INOTEK

DRONE THERMAL INSPECTION • ENGINEERED INSIGHT

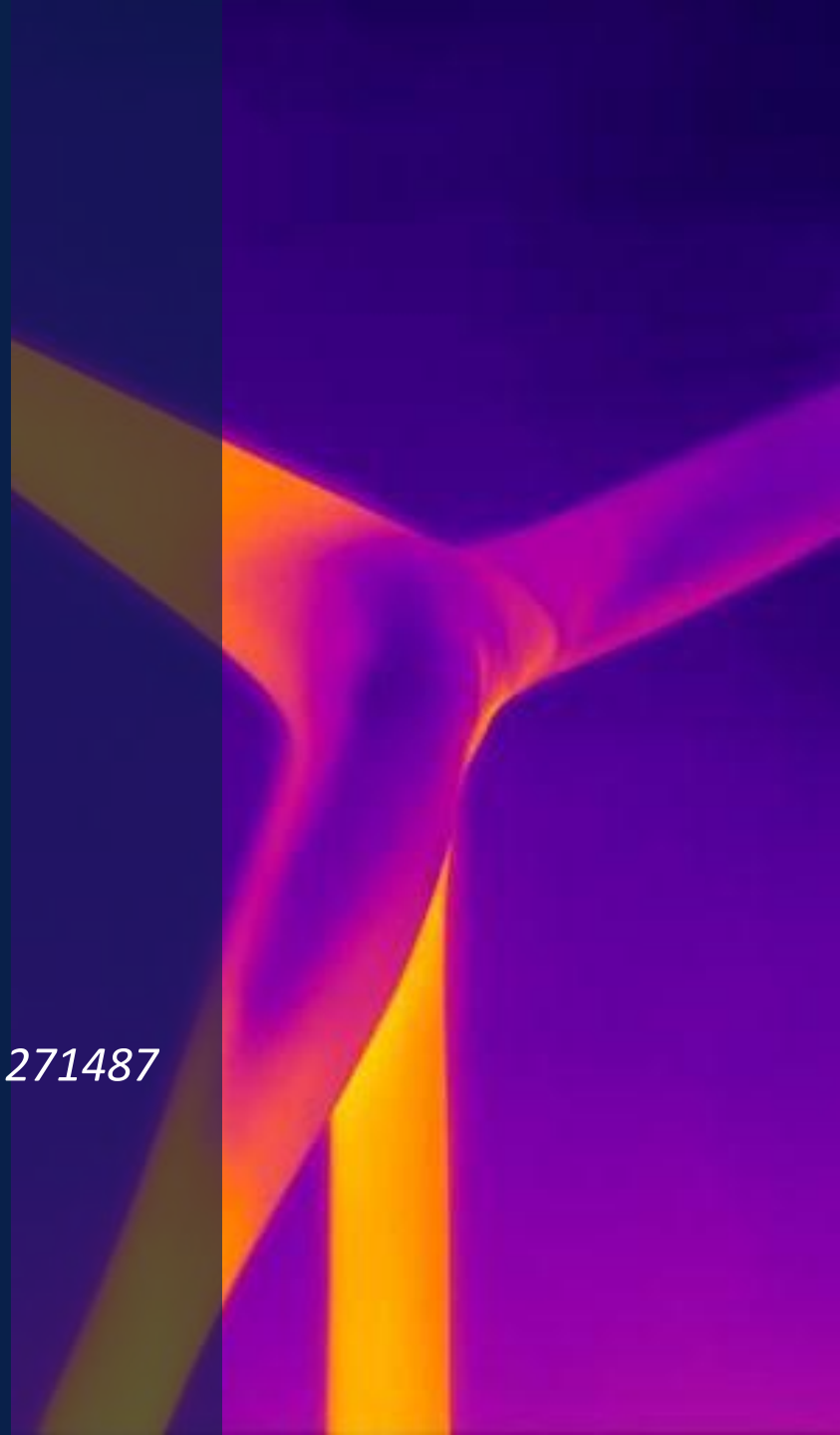
The Power of Knowing, Not Guessing.

From drone data to measurable value.

Regional contact: Inergy Systems David Edgecumbe - Systems Manager

contact@inergysystems.co.uk (UK) 07711 271487 International +44 7711 271487

We combine drone thermal imagery with engineering expertise to deliver verified, contextualised insight - quantified in kWh, CO_2 and £.



THE PROBLEM

In a market flooded with data, understanding is rare.

Most providers collect and classify. Few explain what the data actually means. Inotek bridges that gap.



AI PLATFORMS

Count anomalies without context. Flags volume, not relevance — leaving owners to interpret raw findings.



