2026

# MAINSTREAM

## Industrial Asset Management

# TECHNOLOGY INVESTMENT REPORT

Navigating Investment Decisions, Implementation Challenges, and Strategic Opportunities Across 17 Maintenance and Reliability Technology Solutions

### Research Partners

SAP | KPMG

**MAINSTREAM**

# Navigating the Digital Transformation of Maintenance and Reliability in Australia and New Zealand

For three decades, the MAINSTREAM research team has engaged with Australian and New Zealand-based Asset, Maintenance, and Reliability leaders to understand their collective challenges and opportunities as they work toward asset management excellence.

The 2026 Technology Investment Report presents our most comprehensive analysis of maintenance technology adoption based on extensive research including surveys, roundtable discussions, and in-depth interviews with senior leaders across sectors such as mining, utilities, manufacturing, rail, energy, and defence.

The insights gathered in this report enable Asset Management leaders to benchmark their digital maturity against industry peers, understand proven implementation strategies, and make informed investment decisions that drive measurable improvements in safety, efficiency, and asset performance across their maintenance operations.



" Digital transformation isn't about replacing human expertise – it's about amplifying what our best people already know.

**Group Maintenance and Reliability Lead, Power Utility**

# Executive Summary

The Australia and New Zealand industrial asset management sector is experiencing unprecedented transformation, driven by converging forces of technological advancement, regulatory pressures, and operational imperatives. Our comprehensive survey of 506 maintenance and reliability professionals reveals an industry poised for revolutionary change yet constrained by implementation challenges that separate ambitious intentions from operational reality.

With 73% of organisations implementing or planning AI/ML solutions and 68.4% pursuing predictive analytics platforms, the sector demonstrates overwhelming commitment to digital transformation. However, a critical execution gap emerges: only 3.4% have achieved full AI deployment and 13.1% have successfully implemented predictive analytics, signalling that technological enthusiasm alone is insufficient for transformation success.

**When it comes to EAM systems,** SAP's market dominance continues with 48.3% market share based on our respondents, reflecting the region's preference for enterprise-integrated solutions over standalone best-of-breed systems. This consolidation around enterprise platforms creates both opportunities and constraints for advanced analytics adoption, as organisations must balance vendor roadmaps with innovation imperatives.

**Mining and Heavy Industry Lead Innovation,** with Australia's position as home to the world's largest iron ore mining industry and advanced LNG operations creating natural testing grounds for maintenance technologies. Organisations in these sectors report substantial returns, with predictive maintenance reducing planning time by 20-50% and overall maintenance costs by 5-10%.

**Safety and Compliance Drive Investment Decisions,** with 29.1% prioritising safety improvements as their primary technology driver. This reflects intensifying regulatory pressures across mining, utilities, and manufacturing sectors, where real-time monitoring capabilities are increasingly becoming regulatory requirements rather than competitive advantages.

**Three Critical Implementation Barriers** consistently emerge: technical integration complexity across multi-vendor environments, organisational change resistance from experience-driven maintenance cultures, and acute skills shortages in AI and cybersecurity domains. Organisations that successfully address these barriers through structured mitigation strategies position themselves to capture significant competitive advantages.

**The Regional Opportunity** is substantial, with strong digital infrastructure foundations in both countries supporting cloud-based analytics and IoT implementations. However, the tech skills gap will likely widen in 2026, creating implementation bottlenecks that favour organisations with proactive talent development strategies.

The path forward requires balancing technological ambition with organisational reality. Early movers who demonstrate immediate value through pilot programs, build robust data infrastructure, and invest in cultural transformation will establish compounding competitive advantages in safety, efficiency, and sustainability performance.

> **"** Predictive analytics reduced our maintenance planning time by 30% – the ROI is undeniable.

**Maintenance Engineering Manager, Water Utility**

# Key Findings

**Current State of Digital Maturity**

The survey reveals a maintenance technology ecosystem in transition. While foundational systems show strong deployment rates, condition monitoring systems are fully deployed by 31.6% of organisations and data historian systems by 37.4%, the advanced analytics layer tells a different story. Only 13.1% have fully deployed predictive analytics platforms, yet 25.7% plan implementation within 1-2 years, signalling the largest technology wave approaching the sector.

**The AI Adoption Wave**

Artificial Intelligence and Machine Learning solutions represent the most significant opportunity, with 29.1% planning implementation in the next 1-2 years and another 24.3% currently piloting solutions. This 53.4% combined interest rate positions AI as the most sought-after technology advancement, aligning with global trends where the introduction of AI-assisted tools has shown a 40% improvement in efficiency across Australian business environments.

**Digital Twin Scepticism**

Despite industry hype, Digital Twin technology faces significant adoption barriers, with 40.8% of respondents indicating no plans to use the technology. Only 9.2% have achieved full deployment, suggesting implementation complexity and unclear ROI continue to challenge widespread adoption.

**Mining and Metals Leading Innovation**

Australia's massive iron ore mining sector and state-of-the-art automated LNG facilities provide an ideal environment for testing innovative maintenance technologies. AI has already had a "tremendous" impact on the mining sector, informing the development of smart factory tools such as cloud computing. Mining, metals, and metals processing organisations (33.5% of respondents) are driving technological advancement, with companies already demonstrating substantial returns. Predictive maintenance can reduce mining and metal operations' maintenance planning time by 20-50% and overall maintenance costs by 5-10%.

**Power and Utilities Modernisation**

Power and water utilities (20.4% of respondents) show balanced investment across technologies, reflecting the critical nature of infrastructure reliability. The sector's conservative approach balances innovation with operational stability requirements.

**Skills Gap Challenge**

Tech skills gap will likely widen in 2026 as demand from employers increases, with fast-growing areas like AI and cybersecurity creating roles faster than available talent can fill them. This constraint significantly impacts maintenance technology deployment timelines.

**Government Technology Support**

The Australian government has estimated that quantum computing, communications and sensing could add at least $6.1 billion to Australia's GDP by 2045, indicating long-term commitment to advanced technology development that will eventually benefit industrial asset management.

**New Zealand's Digital Evolution**

New Zealand has a high-speed fibre network that's nearly nationwide and is a leader in high-speed broadband, providing the connectivity foundation essential for cloud-based maintenance solutions and real-time asset monitoring.



**"** Our mobile solutions for frontline workers transformed how technicians access critical equipment data.

**Maintenance Manager, Manufacturing**

# About the research

## The findings presented in this report are drawn from:

- A survey completed by 506 maintenance and reliability professionals across diverse industries.
- Twelve one-on-one interviews with heads of asset management, maintenance, and reliability.
- Analysis of industry data and global benchmarks.

The survey included multiple-choice, ranking, and open-ended questions for comprehensive insights. Participants represented organisations across Australia and New Zealand, including companies in mining, utilities, oil and gas, manufacturing, rail transportation, infrastructure, public sector, and defence.

The findings represent our most current understanding of industrial asset management technology adoption in the ANZ region as of February 2026.

## Authors

The comprehensive survey content presented in this report was designed, developed, and authored by the MAINSTREAM research team, drawing upon our extensive expertise in market analysis and industry insights across Australia and New Zealand. As a leading research authority in the ANZ region, MAINSTREAM brings decades of collective experience and methodological rigour to this analysis. The authors acknowledge SAP and KPMG for their invaluable partnership and support throughout this research initiative.

