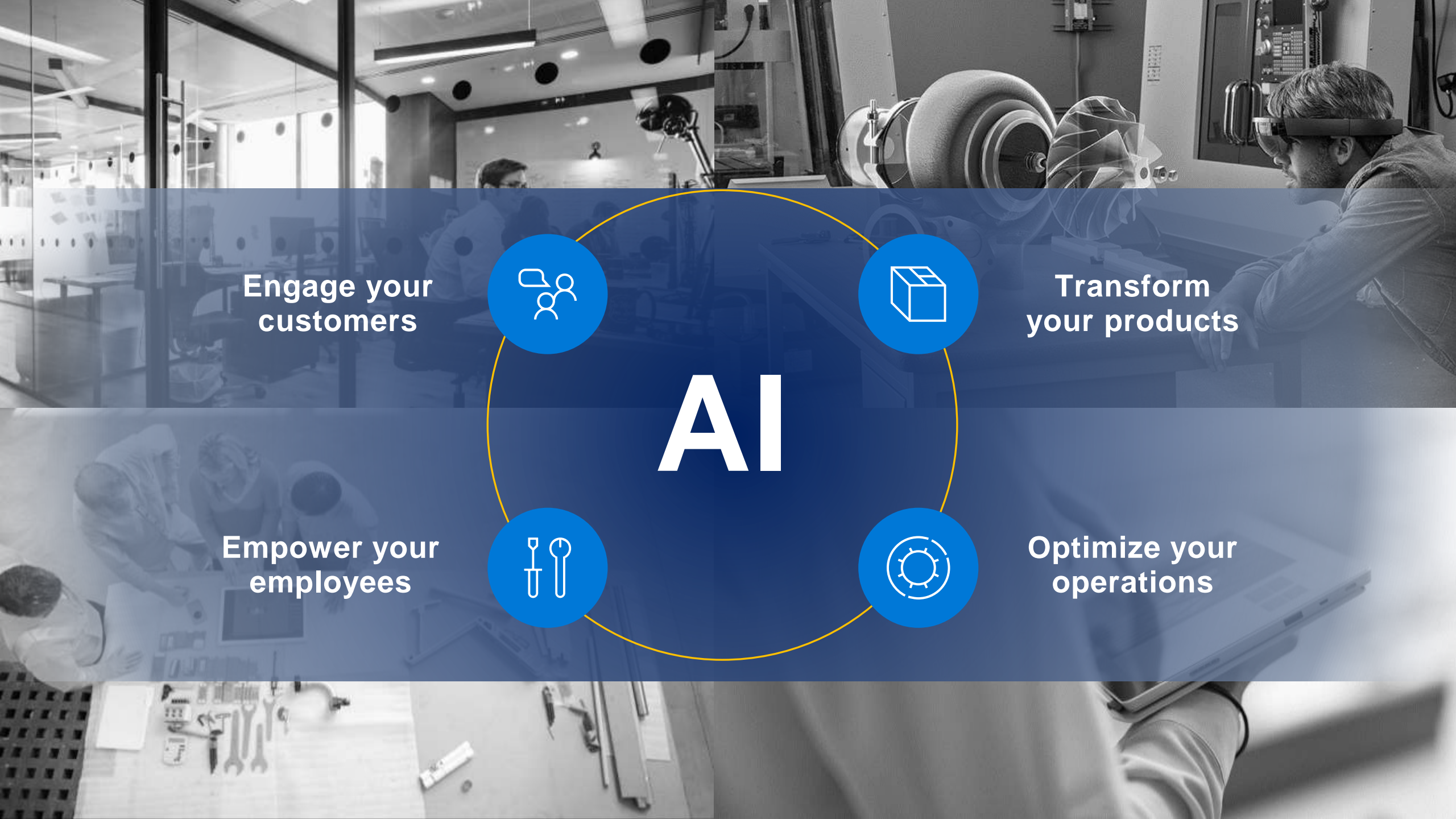
**Technology**

**Skills**

# Value creation in the 3rd Millenium Economy

First, becoming AI-POWERED means associating your core strategy and competitiveness with the usage of data and AI. Your strategy must be underpinned by a thorough, up-to-date data acquisition strategy. After all, AI is intelligence derived from data. So, data should be your very first focus for becoming AI-POWERED.





**Engage your  
customers**



**Transform  
your products**



**Empower your  
employees**



**Optimize your  
operations**

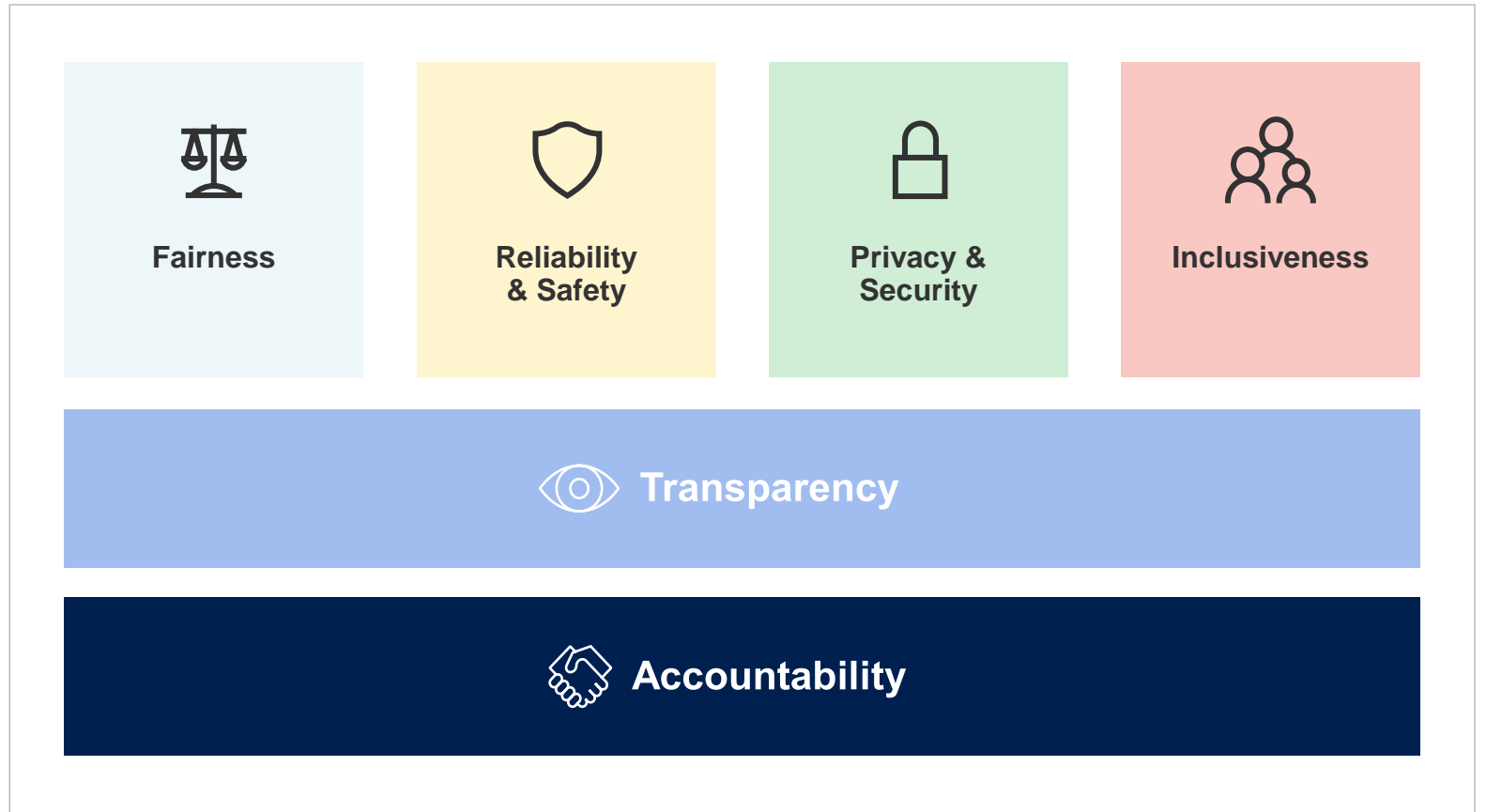


**AI**

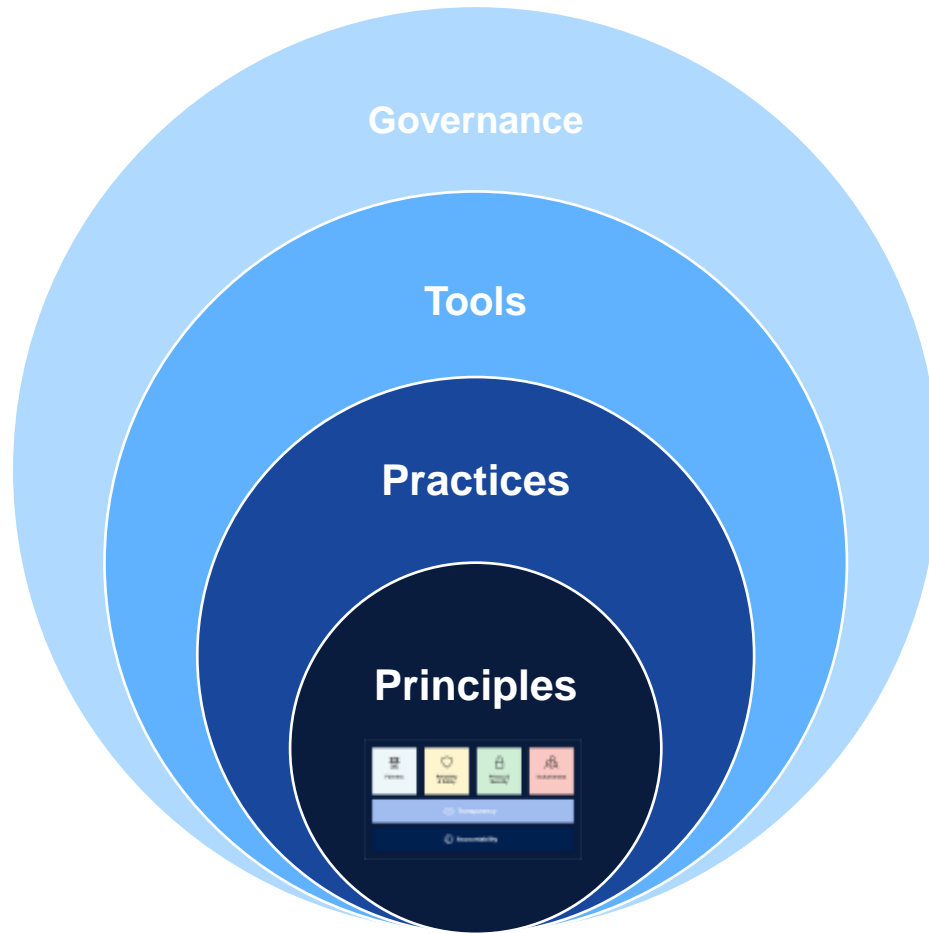


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# The ethics of AI begins with **Strong Principles**



# Putting Responsible AI into practice: A Holistic View



- Create ethicist roles and ethics training
- Define principles and a code of ethics
- Implement a governance model
- Advocate from the top, at all layers

# How to create an AI-powered company

**Strategy**

**Organization**

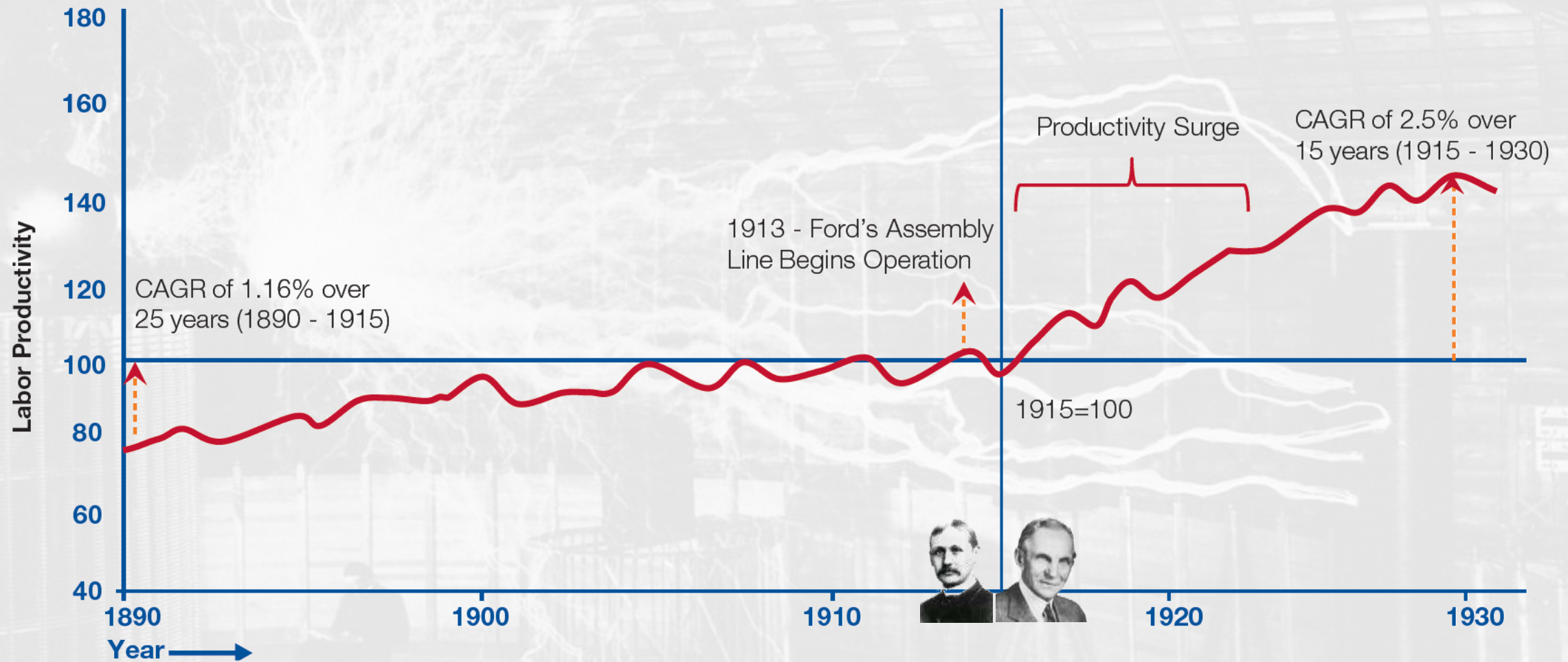
**Processes**

**Culture**

**Technology**

**Skills**

# AI – The New Electricity





# How to create an AI-powered company

**Strategy**

**Organization**

**Processes**

**Culture**

**Technology**

**Skills**

# How to create an AI-powered company

**Strategy**

**Organization**

**Processes**

**Culture**

**Technology**

**Skills**



As experts in talent placement, we see **four keys to success** for data & analytics leadership in organizations

