



SAFHE 2026

SOUTHERN AFRICAN
HEALTHCARE CONFERENCE

SYNERGY
IN ACTION:

SHAPING THE FUTURE OF
HEALTHCARE TOGETHER



9 – 10 JUNE 2026



CTICC 2 CAPE TOWN

From Fragmented Systems to Intelligent Infrastructure

Albert Kasselmann

How many systems does a modern hospital depend on?



HVAC	Electrical Distribution	Medical Gas Systems	Water Systems	Generators
UPS Systems	Environmental Monitoring	Building Management	Energy Monitoring	Business Systems

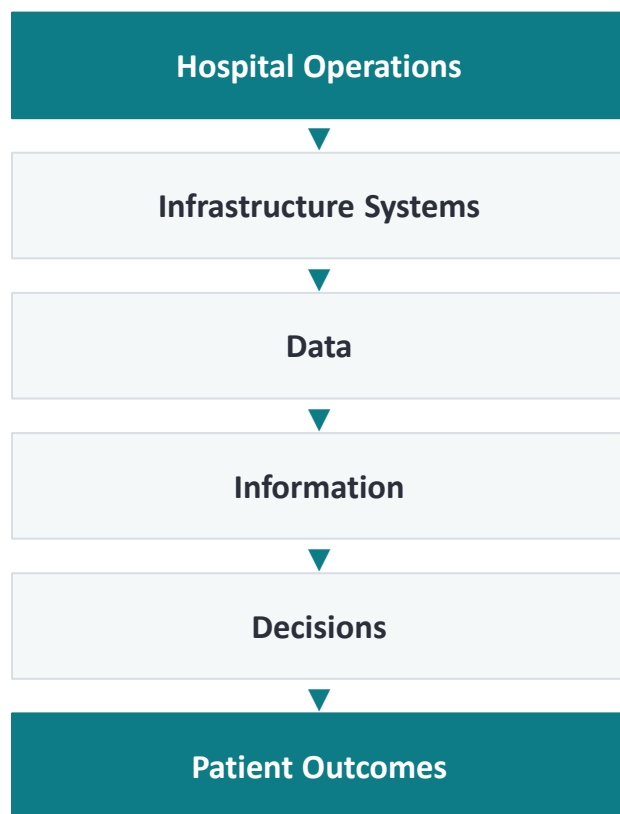
Yet most hospitals still manage them separately.

R E S U L T

Reactive maintenance	Data silos	Poor visibility	Energy waste	Delayed decisions
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W H Y I T M A T T E R S

Why digital infrastructure matters



K E Y M E S S A G E

Infrastructure failures directly affect patient care.

The challenge is no longer collecting data.
The challenge is turning data into actionable intelligence.

Typical healthcare environment, before the rollout

BEFORE

- Multiple standalone systems
- Different vendors
- Different alarm platforms
- Limited historical data
- No enterprise visibility
- Manual reporting
- Reactive maintenance

CHALLENGES

Engineers spent time finding information, not solving problems.

Sustainability reporting required significant manual effort.

VISION

From monitoring to intelligent infrastructure

OUR OBJECTIVE WAS NOT

~~Another SCADA system.~~

OUR OBJECTIVE WAS

A digital infrastructure platform.

PROVIDING

- 1 Visibility
- 2 Standardisation
- 3 Analytics
- 4 Reporting
- 5 Operational Resilience

Why Ignition?

SELECTION CRITERIA

- ✓ Open architecture
- ✓ Vendor agnostic
- ✓ Enterprise deployment capability
- ✓ Unlimited scalability
- ✓ Strong cybersecurity capabilities
- ✓ Easy integration with existing infrastructure

KEY BENEFIT

One platform for all critical infrastructure systems.

The biggest success factor

THE BIGGEST SUCCESS FACTOR

Not software.

Standardisation.

Every facility speaks the same digital language.