# Organisations Represented

**Thank you to the following organisations for participating in this research:**

| | | |
|---|---|---|
| Adelaide Brighton | Fisher & Paykel Healthcare | Queensland Nitrates |
| AGL Energy | Fortescue | Rio Tinto Iron Ore |
| AGL Loy Yang | Fremantle Ports | Roy Hill |
| Alcoa Australia | Genesis Energy Limited | SA Power Networks |
| Alstom Australia | George Weston Foods (NZ) | Sandvik |
| AngloGold Ashanti | Gladstone Area Water Board | Santos |
| ANSTO | Gladstone Ports | Saputo Dairy Australia |
| AusNet Services Group | Glencore | Sedgman Limited |
| Aurizon | Godfrey Hirst Australia | Seqwater |
| Ausenco | Gold Fields | Shell |
| Australian Gas Infrastructure Group | GWMWater | South32 |
| BAE Systems Australia | Hunter Water Corporation | Southern Ports |
| Banpu Energy | Hydro Tasmania | Speno Rail Maintenance Australia |
| Beach Energy | Icon Water | Stanwell Corporation |
| Bega Group | Iluka Resources | Stawell Gold Mines |
| BHP Metallurgical Coal | Incitec Pivot | SunWater |
| BHP WA Iron Ore | INPEX | Synergy Group |
| BIS Industries | Jemena | Talison Lithium |
| BlueScope | Macmahon Holdings | TasWater |
| Bulla Dairy Foods | Melbourne Water Corporation | Territory Generation |
| Byrnecut Mining | Metro Trains Melbourne | TransGrid |
| CBH Group | Mid West Ports Authority | TransUrban |
| Chevron Australia | Murrumbidgee Irrigation | Treasury Wine Estates |
| CitiPower Powercor | Newcastle Coal Infrastructure | UGL |
| Citic Pacific Mining | Group | V/Line |
| Coca-Cola Amatil | Newmont Australia | Valmet |
| ConocoPhillips Australia | Northern Star Resources | Ventia |
| Contact Energy Limited (NZ) | Nyrstar | Visy Pulp & Paper |
| Covalent Lithium | One Rail Australia (NSW) | Water Corporation of WA |
| CS Energy Limited | Orica Australia | Watersure (SUEZ) Victoria |
| CSL Seqirus (Australia) | Orion New Zealand | WEL Networks |
| CSR | Paradise Beverages | Wesfarmers Chemicals, Energy & |
| Downer Group | Petrofac Australia | Fertilisers |
| ElectraNet | Pilbara Ports Authority | Western Power |
| Endeavour Energy | Port of Melbourne Corporation | Wilmar Sugar |
| EnergyAustralia | Ports North | Woodside Energy |
| Energy Queensland | Power and Water Corporation | Yancoal Australia |
| Enerven Energy Infrastructure | Powerlink Queensland | |
| ExxonMobil Australia | Public Transport Authority of WA | |

# Strategic Decision-Making Factors for Technology Investment

**The research reveals a clear hierarchy of investment motivations, with safety and operational efficiency dominating decision-making:**

1. **Improving Safety and Compliance (29.1% as top priority)**

   - Regulatory pressure intensifying across all sectors.

   - Workers' compensation costs driving technology adoption.

   - Real-time monitoring capabilities becoming regulatory requirements.

2. **Increasing Operational Efficiency (18.4% as top priority)**

   - Productivity pressures amid skilled labour shortages.

   - Energy cost optimisation through intelligent systems.

   - Production scheduling optimisation.

3. **Reducing Downtime (Combined 45.3% prioritising as top 3 factors)**

   - Unplanned downtime costs escalating due to complex equipment.

   - Supply chain vulnerabilities increasing repair lead times.

   - Production continuity critical for global competitiveness.

> **"** The biggest barrier isn't technology adoption – it's getting our people to trust data over decades of experience.

**Head of Asset Management, Mining**

# Cultural and Change Management Imperatives

### The Human Factor in Digital Transformation

Digital transformation success requires more than technology implementation. It demands fundamental cultural shifts. Organisations must establish digital leadership that empowers teams to identify and implement change. This transformation involves restructuring traditional maintenance cultures, where decisions have historically relied on experience rather than data-driven insights.

### Building Data-Driven Cultures

Leading organisations prioritise transparency in transformation objectives, ensuring maintenance teams understand how digital tools will enhance rather than replace their expertise. Success requires aligning incentives with transformation goals, rewarding data-driven decision-making while maintaining the value of human experience and judgment.

### Overcoming Resistance to Change

Traditional maintenance practices possess inherent resilience, particularly in industries where "if it's not broken, don't fix it" mentalities prevail. Organisations must demonstrate clear value through pilot programs that show immediate improvements in safety, efficiency, or cost reduction before scaling enterprise-wide implementations.
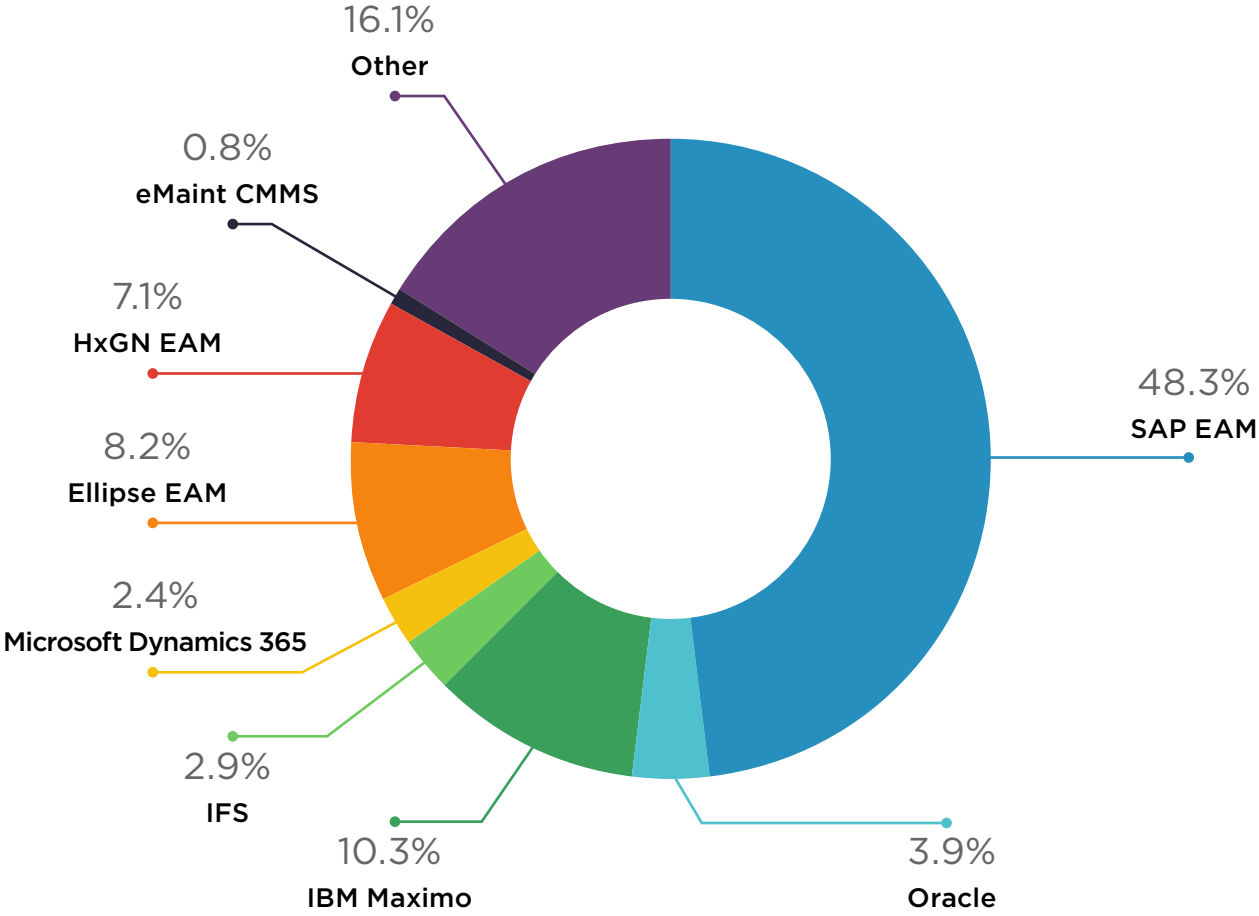
> **"** Skills shortage is killing our digital transformation faster than any technology can save it.

**Head of Engineering, Energy**

# EAMS and CMMS

SAP EAM dominance continues with 48.3% of respondents using SAP. SAP EAM maintains its position as the enterprise standard. This dominance reflects SAP's strength in large, complex organisations where integration with broader enterprise resource planning (ERP) systems is critical.

However, 16.1% utilise "Other" systems, indicating market fragmentation and potential opportunities for specialised solutions, particularly in predictive analytics integration.



16.1%
Other

0.8%
eMaint CMMS

7.1%
HxGN EAM

8.2%
Ellipse EAM

2.4%
Microsoft Dynamics 365

2.9%
IFS

10.3%
IBM Maximo

3.9%
Oracle

48.3%
SAP EAM

This pattern suggests ANZ industrial organisations prioritise integration capabilities and enterprise-wide data consistency over specialised functionality. Large mining, utilities, and manufacturing operations appear to value the ability to connect maintenance data with financial, procurement, and operational systems through a unified platform.



❝ A best-in-class EAM system was critical for us; we need enterprise integration across 12 different sites.

