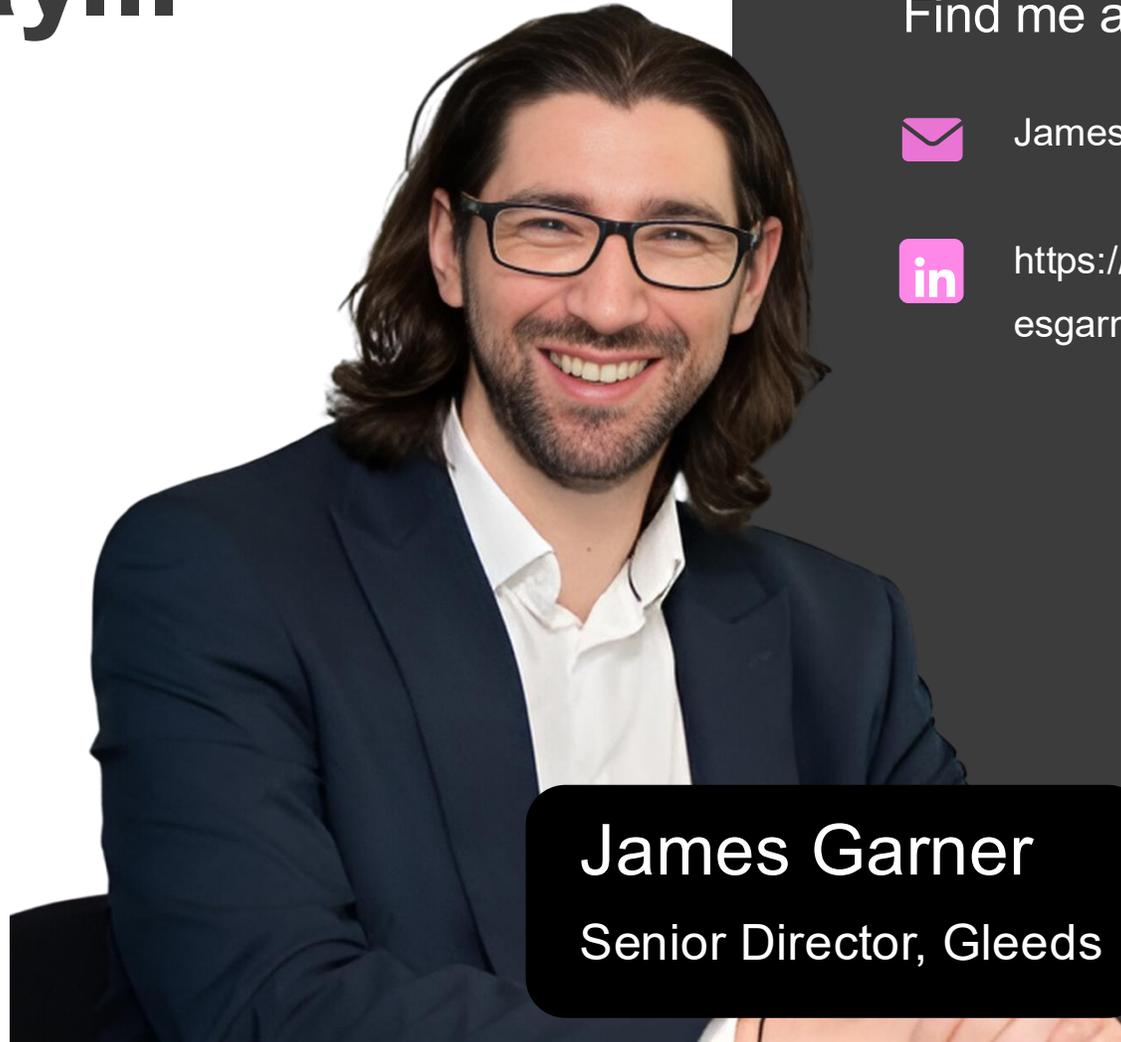


AI in the Built Environment: Culture Change, Not Just a Tool



With you today...