1

### **More Engineering-centered Org**

- » Sustained focus on acquiring top engineering talent
- » Data-POWERED transformations demand modern engineering more than analytical modelling
- » Insufficient engineering capabilities result in 80% of analysts' work being data clean-up
- » Adequate engineering capacity amplifies the impact of a few PhD mathematicians

2

### **Organizational Product Focus**

- » Product management in data/analytics enhances project prioritization and engagement
- » It ensures representation of various disciplines in all new analytical development, fostering business partners' ownership and engagement
- » Small scale POC and ad-hoc analysis remain important, but major wins rely on scalable data science products

3

### **Data & AI Take the Lead on Organization Design**

- » AI leaders define new work types and models, promote learning especially with GenAI and LLMs
- » They encourage change, reward experimentation and measured risk-taking
- » They are accountable for value creation and risk management
- » Effective leaders leverage the existing organization's culture

4

### **Centralized/ Integrated Organizational Models**

- » Successful companies balance centralized capability building and federated delivery
- » A central capacity is necessary for mature data science capabilities, aligning central teams with business lines and stakeholders
- » Data leaders' reporting lines are shifting towards business leaders on the ELT, moving away from technology



# AI-driven Organization

## Chief Information Officer

Responsible for IT infrastructure, databases (system “owner”)

Technical view of data, IT and “digital” aspects

## Chief Data Officer

Responsible for organization-wide data management

Functional (and partly technical) view regarding data flow; gatekeeper of single point of truth and documentation

## Chief Protection Officer

Responsible for general data privacy (GDPR)

Monitors system compliance with data privacy requirements, performs data audits and reports the results

## Chief Digital Officer

Responsible for digital change in the company

Creation and use of digital products and processes (obsolete in case of successful transformation)

## Examples for the scope of the CDO (further details follow)

Designs vary (depending on understanding and sector/company)

### Overall data governance responsibility

Control and development of guideline and implementation after management approval

### Individual DG disciplines, e.g. data management and quality

For example, to avoid negative effects of insufficient data quality

### Missionary/ambassador

Advisor and guide for top management and employees  
>> Increase visibility and raise awareness of data in the company (multiplier and role model)

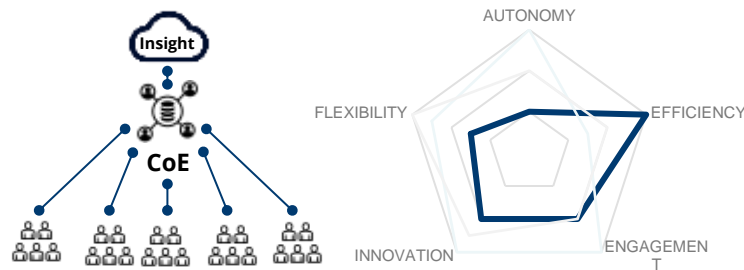
### Business value

Intelligent, value-added-oriented use of data and gaining knowledge from them; change from regulatory requirements and compliance to the creation of business value

# What structure suits your AI team best?

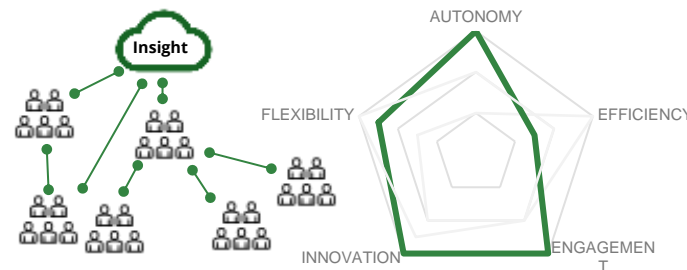
## Centralized

Excel in efficiency and expertise concentration but lead to bottlenecks and knowledge siloing



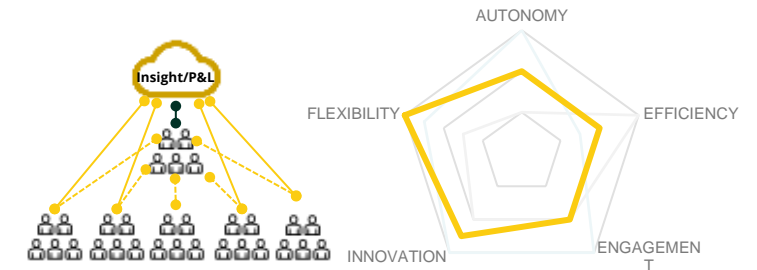
## Decentralized

Offer innovation and autonomy but can suffer from inconsistency and resource duplication



## Hybrid

Balance the benefits of centralized and decentralized structures but require careful management to avoid complexity and conflicts



### STRENGTH

**Efficiency:** A single, dedicated team to streamline AI project development and deployment across the organization. Ideal to drive excellence for mature capabilities

**Expertise Concentration:** Pools top talent, fostering specialized skills and deep AI expertise

**Standardization:** Ensures consistency in AI practices, facilitation of access and sharing of data and technologies across different departments

**Strategy:** Aids the efforts of BUs by offering synergies and advantages of scaling according to a strategic roadmap

**Autonomy:** Each department with their own AI team enables tailored solutions and responsiveness to specific needs

**Innovation:** Lead to a variety of approaches and experiments with different AI technologies and methods

**Engagement:** The team often has developed naturally, and direct involvement can increase buy-in and interest in AI throughout the organization

**Flexibility:** Combines centralized governance and strategy with departmental autonomy for implementation

**Resource Sharing:** Allows for efficient allocation of AI resources and expertise where they're most needed

**Best Practices:** Allows for innovation and facilitate transformation. Benefits of being close to the market/customer includes cross-market and business empowerment

**Customer-centric:** Enables the genuine promotions of a customer-focused business and generation of external value

### DRAWBACKS

**Bottlenecks:** Tends to be overwhelmed with requests from various BUs, leading to delays and limited accessibility

**Knowledge Siloing:** May result in isolate AI knowledge within the team, reducing broader organizational learning. May result in detachment from market trends.

**Autonomy:** Lack decision-making power and does not manage a new BU or responsibility for P&L

**Inconsistency:** Varied levels of competence and approaches across teams can lead to disparities in AI project success.

**Resource Duplication:** May result in unnecessarily duplicate tools, platforms, and talent.

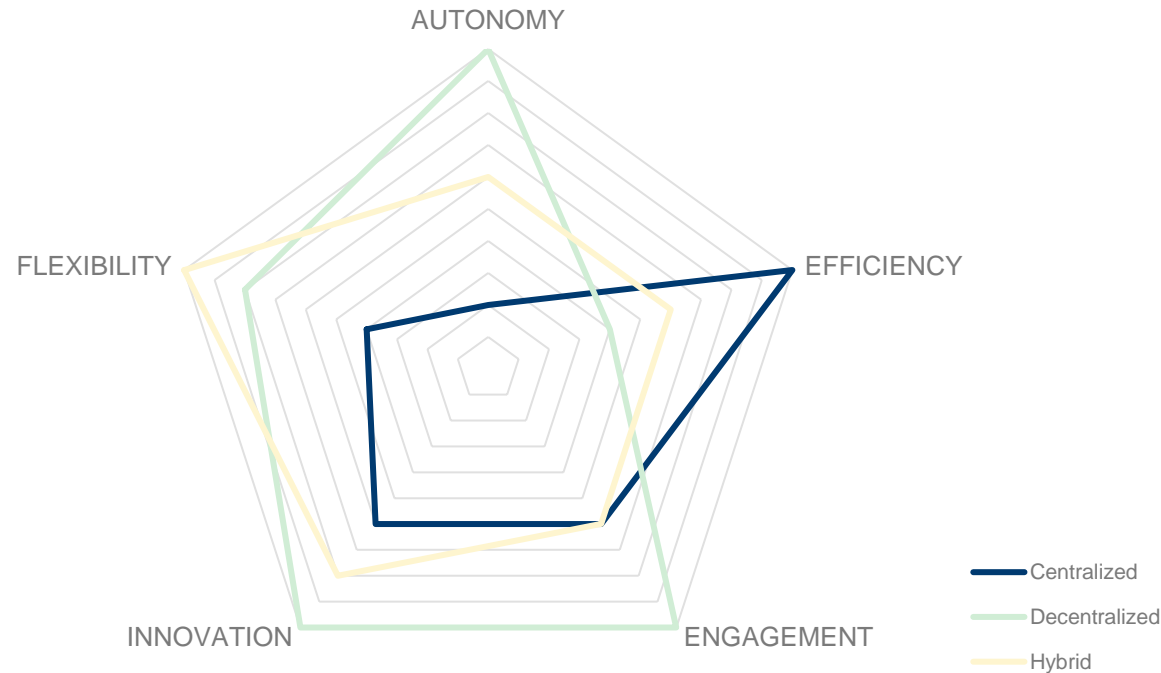
**Isolation:** Solutions developed often lack transferability and applicability across the organization. Result in a lack of priority alignment and no ownership of corporate agenda.

**Complex Coordination:** Requires intricate management to ensure cohesive functioning, efficient resource allocation and avoid conflicts between centralized and decentralized teams.

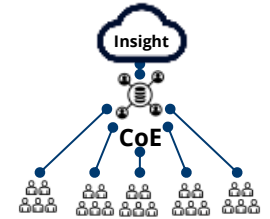
**Mixed Signals:** Can lead to confusion over authority and decision-making, with potential for duplicated efforts or conflicting priorities. Requires a clear definition and understanding of governance and responsibilities.

# Organizational Structure Archetype

## 1. Centralized AI Team



Excel in efficiency and expertise concentration but lead to bottlenecks and knowledge siloing

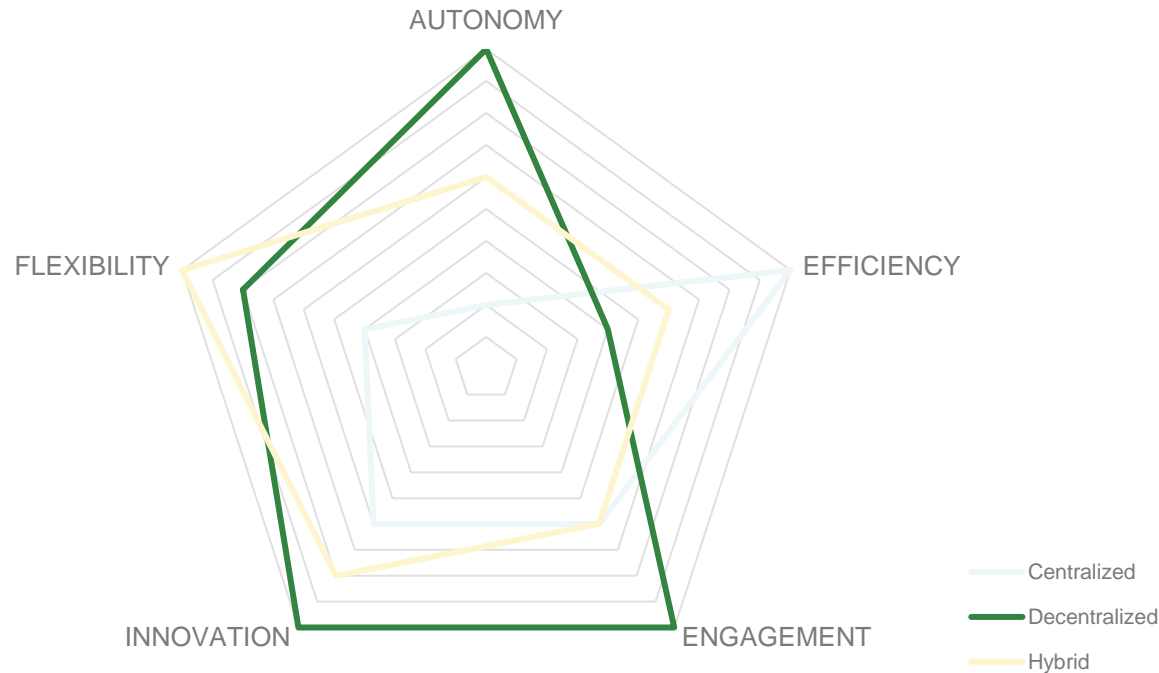


- + **Efficiency:** A single, dedicated team can streamline AI project development and deployment across the organization. Often seen as good option to drive excellence for mature capabilities (i.e., FF effectiveness, market excellence, operational improvement)
  - + **Expertise Concentration:** Pools top talent, fostering specialized skills and deep AI expertise. Location of Centers of Excellence aligns with talent availability
  - + **Standardization:** Ensures consistency in AI practices, facilitation of access and sharing of data and technologies across different departments.
  - + **Strategy:** Aids the efforts of BUs by offering synergies and advantages of scaling according to a strategic roadmap
- 
- **Bottlenecks:** Typically found in businesses that possess advanced skills and support a large number of users with shared tools. Tends to be overwhelmed with requests from various BUs, leading to delays and limited accessibility
  - **Knowledge Siloing:** Tends to isolate AI knowledge within the team, reducing broader organizational learning. May result in detachment from market trends.
  - **Autonomy:** Lack decision-making power and does not manage a new BU or responsibility for P&L



# Organizational Structure Archetype

## 2. Decentralized AI Team



Offer innovation and autonomy but can suffer from inconsistency and resource duplication