**Asset Data Manager, Mining**

# Technology Investment Survey Results: 17 Solutions Analysis

The following section presents survey results from 506 maintenance and reliability leaders across Australia and New Zealand, analysing current deployment status and future investment plans for 17 key technologies commonly used across plants, sites, mines, and facilities.

1. Condition Monitoring Systems
2. Asset Performance Management (APM) Software
3. Maintenance Planning and Scheduling Software
4. Data Historian Systems
5. Predictive Analytics Platforms
6. Reliability Centred Maintenance (RCM) Software
7. Cloud Application/IoT Platforms
8. Internet of Things (IoT) Devices
9. Artificial Intelligence and Machine Learning Solutions (AI/ML)
10. Digital Twin
11. Mobile Solutions for Frontline Workers
12. Robotic Process Automation
13. LIDAR or Smart Video
14. Wearable Sensors or Devices
15. Augmented Reality
16. Manufacturing Execution Systems (MES)
17. Supervisory Control and Data Acquisition (SCADA) Systems

" We're drowning in pilot programs but starving for full-scale implementations that actually deliver value.

**Head of Engineering, Rail**

**SAP**

# Intelligent Asset Management

Manage the entire lifecycle of your physical assets with enterprise asset management software systems from SAP

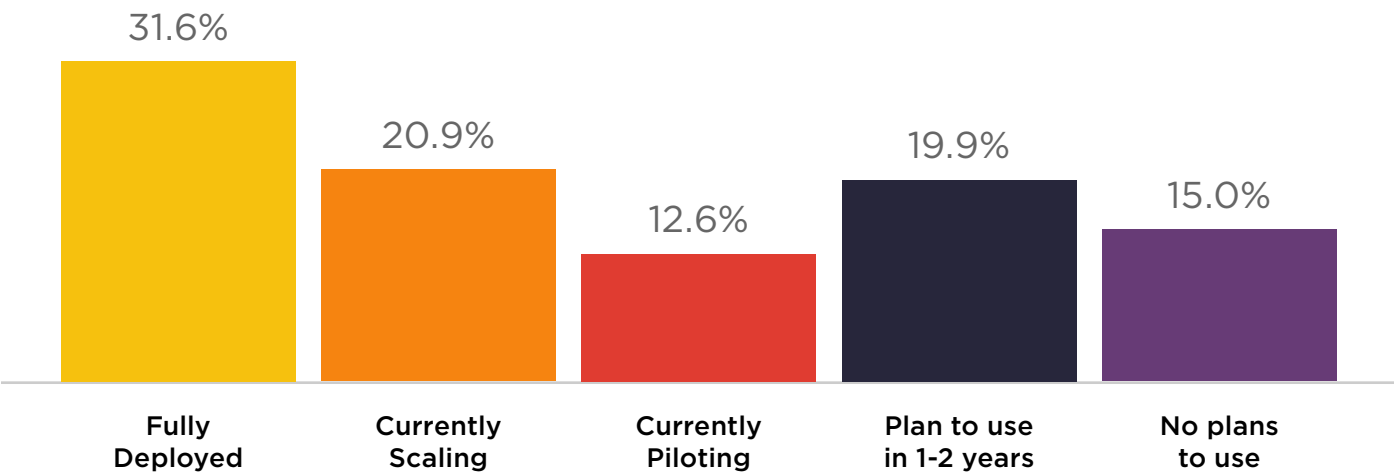Learn More

## 01

# Condition Monitoring Systems

**Current Status:** Leading the maturity curve with strong deployment.

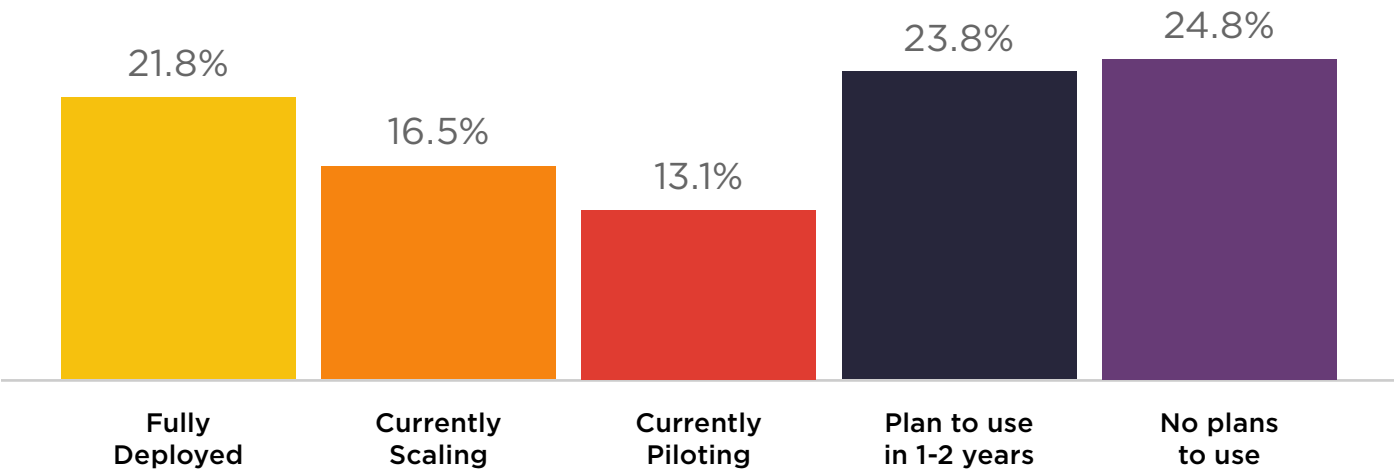| | | | | |
|---|---|---|---|---|
| 31.6% | 20.9% | 12.6% | 19.9% | 15.0% |
| Fully Deployed | Currently Scaling | Currently Piloting | Plan to use in 1-2 years | No plans to use |

**Analysis:** Over 65% of organisations have active condition monitoring programs, indicating this technology has reached mainstream adoption across ANZ industrial operations.

## 02

# Asset Performance Management (APM) Software

**Current Status:** Balanced adoption with significant growth potential.

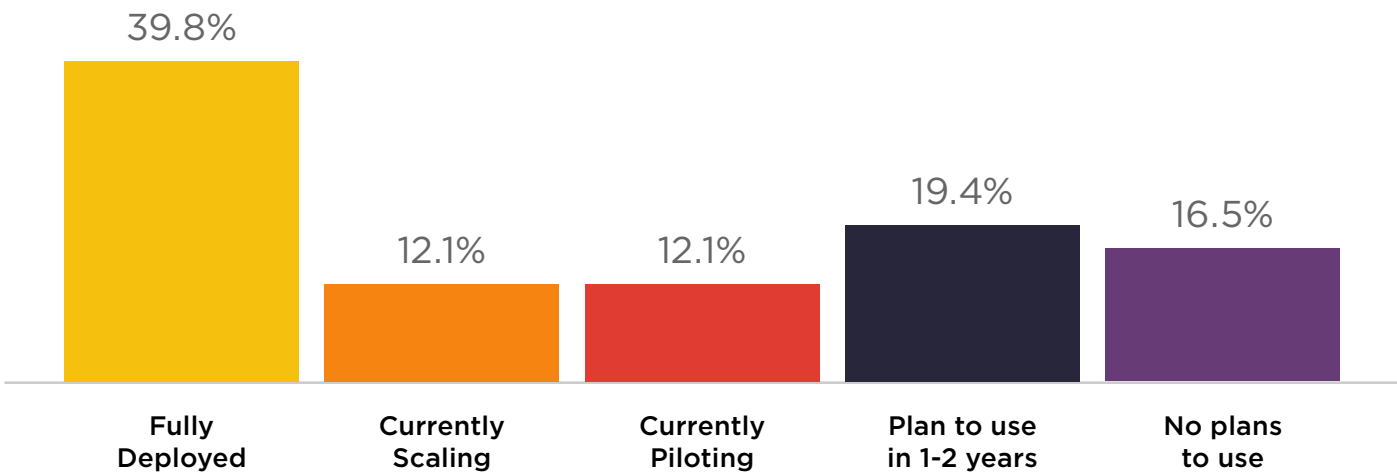| | | | | |
|---|---|---|---|---|
| 21.8% | 16.5% | 13.1% | 23.8% | 24.8% |
| Fully Deployed | Currently Scaling | Currently Piloting | Plan to use in 1-2 years | No plans to use |

**Analysis:** APM shows healthy adoption with nearly equal distribution across deployment phases, suggesting the market is actively evaluating and implementing these solutions.

