

Frontier Firms Eat Spreadsheets for Breakfast:

# Project Controls in the Agentic Era

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# Introduction

- President of Omega 365 USA, based in Houston
- Oversee the U.S. operations for the Norwegian cloud-based project and asset management leader
- Background in Information Science and an MBA in Global Energy
- Digital transformation across project-driven organizations for over 25 years.
- Passionate about how intuitive digital tools can empower people, strengthen project outcomes, and lower organizational risks.

# Omega 365 at a glance

Our mission is to improve project performance and operational efficiency



1991  
established

28  
offices

2 300  
employees

690  
solution consultants

Open, Humble, Engage, Solution Oriented, Generous

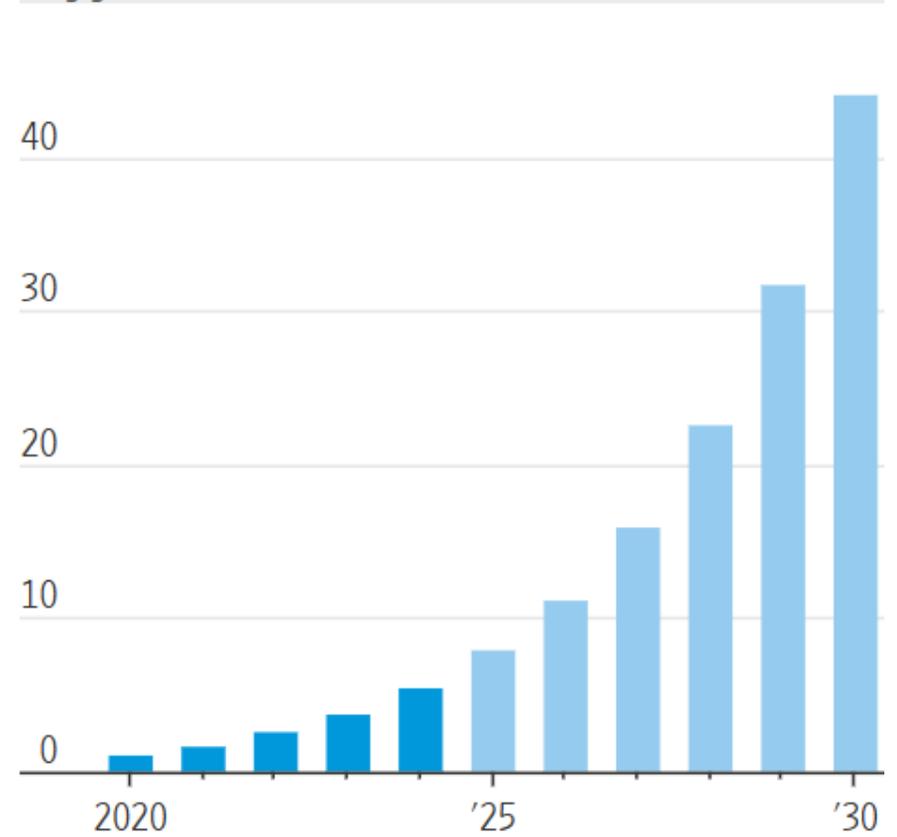
**Frontier Firms Eat Spreadsheets for Breakfast:**

