SAFHE 2026
SOUTHERN AFRICAN HEALTHCARE CONFERENCE
SYNERGY IN ACTION: SHAPING THE FUTURE OF HEALTHCARE TOGETHER
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A Best Practice Framework for Asset Intelligence in Healthcare Facilities:

Promoting Patient Care and Recovery through Smart Asset Management

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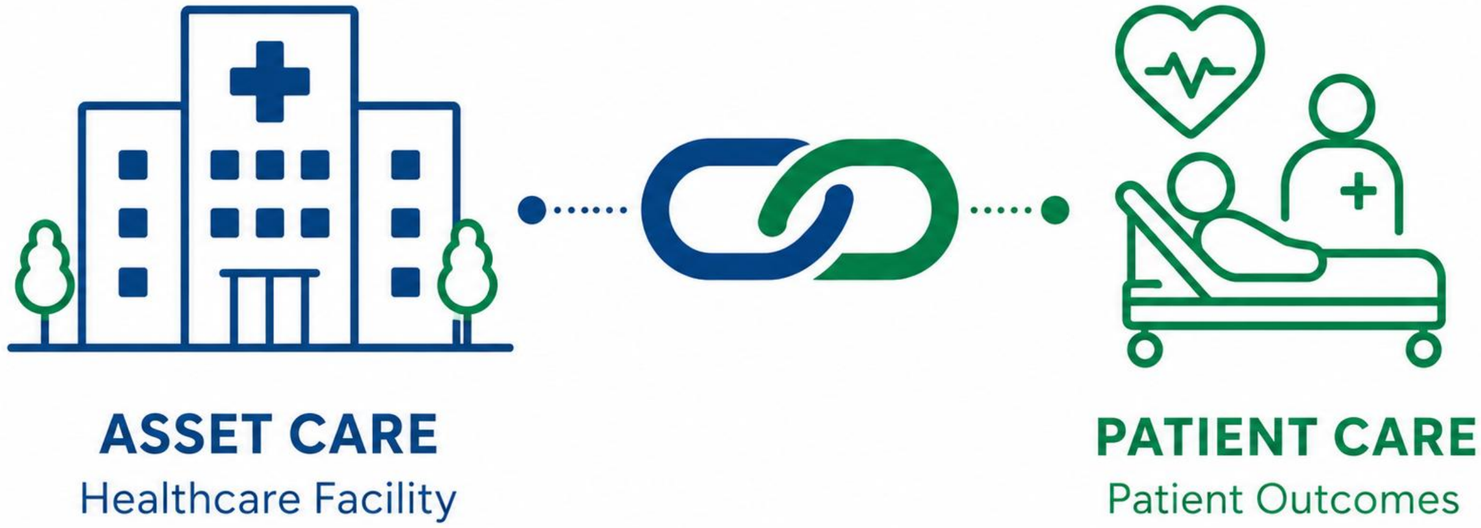
Establishing the Link

Effective Asset Management provides the foundation for safe, resilient, and patient-centered healthcare delivery



Good Asset Care enables Better Patient Care

Understanding the relationship between
Asset Care and **Patient Care**
establishes the context for

Asset Intelligence in Healthcare Facilities

Patient Care

Patient care refers to the **delivery of health services** that promote, maintain, monitor, restore, or improve **health outcomes** for individuals and populations.

Quality Care Domains

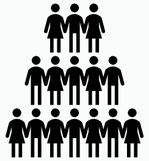
Safety

Timeliness

Effectiveness

Patient-centeredness

Efficiency



Equitability

Sustainability

Why Healthcare Infrastructure Matters

- Healthcare infrastructure **enables patient care and recovery**
- Reliable facilities are critical for **uninterrupted clinical services**
- Infrastructure failures directly impact **patient safety**
- Hospitals rely on **highly integrated engineering systems**

> ***Failure of any system may compromise healthcare delivery, necessitating an integrated and intelligent approach to asset management.***

Infrastructure Challenges in Healthcare

Ageing Infrastructure

- Mechanical failures
- Energy inefficiency
- Structural deterioration

Deferred Maintenance

- Budget-driven postponements
- Escalating lifecycle costs
- Service interruptions