## 03

# Maintenance Planning and Scheduling Software

**Current Status:** Highest deployment rate among advanced technologies.

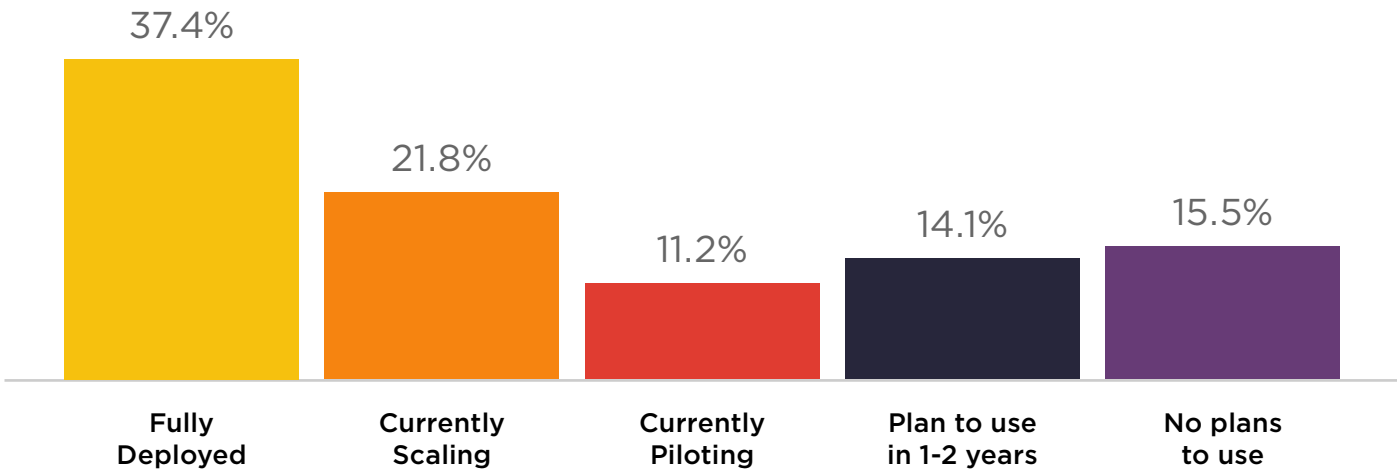| | | | | |
|---|---|---|---|---|
| 39.8% | 12.1% | 12.1% | 19.4% | 16.5% |
| Fully Deployed | Currently Scaling | Currently Piloting | Plan to use in 1-2 years | No plans to use |

**Analysis:** This technology shows the highest deployment rate at nearly 40%, indicating its recognised value in optimising maintenance operations.

## 04

# Data Historian Systems

**Current Status:** Solid foundation technology with continued growth.

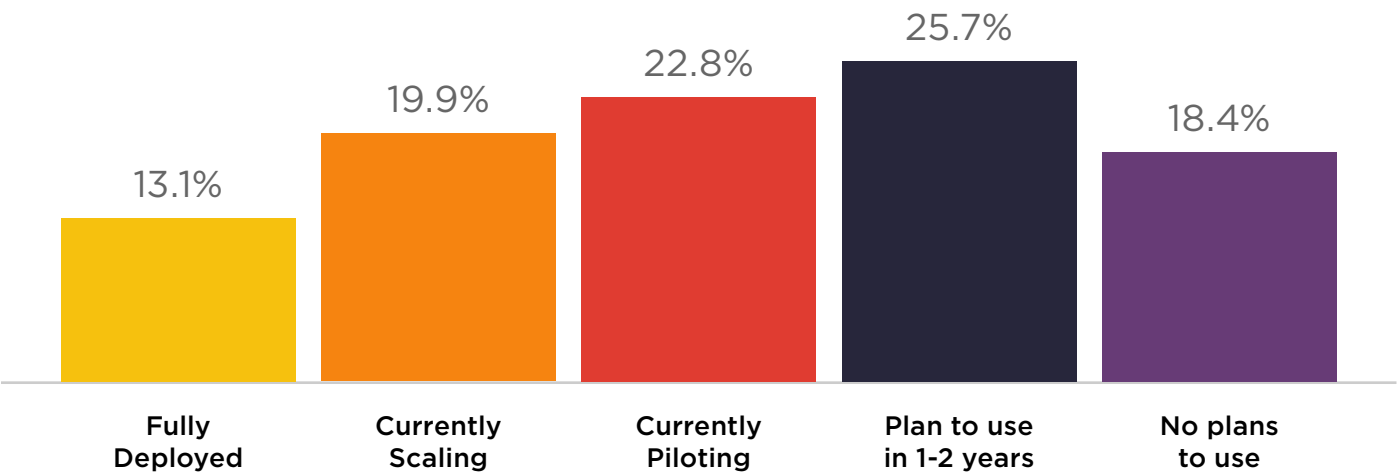| | | | | |
|---|---|---|---|---|
| 37.4% | 21.8% | 11.2% | 14.1% | 15.5% |
| Fully Deployed | Currently Scaling | Currently Piloting | Plan to use in 1-2 years | No plans to use |

**Analysis:** High deployment rate indicates data historian systems are viewed as essential infrastructure for modern maintenance operations.

# Predictive Analytics Platforms

**Current Status:** Emerging technology with highest future interest



Fully Deployed 13.1% · Currently Scaling 19.9% · Currently Piloting 22.8% · Plan to use in 1-2 years 25.7% · No plans to use 18.4%
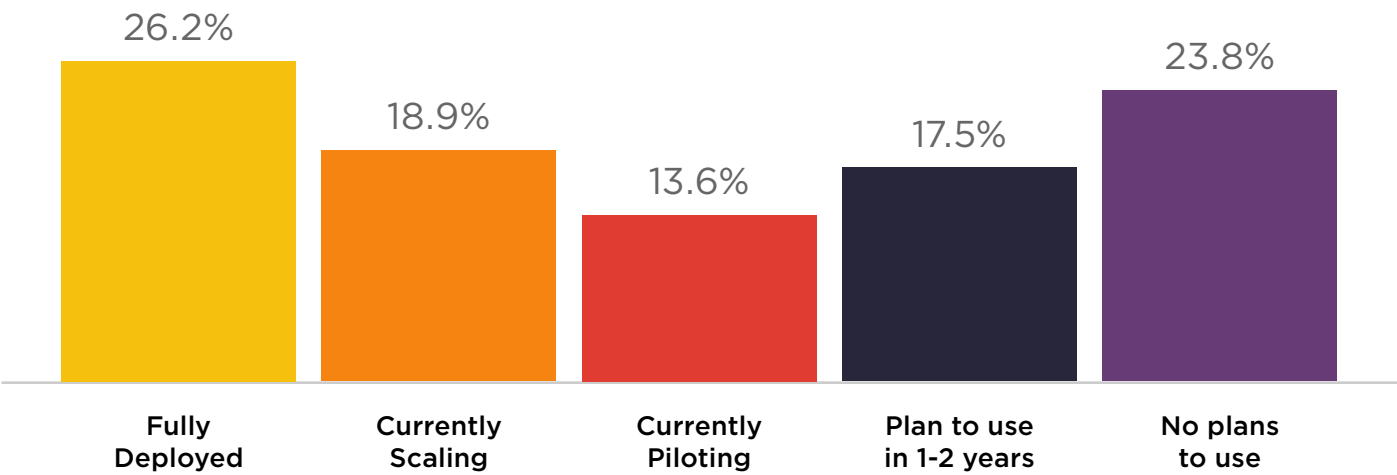
**Analysis:** This represents the technology with the highest implementation momentum, with 68.4% actively implementing or planning implementation.