- Head of AI and Data at Gleeds
- Past Chair of PDA Task Force
- Member of RICS Construction Professional Group Panel
- Founder of Project Flux AI in Project Delivery Newsletter and Podcast – www.projectflux.ai



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SCAN ME



James Garner

Senior Director, Gleeds

BBC
newsnight

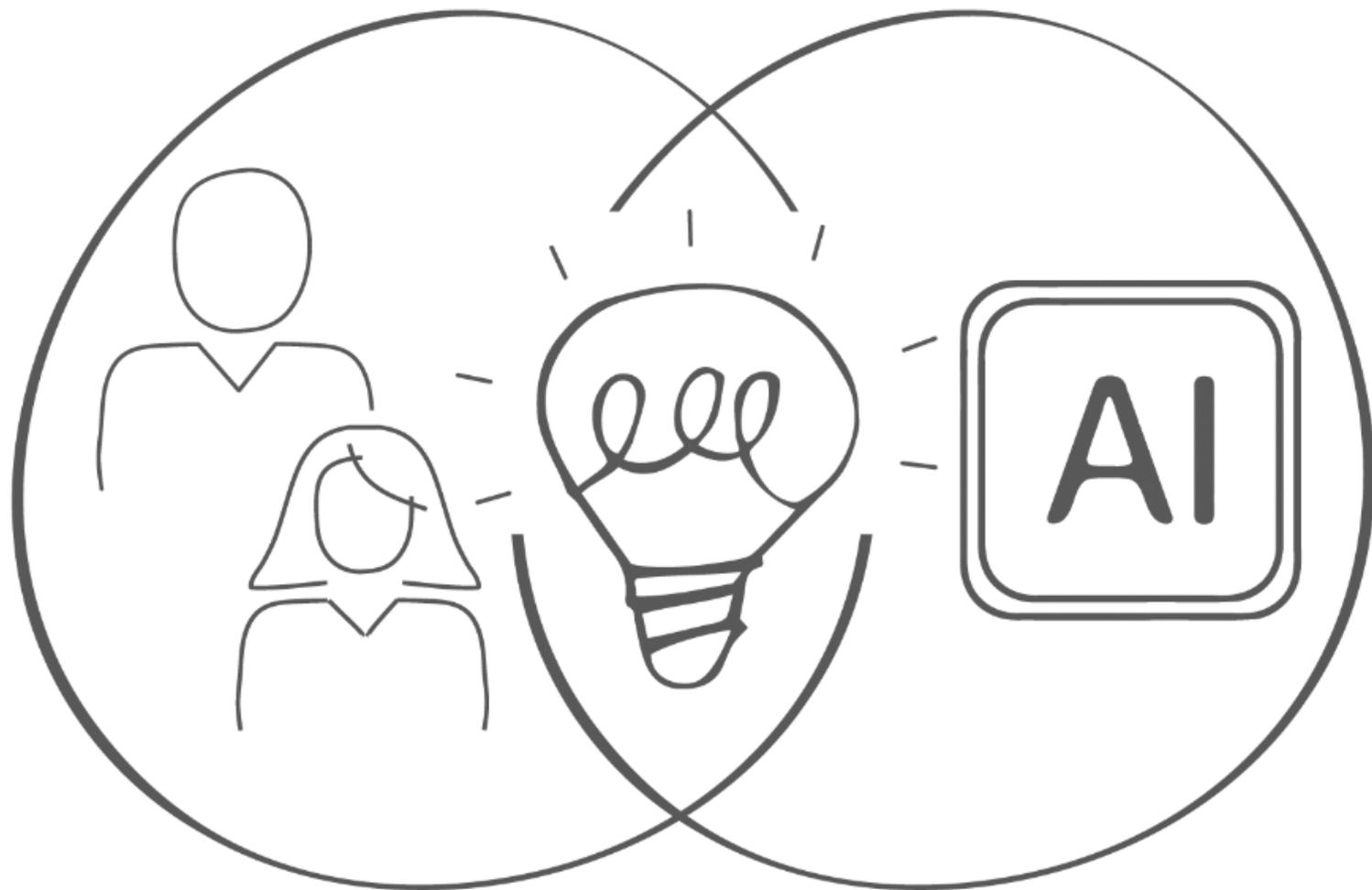


Mustafa Suleyman

CEO, Microsoft AI



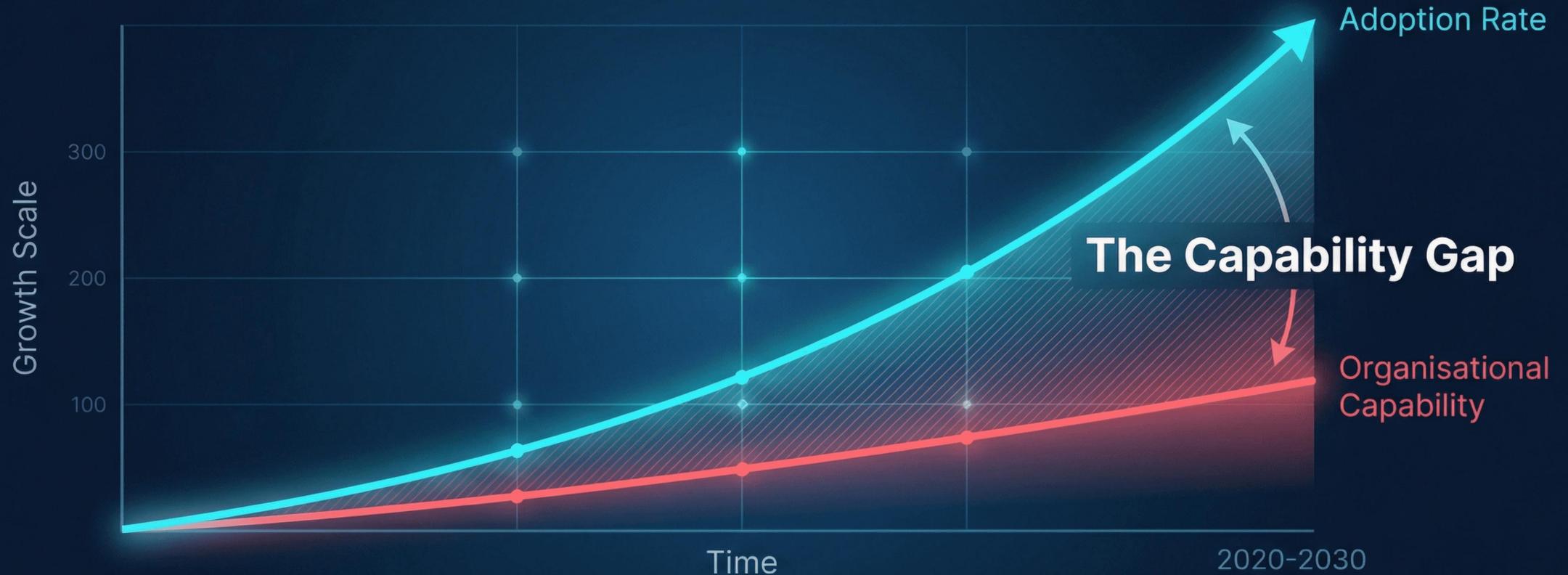
THOUGHT
LEADER



THOUGHT
PARTNER

The AI Adoption-Capability Gap