Reactive Management

- Failure-driven culture
- Unplanned downtime
- Increased risk exposure

Fragmented Data

- Duplicate / incomplete records
- Poor interoperability
- Limited reporting

Limited Lifecycle Planning

- No long-term investment view
- Missed renewal windows
- Capital underspend

Operational Inefficiency

- Siloed departments
- Wasted resources
- Poor coordination

ISO 55000 and why it matters in Healthcare

ISO 55000 PRINCIPLE		WHAT IT DELIVERS IN HEALTHCARE	
01	**Value Realisation** Infrastructure decisions aligned to organisational and patient-care objectives.	○	**Improved Patient Environments** Well-maintained facilities create safer, more comfortable care settings.
02	**Lifecycle Management** Manage assets from acquisition through disposal with cost efficiency.	○	**Infrastructure Reliability** Systematic lifecycle management reduces failures and unplanned downtime.
03	**Leadership & Alignment** Commitment from leadership to embed asset management strategy.	○	**Governance & Compliance** Structured accountability supports regulatory and accreditation requirements.
04	**Risk-Based Decisions** Identify, assess, and treat infrastructure risks systematically.	○	**Reduced Operational Risk** Proactive risk registers lower likelihood of clinical service disruption.
05	**Continual Improvement** Measure performance and drive iterative improvements across the asset base.	○	**Investment Prioritisation** Risk-informed capital planning directs funding to highest-need assets.

Infrastructure and Patient Outcomes

HVAC Systems	→	**Infection Control**	Correct air pressure, filtration, and ventilation rates reduce HAIs.
Reliable Power	→	**Critical Care Continuity**	Uninterrupted power to ICUs, theatres, and life-support equipment.
Water Quality	→	**Sanitation & Hygiene**	Clean water systems prevent hospital-acquired infections.
Comfortable Environments	→	**Healing & Recovery**	Noise, light, temperature, and air quality directly affect outcomes.

Infrastructure quality directly affects patient recovery and wellbeing.

Traditional AM vs Smart AM

Traditional Asset Management

- Reactive and maintenance-focused
- Relies on periodic inspections and historical data
- Siloed systems and information
- Manual decision-making processes
- Focuses on asset condition and replacement
- Measures success through asset reliability and cost control

VS

Smart Asset Management

- Proactive, predictive, and value-driven
- Uses real-time data, IoT, AI, BIM, and Digital Twins
- Integrates data, systems, and stakeholders
- Enables evidence-based decision-making
- Optimises performance, risk, cost, sustainability, and service delivery
- Measures success through outcomes and value delivered

Traditional Asset Management manages assets.

Smart Asset Management uses Asset Intelligence to optimise the value those assets deliver.

Asset Intelligence

Asset Intelligence (AQ) is an organisation's ability to turn asset data into better decisions that:

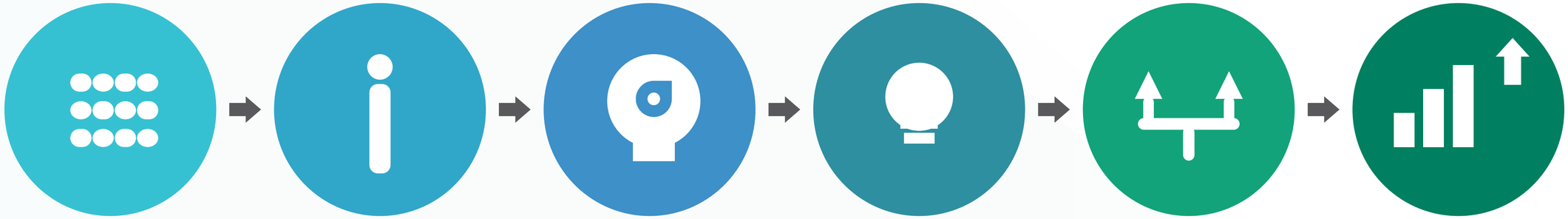
- Improve Performance,
- Reduce Risk,
- Optimise Cost, and
- Enhance Service Delivery.

AQ

Asset Quotient

measures how effectively an organisation understands, manages, and derives value from its assets.