# Cloud Application/IoT Platforms

**Current Status:** Leading-edge deployment with geographic variation



Fully Deployed 26.2% · Currently Scaling 18.9% · Currently Piloting 13.6% · Plan to use in 1-2 years 17.5% · No plans to use 23.8%
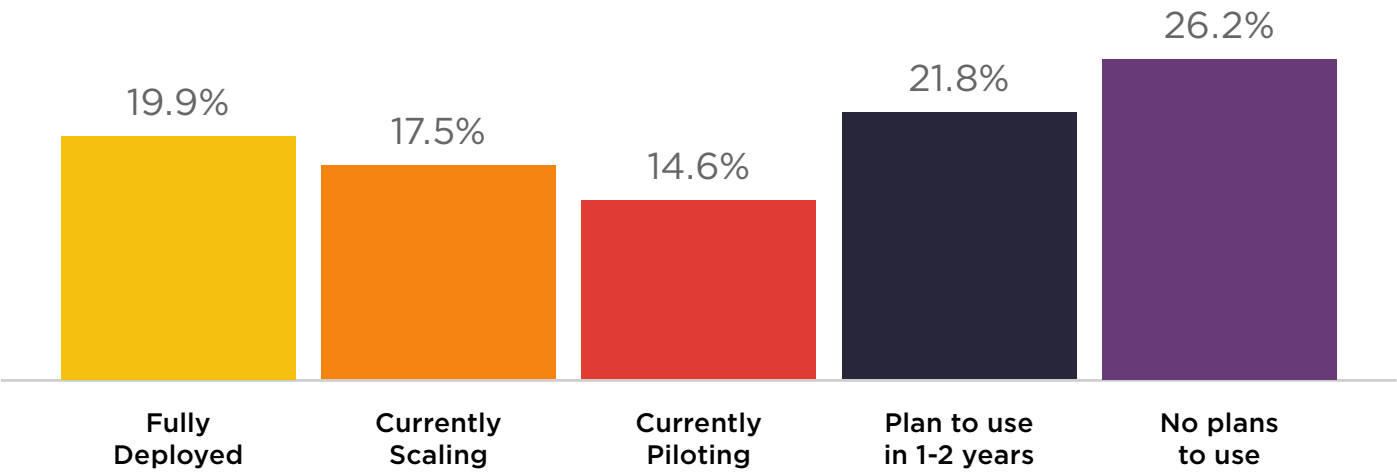
**Analysis:** Strong deployment rate reflects mature cloud infrastructure in ANZ, with over 58% actively using or implementing these platforms.

# Reliability Centred Maintenance (RCM) Software

**Current Status:** Mixed adoption with moderate resistance



Fully Deployed 19.9% · Currently Scaling 17.5% · Currently Piloting 14.6% · Plan to use in 1-2 years 21.8% · No plans to use 26.2%
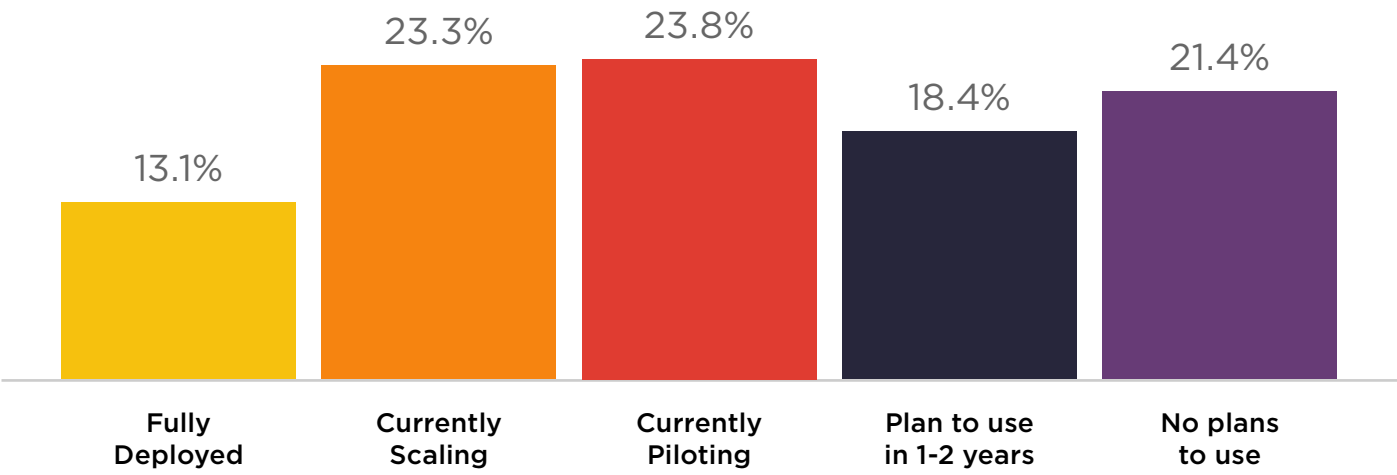
**Analysis:** RCM software shows steady adoption but faces the highest resistance rate among established methodologies.

# Internet of Things (IoT) Devices

**Current Status:** Rapid deployment phase across all sectors



Fully Deployed 13.1% · Currently Scaling 23.3% · Currently Piloting 23.8% · Plan to use in 1-2 years 18.4% · No plans to use 21.4%
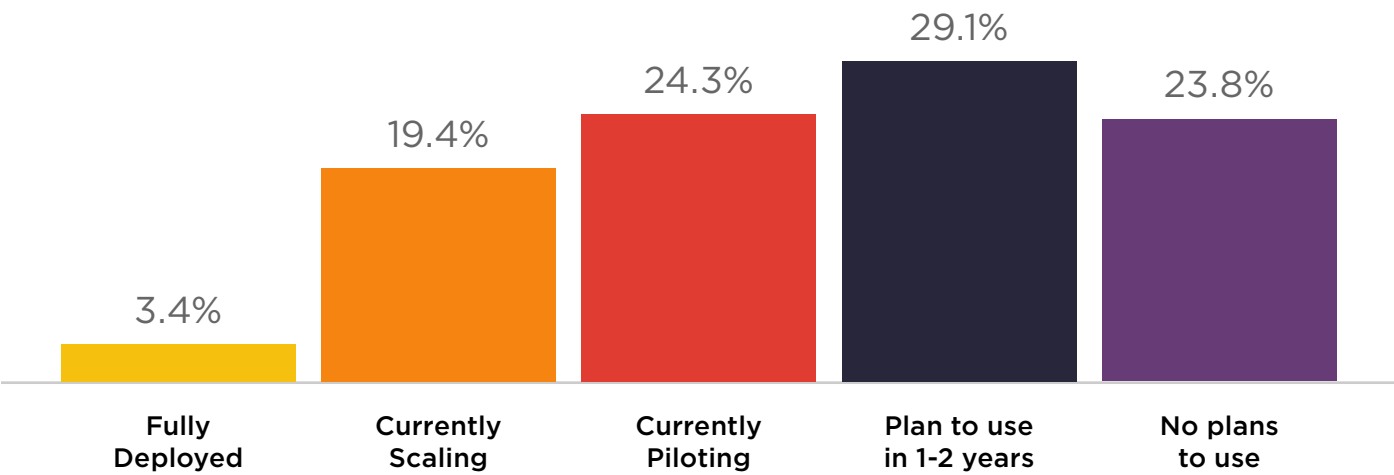
**Analysis:** IoT shows active implementation momentum with 65.5% in deployment or planning phases, indicating widespread recognition of sensor technology value.

## 09
# AI and Machine Learning Solutions

**Current Status:** Highest future interest and investment priority.

Fully Deployed: 3.4%
Currently Scaling: 19.4%
Currently Piloting: 24.3%
Plan to use in 1-2 years: 29.1%
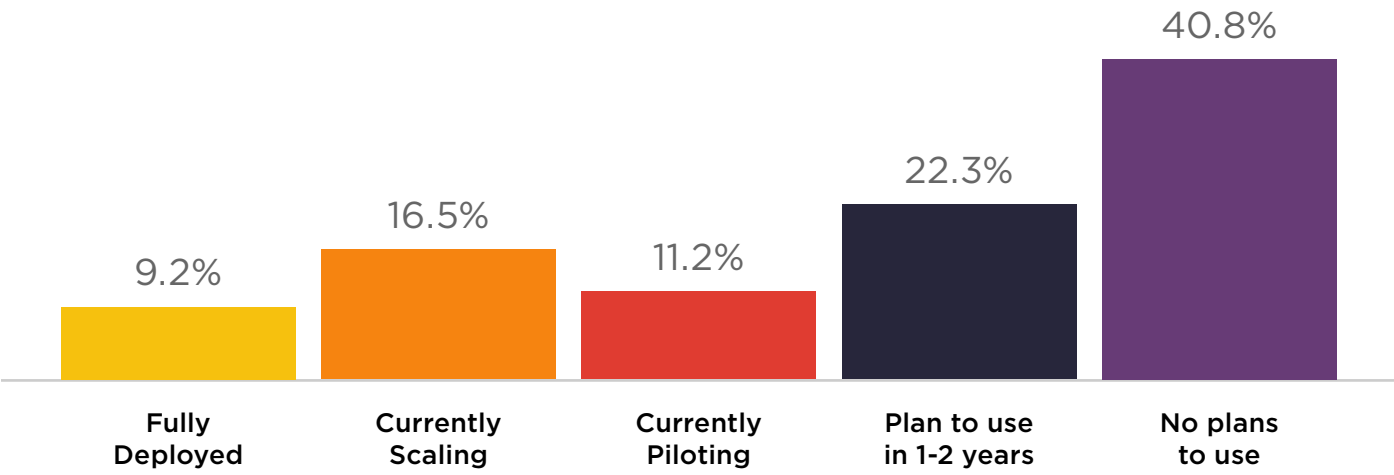No plans to use: 23.8%

**Analysis:** Despite low full deployment, 73% are implementing or planning AI/ML solutions, representing the largest technology wave approaching the sector.