A Widening Divide We Must Take Responsibility to Close

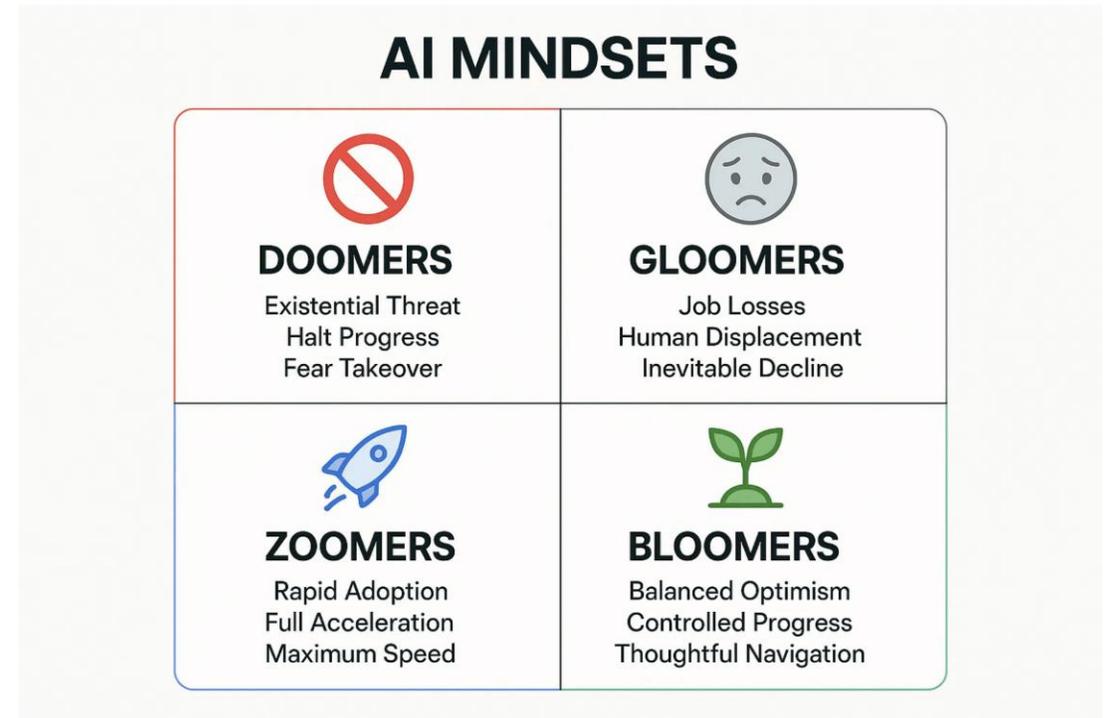


Adoption is accelerating, but capability is lagging.
We must bridge this divide.

The Four AI Mindsets

Reid Hoffman's Framework

Understanding How We Respond to Artificial
Intelligence







A Financial Times **BOOK OF THE YEAR**

RICHARD DANIEL
SUSSKIND SUSSKIND



THE FUTURE OF
THE PROFESSIONS

HOW TECHNOLOGY WILL TRANSFORM
THE WORK OF HUMAN EXPERTS

The future of the profession

Focus:

- Impact of AI on professional services.

Two Futures:

- Enhanced professionals with technology.
- Decline of traditional roles, replaced by AI.

Implications:

- Need for adaptation in education, firm structures, and ethics.

Conclusion:

- Embrace technology's central role.

‘How in the future will we solve the problems to which Project Managers (or x) are currently our best answer?’

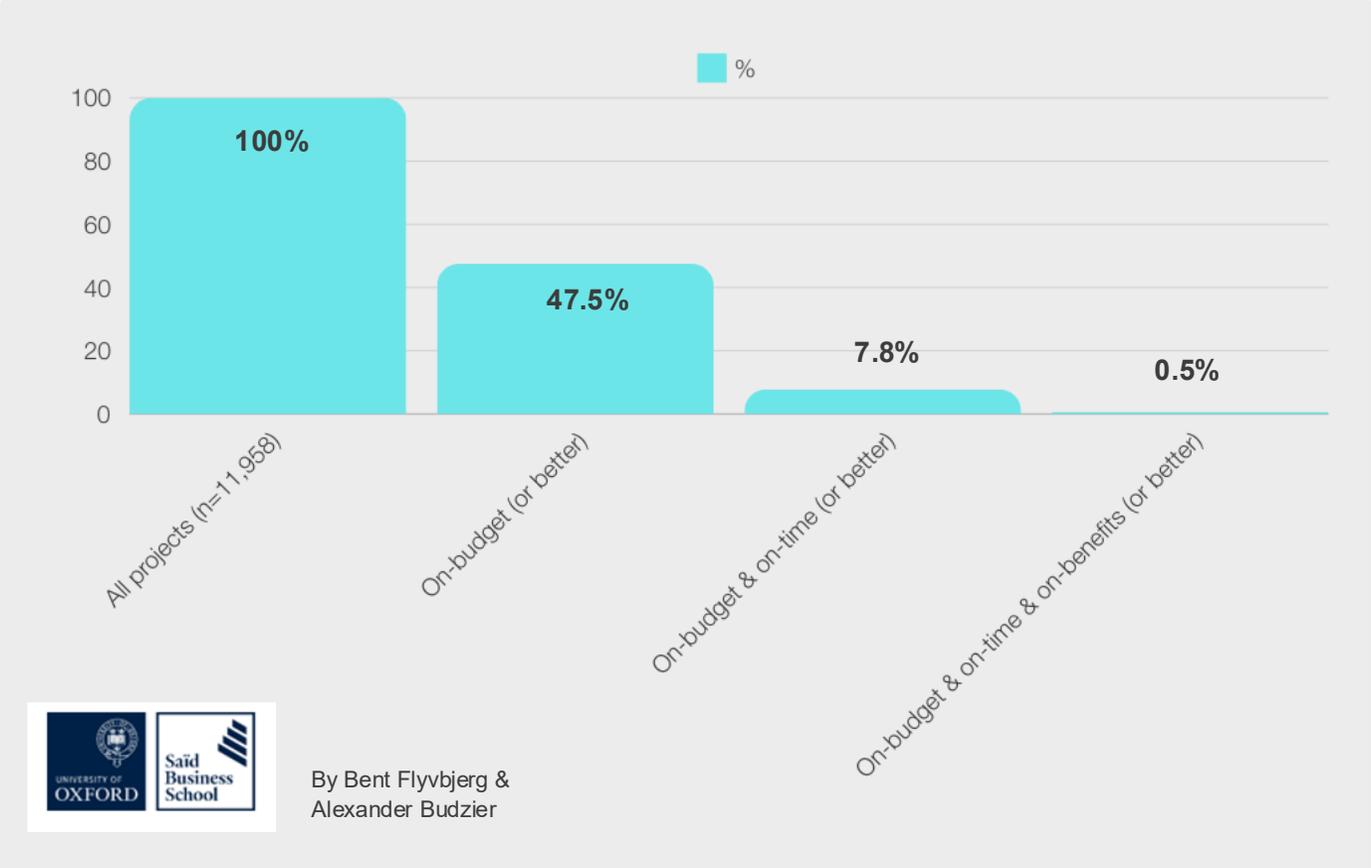
*“In times of change learners inherit the
earth;
while the learned find themselves
beautifully equipped to deal with a world
that no longer exists”*