01 Naming conventions

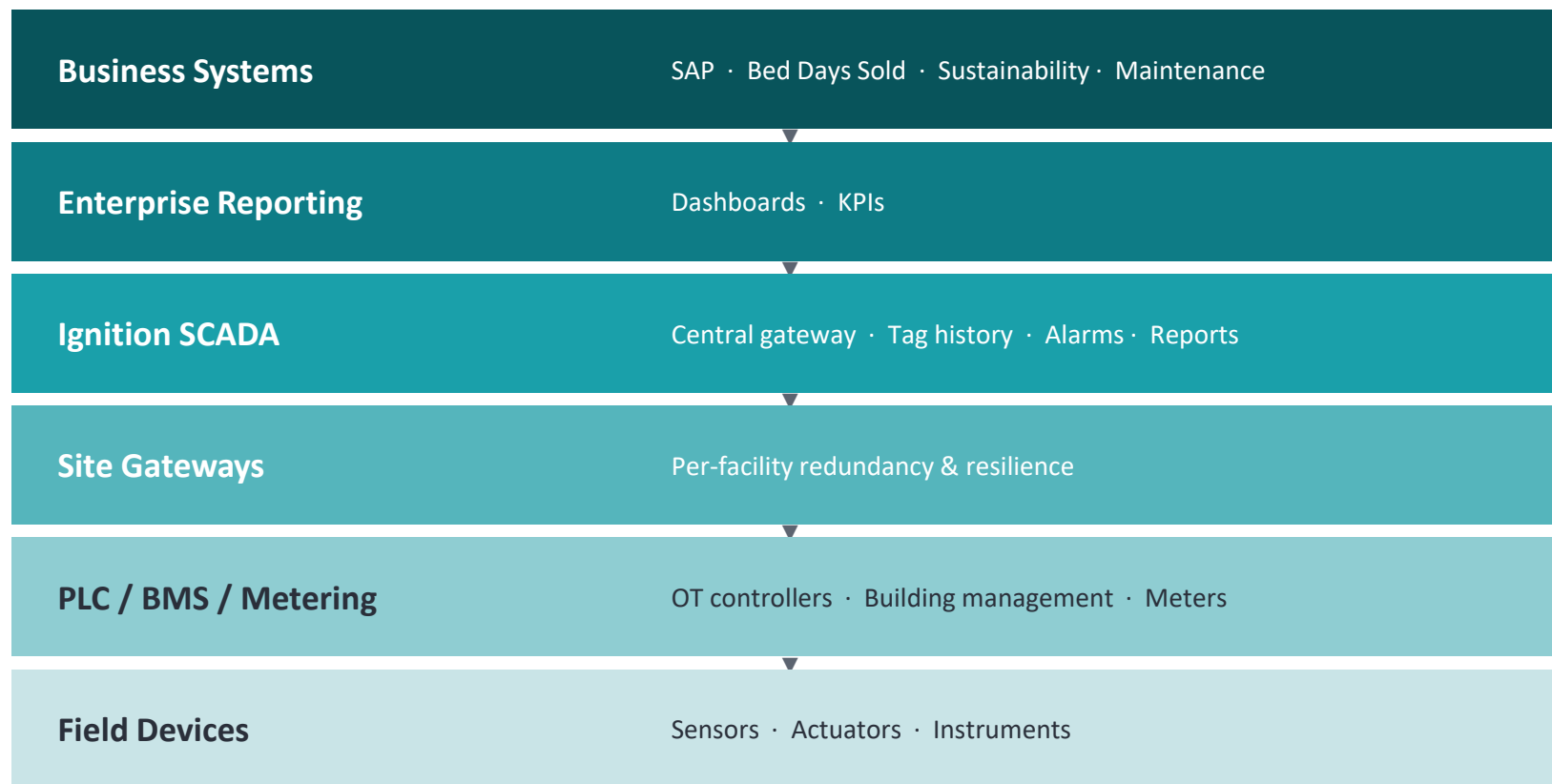
02 Device structures

03 Alarm structures

04 Graphic standards

05 Reporting standards

Layered, multi-facility architecture



DEPLOYMENT

- Multi-facility deployment
- Centralised architecture
- Local resilience

Security by design

ALIGNED WITH

Industry security standards

IT Governance Standards

Healthcare Security Requirements

IMPLEMENTED

- ✓ Role-based access control
- ✓ Secure authentication
- ✓ Audit trails
- ✓ Segmented networks
- ✓ Controlled remote access