# **Project Controls in the Agentic Era**



## Projected AI data center capacity, North America

50 gigawatts

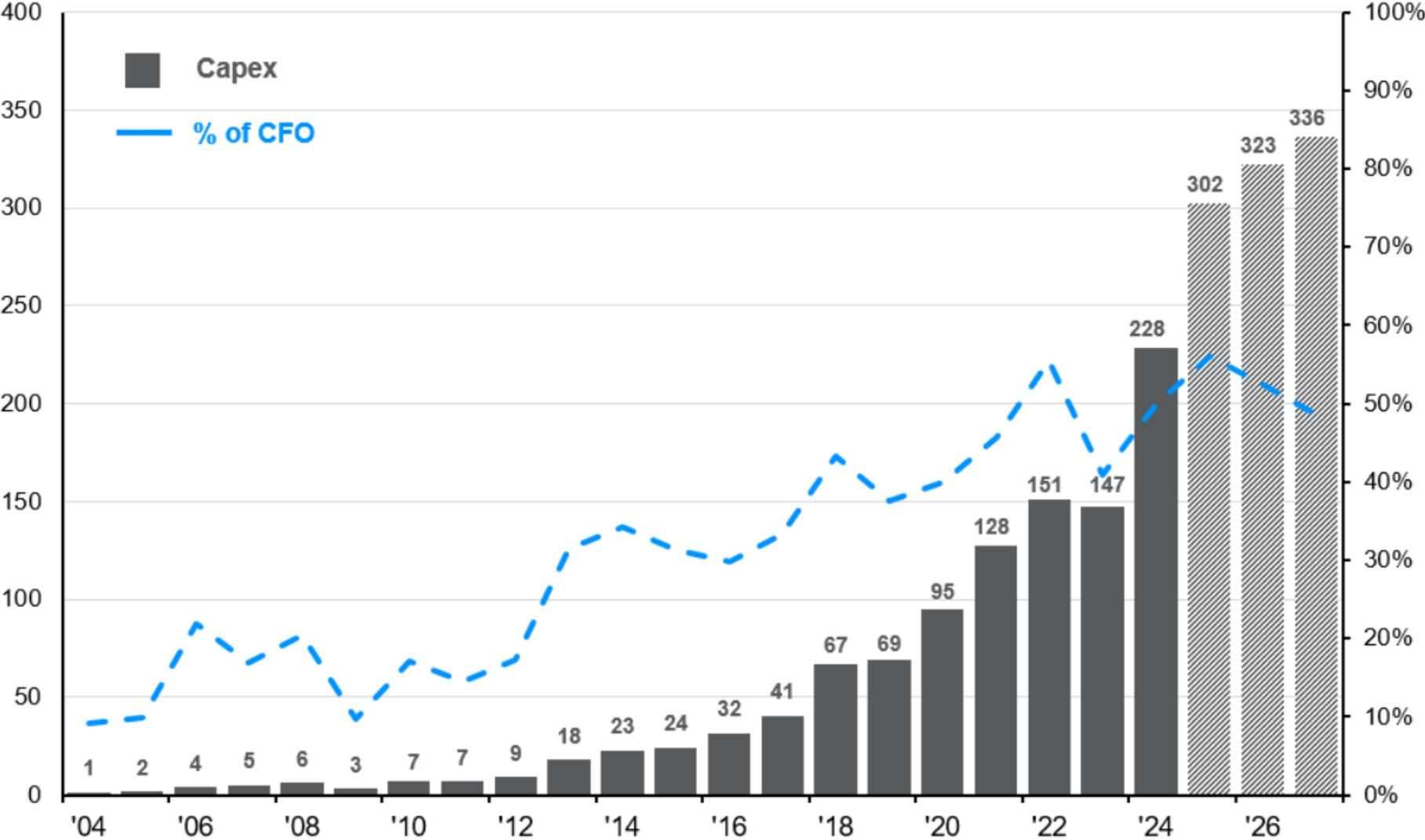


Note: 2025-30 are projections

Source: JLL

# The major hyperscalers are doubling down on capex commitments

USD billions; Microsoft, Amazon (AWS), Meta and Alphabet



Source: Bloomberg, J.P. Morgan Asset Management. Data for 2024, 2025 and 2026 reflects consensus estimates. Capex shown is company total, except for Amazon, which reflects an estimate for AWS spend (2004 to 2012 are J.P. Morgan Asset Management estimates and 2012 to current are Bloomberg consensus estimates). CFO reflects cash flow before capital expenditures. Data are as of February 26, 2025.

# Gartner Says Worldwide AI Spending Will Total \$1.5 Trillion in 2025

STAMFORD, Conn., September 17, 2025

## Continuous Demand for AI Is Expected to Fuel Investments in IT Infrastructure

Worldwide spending on AI is forecast to total nearly \$1.5 trillion in 2025 according to Gartner, Inc. a business and technology insights company.