Eric Hoffer

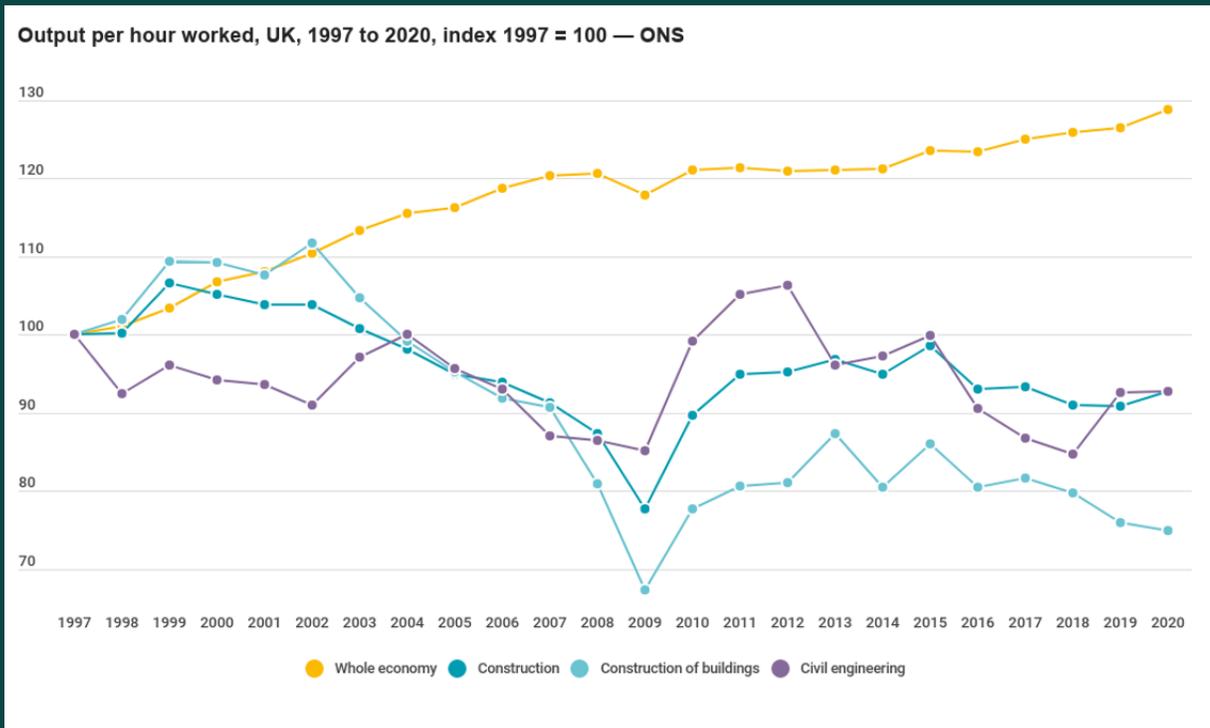
The Iron Law of Projects

Project delivery performance hasn't changed very much in 20 years.

