



Thomas Higginbotham

Senior Director, C3 AI Defense & Intelligence



U.S. Air Force

- F-15E Instructor
- Chief of Data Analytics

X, the Moonshot Factory

Stanford GSB, Villanova, University of Colorado

 **C3.ai This is Enterprise AI.**



Business

Shell Achieves Major Milestone: Scales Artificial Intelligence Predictive Maintenance to 10,000 Pieces of Equipment Using C3 AI

Underlying the ability to monitor more than 10,000 pieces of equipment is a technical infrastructure that:

- * Supports global deployment across Shell's upstream, downstream, and integrated gas assets
- * Ingests 20 billion rows of data weekly from more than 3 million sensors
- * Trains, tunes, and runs nearly 11,000 machine learning models in production
- * Makes over 15 million predictions every day

technology, to monitor and maintain more than 10,000 pieces of equipment in upstream, manufacturing, and integrated gas assets across its global asset base – one of the largest such deployments in the energy industry. AI predictive maintenance enables Shell to identify equipment degradation and failures before they happen, allowing operators to take proactive measures and avoid costly unplanned downtime, production interruptions, and potential risks to the environment and human safety. Monitored equipment includes control valves, pumps, compressors, and other critical components.

"Shell's deployment of AI predictive maintenance at global scale is an

Share this article





15 Years
\$2 Billion Invested
90+ AI Applications
1,000+ Employees





















































C3 AI Named a Leader in AI and Machine Learning Platforms

[Learn More](#)

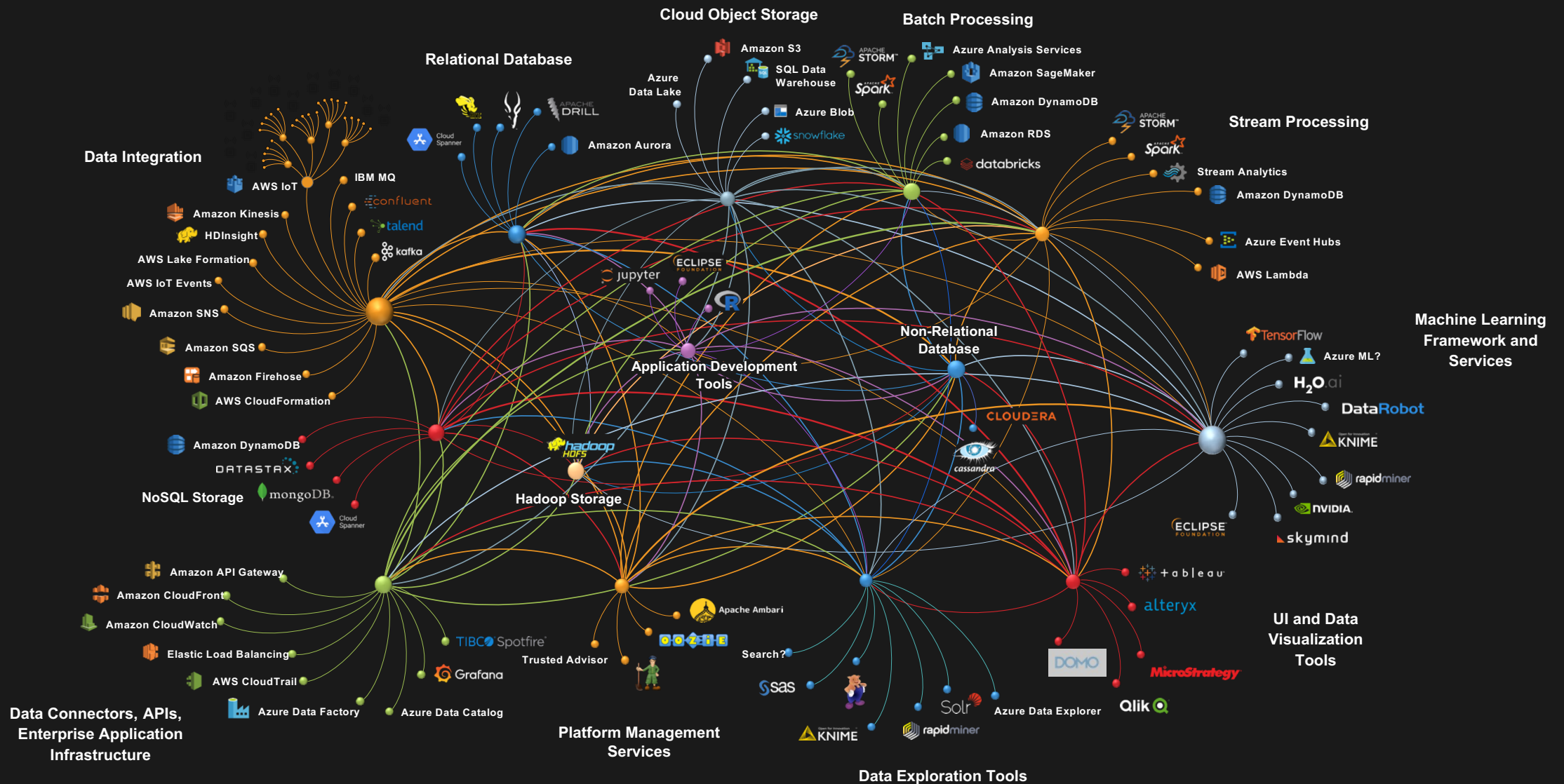
C3 AI "...could become the de facto AI platform standard for the world's most complex industries"