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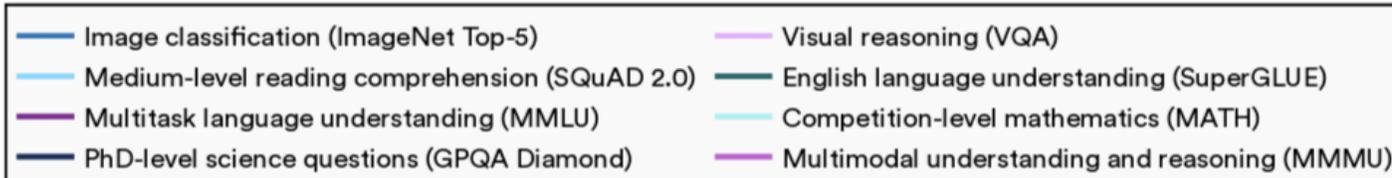
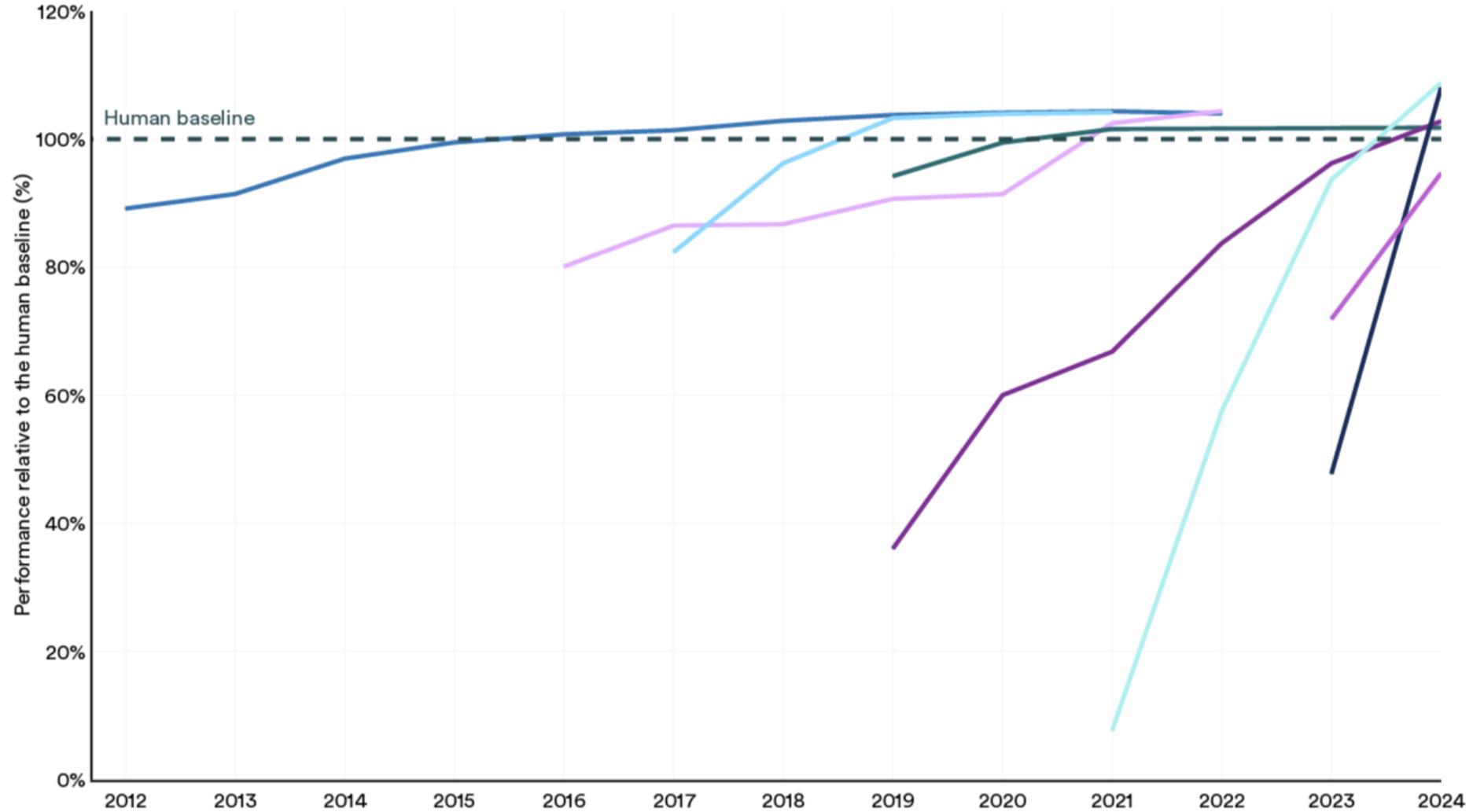