From noise to signal

BEFORE

Thousands of alarms / None



Alarm fatigue



Important alarms missed



AFTER

- ✓ Alarm prioritisation
- ✓ Alarm ownership
- ✓ Escalation paths
- ✓ Meaningful notifications

OUTCOME Better response times and reduced noise.

A strong healthcare-specific example

M O N I T O R E D S Y S T E M S

-  **Oxygen systems**
-  **Vacuum systems**
-  **Medical air**
-  **Pressure monitoring**

B E N E F I T S

Central visibility

All gas systems on one console

Early warning detection

Pressure & flow and Leak Detection trends and alarms before failure

Improved compliance

Continuous audit-ready records

Improved patient safety

Critical supply assured 24/7

From manual inspections to continuous monitoring

Temperature monitoring

Pressure monitoring

Efficiency monitoring

Usage

PREVIOUSLY

Manual inspections.

TODAY

Continuous monitoring.
Real-time compliance visibility.

Sustainability requires measurement

Measure



Analyse



Improve



Sustain

INTEGRATED DATA STREAMS

Electricity

Water

Medical Gas
Consumption

Solar PV

Generator Performance

If you cannot measure it, you cannot improve it.

SCADA + Business Data

D A T A S O U R C E S I N T E G R A T E D

Bed Days Sold

SAP Data

Maintenance Information

Utility Costs

N E W K P I

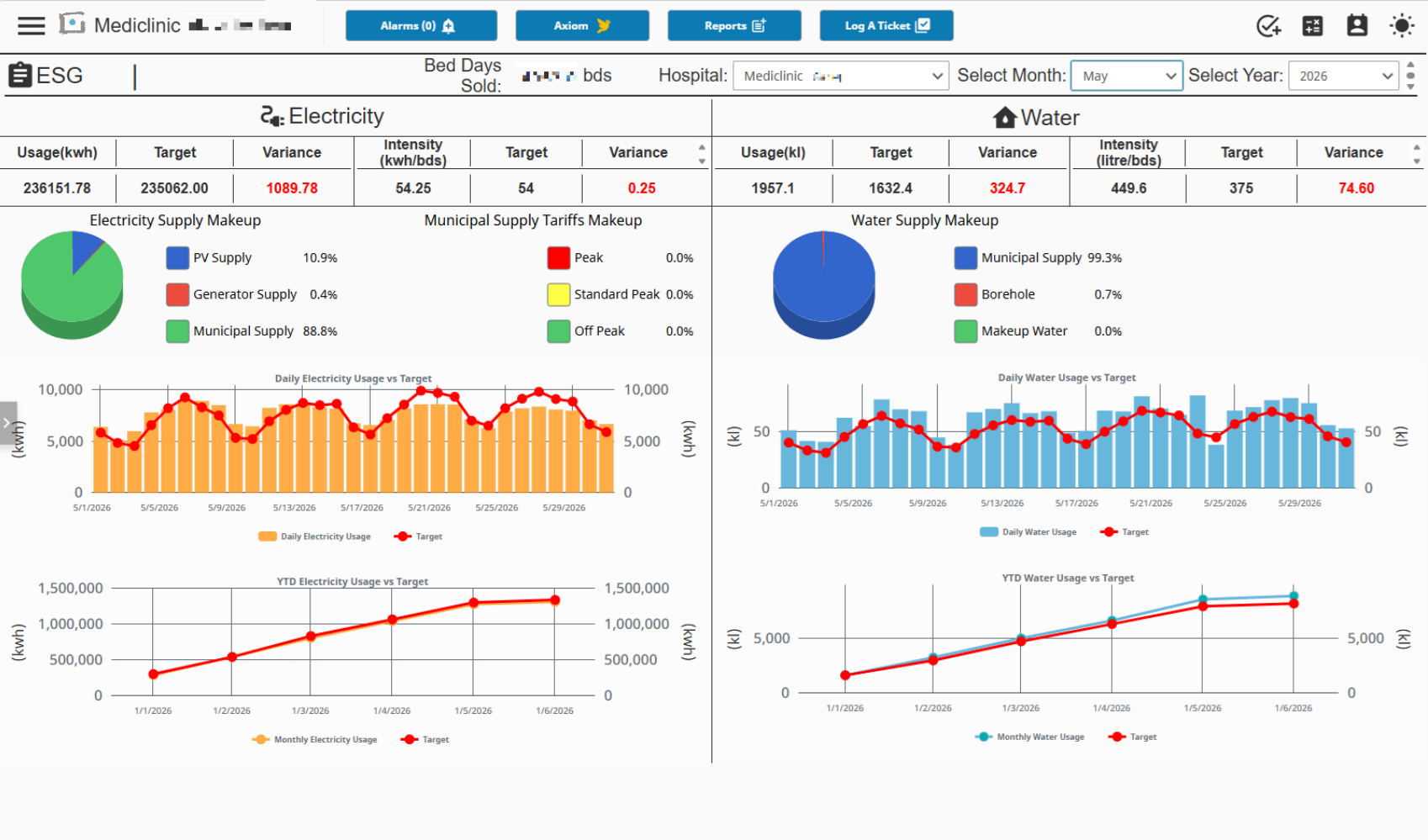
kWh per Bed Day Sold

Instead of:

~~Total kWh~~

Energy intensity that's meaningful to the business.

Enterprise analytics dashboard



Water

Usage(kl)	Target	Variance	Intensity (litre/bds)	Target	Variance
1957.1	1632.4	324.7	449.6	375	74.60

Water Supply Makeup

Municipal Supply99.3%

Borehole0.7%

Makeup Water0.0%

Daily Electricity Usage vs Target