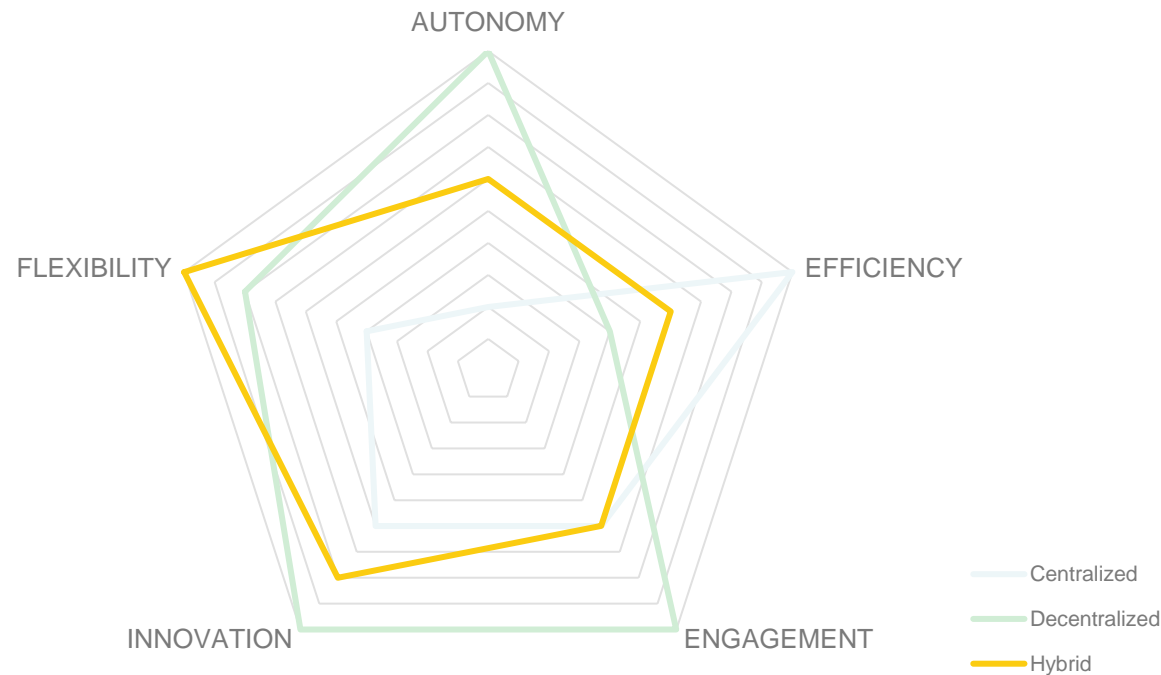


- + **Autonomy:** Departments have their own AI teams, allowing for tailored solutions and responsiveness to specific needs.
  - + **Innovation:** Can lead to a variety of approaches as each team experiments with different AI technologies and methods. Data teams respond quickly to business leaders. More popular structure for tech-first businesses with deep analytics capabilities
  - + **Engagement:** The team often has developed naturally and direct involvement can increase buy-in and interest in AI throughout the organization.
- 
- **Inconsistency:** Varied levels of competence and approaches across teams can lead to disparities in AI project success.
  - **Resource Duplication:** Departments may unnecessarily duplicate tools, platforms, and talent.
  - **Isolation:** Solutions developed often lack transferability and applicability across the organization. Result in a lack of priority alignment and no ownership of corporate agenda.

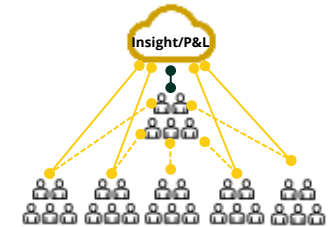


# Organizational Structure Archetype

## 3. Hybrid AI Team



Aim to balance the benefits of centralized and decentralized structures but require careful management to avoid complexity and conflicts

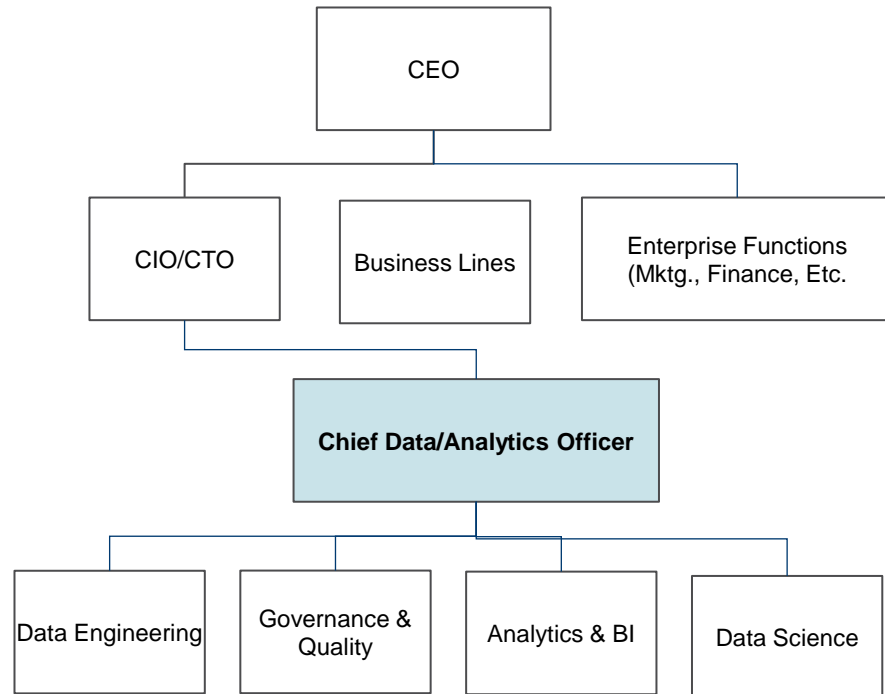


- + **Flexibility:** Combines centralized governance and strategy with departmental autonomy for implementation.
  - + **Balance:** Strikes a balance between organizational standards and innovation.
  - + **Resource Sharing:** Allows for efficient allocation of AI resources and expertise where they're most needed.
  - + **Best Practices:** Allows for innovation and facilitate transformation. Benefits of being close to the market/customer includes cross-market and business empowerment
  - + **Customer-centric:** Enables the genuine promotions of a customer-focused business and generation of external value.
- 
- **Complex Coordination:** Requires intricate management to ensure cohesive functioning and avoid conflicts between centralized and decentralized teams.
  - **Mixed Signals:** Can lead to confusion over authority and decision-making, with potential for duplicated efforts or conflicting priorities. Requires a clear definition and understanding of governance and responsibilities.
  - **Resource Competition:** Departments may vie for attention and resources from the centralized part of the hybrid team.

# Data & Analytics Reporting Structures

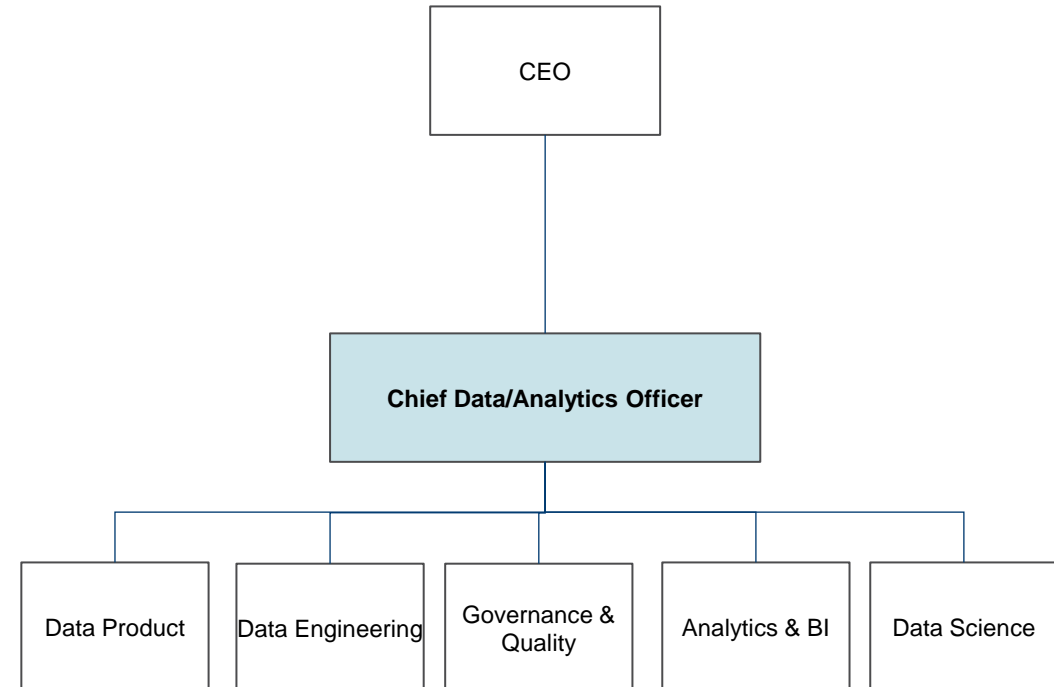
## Archetype 1

Direct report to CIO/CTO



## Archetype 2

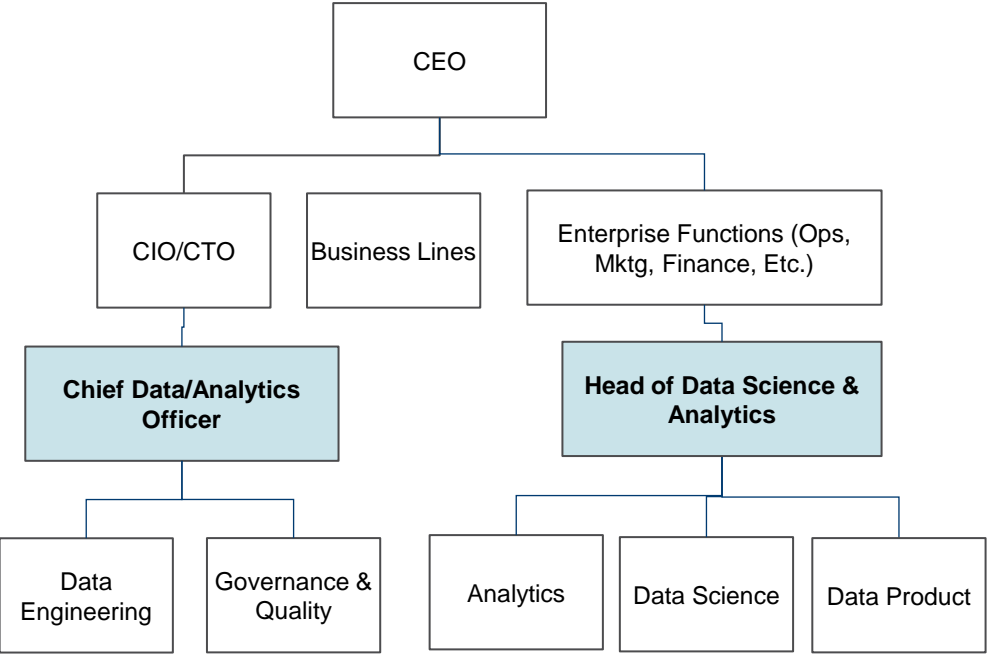
Direct report to CEO/Business



# Data & Analytics Reporting Structures

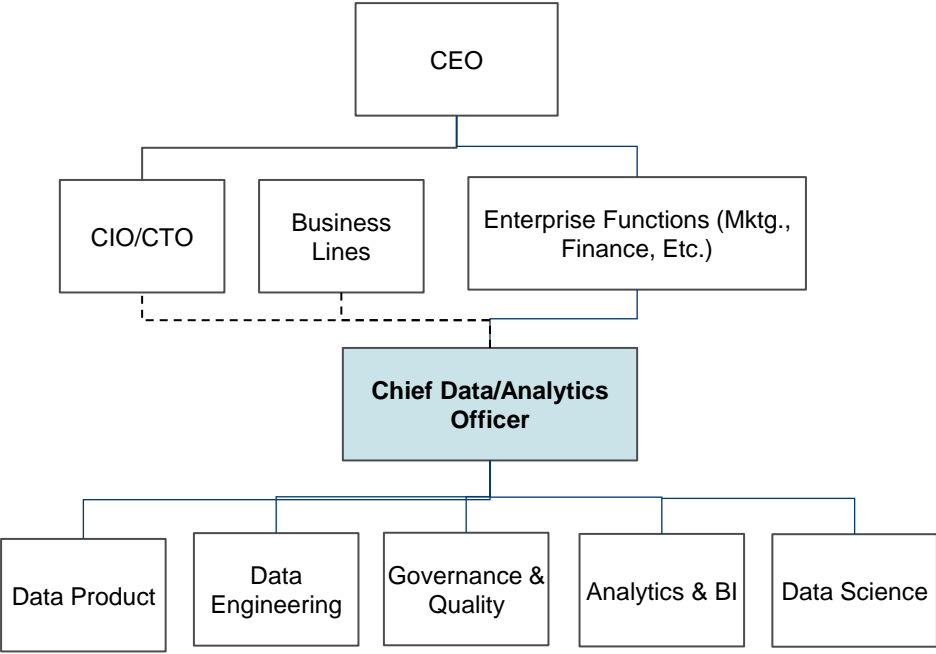
## Archetype 3

Split Data Tech into CIO & Science / Analytics into the Business



## Archetype 4

Direct report into a Key Function (i.e. Commercial, Marketing, Strategy, Finance)

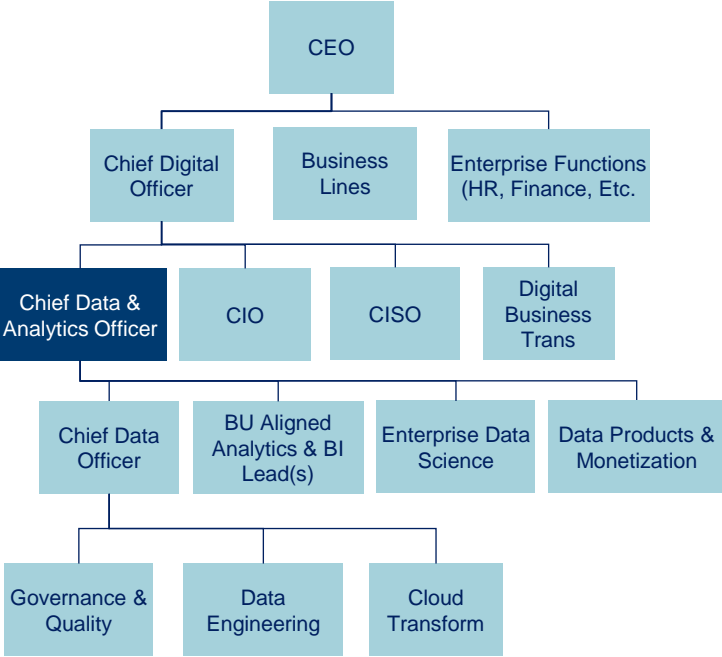




# Insights about reporting structures

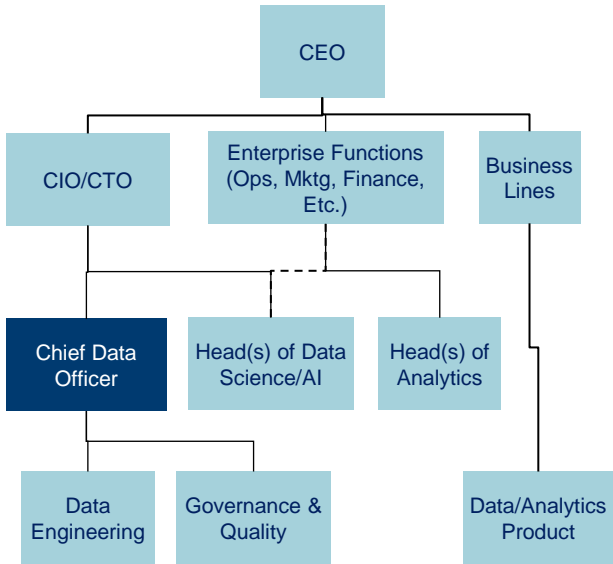
## Centralized Structure

The Chief Data Officer (CDO) operates under a single leadership hierarchy, ensuring strong oversight and consistency in data and analytics efforts across the organization. This setup allows for streamlined governance, data quality, and engineering. However, some business units may require customized solutions that this structure might not fully address.