Pippit



# Select AI Index technical performance benchmarks vs. human performance

Source: AI Index, 2025 | Chart: 2025 AI Index report



## Midjourney generations over time: “a hyper-realistic image of Harry Potter”

Source: [Midjourney, 2024](#)



V1, February 2022



V2, April 2022



V3, July 2022



V4, November 2022



V5, March 2023



V6, December 2023



V6.1, July 2024

# Current state of affairs: AI Assistance

- Schedule drafting, analysis, prediction and optimization
- Risk identification and mitigation
- Summarizing and writing of documents and reports
- Improve communication
- Revision comparison
- Tag extraction and mapping
- Lessons Learned analysis
- Resource optimization

# AI Agents

# AI Agents

- AI agents are systems that observe their environment, interpret data, and act toward specific goals.
- They're designed to support people - not replace them - by reducing repetitive work, improving accuracy, and guiding faster decisions.
- Some follow clear, rule-based instructions. Others learn and adapt over time, using techniques like machine learning and natural language processing to become more useful as they go.

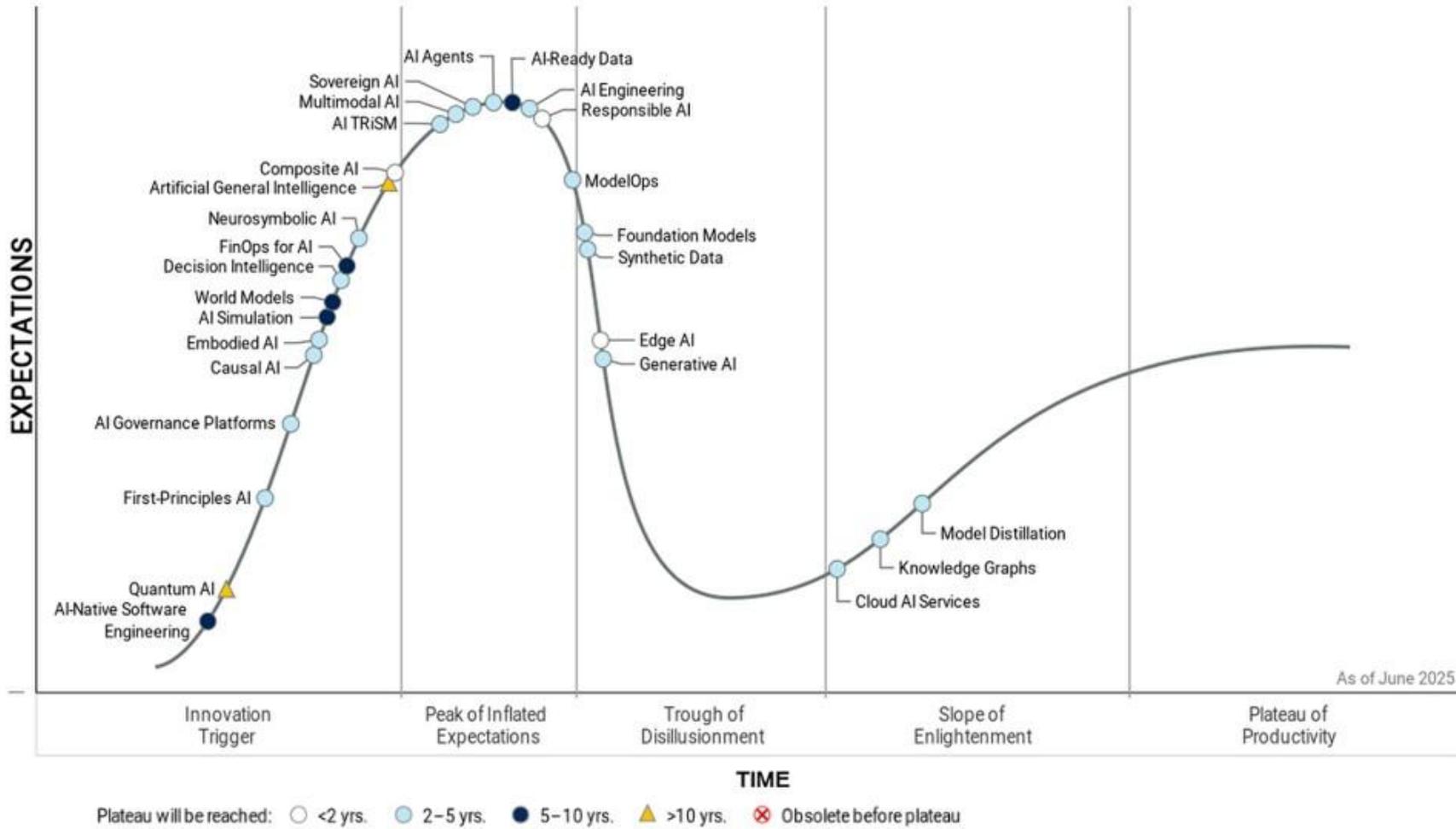
*Microsoft*

**“The Next giant breakthrough” - Sam Altman**

**“Agents are (...) bringing about the biggest revolution in computing since we went from typing commands to tapping on icons.” - Bill Gates**

**“AI agents will become the primary way we interact with computers in the future” - Satya Nadella**

**“AI agents can become invaluable allies in fostering innovation and improving quality of life worldwide.”**  
- Jeremy Jurgens, Managing Director World Economic Forum



Gartner Hype Cycle for Artificial Intelligence 2025

Gartner

omega  
365

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EXPO  
London, UK

# SLB and Equinor Drill Most Autonomous Well Section To-Date

Published: 01/30/2024