Leveraging digital, data and AI will move the dial.



Construction productivity



ONS data shows that the number of workers in construction did not quite recover to the level in 2008 before the COVID- pandemic.

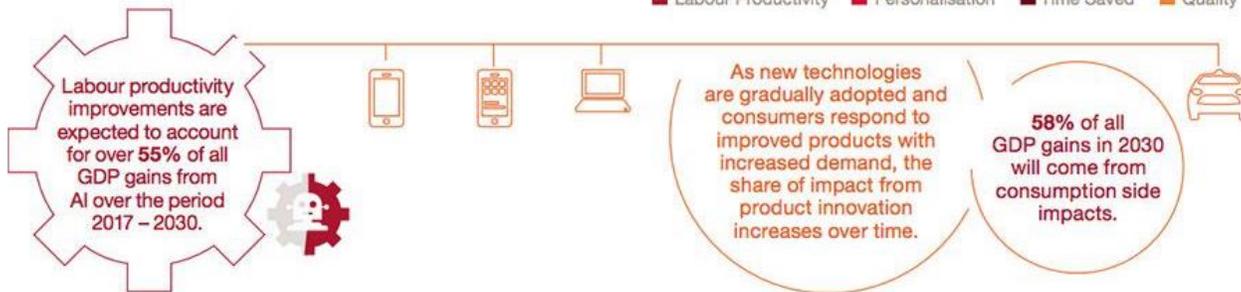
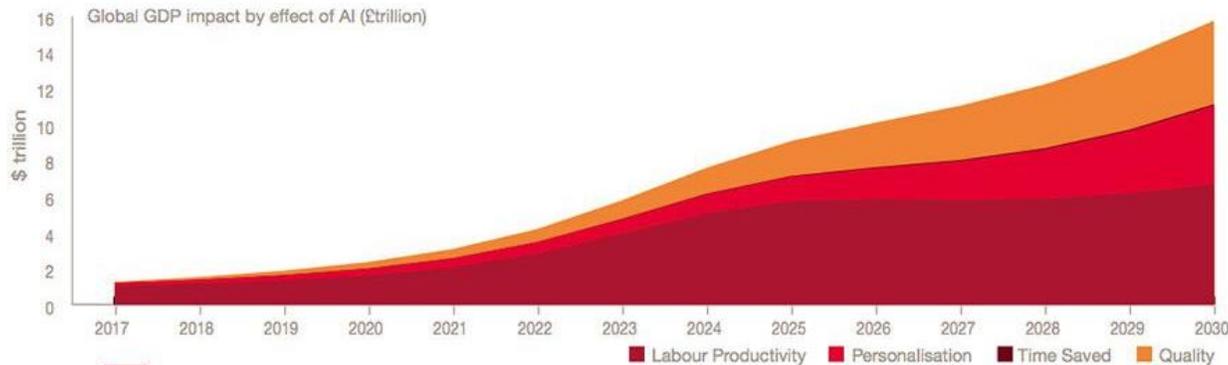
September 2008: 2,371,000 workers

March 2019: 2,365,000 workers.



Productivity

Where will the value gains come from with AI?



- **GDP growth:** AI to boost global GDP by \$15.7 trillion by 2030.
- **Productivity:** Over half of AI-related GDP gains from improved productivity.
- **Business transformation:** AI adoption key for productivity enhancements.
- **Process enhancement:** AI initially to upgrade existing processes.
- **Post-2030 consumption:** Majority of GDP gains from new tech adoption and product demand.
- **Innovation potential:** AI to enable new business capabilities, not just process automation.