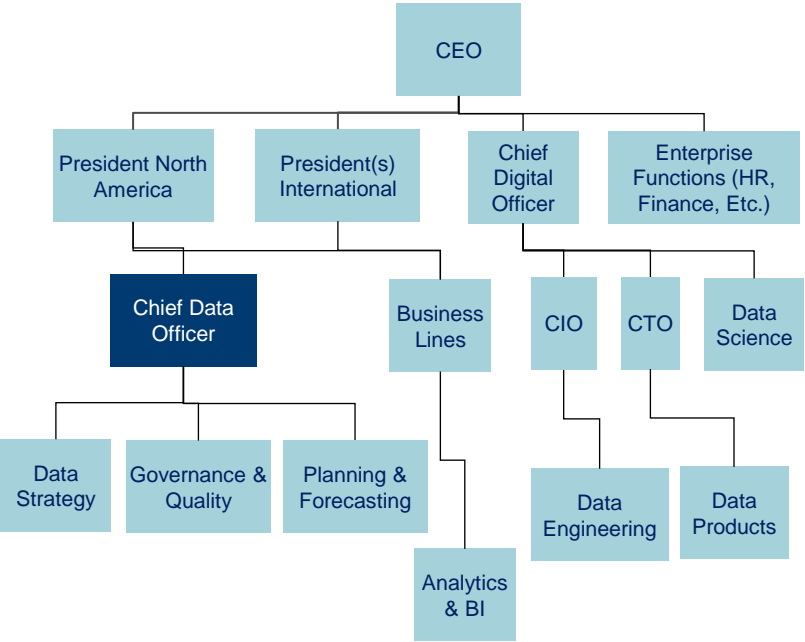
## Partially-Federated Structure

This structure balances centralized control with decentralized expertise. While the CDO still oversees data governance and engineering, other roles like Heads of Data Science and Analytics have more direct engagement with business functions. This setup enables standardization while allowing flexibility for specific department needs.

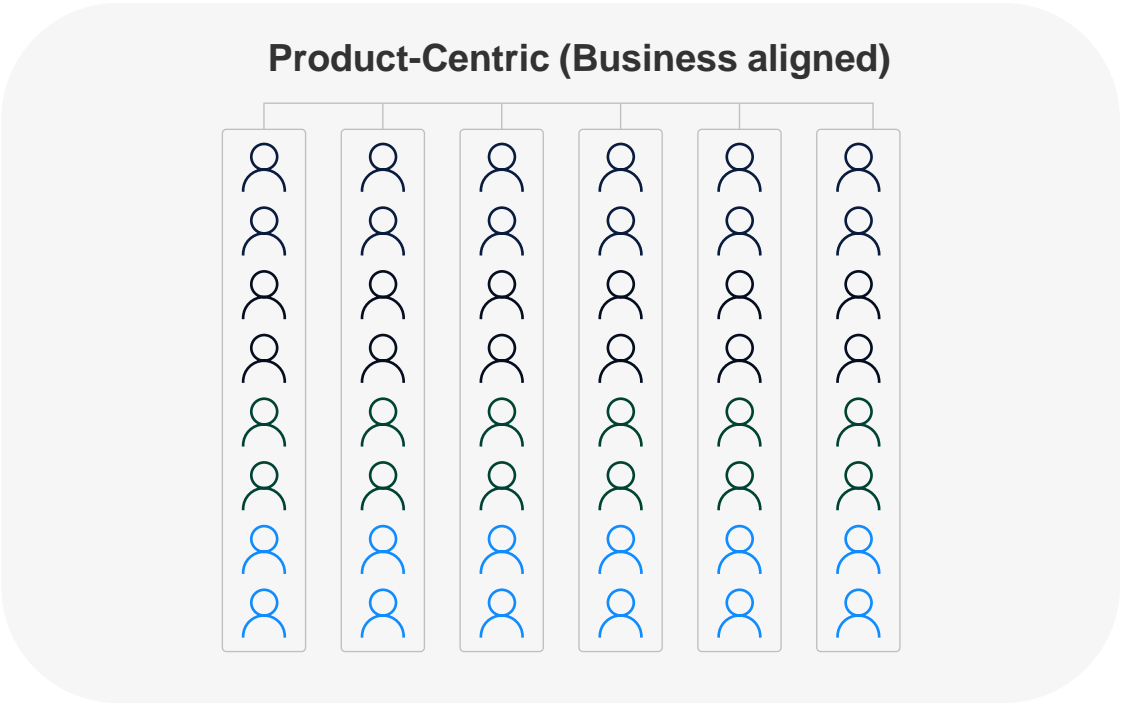
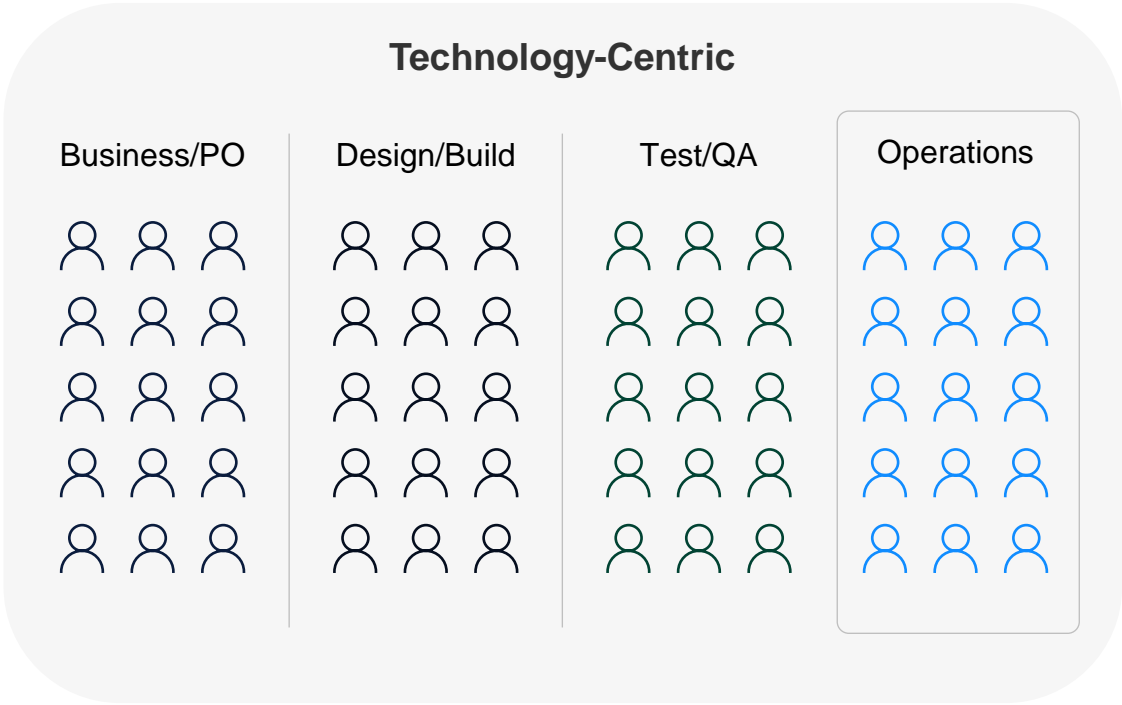


## Completely-Federated Structure

Data responsibilities are distributed across multiple business units, with the CDO supporting strategy and governance rather than direct execution. Different teams, such as Data Science, Engineering, and Analytics, report through separate leadership paths, fostering autonomy but potentially creating challenges in maintaining consistency across the organization.



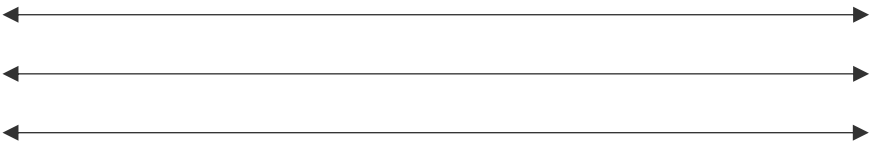
# Increasing shift from Technology-centric to Product-centric structure



Operational Effectiveness

Strictly-defined roles

Tower-based model



Change & Speedy Delivery

Self-organizing

Flat organization model

# Why should you hire CAIO and Where do they fit in the organization?

Data & AI have arrived at the core of the business, transforming business models and industry set-ups. CAIOs are no longer only essential for technology businesses but for organizations of all types

11%

of medium to large organizations have **already designated CAIO equivalent or similar individual** in the role

21%

of organizations are **actively looking to hire one**

## Structure 1 – direct report to CEO

- Play a strategic and cross-functional role beyond tech
- Collaborate with other key leaders to drive and leverage AI initiatives
- Make strategic decisions about the company's AI investments and resource allocations
- Enabled to have a significant impact on the strategic direction of the company
- Drive company-wide business growth and innovation
- Ensure company's ethical use and regulatory compliance of AI

## Structure 2 – report to another top officer (COO/CMO/CTO/CIO etc)

- Work in partnership with other business segments to develop and integrate AI strategy
- Play a central role in technology team and work closely with data engineers , scientists and ML researchers
- Integrate AI technology to the core of the business by democratizing data analytics and AI and lead related initiatives
- Ensure company's ethical use and regulatory compliance of AI

(Data from Foundry )

# CAIO is more than top technology leader with superior AI expertise

## Roles & Responsibilities

### ROLES

#### ■ Strategy

Responsible for developing and integrating the company's overall AI strategy seamlessly from design, development and implementation of AI technologies

#### ■ Transformation

Lead AI-driven process modernization, ensuring ethical and governance-focused AI utilization. Foster an AI-first culture

#### ■ Thought Leadership

Be the opinion shaper and spearhead successful AI programs coupled with a visionary approach to AI-driven organizational transformation

#### ■ Investment

Own financial authority for internal AI investments and developing external partnerships

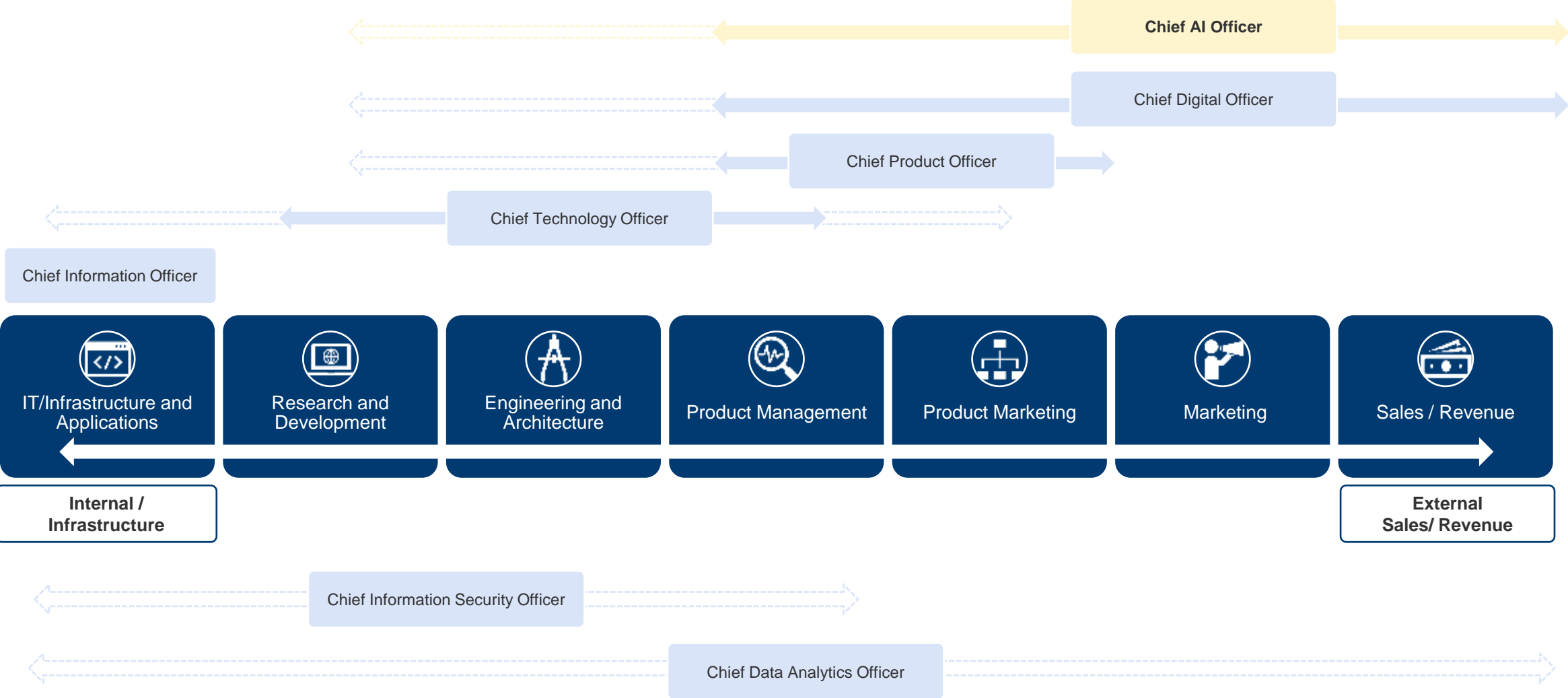
### RESPONSIBILITIES

- **Business Impact** | Align the company's AI initiatives with its business goals. Design and target relevant business use cases, assess project outcomes and measure ROI in each case
- **Culture** | Champion for smart AI adoption. To build an AI-first culture by intriguing curiosity and innovation as well as promoting responsible use of AI
- **Ethics & Governance** | Recognize and balance AI benefits with risks. To transform processes with AI while ensuring the ethics and governance of its application for the organization
- **Collaboration** | Work together with various business units to build AI strategy and vision. Ensure all AI initiatives are future-proof and adaptable to changing business environments
- **Communications** | Demystifying AI for all stakeholders by translating complex AI concepts into accessible and comprehensible insights
- **Leadership** | Manage a team of cross-functional IT professionals, Data scientists and engineers, ML engineers, AI Product leads, SW engineers