**HOUSTON, January 30, 2024**—SLB (NYSE: SLB) today announced a significant step toward fully autonomous drilling operations at Equinor's Brazilian Peregrino C platform. SLB digital technologies for surface automation, autonomous on-bottom drilling, and directional drilling were combined to enable 99% of a 2.6-kilometer section to be drilled in autonomous control mode. Over a five-well program, a 60% increase in rate of penetration was achieved, resulting in faster well delivery while reducing cost and carbon emissions.

"This is an exciting milestone in the journey toward fully autonomous drilling operations," said Jesus Lamas, President of Well Construction, SLB. "By leveraging AI and integrating advanced digital workflows, customers are realizing improved safety and performance through digital transformation, making drilling more consistent and efficient, and improving the carbon footprint of their operations."



**Walmart** is one of the world's largest retailers, operating a global network of hypermarkets, discount department stores, and grocery stores.

Walmart employs **AI agents** to **forecast** demand and adjust inventory levels across its vast network of stores, using historical sales data and external factors (such as community events or local weather) to predict demand, allowing the company to stock the right products at the right time and reduce overstock.

# 2025: The Year the Frontier Firm Is Born



 Microsoft

Illustration by Joe McKendry, in collaboration with AI

Source: Microsoft

  
**omega**  
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London, UK

# Journey to the Frontier Firm

Every organization's AI transformation will look different, but here's how we see it playing out over time.

## Phase 1

Human with assistant



Every employee has an AI assistant that helps them work better and faster

## Phase 2

Human-agent teams



Agents join teams as "digital colleagues," taking on specific tasks at human direction

## Phase 3

Human-led, agent-operated



Humans set direction and agents execute business processes and workflows, checking in as needed