— FORRESTER®

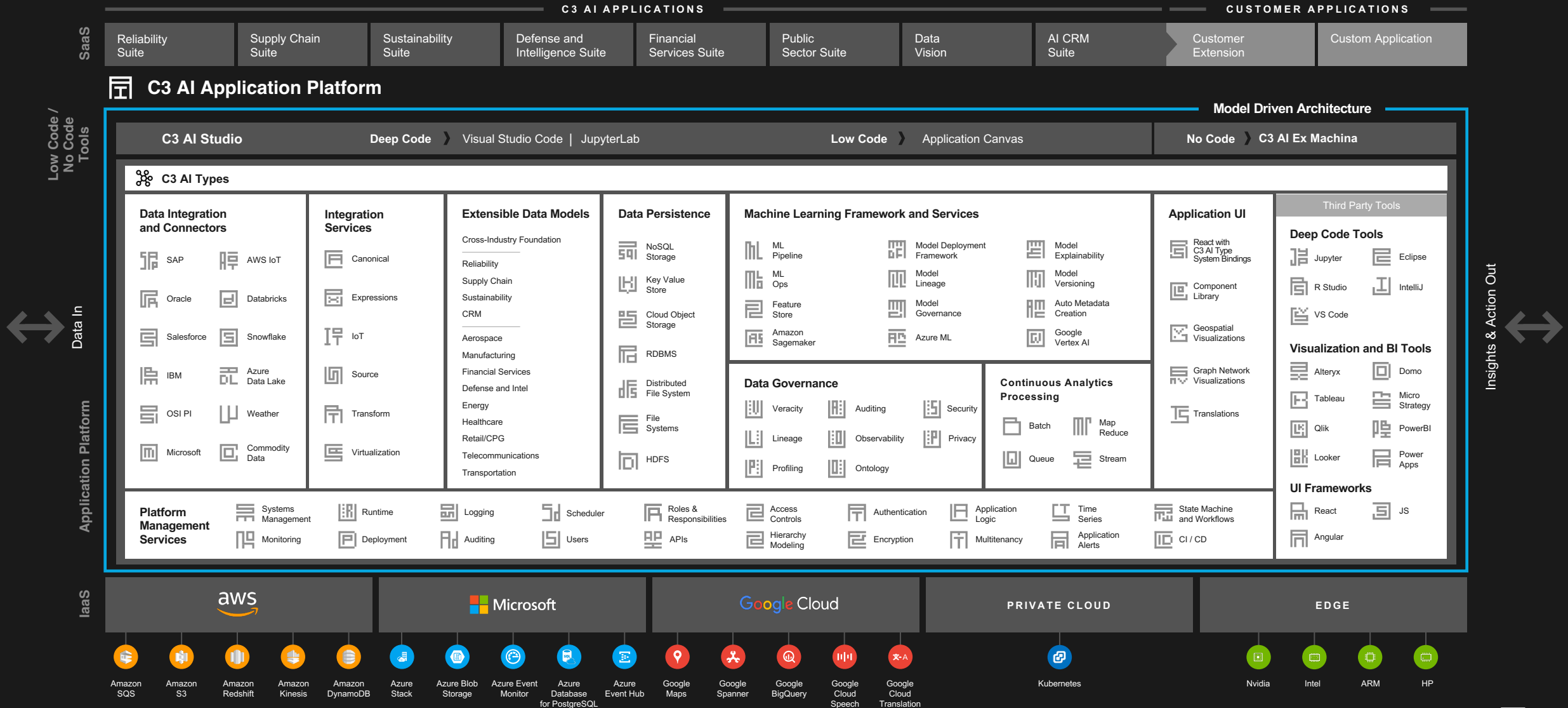
C3 AI works across many industries and varied use cases