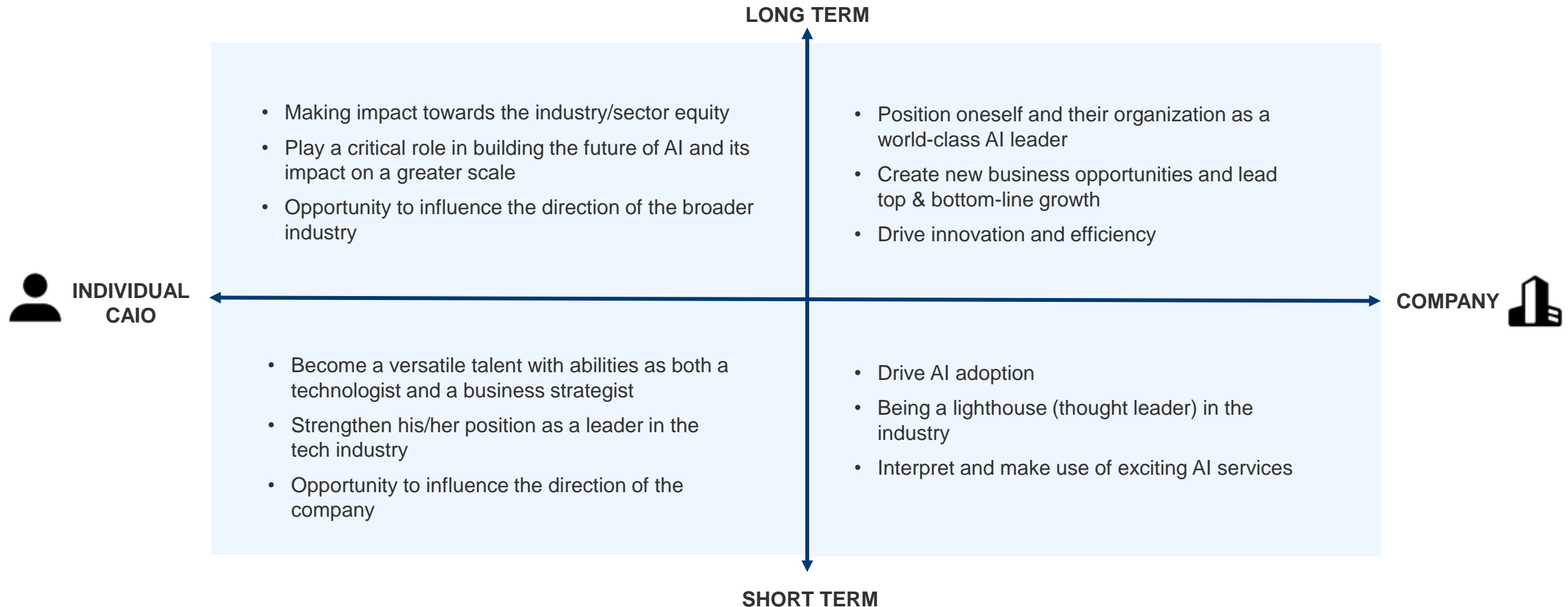
# Technology Leadership Spectrum

Where does **Chief AI Officer** sits in the spectrum?



# What does success look like?

Driving significant change and innovation through AI



# How to create an AI-powered company

**Strategy**

**Organization**

**Processes**

**Culture**

**Technology**

**Skills**

# Identifying Blockers...

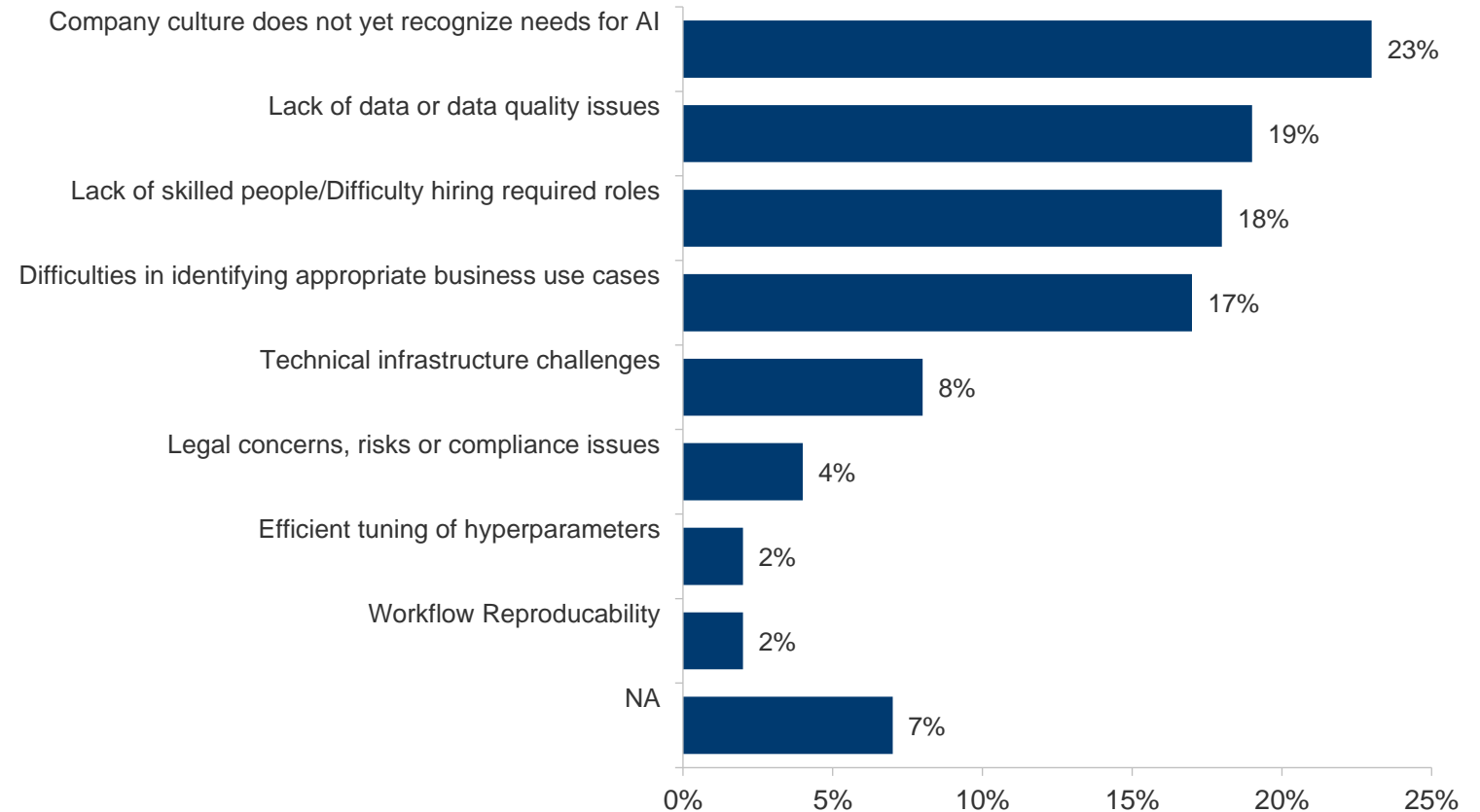
92%

## Struggle with Cultural Challenges

Over 90% of Fortune 1000 Senior Executives found culture changes were their biggest barriers to digital transformation, relating to business processes, change management, communication, people skill sets, and resistance.

SpencerStuart

[Why Is It So Hard to Become a Data-POWERED Company? \(hbr.org\)](https://hbr.org/2019/01/why-is-it-so-hard-to-become-a-data-powered-company/)



[AI Adoption in the Enterprise: How Companies are Planning and Prioritizing AI Projects](#)  
by Ben Lorica and Paco Nathan

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# Changing the Organization Culture



**Clear business strategy**



**Assigning accountability down the org**



**Review technology adoption & metrics**



**Measure everything & experiment**

## **Executives – Top-Down:**

- Business strategy defined as metrics and set with goals.
- Metrics and goals are broken down to granular/LoB levels.
- Performance is evaluated based on metrics.

## **Line of Business: Bottom-Up:**

- Feature teams come up with hypothesis on new metrics.
- They experiment the ideas and validate with data.
- Go/No-Go decisions are made based upon results.



# Organization Culture key traits



**EXECUTIVE  
OWNERSHIP**



**EMPOWERMENT**



**CULTURE OF  
LEARNING**



**COMMUNICATION**



**TIME IS NOW**



# The Evolving Profile of Individuals in the CDO Role

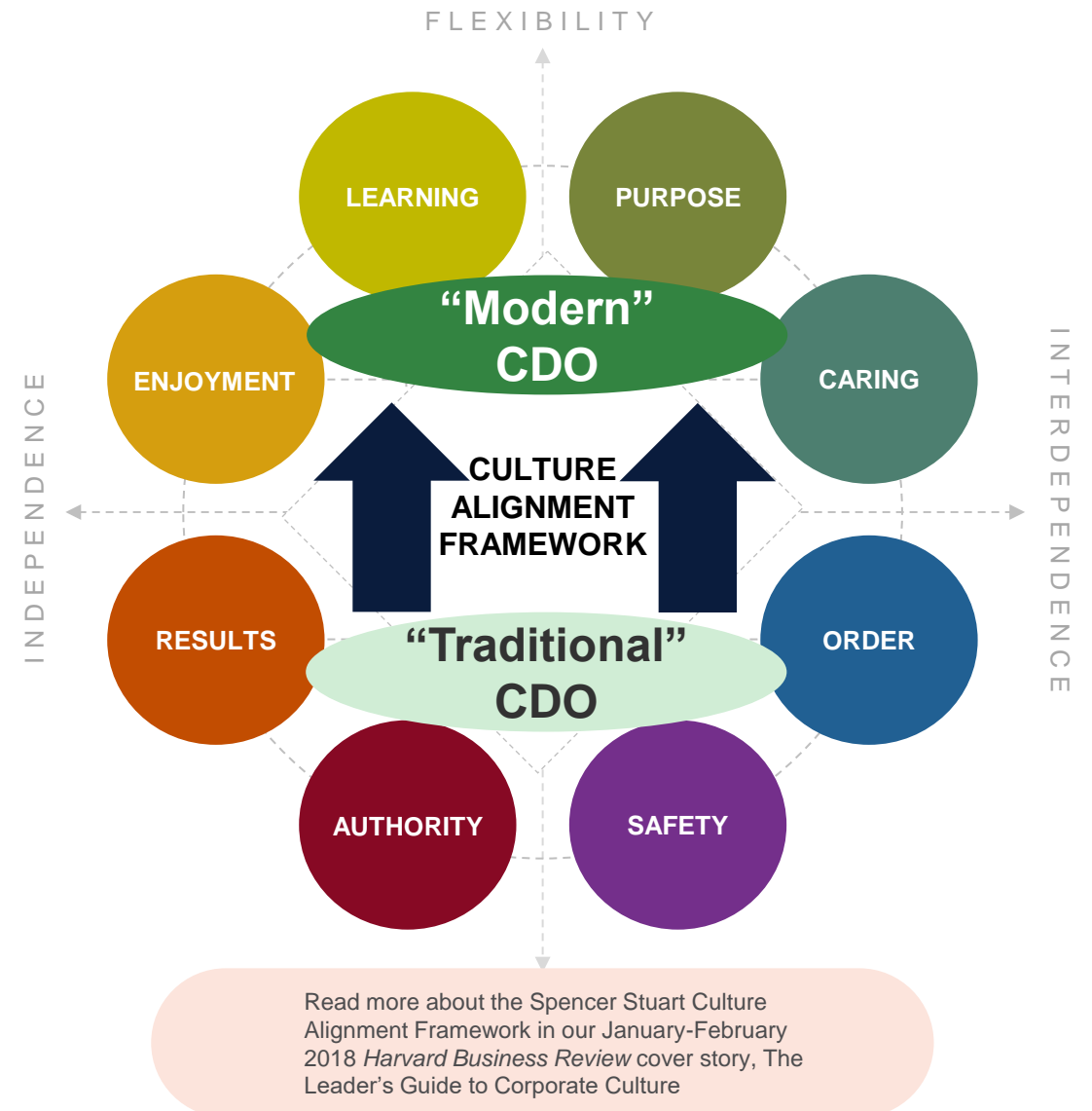
As the nature of the role changes quite fundamentally, clients find it helpful to understand the personal behavioral orientation of both candidates and their incumbent leaders.

