

PUBLIC PROJECT BRIEF

EnviroSense

Integrated Environmental Monitoring, Benchmarking and Corrective Action Management System

PROJECT LEAD	PROJECT OWNER	STATUS
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Purpose

EnviroSense is an IPAC-led digital environmental monitoring and corrective-action management system developed to strengthen environmental safety surveillance in healthcare facilities. It standardises how measurements are captured, interpreted, reviewed, followed up and reported across infection prevention, healthcare engineering and patient-safety functions.

The project responds to fragmented records, manual interpretation of measurements, inconsistent follow-up of abnormal findings and the risk of closing corrective actions without objective verification that environmental performance has improved.

Closed-loop workflow



Each measurement is linked to an approved parameter-specific benchmark. Non-compliant findings enter a traceable corrective-action pathway and, where applicable, require a follow-up measurement before closure.

Phase 1 scope and progress

Phase 1 demonstrated the feasibility of the core workflow for HVAC and air-quality parameters, including air changes per hour, room pressure differential, airflow direction, temperature and relative humidity. The controlled development phase focuses on governance, validation, user roles, benchmark control, QA/QC, corrective-action tracking and auditable reporting.

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Operational value

PATIENT SAFETY Earlier recognition and correction of environmental conditions that may compromise safe care.	STANDARDISATION Consistent measurement records, benchmark interpretation and follow-up across authorised teams.
ACCOUNTABILITY A clear link between each non-compliant finding, assigned action, intervention and verification.	TRACEABILITY An auditable record of what was measured, what failed, what action was taken and whether it worked.
DECISION SUPPORT Trends can identify recurrent defects and locations requiring engineering or organisational action.	READINESS Faster retrieval of monitoring and corrective-action evidence for quality and accreditation review.

Development conditions

Benchmark control	Approved sources, version control and a documented change process are required before wider use.
Validation	The platform must be tested against defined functional, data-quality and operational acceptance criteria.
Access and security	Role-based access, cybersecurity review, authentication and appropriate data governance remain essential.
Verified closure	Corrective actions should not be closed without objective follow-up evidence where verification is required.

Future development

Subject to institutional validation and governance approval, the platform may progressively support additional environmental domains such as water safety, Legionella surveillance, microbiological monitoring and surface/environmental cleanliness assurance. Future expansion may also support executive dashboards, preventive-maintenance prioritisation and carefully governed analytics.

IMPORTANT

This is a public information summary, not an institutional policy, technical specification, commercial offer or validated statement of impact. It does not reproduce signatures, internal approvals, security controls, unpublished performance data or proposed indicators as achieved results.

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