Source: Microsoft

Estimating

Cost Control

Planning & Scheduling

Information Management

Risk & Change Management

Analysis / Reporting

Estimating Manager

Cost Manager

Planning & Scheduling Manager

Information Manager

Risk and Change Manager

Reporting and Analytics Lead

Senior Estimator

Cost Engineer

Senior Planner

Document Control Lead

Quantitative Risk Analyst

Reporting Analyst

Benchmarking & Estimating Analyst

Cost Analyst

Scheduler

Document Controller

Change / Trends Coordinator

Integration Engineer

Estimating

Cost Control

Planning & Scheduling

Information Management

Risk & Change Management

Analysis / Reporting

Human

Estimating Manager

Human

Cost Manager

Human

Planning & Scheduling Manager

Human

Information Manager

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Risk and Change Manager

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Scheduler

Human

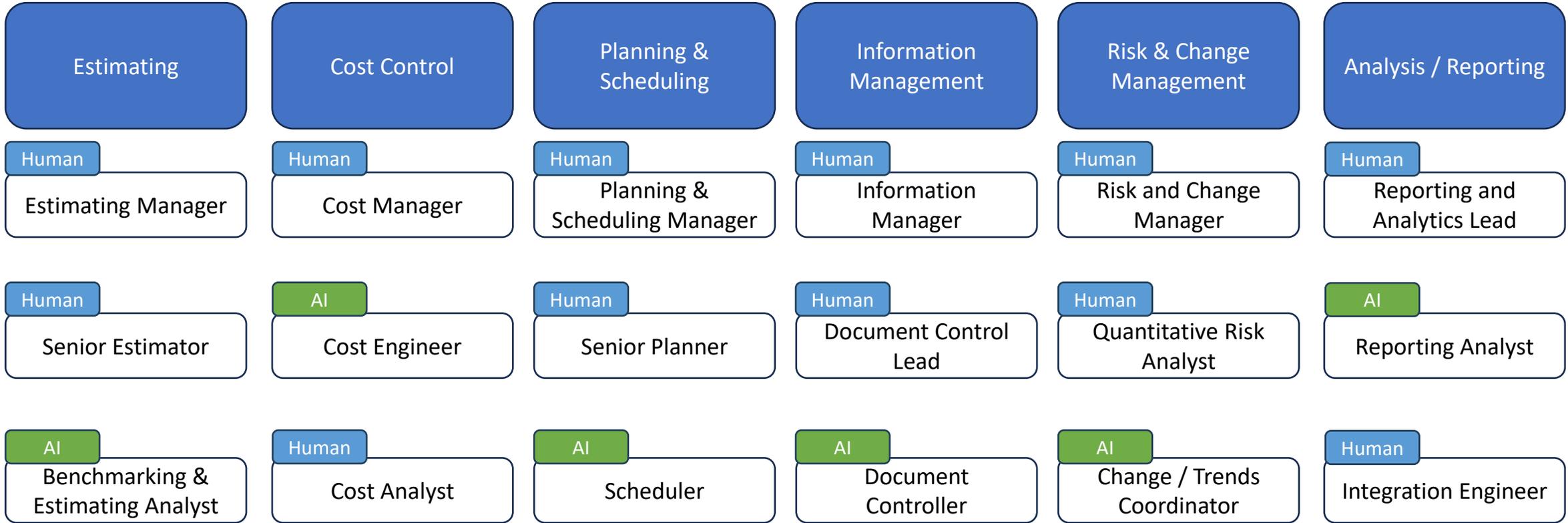
Document Controller

Human

Change / Trends Coordinator

Human

Integration Engineer



Estimating

Human

Estimating Manager

AI

Senior Estimator

AI

Benchmarking & Estimating Analyst

Cost Control

Human

Cost Manager

AI

Cost Engineer

AI

Cost Analyst

Planning & Scheduling

Human

Planning & Scheduling Manager

AI

Senior Planner

AI

Scheduler

Information Management

Human

Information Manager

AI

Document Control Lead

AI

Document Controller

Risk & Change Management

Human

Risk and Change Manager

AI

Quantitative Risk Analyst

AI

Change / Trends Coordinator

Analysis / Reporting

Human

Reporting and Analytics Lead

AI

Reporting Analyst

AI

Integration Engineer

Human

## Project Controls Oversight

Estimating

Cost Control

Planning &  
Scheduling

Information  
Management

Risk & Change  
Management

Analysis / Reporting

AI

AI

AI

AI

AI

AI

Estimating Manager

Cost Manager

Planning &  
Scheduling Manager

Information  
Manager

Risk and Change  
Manager

Reporting and  
Analytics Lead

AI

AI

AI

AI

AI

AI

Senior Estimator

Cost Engineer

Senior Planner

Document Control  
Lead

Quantitative Risk  
Analyst

Reporting Analyst

AI

AI

AI

AI

AI

AI

Benchmarking &  
Estimating Analyst

Cost Analyst

Scheduler

Document  
Controller

Change / Trends  
Coordinator

Integration Engineer

Estimating

Cost Control

Planning & Scheduling

Information Management

Risk & Change Management

Analysis / Reporting

Human AI  
Estimating Manager

Human AI  
Cost Manager

Human AI  
Planning & Scheduling Manager

Human AI  
Information Manager

Human AI  
Risk and Change Manager

Human AI  
Reporting and Analytics Lead

Human AI  
Senior Estimator

Human AI  
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Human AI  
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Reporting Analyst

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Benchmarking & Estimating Analyst

Human AI  
Cost Analyst

Human AI  
Scheduler

H AI  
Document Controller

Human AI  
Change / Trends Coordinator

Human AI  
Integration Engineer

# Realizing Value from AI Agents

Your Company Logo



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“We didn’t do anything wrong,  
but somehow, we lost”

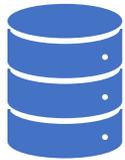
Stephen Elop, Nokia CEO, 2013