## Eight Primary Styles

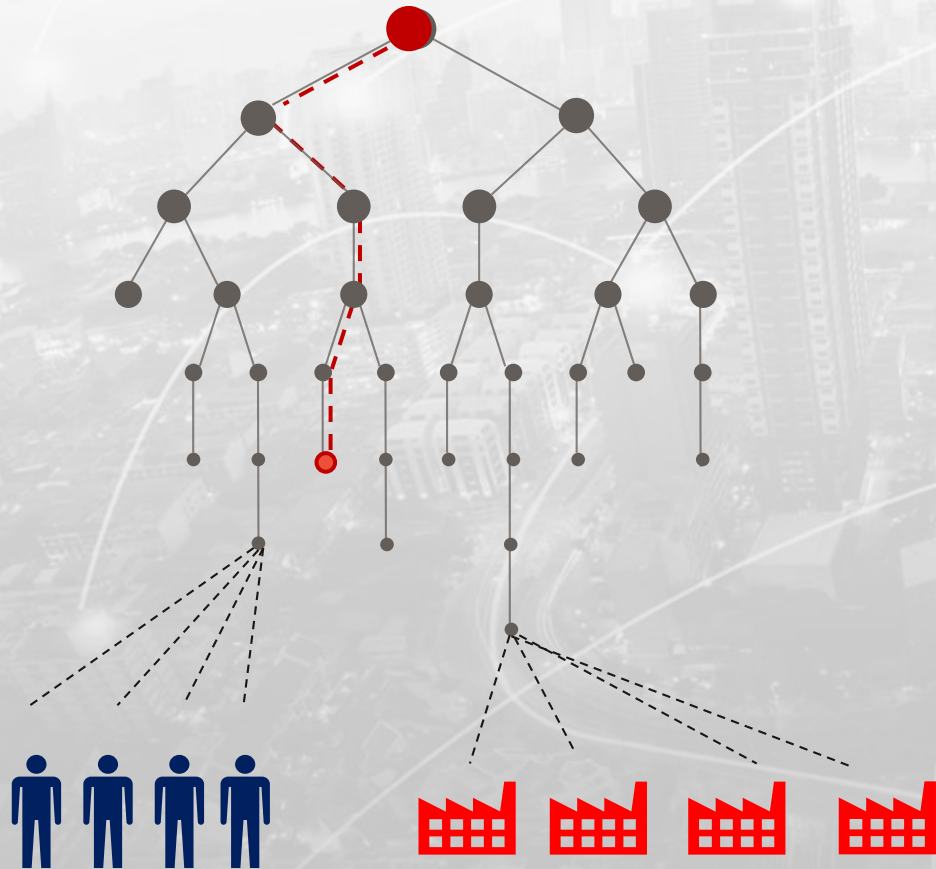
- **Horizontal:** Attitude towards people, from independence to interdependence.
- **Vertical:** Attitude towards change, from flexibility to stability.

## Value

- Provides insight into how naturally a candidate will fit with the culture.
- Identifies potential change agents for organizations undergoing a transformation.
- Helps explain “derailers” in otherwise capable, high potential executives.



# AI Powered Companies – Culture Shift



TRADITIONAL HIERARCHIES

COMMAND AND CONTROL

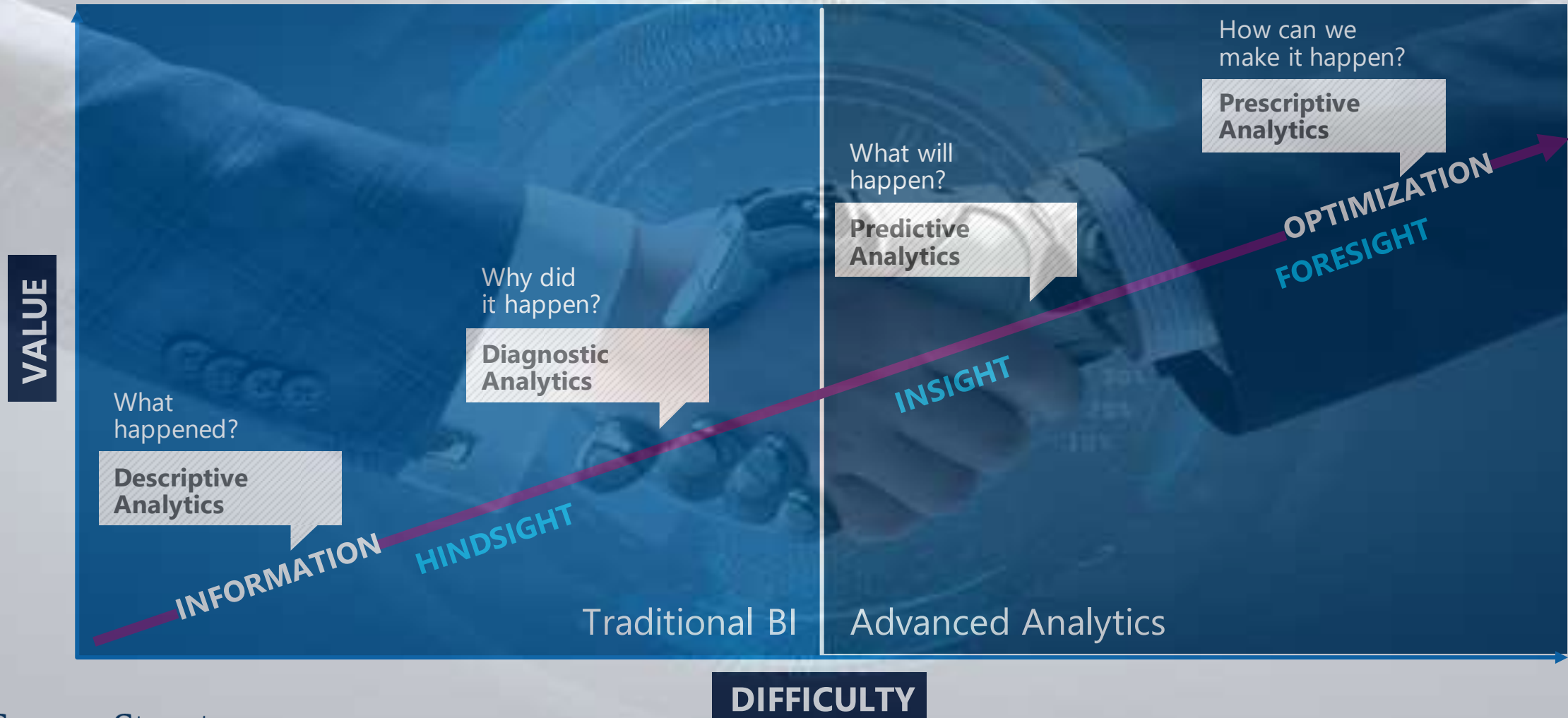


RESPONSIVE NETWORKS

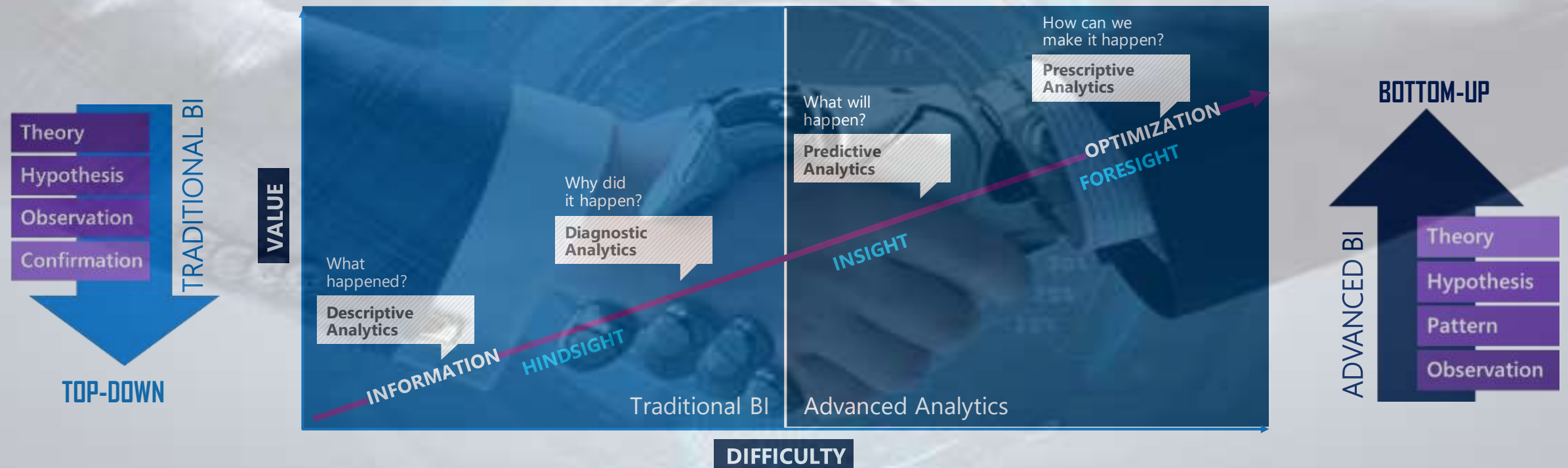
LEARN AND ADAPT



# The new Augmented Intelligence powered by AI

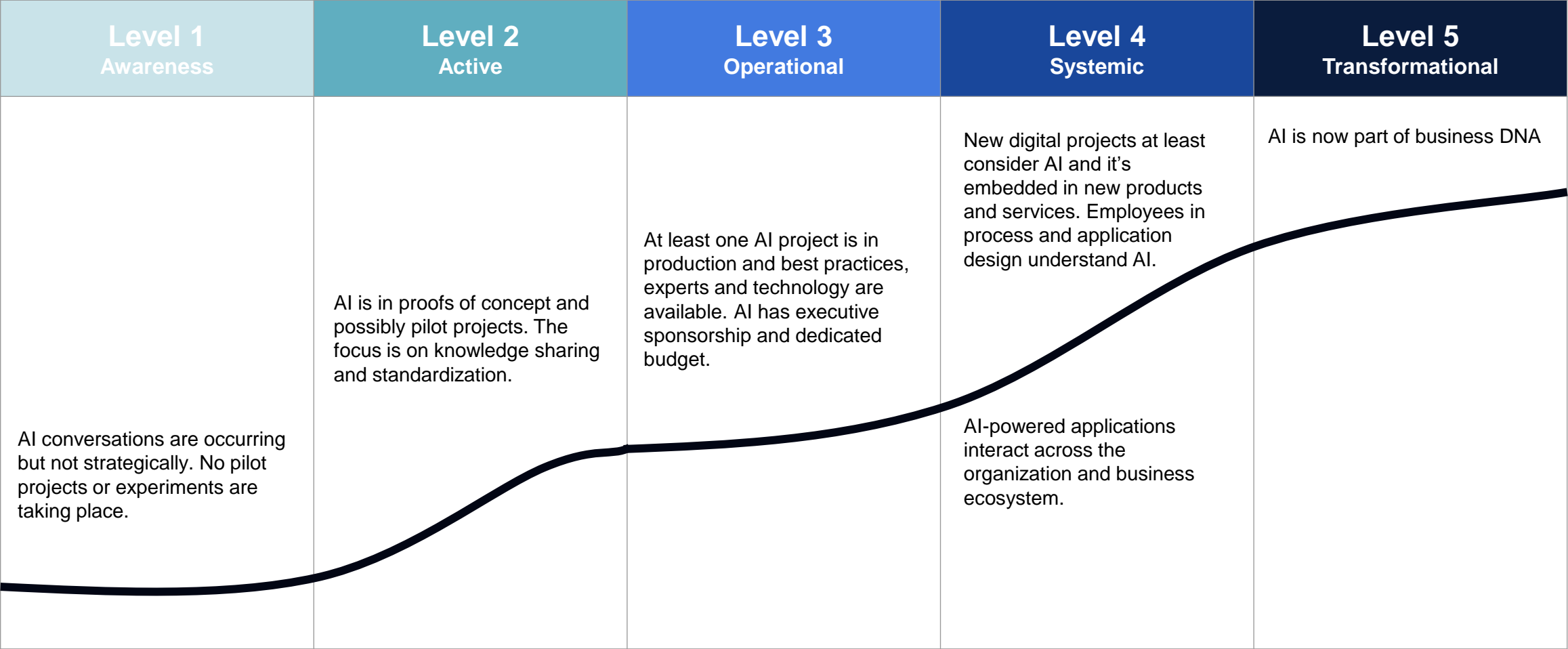


# The new Augmented Intelligence powered by AI



# How can the right leader help you get to the next stage?

## AI Maturity Model





Paramount Pictures

WRITERS GUILD  
ON  
**STRIKE!**

NO  
A.I. !!

WRITERS GUILD  
ON  
**STRIKE!**

WE DESERVE  
A HOLLYWOOD  
ENDING

WRITERS GUILD  
ON  
**STRIKE!**

HERE'S A PICKET  
PAY US

WRITERS GUILD  
OF  
AMERICA

ON  
**STRIKE**

**STRIKE!**

WHAT WE'RE  
HERE IS A  
TO NEGOTIATE

WRITERS GUILD  
OF  
AMERICA

ON  
**STRIKE!**

WRITERS GUILD  
ON  
**STRIKE!**

WRITERS GUILD  
ON  
**STRIKE**

EXIT ONLY



# Does AI (need to) have **higher critical standards** than humans?

- **Precision and Accuracy:** AI is expected to perform tasks with a superhuman level of precision and accuracy, such as minimizing or eliminating the risk of accidents in self-driving cars, which is viewed as a higher ethical standard compared to humans (each year 1.35 million people are killed on roadways around the world).
- **Non-Bias:** Unlike humans, AI systems are expected to be completely unbiased, which is technically “challenging” due to the inherent biases present in the human-generated data from which they learn.
- **Privacy:** AI systems are held to rigorous standards regarding data privacy, requiring transparent and consensual data collection, usage, and sharing practices, reflecting a significant ethical concern due to AI's extensive tracking and analysis capabilities.
- **Accountability and Transparency:** The ethical standards demand AI systems to be explainable, addressing the "black box" problem and ensuring that their decision-making processes can be understood and challenged by humans, highlighting a higher level of transparency compared to human decision-making processes.
- **Intent and Responsibility:** While AI lacks consciousness or intent, the responsibility for any harmful or unethical outcomes falls on the humans who created, deployed, or supervised it, showcasing a different facet of ethical standards applied to AI versus humans.