Nikolai Kondratiev

Russian economist (1892-1938)

Posited long-term economic movements in 1925 in his book, "The major economic cycles" based on historical data on grain and copper prices

Each wave: 40-60 years

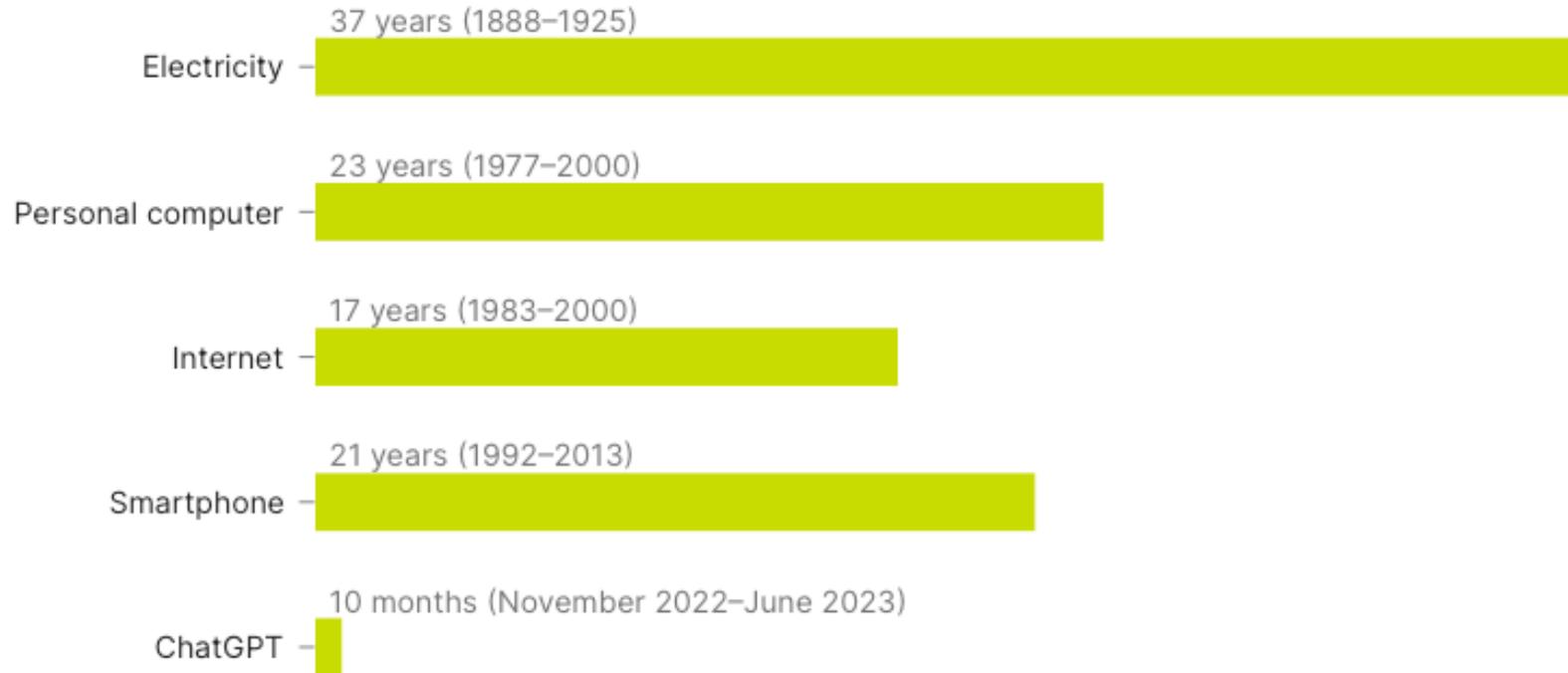
- 1st = steam power (1780-1830)
- 2nd = steel and rail (1830-1880)
- 3rd = electricity and mass production (1880-1930)
- 4th = oil and gas (1930-1970)
- 5th = silicon chip (1970-)



From inception to integration

ChatGPT has reached critical mass adoption faster than other modern innovations

Time until critical mass adoption*



Note: Mass adoption is based on more than 50% adoption in the US, ChatGPT adoption data is from Oliver Wyman Forum Generative AI Survey regarding use of generative AI tools (for example, ChatGPT)

Source: Oliver Wyman Forum analysis



Governance and Regulation



- Baseline Knowledge
 - Practice Management – Governance Frameworks
 - Using AI – Procurement and explainability
 - Development of AI
- Material Impact on Service Delivery**



The RICS AI Standard at a Glance

Published in **September 2025** and effective from **9 March 2026**, the RICS professional standard "Responsible use of artificial intelligence in surveying practice" establishes **mandatory requirements** for RICS members and regulated firms globally. The standard takes a balanced approach—supportive of AI's transformative potential whilst guarding against complacency about its risks.