# Realizing Value from AI Agents



Identify Use  
Cases



Shore up the Data  
Pipelines



Establish the  
Tools, Security  
and Governance  
Practices



Experiment, learn  
and refine

# Identify Use Cases

**What do you want your  
AI Agent to do for you?**

Your Company Logo



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London, UK

# Use case examples

- Predictive Forecasting & Risk Intelligence
- Smart Document & Data Automation
- Automated Reporting, Workflows & Quality
- Knowledge Collaboration



# Predictive Forecasting & Risk Intelligence

- AI-powered cost forecasting and risk prediction
- Timeline projection based on delays, resource shifts, and critical path impact
- Early detection of fabrication risks and NCRs
- Classification and categorization of projects to improve baseline forecasting
- Automated EV analysis and project performance review
- Predictive variance explanations (cost/schedule)
- Scenario planning and “what-if” simulations
- Forecasting punch item trends and contractor performance
- AI coding of cost accounts to schedule elements

# Smart Document & Data Automation

- AI-driven document and drawing interpretation to extract key information
- Intelligent sorting and registry for document control
- Model review and completeness checks
- Automated document and tag metadata validation
- Real-time capture of mark-ups and revisions
- Advanced search and AI answers from project documentation
- AI assistance for contract and transmittal processing
- Automated support from initiation to close-out

# Automated Reporting, Workflows & Quality

- AI-driven dashboards with drill-downs and variance explanations
- Automated cost and progress reporting
- Workflow creation from natural-language prompts
- Contractor time management automation
- Data quality validation and anomaly detection
- Change management alerts
- Auto-flagging incomplete submissions and bottlenecks
- AI scoring of qualitative PM comments for reporting accuracy

# Knowledge Collaboration

- Interactive AI help replacing static user guides
- Agentic UX layer that performs actions on behalf of the user
- Predictive prompts and context-aware suggestions
- Adaptive interfaces to reduce manual navigation and training
- AI-enhanced community forum and shared best practices hub
- Knowledge capture and smart routing of project information

# Shore up the Data Pipelines

# Shore up the Data Pipelines

- “The world’s most valuable resource is no longer oil, but data” – The Economist, May 6<sup>th</sup>, 2017
- AI agents needs data – quality data!
- Many project controls organizations have improved, but many still have limited and poorly organized data
- Move from ad-hoc silos to integrated solutions with properly structured and integrated data
- Ensure you have the data pipelines and APIs setup

# Tools, Security, Governance

# Tools, Security and Governance Practices

- Overcoming skepticism and organizational turf wars
- Validations, and handling of exceptions and escalations
- Goal misalignment
- Overreliance, and loss of knowledge
- How are your providers using your data and AI
- How are your employees using your data and AI
- How are your AI agents going to communicate (MAS)
- Guardrails
- Not all problems need AI