## 11
# Mobile Solutions for Frontline Workers

**Current Status:** High deployment with continued growth

Fully Deployed: 24.8%
Currently Scaling: 22.3%
Currently Piloting: 18.9%
Plan to use in 1-2 years: 19.4%
No plans to use: 14.6%

**Analysis:** Strong adoption rate with 85.4% actively using or planning mobile solutions, reflecting the critical role of field worker connectivity.

## 10
# Digital Twin

**Current Status:** Emerging technology with significant scepticism

Fully Deployed: 9.2%
Currently Scaling: 16.5%
Currently Piloting: 11.2%
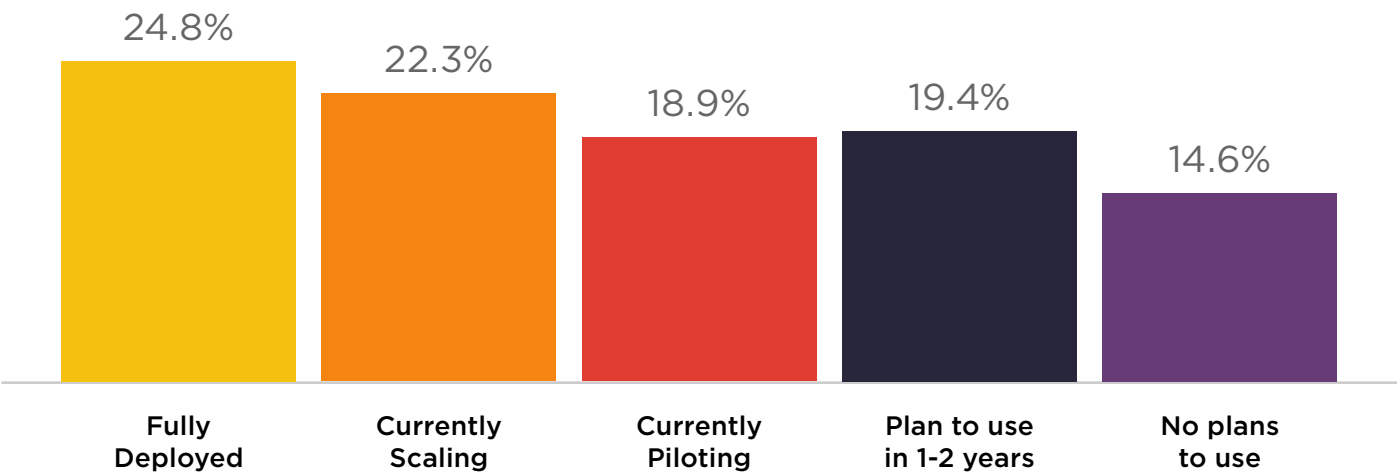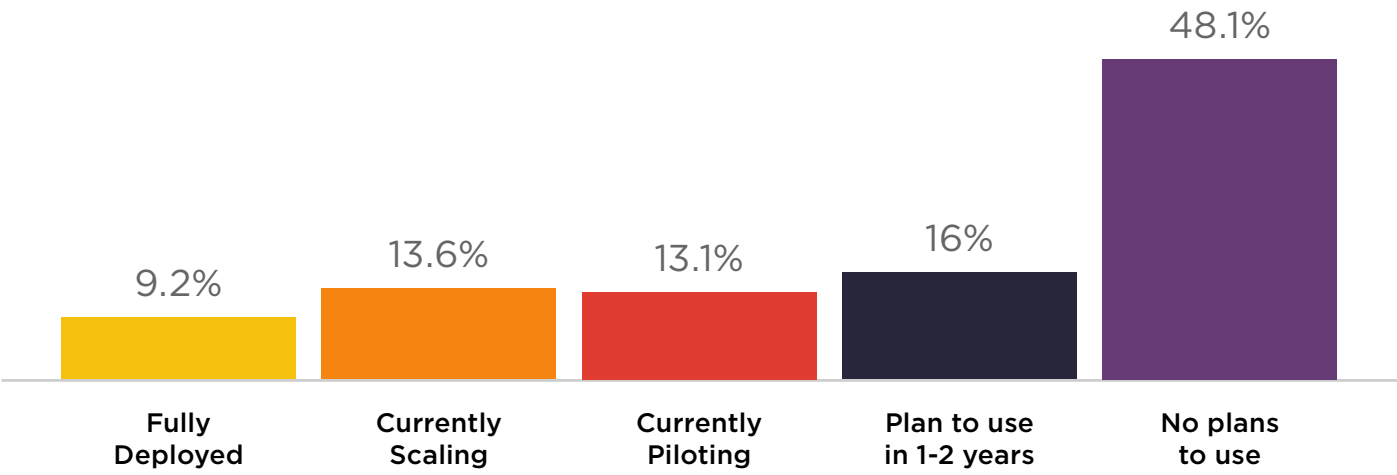Plan to use in 1-2 years: 22.3%
No plans to use: 40.8%

**Analysis:** Digital twins face the highest scepticism rate at 40.8%, suggesting implementation complexity and unclear ROI continue to challenge adoption.

## 12
# Robotic Process Automation

**Current Status:** Limited adoption with highest resistance.

Fully Deployed: 9.2%
Currently Scaling: 13.6%
Currently Piloting: 13.1%
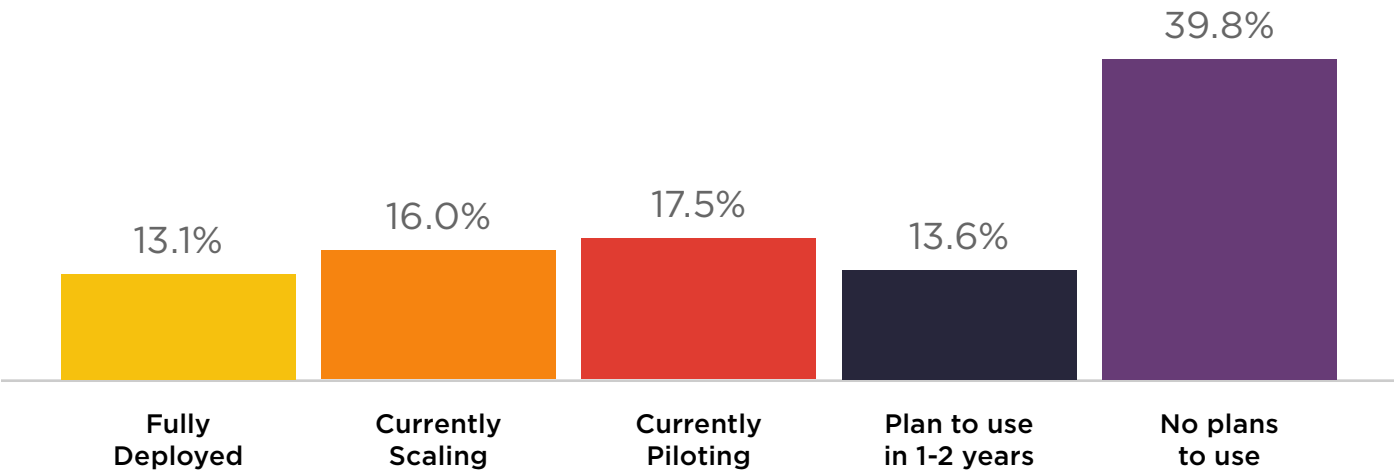Plan to use in 1-2 years: 16%
No plans to use: 48.1%

**Analysis:** RPA faces the highest resistance at 48.1%, indicating concerns about automation's role in maintenance operations.