Please find the entire article at:

<https://www.linkedin.com/pulse/does-ai-have-higher-ethical-standard-than-humans-fabio-moioli>





# How to create an AI-powered company

Strategy

Organization

Processes

Culture

Technology

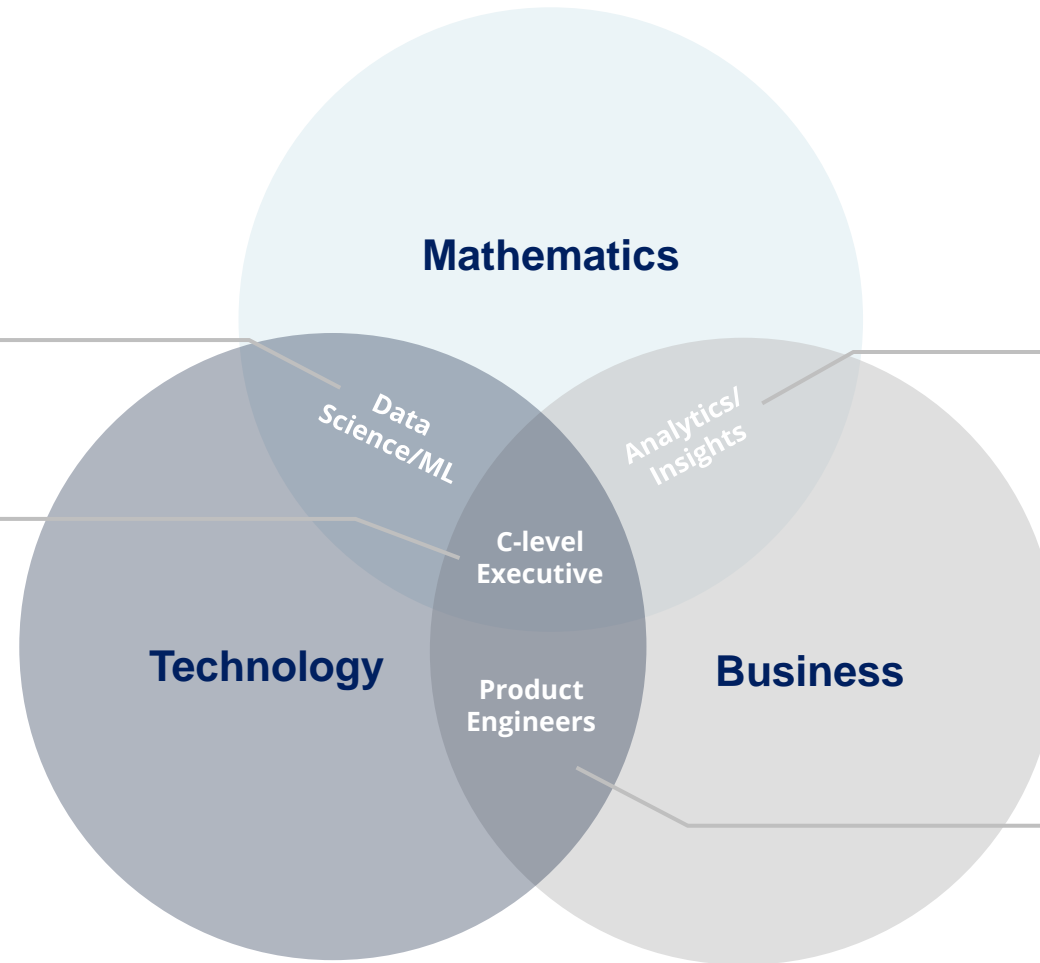
**Skills**

# Data & Analytics leaders typically come from one of three primary backgrounds, but the best have expertise in more than one

**Head of Data Science/ML:**  
Builds the advanced models that enable complex data products and solutions.

**Head of Analytics/Insights:**  
Provides and applies meaningful business context to complex analytical capabilities.

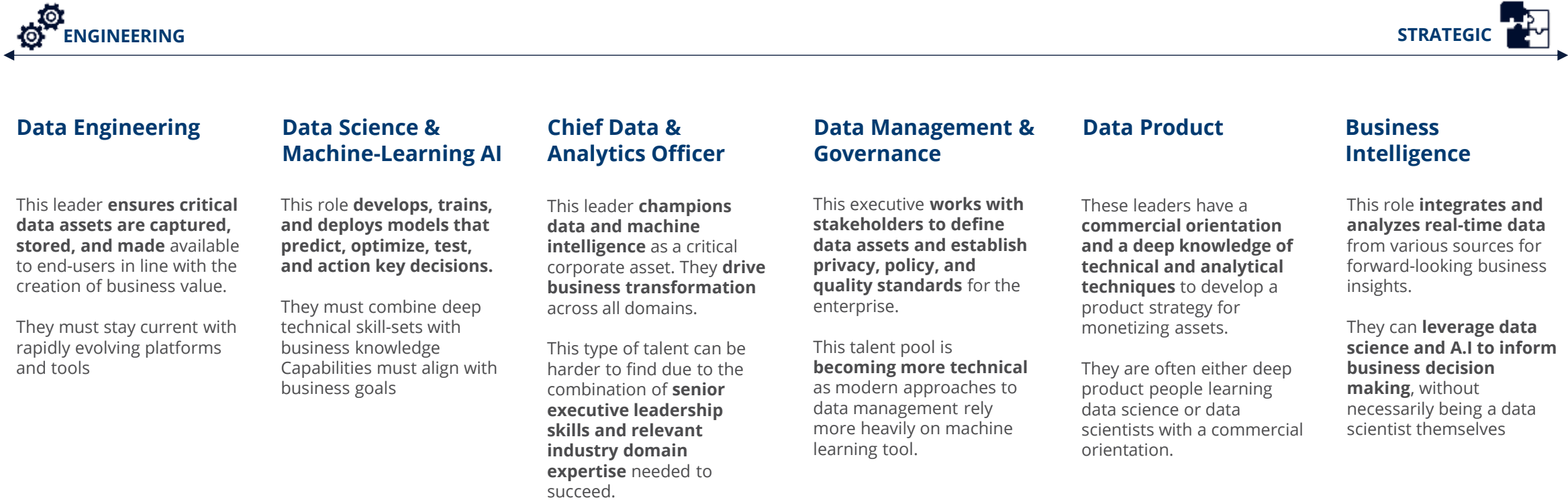
**C-level Data/AI Executive:**  
Sets the enterprise strategy for data/analytics and AI. Builds teams and capabilities, unifies stakeholders and establishes data asset ownership for the enterprise.



**Head of Data Product/Engineering:**  
Translates strategic business goals into data platforms, products, and strategies.

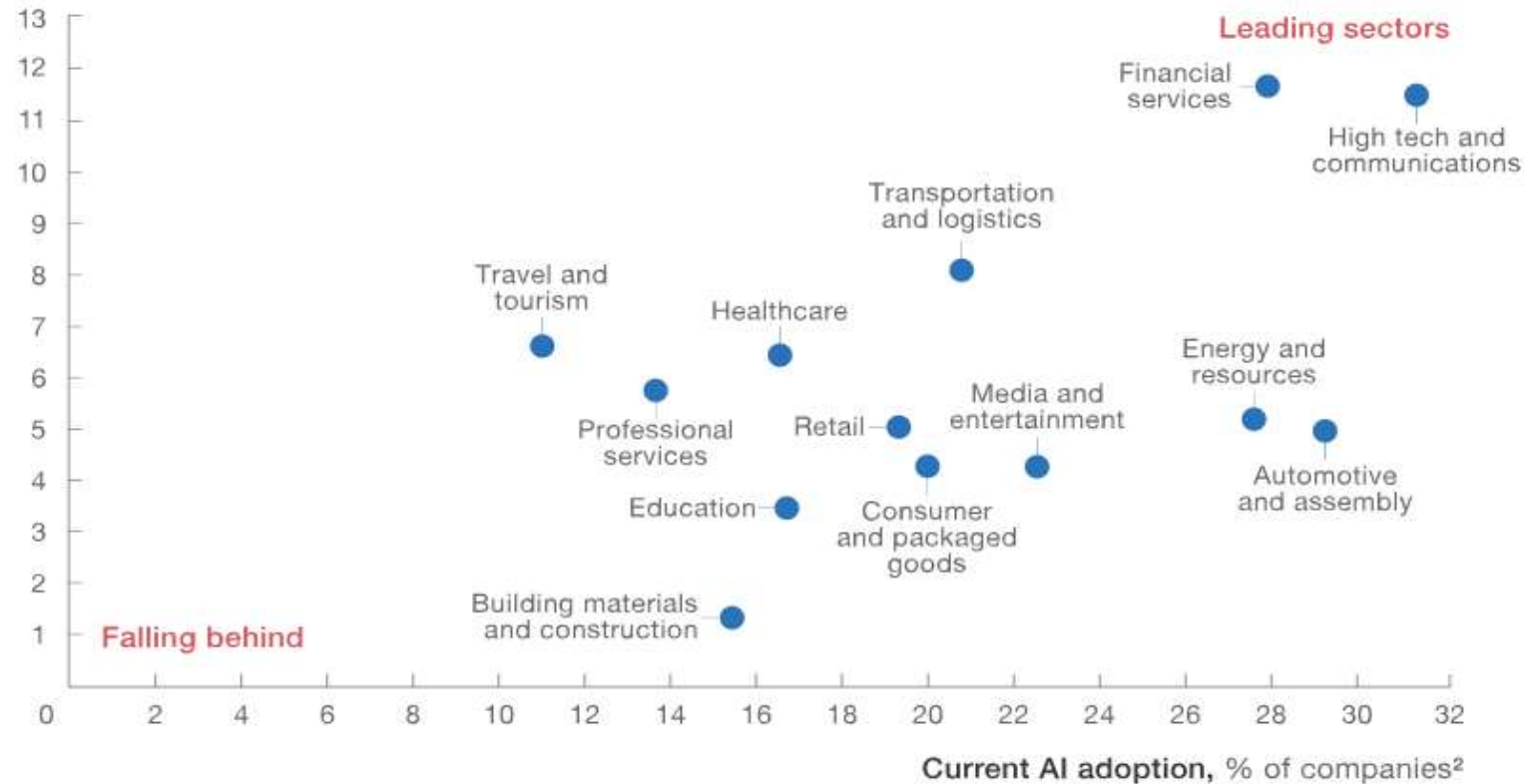
# Navigating the Spectrum: From Engineering to Strategic

## Data & Analytics Leadership Archetypes: Roles and Market Considerations



# Sector Maturity in the AI Race

Future AI demand trajectory, % change in AI spending over next 3 years<sup>1</sup>



<sup>1</sup>Estimated average, weighted by company size; demand trajectory based on midpoint of range selected by survey respondent.

<sup>2</sup>Adopting 1 or more AI technologies at scale or in business core; weighted by company size.

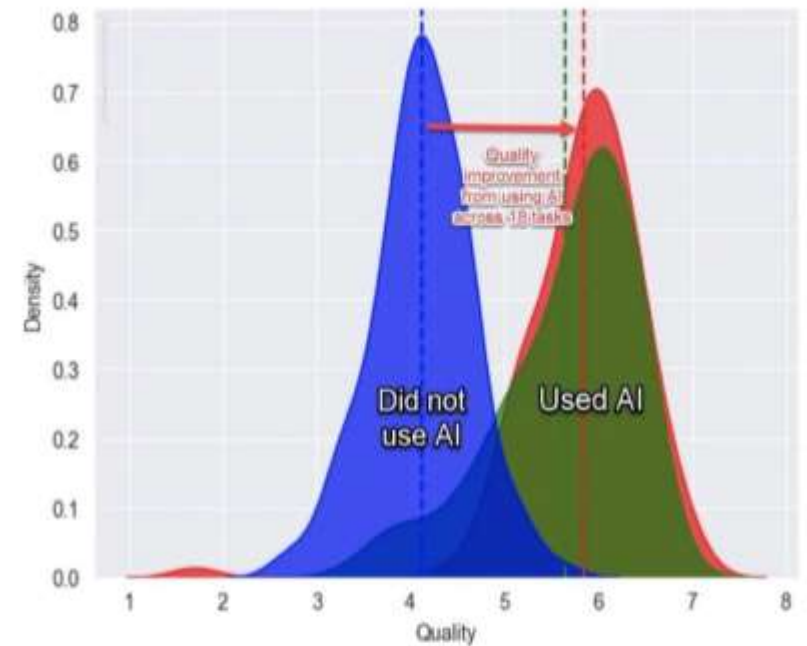
Source: McKinsey Global Institute AI adoption and use survey; McKinsey Global Institute analysis

# Top performers will be AI-enabled workers

Harvard Business School Technology & Operations Mgt, 18 Sep 2023

**Boston Consulting Group (BCG), one of the most prestigious consulting firms, is testing the impacts on AI on its employees: consultants using GPT-4 finished 12.2% more tasks, completed tasks 25.1% more quickly, and produced 40% higher quality results.**

In our study conducted with Boston Consulting Group, a global management consulting firm, we examine the performance implications of AI on realistic, complex, and knowledge-intensive tasks. The pre-registered experiment involved 758 consultants comprising about 7% of the individual contributor-level consultants at the company. After establishing a performance baseline on a similar task, subjects were randomly assigned to one of three conditions: no AI access, GPT-4 AI access, or GPT-4 AI access with a prompt engineering overview. We suggest that the capabilities of AI create a “jagged technological frontier” where some tasks are easily done by AI, while others, though seemingly similar in difficulty level, are outside the current capability of AI. For each one of a set of 18 realistic consulting tasks within the frontier of AI capabilities, consultants using AI were significantly more productive (they completed 12.2% more tasks on average, and completed task 25.1% more quickly), and produced significantly higher quality results (more than 40% higher quality compared to a control group). Consultants across the skills distribution benefited significantly from having AI augmentation, with those below the average performance threshold increasing by 43% and those above increasing by 17% compared to their own scores. For a task selected to be outside the frontier, however, consultants using AI were 19 percentage points less likely to produce correct solutions compared to those without AI. Further, our analysis shows the emergence of two distinctive patterns of successful AI use by humans along a spectrum of human-AI integration. One set of consultants acted as “Centaur,” like the mythical halfhorse/half-human creature, dividing and delegating their solution-creation activities to the AI or to themselves. Another set of consultants acted more like “Cyborgs,” completely integrating their task flow with the AI and continually interacting with the technology.