# Experiment, Learn, Refine



# Experiment, Learn and Refine

- AI doesn't actually understand the world like we do.
  - makes predictions based on past patterns
- AI doesn't have the secret sauce called "common sense"
- AI doesn't have our deep ethical reasoning capability
- Experimenting with data to include, formats and prompting
- Dealing with that LLMs are stochastic

# SAE J3016™ LEVELS OF DRIVING AUTOMATION™

Learn more here: [sae.org/standards/content/j3016\\_202104](https://www.sae.org/standards/content/j3016_202104)

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	SAE LEVEL 0™	SAE LEVEL 1™	SAE LEVEL 2™	SAE LEVEL 3™	SAE LEVEL 4™	SAE LEVEL 5™
What does the human in the driver's seat have to do?	You <u>are</u> driving whenever these driver support features are engaged – even if your feet are off the pedals and you are not steering			You <u>are not</u> driving when these automated driving features are engaged – even if you are seated in “the driver’s seat”		
	You must constantly supervise these support features; you must steer, brake or accelerate as needed to maintain safety			When the feature requests, you must drive	These automated driving features will not require you to take over driving	

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	These are driver support features			These are automated driving features		
What do these features do?	These features are limited to providing warnings and momentary assistance	These features provide steering <b>OR</b> brake/acceleration support to the driver	These features provide steering <b>AND</b> brake/acceleration support to the driver	These features can drive the vehicle under limited conditions and will not operate unless all required conditions are met	This feature can drive the vehicle under all conditions	
Example Features	<ul style="list-style-type: none"> <li>• automatic emergency braking</li> <li>• blind spot warning</li> <li>• lane departure warning</li> </ul>	<ul style="list-style-type: none"> <li>• lane centering <b>OR</b></li> <li>• adaptive cruise control</li> </ul>	<ul style="list-style-type: none"> <li>• lane centering <b>AND</b></li> <li>• adaptive cruise control at the same time</li> </ul>	<ul style="list-style-type: none"> <li>• traffic jam chauffeur</li> </ul>	<ul style="list-style-type: none"> <li>• local driverless taxi</li> <li>• pedals/steering wheel may or may not be installed</li> </ul>	<ul style="list-style-type: none"> <li>• same as level 4, but feature can drive everywhere in all conditions</li> </ul>

# Measuring

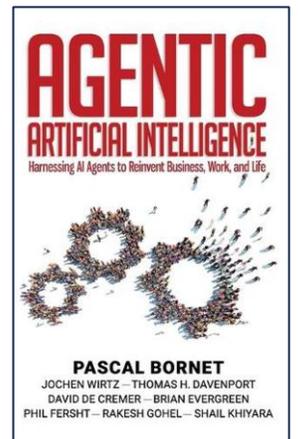
## The Agentic AI Progression Framework

The more you climb the framework, the less:

- Time is necessary for implementation
- Control you have
- Instructions you need to give



©Agentic Intelligence Book



# Project Controls Agent

**Level 5 Fully Autonomous:** Fully autonomous project controls under any conditions. Understands overall goals, learns from experience, and adapts to new situations across different kinds of projects.

Example: Your current project controls team

**Level 4 Semi-Autonomous:** Understands goals, reasons, plans and acts within designated areas of expertise  
Example: Interface & Change Prioritization – continuously scans project information, detects emerging conflicts, prioritizes and automatically creates workflows, escalates and routes

**Level 3 Agentic Workflows:** Automated, independent, but require humans in complex situations

Example: Contract or technical document review

**Level 2 Intelligent Automation:** Adds AI capabilities, still requires human oversight

Example: Automated tag extraction from drawings

**Level 1 Rule-Based Automation:** Pre-set rules, no active decision making

Example: Automated generation of standard reports

# Conclusion

- “For certain tasks, AI agents already demonstrate expertise comparable to humans but can deliver results significantly faster and at a lower cost.” (AI Index Report 2025, Stanford)
- Project Controls is not disappearing – but it is being reshaped
- Back to basics – what is the mission of project controls – how you deliver that is changing!
- Expectations rising rapidly
- Less focus on headcount and more on deliverables
- “The secret of getting ahead is getting started.” (Mark Twain)

How can **you** leverage  
AI and AI agents to  
deliver better insights  
and project outcomes?



Øyvind Vik  
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Thank  
You