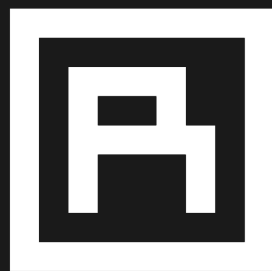
Financial Services	Manufacturing	Aerospace & Defense	Healthcare	Oil & Gas	Utilities	Energy Sustainability	Telecom
 BANK OF AMERICA  FIS  Standard Chartered  SWIFT	 Cargill  GP  Johnson Controls  KOCH  FLINT HILLS Resources  lyondellbasell  Mosaic  Cummins	 DEPARTMENT OF DEFENSE  DEFENSE INNOVATION UI  U.S. AIR FORCE  MISSILE DEFENSE AGENCY  Raytheon Technologies  CDAO  UNITED STATES STRATEGIC COMMAND  U.S. AIR FORCE  RAPID SUSTAINMENT OFFICE RSO	 one medical  Roche  PHILIPS  NIH National Institutes of Health	 Baker Hughes  GC  KBC  MEG ENERGY  ExxonMobil  eni  PETRONAS  SHELL  YOKOGAWA  ADNOC	 AMERICAN ELECTRIC POWER  conEdison  DUKE ENERGY  NEW YORK STATE OF OPPORTUNITY NY Power Authority  ENGIE	 ENGIE  MONASH University  SUNPOWER  NEW YORK STATE OF OPPORTUNITY NY Power Authority  THE OHIO STATE UNIVERSITY  Ball  DS Smith  CommonSpirit  HIGHGATE	 Singtel

Operating AI applications at **scale** requires dozens of tools, services, microservices, and related technologies



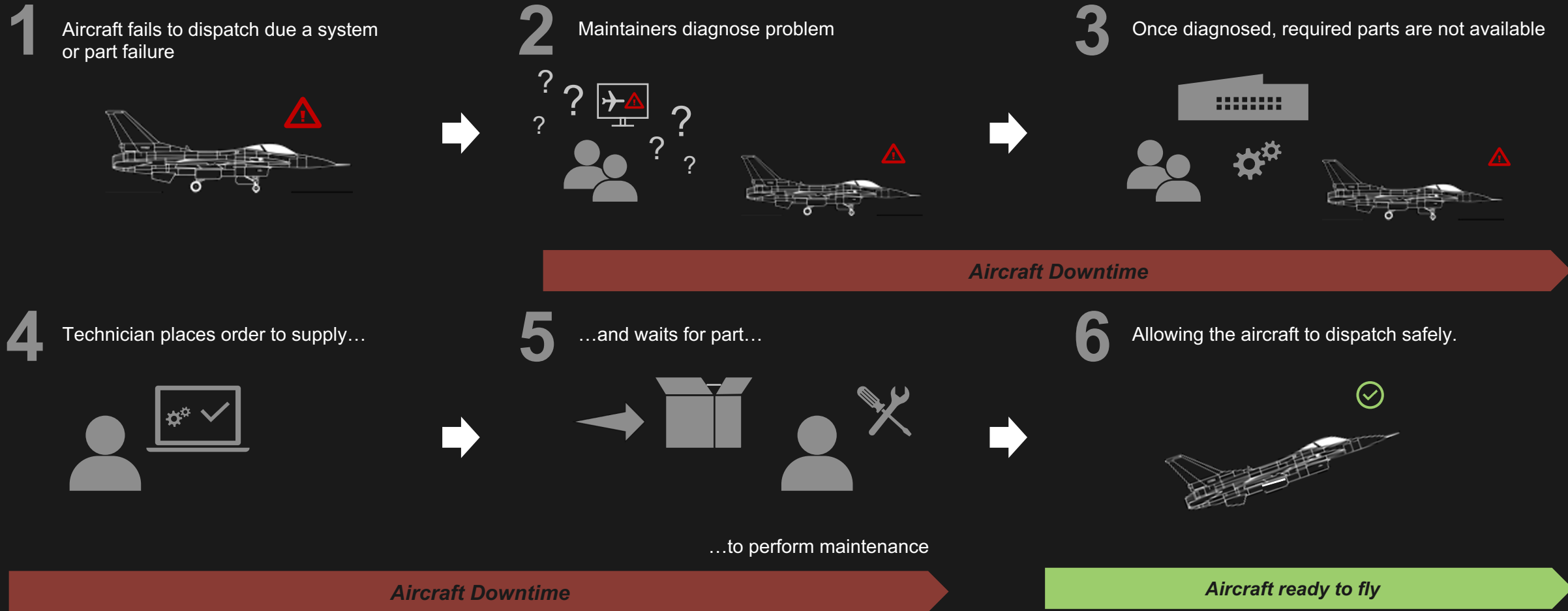
The C3 AI Platform reduces complexity through an abstraction & orchestration layer for enterprise-scale AI applications