TRADITIONAL INSPECTION

Subjective, slow and limited in coverage. Relies on what a single inspector can physically reach and see.



THE INOTEK WAY

Drone data verified and contextualised by engineers – every finding tied to a cause, an energy effect and a £ value.

INOTEK

WHY THERMAL

Seeing beyond the surface.

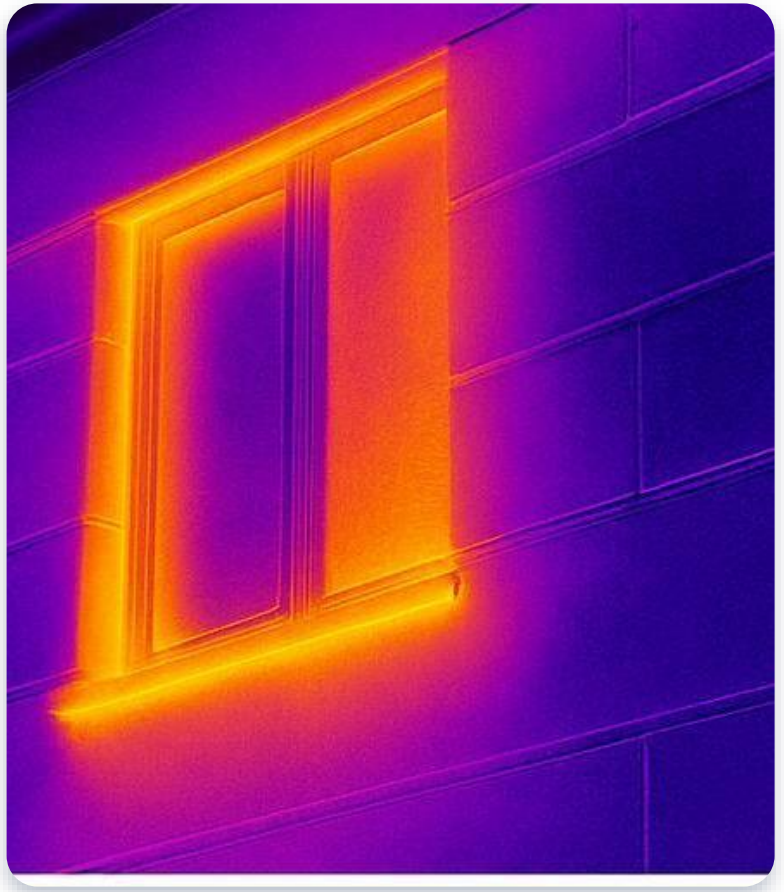
Visual inspection shows only what is visible.

Cracks, corrosion and discoloration on the surface — but the true condition of the structure stays unknown.

Thermal analysis reveals what is hidden beneath.

Temperature differentials expose concealed issues — energy leakage, trapped moisture, thermal bridging and early-stage material degradation — across an entire building, quickly and safely.

- **Lower energy use**
- **Reduced CO_2**
- **Better decisions**



HOW IT WORKS

Three steps from flight to financial clarity.

01

Capture

Battery-powered drones map entire buildings in hours — thermal + visual, no lifts, scaffolding or site access.

›

02

Interpret

Engineers verify and contextualise every finding. AI supports precision; humans define what the data means.

›

03

Deliver

A clear report links each finding to its technical cause, energy consequence and financial impact.

The drone collects data → the analysis gives meaning → the report delivers value.

ONE TECHNOLOGY

All sectors. All materials. Worldwide.

One inspection method works consistently across concrete, brick, steel, timber and composite — capturing both visible and invisible deviations.

- Commercial, retail & offices
- Residential & social housing
- Industrial halls & steel structures
- Logistics centres & warehouses
- Schools, hospitals & public buildings
- Hotels & leisure properties
- Solar farms & rooftop PV
- Wind turbines & renewables
- Bridges, terminals & infrastructure



SECTOR — BUILDINGS & FACADES

Commercial, residential & public buildings

CONDITION

Thermal bridges & condensation in façade corners
Cracks, loose cladding & deteriorated window joints
Moisture behind façades, balconies & insulation gaps

SAFETY

Early detection of loose façade material prevents fall incidents
Verifies window anchoring & sealing integrity



FINANCIAL VALUE

Prevents more costly reactive façade & structural repairs if left unchecked
On ave60 – 70% lower inspection cost vs. manual / scaffold access