Asset Intelligence



Turning data into decisions that drive value and better patient outcomes

Asset Management Maturity

Strategy and Planning

- Asset management policy
- Asset management strategy
- Strategic Asset Management Plan (SAMP)
- Demand analysis
- Capital investment planning

Asset Management Decision-Making

- Asset information strategy
- Asset risk management
- Lifecycle decision-making
- Asset valuation
- Resource optimisation

Lifecycle Delivery

- Asset creation/acquisition
- Operations
- Maintenance
- Renewal and disposal
- Configuration management

Asset Information

- Asset registers
- Data standards
- Information governance
- Information systems
- Decision support information

Organisation and People

- Roles and responsibilities
- Competency development
- Leadership and culture
- Change management

Risk and Review

- Performance monitoring
- Internal audits
- Assurance activities
- Management review
- Continuous improvement

Asset Management Maturity

LEVEL 1

Reactive

- Ad hoc management
- Paper-based processes
- Reactive only
- No visibility of condition

LEVEL 2

Managed

- Basic data capture
- Planned maintenance
- Compliance driven
- CMMS in place

LEVEL 3

Integrated

- Integrated systems
- Standardised processes
- Performance monitoring
- Cross-team data sharing

LEVEL 4

Predictive

- Predictive analytics
- Risk-based planning
- Scenario modelling
- FCA-informed AMPs

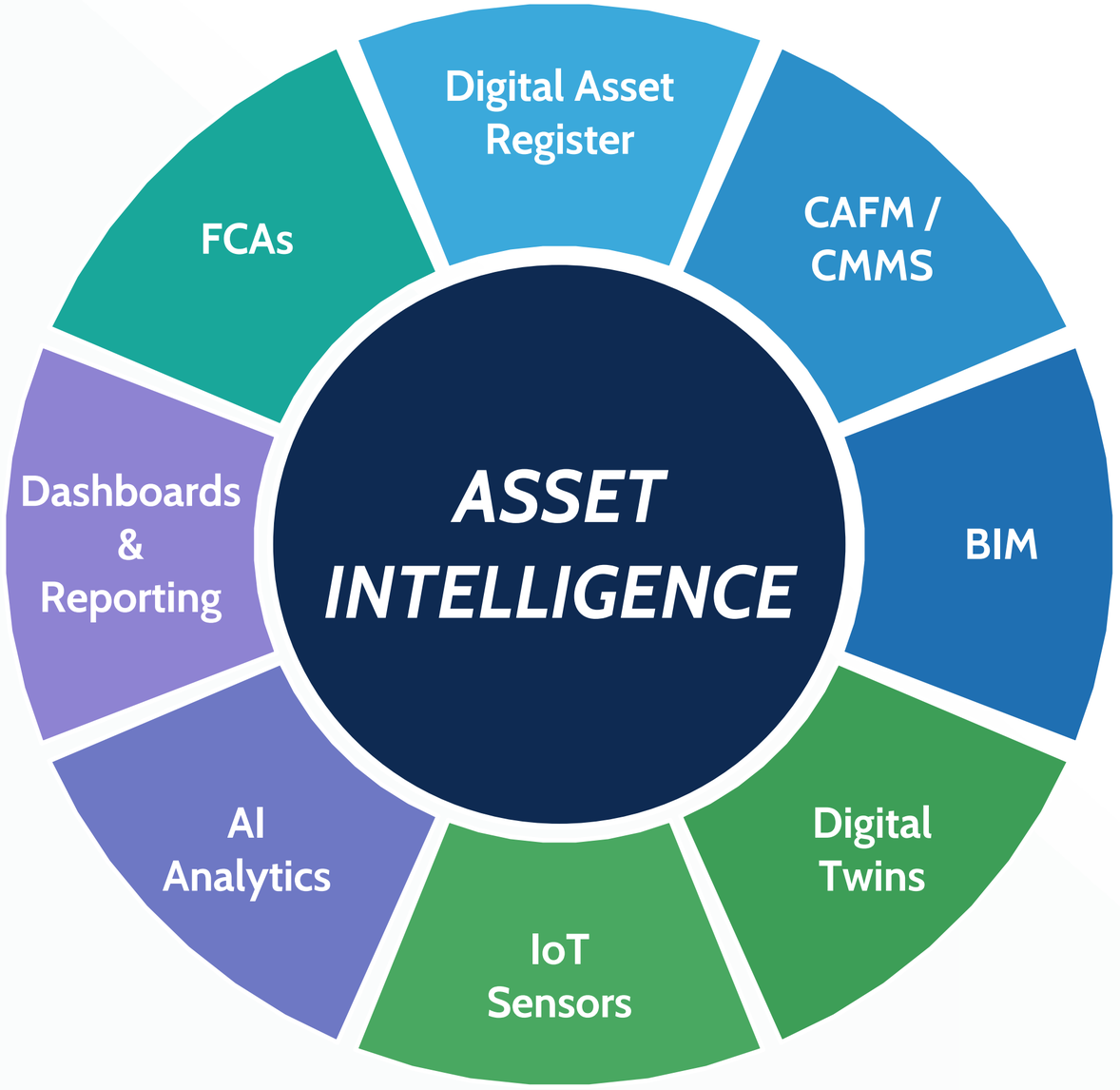
LEVEL 5

Intelligent

- AI/ML driven decisions
- Autonomous insights
- Continuous optimisation
- Digital twin deployed