Daily Water Usage vs Target

YTD Electricity Usage vs Target

YTD Water Usage vs Target

Facility benchmarking

Energy intensity

Resource utilisation

Carbon reporting

Asset performance

Results achieved

0 1

Faster fault response

0 2

Improved visibility

0 3

Reduced energy waste

0 4

Improved compliance monitoring

0 5

Reduced manual reporting effort

0 6

Better decision making

Outcomes measured at site level — engineering, compliance and finance.

What worked, and what didn't

WHAT WORKED

- ✓ Management support
- ✓ Engineering involvement
- ✓ IT partnership
- ✓ Standardisation
- ✓ Phased implementation

CHALLENGES

- ! Legacy systems
- ! Data quality
- ! Change management
- ! User adoption

Where we are going

Machine Learning

Patterns in operational data

Predictive Maintenance

Failure forecasts, not reactions

AI Fault Detection

Autonomous anomaly triage

Automated Reporting

Compliance & ESG without effort

Carbon Intelligence

Real-time emissions per service

Digital Twins

Simulation-driven operations

Healthcare SCADA is no longer just SCADA

IT IS

A platform for the whole hospital.

It connects operations, sustainability, compliance and decisions on one foundation.

01 Sustainability Platform

02 Compliance Platform

03 Operational Platform

04 Resilience Platform

05 Decision-Support Platform



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The value of digital transformation is not the data we collect.

It is the decisions we make because of it.

Albert Kasselmann

Industrial Control Manager · Mediclinic Southern Africa



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Thank you / Q&A

