

Vineyard Smoke Intelligence. Decision-Ready.

Edgegenix is an AI operational intelligence platform for the physical world. Edge AI on the property analyses camera and sensor feeds on site and turns them into verified events; the Edgegenix Cloud AI platform fuses those events with weather, terrain and the vintage calendar into one verified decision — so your team commands the response, not the data.

THE CHALLENGE

Smoke Can Take a Vintage Without Fire.

Smoke taint can destroy a vintage while flame never reaches the rows. Risk accumulates across the ripening window and is confirmed only by laboratory analysis — so the decisions that matter are when to sample, when to pick, and how to prove exposure to an insurer. Seeing smoke is not the decision; the record of when it arrived is.

Exposure you can't see

Smoke compounds bind in the fruit. A vineyard can be exposed with no obvious fire, and taint shows up only at the lab.

AWRI

Timing decides it

Vulnerability runs from veraison to harvest. A smoke event in that window forces fast sampling and picking calls.

AWRI

Contested claims

Smoke-taint claims turn on proving when grapes were exposed — on-vine versus post-harvest — a common friction with insurers.

INSURANCE THOUGHT
LEADERSHIP, 2026

Small teams, high stakes

A single tainted block can erase a season's margin. Growers need warning early enough to act, not after the smoke clears.

\$665M

estimated cost to Australian wine grapes from the 2020 bushfires.

Source · Wine Australia

Detection is not the decision.

Seeing smoke doesn't tell you whether your fruit is tainted — that's a lab result and a harvest call. Edgegenix adds the verified, timestamped exposure record that tells you when to sample, when to pick, and what to show your insurer.

WHAT EDGEGENIX DELIVERS

From First Smoke to a Defensible Decision.

Smoke-Exposure Early Warning

A verified alert while smoke is still distant, so sampling and picking calls can start early. Taint is confirmed in the lab — this tells you when to test.

ALIGNS WITH AWRI SAMPLING PROTOCOL

Harvest-Window Support

Bring picking forward with confidence when smoke risk rises during vintage, with the context to back the call.

Cellar Door & Guest Safety

Early, orderly calls for restaurant, stays and events — before the situation forces them.

Exposure Record for Testing & Claims

A timestamped, directional record of when smoke arrived, how long it stayed and from where — evidence that targets your sampling and resolves a contested claim.

Burn-Off & Neighbour Fire Watch

A continuous watch on nearby burns and fire — direction, behaviour and proximity — day and night.

Recovery & Compliance Record

A clear record of what happened and when, supporting recovery priorities and regulatory review after an event.

HOW IT WORKS

From Field Data to Operational Decisions

01

Data Acquisition

Cameras and environmental sensors across the property, plus weather feeds — your existing hardware or ours.

02

Edge AI Detection

The Edge AI device flags and evidences smoke and flame on site and scores confidence — with or without a network.

03

Operational Context

Cloud AI fuses events with weather, terrain and the vintage calendar into incidents and decision-support views.

04

Actionable Output

Dashboards, verified alerts, image evidence and reporting that support the decision and the record.

THE ARCHITECTURE

One End-to-End Platform — Camera to Command

The platform leads; the hardware serves it. Cameras and sensors capture the signal, the Edgegenix Edge AI device detects smoke and fire locally — even with no connectivity — and the Edgegenix Cloud AI platform verifies, adds context and delivers one verified decision to your team.