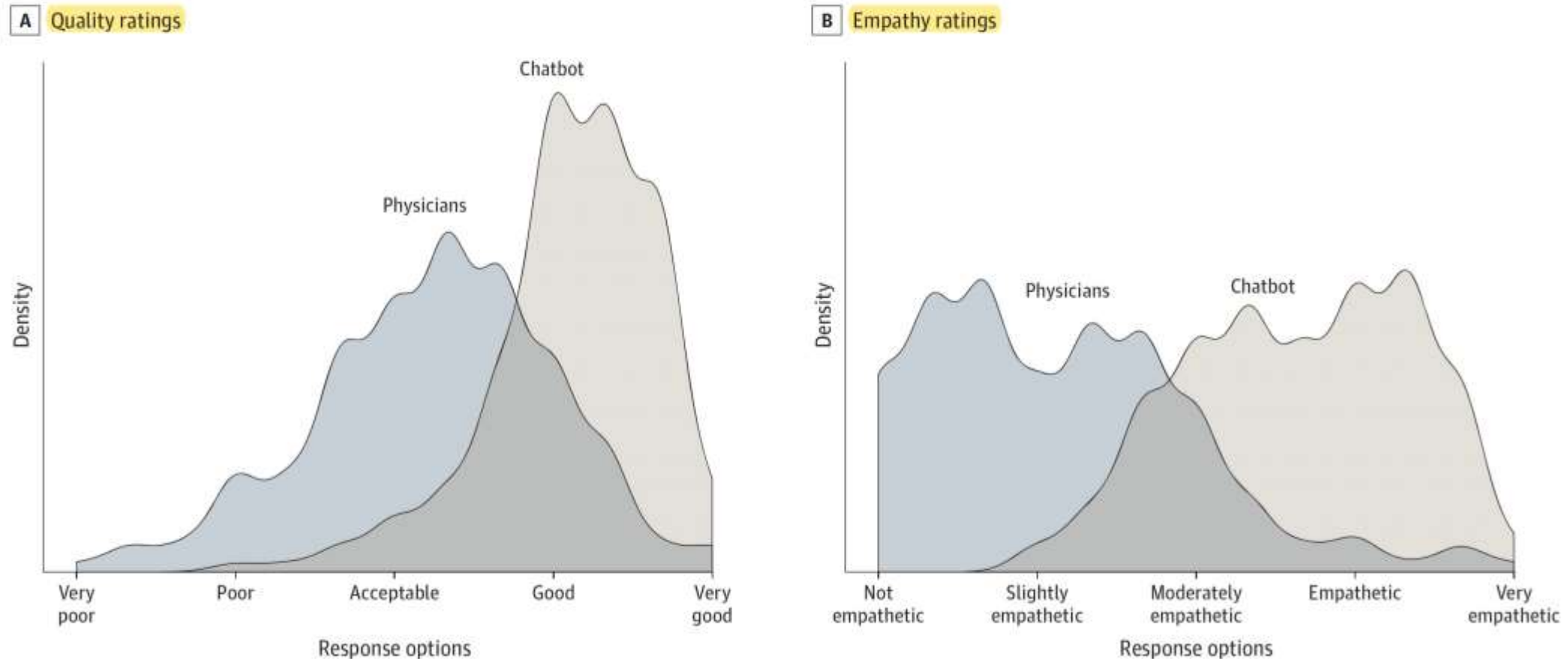


Distribution of output quality across all the tasks. The blue group did not use AI, the green and red groups used AI, the red group got some additional training on how to use AI.



# Comparing Physician and Artificial Intelligence Chatbot Responses to Patient Questions

Figure. Distribution of Average Quality and Empathy Ratings for Chatbot and Physician Responses to Patient Questions



---

Only humans  
“sometimes”  
understand  
cause and effect



© marketoonist.com

# The Future of Work: Two Challenges “NEVER” faced above

## Time

### The PASSING of the HORSE

THE silent horse power of this runabout is measurable, dependable and spontaneous. The horse power generated by supplies of hay and oats is variable, uncertain and irresponsible. There is “Nothing to watch but the road” when you drive

#### The Oldsmobile

*“The best thing on wheels”*

You see them everywhere—Doctors, Lawyers and Merchants find the Oldsmobile the most practical vehicle for business purposes. Ladies and children can readily understand its mechanism. Unvarying reliability proves it is built to run *and does it.*

**Price \$65000**

Selling agencies are established in all the larger cities, where you will be gladly accorded the privilege of trying the Oldsmobile on the road. Write for illustrated book to Dept. G.

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## Space

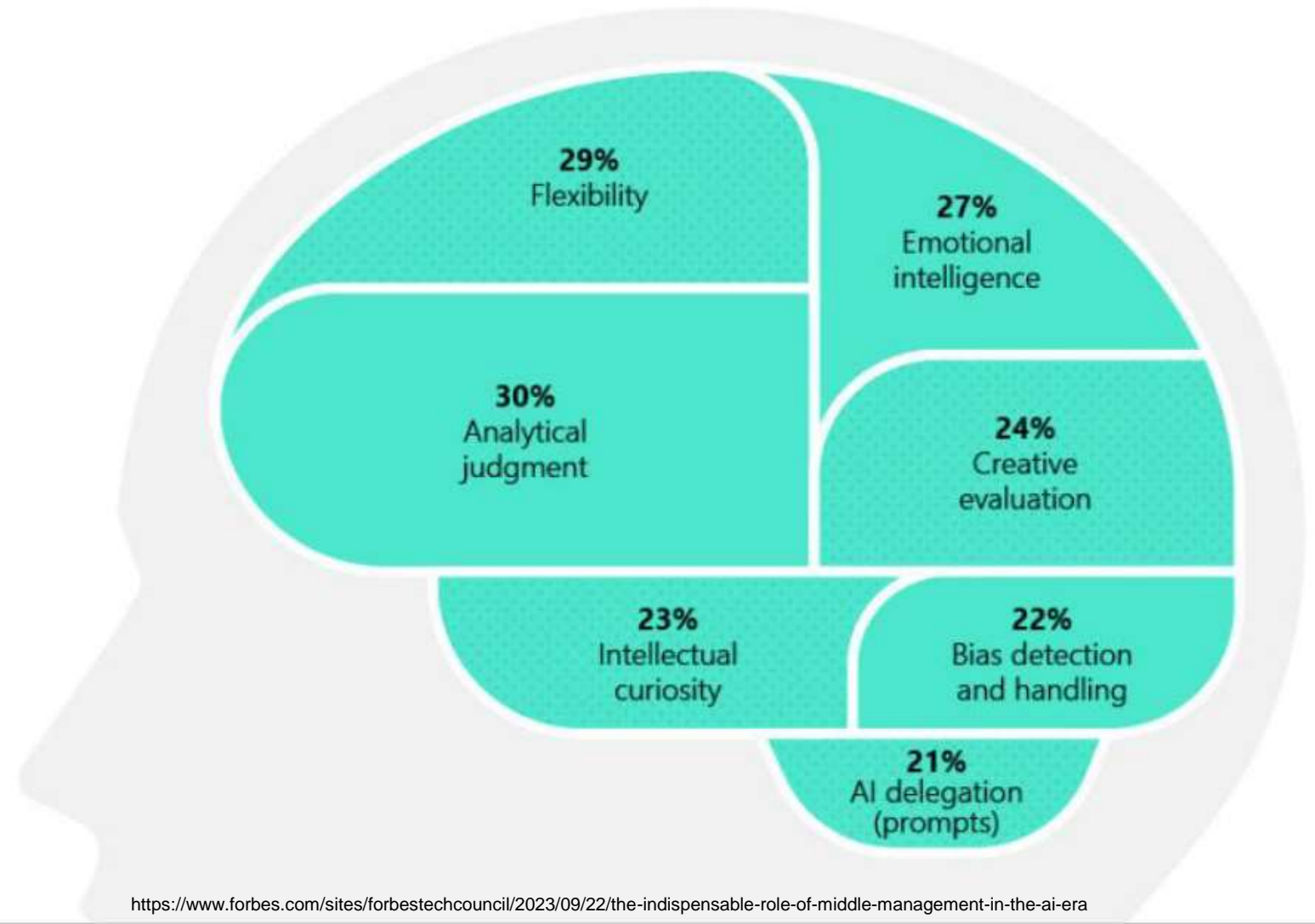


# The Indispensable Role of Management in the AI Era

As organizations continue to evolve, the focus should not be on removing layers but on **optimizing the collaborative potential between humans and machines.**

The **abilities of strong leaders and managers** to interpret, adapt, and execute will not only remain relevant but **will become the cornerstone skills for corporate success.**

As AI evolves, **understanding the needs and motivations of both employees and customers** will be irreplaceable.





# Comparing Compensation of Artificial Intelligence Talent



Companies with technology at the center of their business pay more for top AI talent.



# Comparing Compensation of Chief Data Officers

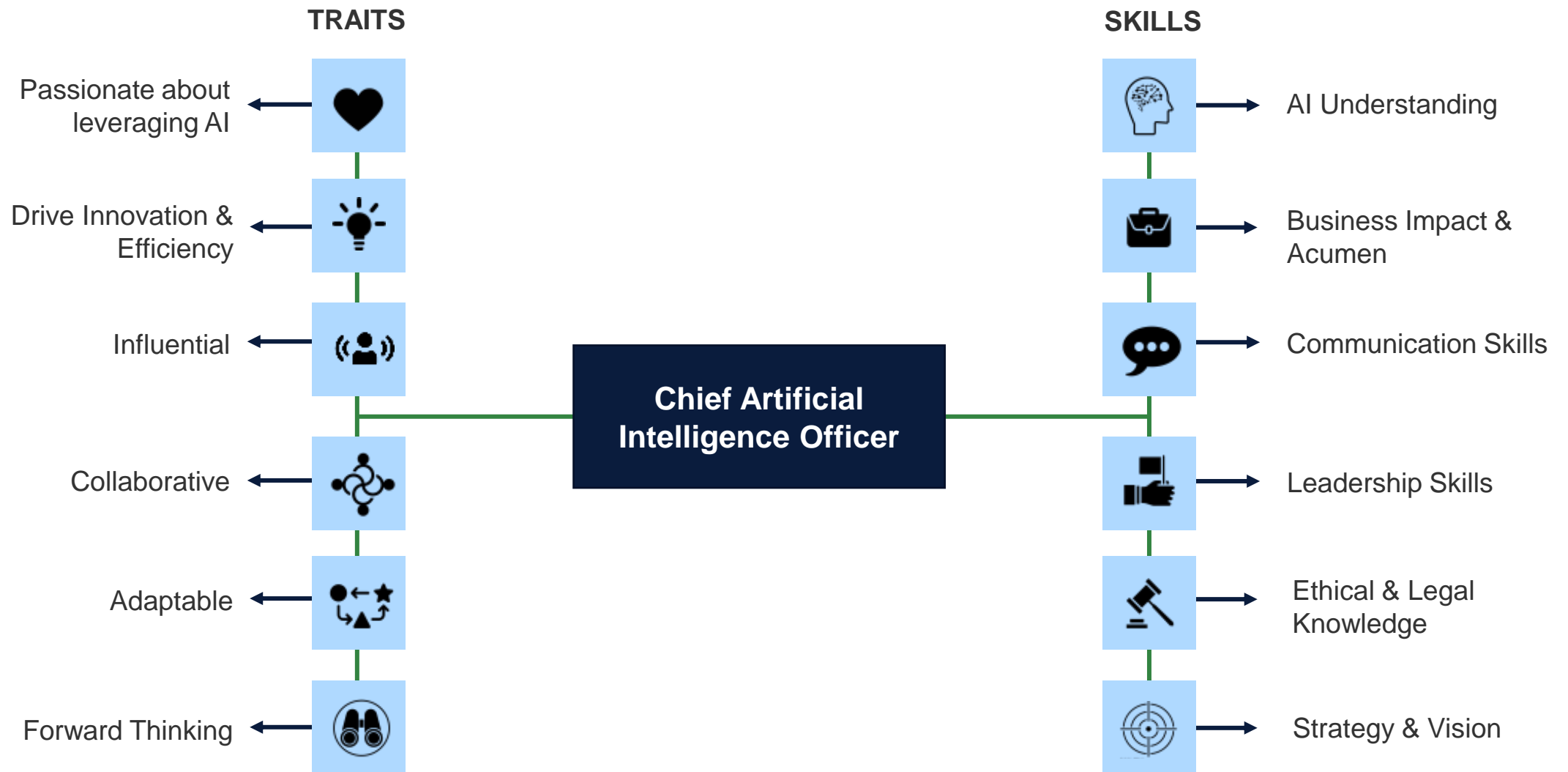


Companies with technology at the center of their business pay more for top data talent.

# Where we find impactful Data & Analytics Leaders

	Data/Analytics Services	Technology & Media	Consumer & Retail	Travel & Hospitality	Financial Services
Digital Natives	 Red Hat  HORTONWORKS  snowflake  CLOUDERA  splunk  UO  Mu Sigma	 Google  StubHub!  Verisk  hulu	 amazon  ebay  STITCH FIX  Zappos  asos	 priceline.com  Expedia  UBER  KAYAK  airbnb	 Betterment  PROSPER  oscar  PayPal
Digital Adopters	 ORACLE  teradata.  Microsoft  IBM  sas  Palantir	 nielsen  WALT DISNEY  NETFLIX  ORACLE  The Weather Channel  THOMSON REUTERS	 Walmart  NORDSTROM  Starbucks  TARGET  NIKE  sears  THE HOME DEPOT	 jetBlue  Marriott  HYATT  Virgin  starwood  Hotels and Resorts	 JPMORGAN CHASE & CO.  AMERICAN EXPRESS  BBVA  Capital One  BLACKROCK

# Who Makes a Successful CAIO?



# How to create an AI-powered company

**Strategy**

**Organization**

**Processes**

**Culture**

**Technology**

**Skills**

# How to create an AI-powered company

Strategy

Strategy

Processes

Processes

Technology

Technology





# How to create an AI-powered company

Strategy

Strategy



Processes

Processes

Technology


Technology









**Fabio Moioli** ✓

Leadership Advisor at Spencer Stuart; AI Forbes Technology Council; Faculty on Human and Artificial intelligences at Harvard BR, SingularityU, PoliMi GSoM, UniMi; TEDx speaker; ex Microsoft, Capgemini, McKinsey, Ericsson

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## Intelligences: The Original

Exploring the Future of AI, Leadership Challenges, and the Skills to Shape Tomorrow



By **Fabio Moioli** 

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