## 13

# LIDAR or Smart Video

**Current Status:** Emerging technology with moderate interest.

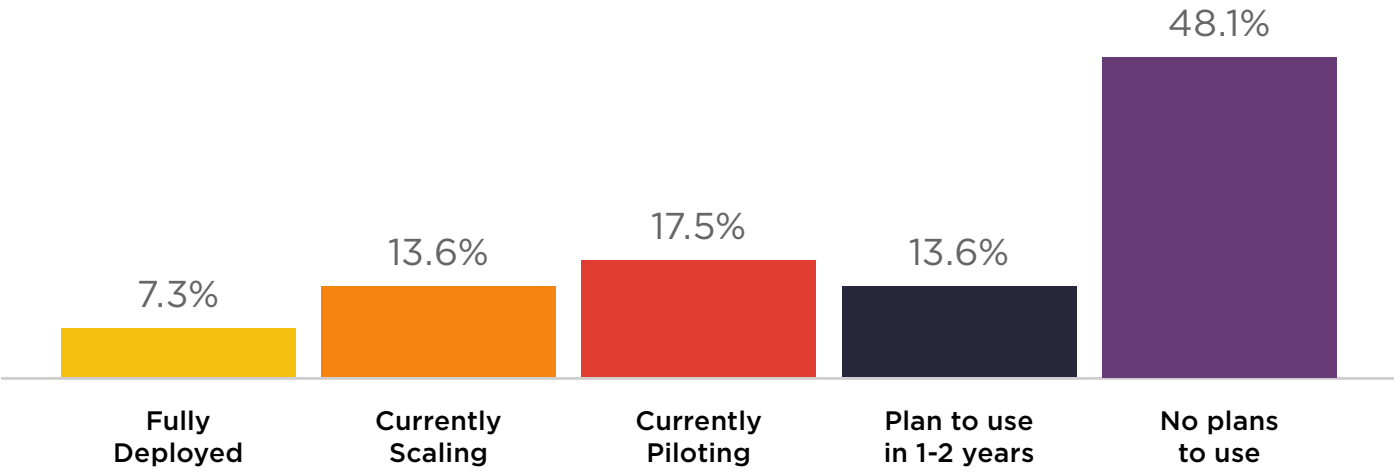| Fully Deployed | Currently Scaling | Currently Piloting | Plan to use in 1-2 years | No plans to use |
|---|---|---|---|---|
| 13.1% | 16.0% | 17.5% | 13.6% | 39.8% |

**Analysis:** Advanced sensor technologies show steady adoption in specific use cases, particularly in mining and heavy industry applications.

## 14

# Wearable Sensors or Devices

**Current Status:** Niche adoption with safety focus.

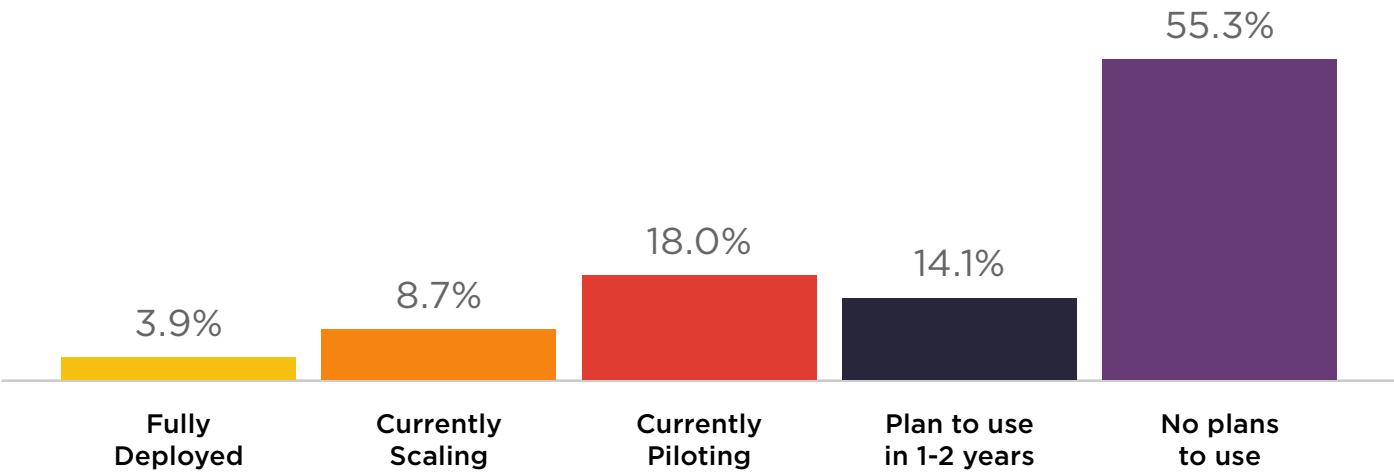| Fully Deployed | Currently Scaling | Currently Piloting | Plan to use in 1-2 years | No plans to use |
|---|---|---|---|---|
| 7.3% | 13.6% | 17.5% | 13.6% | 48.1% |

**Analysis:** Wearable technology adoption remains limited, likely due to worker acceptance issues and battery life constraints in industrial environments.

## 15

# Augmented Reality

**Current Status:** Early adoption phase with growing interest.

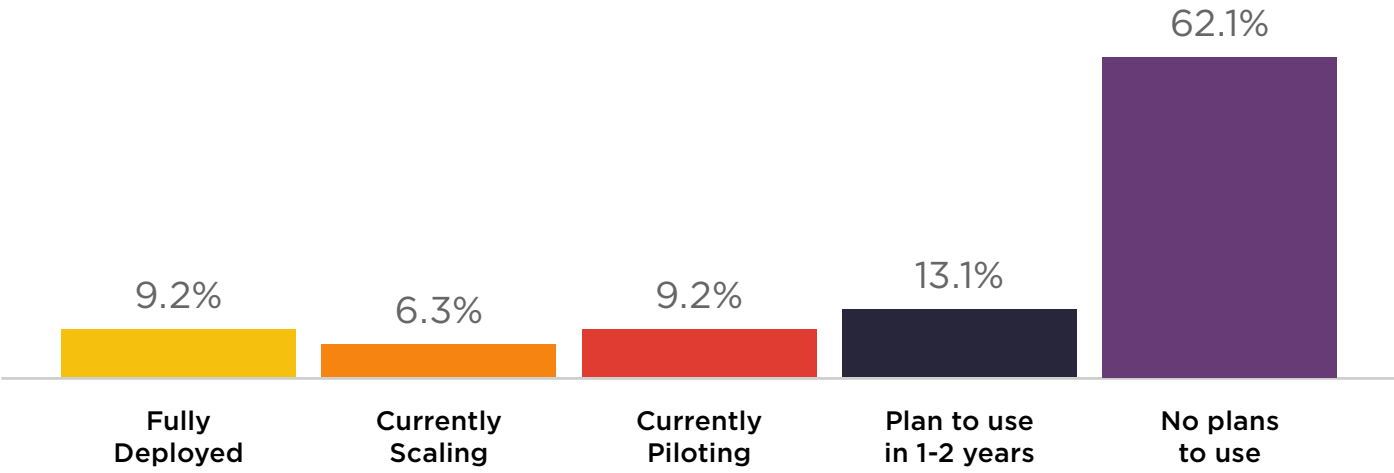| Fully Deployed | Currently Scaling | Currently Piloting | Plan to use in 1-2 years | No plans to use |
|---|---|---|---|---|
| 3.9% | 8.7% | 18.0% | 14.1% | 55.3% |

**Analysis:** AR shows promise for training and remote assistance but faces adoption barriers related to device usability and content development costs.