END-TO-END SMOKE & FIRE DETECTION

FROM CAMERA TO VERIFIED OPERATIONAL DECISION

IN THE FIELD

RGB camera
tower / pole · PoE

Thermal camera
day / night

Sensors
weather ·
environmental

EDGE AI

Edgegenix Edge AI

Local smoke & fire
detection

Works without
connectivity

Evidence buffer
store & forward

BACKHAUL

LTE / 5G

Satellite
low-bandwidth

WiFi / Fibre

CLOUD AI

Edgegenix Cloud AI

Verification & fusion

Vintage, weather &
terrain context

Exposure timeline

OPERATIONS

Verified alerts

Live dashboard

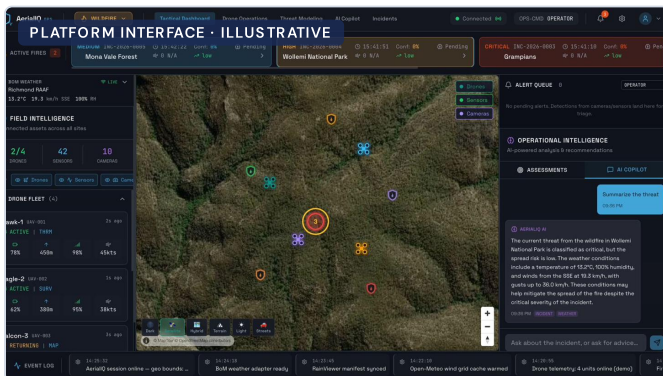
Exposure record

Reports & API

The complete Edgegenix smoke & fire platform — from cameras and sensors, through Edge AI, to Cloud AI operational intelligence.

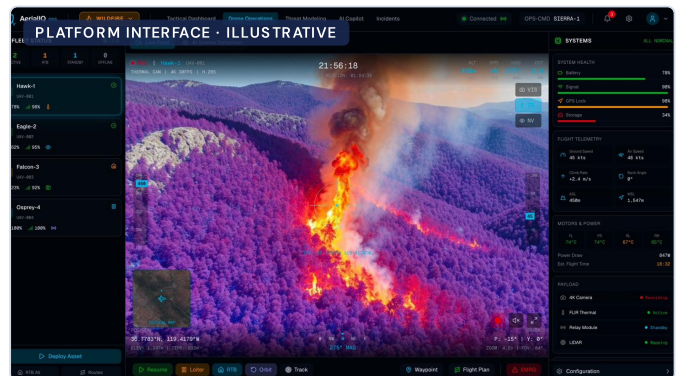
THE EDGEGENIX PLATFORM

From Detection to Decision — One Unified Interface



Tactical Map

Live positions, smoke and fire spread context, and the property on one screen.



AI Detection

Smoke and flame classification with confidence scoring on every alert.

INDUSTRIES SUPPORTED

One Platform. Critical Verticals.

Vineyard smoke intelligence is one application of a broader operational intelligence platform — built horizontally, deployed vertically across agriculture, bushfire, flood and land operations.

Agriculture & Biosecurity

Smoke-exposure early warning, harvest-window support, crop stress and pest monitoring.

Bushfire & Forestry

Real-time smoke and flame detection, fire spread context, prescribed-burn support and post-fire assessment.

Flood

Early inundation detection, extent and change monitoring, and a dated record for response and recovery.

Land & Asset Monitoring

Change detection and dated evidence for estate assets. Boundary determination remains the registered surveyor's legal act.

WHY EDGEGENIX

What Sets Us Apart

Edge-First, Works Offline

Detection runs on the device at the property. No connectivity, no problem — it keeps watching and syncs when the network returns.

Australian-Developed AI

Models developed for Australian eucalypt terrain and smoke conditions, with research partners at Macquarie University and UNSW.

Onshore Data & Integration

Australian-owned, designed for onshore hosting and data residency. Integrates with your farm, GIS and testing workflows via API.

Decision Layer, Not Just Detection

Sensing is solved; operating on it is not. Edgegenix turns detections into a verified decision and a defensible record.

Human-in-Command Workflow

AI carries the load; your team keeps command. Review and control at every stage — no black-box automation.

Modular Deployment

Off-the-shelf cameras and a modular Edge AI device — standalone or in rugged IP66 pole enclosures — sized to each site.

Ready to see Edgegenix on your property?

A structured pilot on your vineyard — clear milestones, measurable results, no obligation. We validate early warning, exposure recording and reporting against your operational requirements.

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