01

Baseline Knowledge

Understanding AI systems, their limitations, failure modes, and inherent risks

02

Practice Management

Governance frameworks for data, systems, and risk management

03

Using AI

Procurement, reliance on outputs, client communication, and **explainability**

04

Development of AI

Requirements for organisations building AI systems from inception

Key Concept: The standard applies when AI outputs have **a material impact on service delivery**—meaning outputs capable of influencing how professional work is rendered meaningful.

ROTH
BOCK

ROTH
BOCK

WHITE

WHITE



This slide is from a 1979 IBM presentation

A COMPUTER

CAN NEVER BE HELD ACCOUNTABLE

THEREFORE A COMPUTER MUST NEVER

MAKE A MANAGEMENT DECISION

The Robots are
Coming

A dark, industrial scene featuring a robotic arm in the foreground. The background shows a complex factory environment with metal structures and a grid-like safety fence. The lighting is dim, highlighting the metallic surfaces of the machinery.

BMW DEPLOYMENT UPDATE

Future Engineering Leaders: Agent Operators

*From managing people to orchestrating intelligence
intelligence*



Context Engineering

Design precise instructions for AI agents



Agent Orchestration

Coordinate multiple AI systems simultaneously



Human-AI Leadership

Conduct the symphony of intelligent automation

NEW JOBS EMERGING FROM AI IN CONSTRUCTION & INFRASTRUCTURE

New Jobs by 2030



Chief AI Officer

Lead AI strategy and implementation across construction operations



Construction AI Data Analyst

Analyze project data to optimize scheduling and resource allocation



BIM & Technology Coordinator

Manage AI-driven BIM tools and digital collaboration systems



Digital Twin Manager

Create virtual replicas of buildings for real-time monitoring



Robotics Technician

Operate and maintain construction robots and automation systems



AI Operations Specialist

Monitor AI systems for safety, predictive analytics, and optimization

Drone Operations Manager

Oversee AI-equipped drones for site surveying and inspections



Data Center Builder

Construct AI infrastructure facilities (439K workers needed)



CRITICAL SKILLS SHORTAGE

The construction sector faces a significant skills gap as these new roles emerge. Urgent upskilling and training programs are needed to prepare the workforce for AI-driven opportunities and meet growing infrastructure demands.

THE RADIOLOGIST PARADOX:

AI Augments, Not Replaces

THE RADIOLOGIST PARADOX

AI Augments, Not Replaces

2016 PREDICTION:
AI would replace radiologists
within 5 years (Geoffrey Hinton)

ACTUAL OUTCOME:
Radiologist employment **GREW**

40%

TASK (Image Analysis)



AI
AUTOMATION

HUMAN
AMPLIFICATION



HUMAN
AMPLIFICATION

PURPOSE (Disease Diagnosis)



PARALLEL APPLICATION: PROJECT DELIVERY PROFESSIONALS

ahmmenorat

PROJECT MANAGER	Automated Task	Core Purpose
	 Progress reports, schedule updates, data entry	 Strategic decisions, risk management, stakeholder relations
SURVEYOR	Automated Task	Core Purpose
	 Quantity take-offs, point cloud processing, report generation	 Value engineering, cost consultancy, project accuracy
ARCHITECT	Automated Task	Core Purpose
	 Design iterations, clash detection, drafting	 Creative problem-solving, client vision, functional design

60%



AI at Work: Four Key Messages

Transforming Construction Through Data and Intelligence

**This is a culture change, not just a technology rollout.
The future of Construction is intelligent, data-driven, and human-centred.**



AI as Thought Partner

Augments human expertise.
Automates routine tasks.
Frees professionals for strategic thinking.

Institution Aligned Implementation

Professional standards matter.
Deploy AI with transparency,
governance, and ethical responsibility.



AI
Core

Experimentation at Pace

Start with pilots. Learn from results. Scale what works.
Competitive advantage belongs to those who move fast.

Measurable Value

Multi-billion pound opportunity.
Proven results:
savings, faster delivery,
time reductions.



The future of Construction is intelligent, data-driven, and human-centred.

Get in-depth, relevant insight into AI's impact on project delivery, with the Project Flux
podcast and newsletter



Projectflux.ai



Thank You