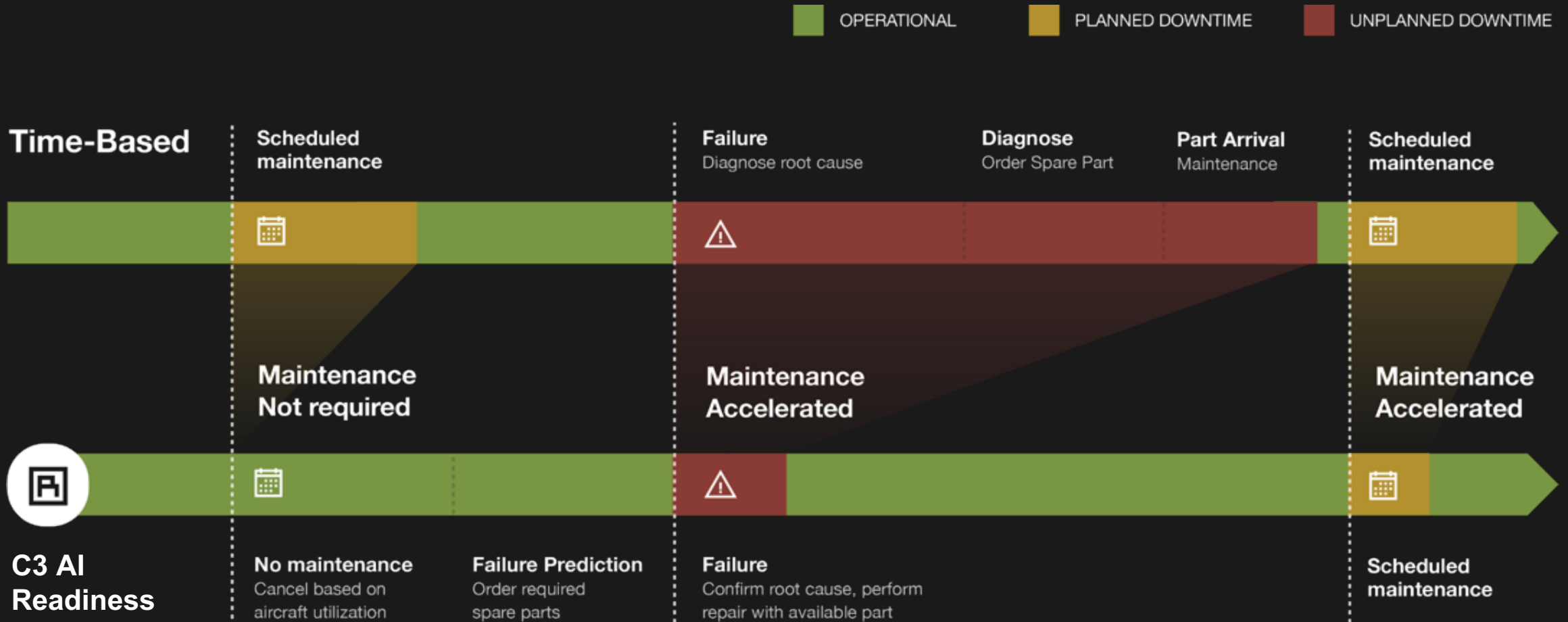


C3 AI Readiness

Component failure under existing maintenance operations leads to unplanned aircraft downtime



C3 AI Readiness improves aircraft availability by reducing downtime & part shortages



Most enterprise AI projects fail.

85% of AI projects **fail to produce expected value**

~Gartner

70% of companies report **minimal or no impact** from AI

~MIT

87% of AI projects **never enter production**

~Forbes

92% of businesses with AI initiatives have been **ineffective in scaling** to evolve key processes

~McKinsey

Failed Missions

Wasted Time

Wasted Money

Undetected Threats

Excessive Timeline

Misallocated Resources

Technology Overmatch

Wasted Effort

Delayed Reporting

Reduced Readiness

Why do most enterprise AI
projects fail?

Reason #1

**Project lacks measurable,
objective, quantifiable value
over a baseline.**

Reason #2

Project too **slow to demonstrate value.**

Reason #3

**Project not designed or
developed for scale in
production**

Reason #4

**Project lacks support for
adoption at scale**