## 16

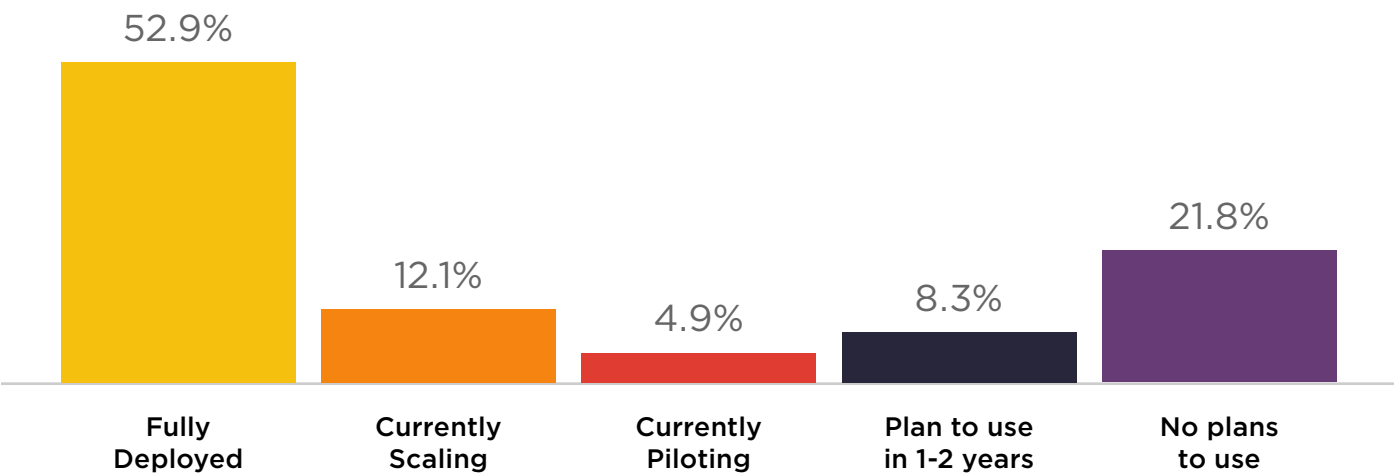# Manufacturing Execution Systems (MES)

**Current Status:** Limited relevance outside manufacturing.

| Fully Deployed | Currently Scaling | Currently Piloting | Plan to use in 1-2 years | No plans to use |
|---|---|---|---|---|
| 9.2% | 6.3% | 9.2% | 13.1% | 62.1% |

**Analysis:** Highest non-adoption rate reflects the survey's focus on asset-heavy industries where MES has limited applicability compared to traditional manufacturing.

**17**

# Supervisory Control and Data Acquisition (SCADA) Systems

**Current Status:** Mature technology with established deployment.

52.9%
12.1%
4.9%
8.3%
21.8%

| Fully Deployed | Currently Scaling | Currently Piloting | Plan to use in 1-2 years | No plans to use |

**Analysis:** SCADA shows the highest deployment rate at 52.9%, reflecting its fundamental role in industrial automation and control systems.

## KPMG

# Intelligent Asset Management with KPMG

**KPMG's Asset Performance Platform combines SAP Asset Performance Management with KPMG Asset Operations Core to enable better, data-driven decision-making.**

**John Schultz**
Partner,
SAP, Technology
Implementation
KPMG Australia

**Stephen Silver**
Partner,
SAP, Technology
Implementation
KPMG Australia

**Jason Cameron**
National Lead
Partner,
SAP Practice
KPMG Australia

# Technology Adoption Patterns

**High Maturity Technologies (>40% Deployed)**

1. SCADA Systems (52.9%)
2. Maintenance Planning Software (39.8%)
3. Data Historian Systems (37.4%)

**Growth Phase Technologies (20-40% Deployed)**

1. Condition Monitoring (31.6%)
2. Cloud/IoT Platforms (26.2%)
3. Mobile Solutions (24.8%)
4. APM Software (21.8%)

**Emerging Technologies (<20% Deployed)**

1. Predictive Analytics (13.1% deployed, 68.4% implementing/planning)
2. AI/ML Solutions (3.4% deployed, 73% implementing/planning)
3. Digital Twins (9.2% deployed, 59.2% implementing/planning)

> **"** From what we are seeing, the companies succeeding aren't necessarily picking the best technology – they're picking what their organisation can actually implement.
>
> **Maintenance and Reliability Manager, Manufacturing**

# Challenges and Mitigation Strategies

While the survey reveals strong interest in advanced maintenance technologies, with 73% implementing or planning AI/ML solutions and 68.4% pursuing predictive analytics, the gap between intention and deployment tells a different story.

Despite this enthusiasm, full deployment rates remain remarkably low: only 3.4% have fully implemented AI solutions and 13.1% have deployed predictive analytics platforms. This disconnect signals that ANZ industrial organisations face substantial barriers that extend far beyond technology selection. Success in maintenance digitalisation requires addressing three fundamental challenge categories that consistently emerge as implementation roadblocks: technical integration complexity, organisational change resistance, and critical skills shortages.

Organisations that proactively address these challenges through structured mitigation strategies position themselves to capture the significant benefits demonstrated by early adopters, while those that underestimate these barriers risk prolonged pilot phases and failed implementations.

## Data Quality and Integration

Organisations face significant challenges integrating data from disparate systems, legacy equipment, and multiple vendors. Challenges can include initial integration costs, ensuring data quality, training staff to use new systems, and maintaining cybersecurity in an increasingly digital environment.

Mitigation Strategy:
- Implement data governance frameworks before technology deployment.
- Establish data quality metrics and monitoring systems.
- Create standardised data formats and integration protocols.
- Invest in middleware solutions for system integration.

## Organisational Change Resistance

Traditional maintenance cultures often resist data-driven approaches, preferring experience-based decision-making. The survey indicates that despite technology interest, implementation rates remain low, suggesting organisational rather than technical barriers.

Mitigation Strategy:
- Demonstrate immediate value through quick-win pilot programs.
- Involve experienced maintenance personnel in technology selection.
- Establish mentor programs pairing tech-savvy and experienced workers.
- Create clear career advancement paths incorporating modern technologies.

## Skills and Talent Shortages

Fast-growing areas like AI and cybersecurity are creating roles quicker than the available talent can fill them, creating implementation bottlenecks for advanced maintenance technologies.

Mitigation Strategy:
- Partner with technology vendors for implementation support.
- Invest in upskilling existing maintenance staff.
- Establish university partnerships for graduate placement programs.
- Consider managed service providers for advanced analytics capabilities.

# Future Outlook and Emerging Trends

**Autonomous Maintenance Systems**
AI-driven systems could enable fully auton-omous mining operations, further enhancing safety and efficiency. The progression toward autonomous maintenance will likely follow pre-dictable stages: automated data collection, in-telligent analysis, predictive recommendations, and eventually autonomous execution of routine maintenance tasks.

**Sustainability and ESG Integration**
Sustainability goals are reshaping maintenance practices. Companies are increasingly adopting green technologies, such as energy-efficient systems and sustainable spare parts. Future maintenance strategies will integrate environ-mental impact prediction alongside traditional reliability metrics.

**Edge Computing and Real-Time Analytics**
By analysing data at the source, companies can ensure faster decision-making, even in low-connectivity environments. This capability will be critical for remote Australian and New Zealand industrial operations where connectivi-ty remains challenging.

**Industry 5.0 Integration**
Industry 4.0 – which is quickly becoming industry 5.0 – technologies such as cloud computing are enabling real-time collabora-tion on data across multiple operations. This evolution emphasises human-machine collab-oration rather than replacement, suggesting maintenance roles will evolve rather than disappear.

**Cross-Industry Technology Transfer**
Success stories from mining are likely to drive adoption in other asset-heavy indus-tries. The utilities, manufacturing, and trans-portation sectors will benefit from proven predictive maintenance approaches devel-oped in mining environments.

> **"** The most sophisticated AI, predictive analytics, or digital twin is worthless if it's analysing garbage data from poorly maintained systems...whether it's condition monitoring, IoT sensors, or basic work orders, excellence starts with getting the fundamentals right.

**GM Maintenance and Reliability, Infrastructure**

# Conclusion

The Australia and New Zealand industrial asset management sector stands at a transformative moment. While traditional EAM systems provide the foun-dation, the future belongs to organisations that successfully integrate predic-tive analytics, AI-driven insights, and real-time optimisation capabilities.

The survey data reveals a sector ready for change, with 53.4% planning or piloting AI and machine learning solutions, yet implementation rates remain low, suggesting significant opportunity for early movers. Success will require balancing technological advancement with cultural transfor-mation, ensuring that digital tools enhance rather than replace human expertise.

Organisations that act decisively on predictive maintenance implementation, while addressing skills gaps and change management challenges, will establish competitive advantages that compound over time. The convergence of safety imperatives, operational efficiency demands, and sustainability requirements creates a compelling case for immediate action.

**The path forward is clear:** Start with pilot programs that demonstrate immedi-ate value, build data infrastructure that supports long-term analytics goals, and invest in the cultural transformation necessary to realise technology's full poten-tial. The organisations that begin this journey now will lead their industries into the next decade of industrial asset management excellence.

# MAINSTREAM

Industrial Asset Management
Technology Investment Report

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