The role of **Technology**

Technology is an enabler, not the objective



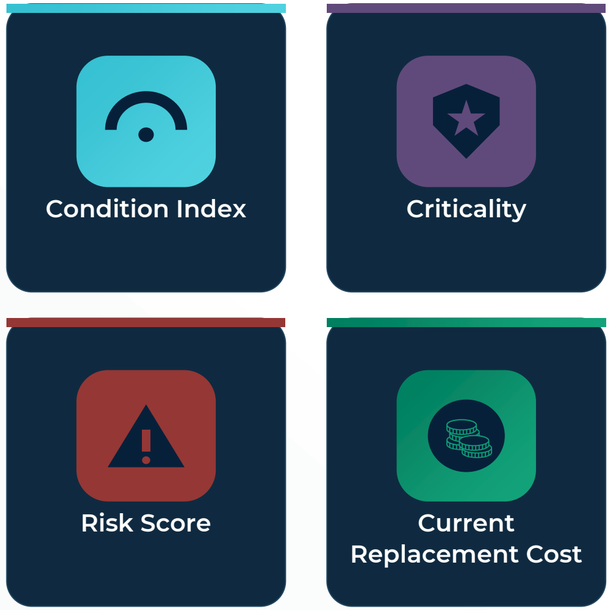
Integrated Asset Register

1. **Asset Hierarchy**
   Structured classification of all infrastructure assets
2. **Condition Data**
   Up-to-date condition ratings and assessment results
3. **Maintenance History**
   Full service, inspection, and repair records
4. **Financial Data**
   Cost, depreciation, replacement value per asset
5. **Risk Profiles**
   Criticality ratings and consequence of failure scores

The integrated asset register provides a single view of infrastructure across all departments.

Facility Condition Assessments

- Condition
- Risk
- Remaining Useful Life
- Maintenance Backlog
- Renewal Requirements



FCAs are the Foundation for Informed Decision-making

Framework

1. **Governance**
   Set policy, roles & accountability
2. **Asset Information Foundation**
   Single source of asset truth
3. **Condition & Performance Intelligence**
   Know real-time asset health
4. **Technology Integration**
   Connect systems, IoT & data
5. **Analytics & Insights**
   Turn data into understanding
6. **Risk-Based Decision Making**
   Prioritise by risk & impact
7. **Life Cycle Planning**
   Plan invest, maintain & renew
8. **Operational Effectiveness & Efficiency**
   Do more with less, reliably
9. **Patient Care Outcomes**
   Safer, better patient care

Expected Benefits

Strategic

- Evidence-based planning
- Improved facility resilience
- Supports care quality goals

Financial

- Smarter capital investment
- Lower lifecycle costs
- Optimised maintenance budgets

Clinical Operations

- Less unplanned downtime
- Smoother patient flow
- Reliable critical services

Patient Care

- Fewer equipment failures
- Safer clinical environments
- Higher patient satisfaction

Better Insights. Better Decisions. Better Outcomes.

Key Takeaways

- You cannot manage what you do not measure.
- Technology enables insight, but data remains foundational.
- Asset Intelligence transforms data into decisions.
- Asset Intelligence bridges the gap between Asset Care and Patient Care.
- Reliable infrastructure underpins patient care.

The future of healthcare infrastructure is not smarter buildings alone, but smarter decisions enabled by Asset Intelligence.

Strategic Recommendations

01 **Adopt ISO 55000**
Align healthcare infrastructure management with the international standard.

02 **Institutionalise FCAs**
Regular, structured condition assessments across all facility types.

03 **Develop Integrated Asset Registers**
Create a single source of truth linking condition, cost, and risk data.

04 **Invest in AI, BIM & IoT**
Deploy enabling technologies for predictive and intelligent management.

05 **Improve Lifecycle Planning**
Adopt long-term capital programmes informed by condition and risk data.

06 **Strengthen Resilience Planning**
Address redundancy, backup systems, and climate adaptation.

07 Build AM Competencies: Invest in training, certification, and interdisciplinary capability.

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Thank you / Q&A