

BSC monitoring. Cognitive vision automation.

AI-Powered Assurance: Enhancing Compliance, Safety, and Efficiency with Edge Intelligence

AI-powered edge devices ensure **safe, compliant, and efficient operations** within Biological Safety Cabinets (BSCs) by continuously monitoring SOP adherence. They detect procedural deviations, minimize human error, and prevent contamination risks in real time. Seamlessly integrating into existing workflows, these smart systems enhance safety, compliance, and operational reliability.

KEY CHALLENGES

Human Errors

SOP Adherence

Compliance

Lack of Alerts

SOLUTION

Edge AI System

Monitors operator actions, material handling, and workspace cleanliness.

Real-Time Alerts & Logs

Automated event detection with time stamped reports.

Edge Processing (IP67 Rated)

Low-latency inference without cloud dependency.

Seamless Integration

Connects with lab management systems.

Privacy-Preserving AI

Processes data locally, ensuring security and compliance.



HOW IT WORKS



Edge camera captures operator behaviour & workspace conditions.



AI model detects SOP violations, contamination risks, and safety breaches.

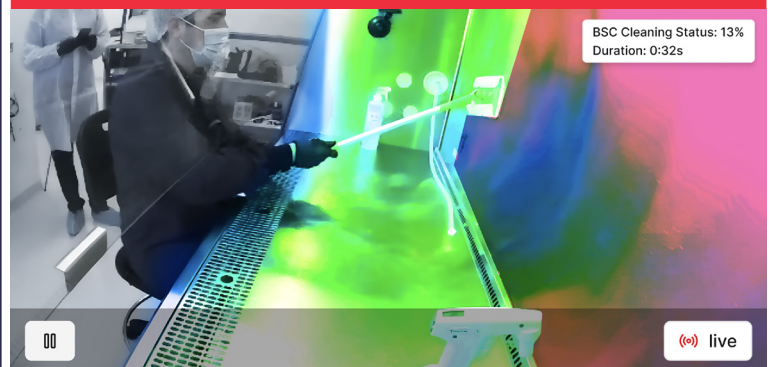


System triggers real-time alerts & stores compliance logs.



Reports & insights available for regulatory audits and process optimization.

KEY BENEFITS



99% accuracy in SOP adherence detection

Real-time contamination risk alerts prevent lab shutdowns

Administrative interface available in your network with easy integrations to current systems.

No internet dependency for on-premise AI inference.

Seamless scalability for multiple BSC units.

RISK-FREE INTEGRATION INTO YOUR BUSINESS PROCESS

1 Isolated data collection for risk-free testing

Our plug-and-play edge device is installed **without connecting to your network**.

It starts collecting video data, ensuring **zero risk to existing operations**.

2 AI model calibration & accuracy validation

We analyze your specific lab environment and train our AI for precise SOP control.

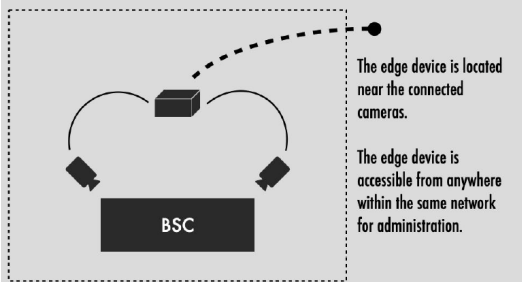
You receive a **real-world accuracy report**.

3 Full deployment & value delivery

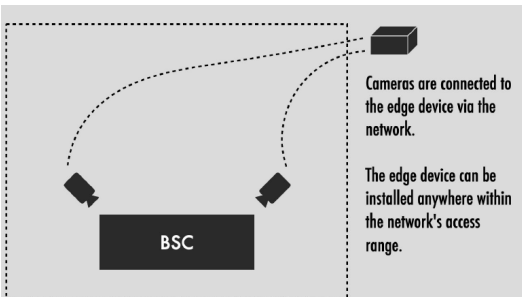
Once validated, we connect the device to your network and lab systems.

The system starts delivering real-time alerts and operational insights.

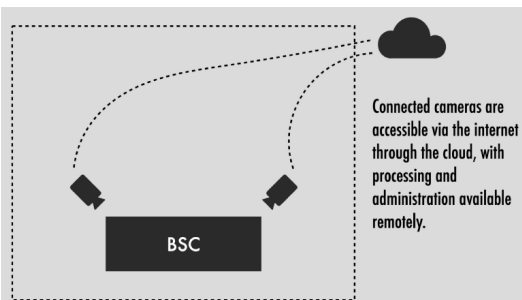
FAQ DEPLOYMENT OPTIONS



“In-room” edge processing with remote administration



“In-facility” edge/server processing with remote administration



Cloud processing with remote administration

USER INTERFACE MONITORING CAPABILITIES

Real-Time Monitoring and Live Data

Alerts Management

Historical Data and Related Operations Video

Integration Management

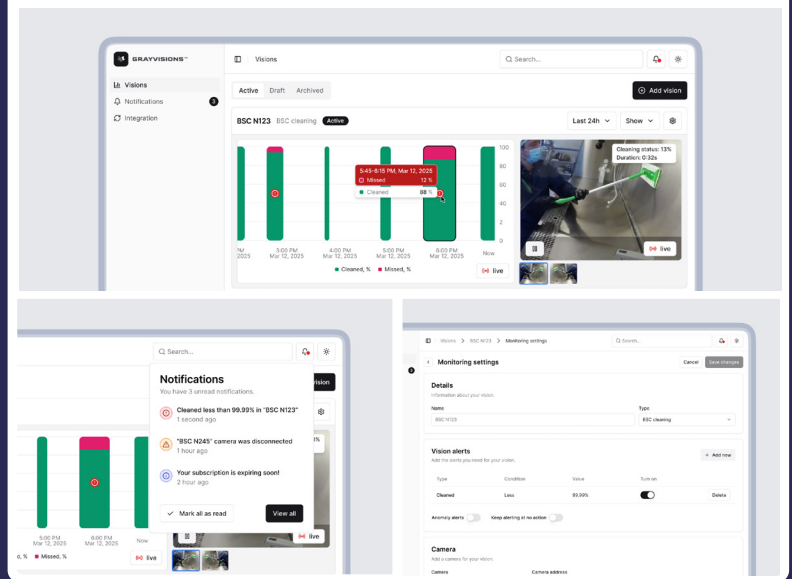
Cameras and Multi-Bioreactor Management

User and Access Control

AI Configurations

System Health Dashboards

Updates Management & Support Tools



Find the right plan for your needs

Whether you operate a small lab or global facility, **our solution scales with you:**

PRO
Affordable support for multiple BSCs with edge processing and subscription-based updates.

OMNI
Enterprise-grade infrastructure, tailored deployment, and custom scalability.

Deployment options include in-room, in-facility, or cloud processing to fit your lab's needs.