£000s in
repairs avoided / building

SECTOR — ROOFS & STRUCTURES

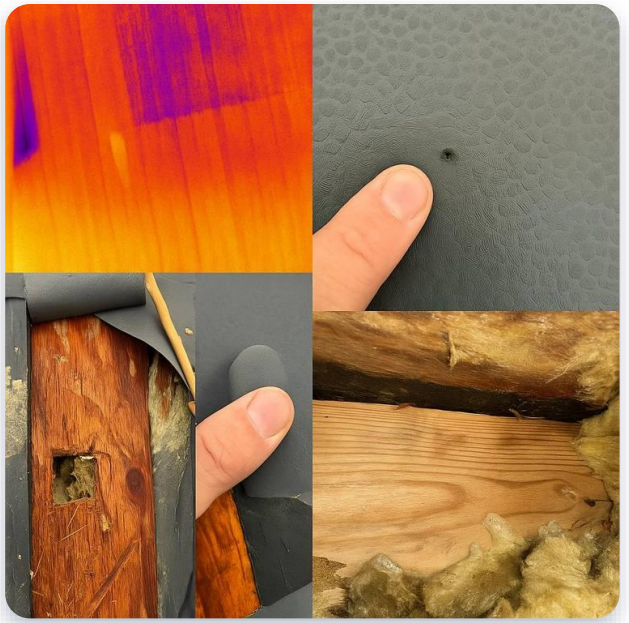
Roofs, concrete, steel & special structures

CONDITION

Moisture under membrane, ponding & damaged seals
Delamination, spalling & rebar corrosion (visible in IR)
Honeycombing, voids & differential settlement stress

SAFETY

Detects progressive weakening before structural failure
Prevents falling debris; ensures bridge & deck compliance



FINANCIAL VALUE

Avoided rebuilds & structural repair of £20,000 – £100,000
Extends service life +10–15 yrs · up to 80% cheaper inspection

<6 mo
typical ROI

SECTOR — RENEWABLE ASSETS

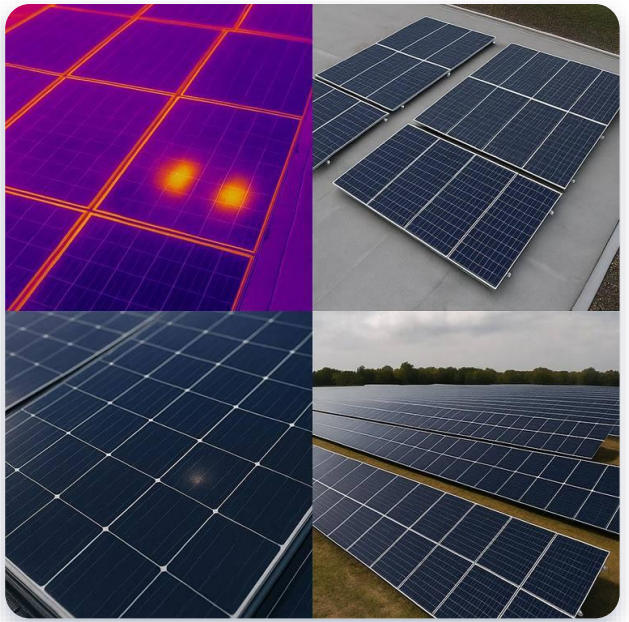
Solar farms & wind turbines

CONDITION

Solar: hotspots, cracked modules, inverter overheating
Wind: hidden blade cracks, delamination & edge erosion
Uneven temperature signalling production loss

SAFETY

Detects overheating junctions, preventing fire risk
Prevents catastrophic blade failure & costly downtime



FINANCIAL VALUE

Solar production gain up to 12% · failures £5k–£100k avoided
Wind downtime £100k+ avoided · 50–90% cheaper inspection

+12%
solar output

OUR EDGE

Energy quantification - measuring the invisible.

Where others see only colour gradients, we quantify real energy flow.

Every degree of temperature difference represents a tangible amount of energy, energy that can be saved, optimised or recovered. Developed with building-physics specialists, this gives owners a verified link between technical condition and real performance.

Energy loss is no longer abstract, it's measurable, reportable and financially accountable.

kWh · CO_2 · £

Every thermal scan converted into three measurable currencies

1,000–100,000

kWh of hidden loss detectable per building, per year

Documented

accuracy — energy leakage & efficiency quantified directly from thermal data

NET CLIMATE EFFECT

Low emission in execution. Massive reduction in outcome.

TRADITIONAL INSPECTION

40–60

kg CO_2 per project, before analysis even begins

›

INOTEK DRONE INSPECTION

< 1

kg CO_2 per inspection — a 95%+ reduction



Several tons

CO_2 saved per building, every year

The real impact lies in what follows.

Each analysis uncovers inefficiencies, energy leakage, thermal bridging, trapped moisture, that, once corrected, typically cut a building's energy use in kWh per year significantly. One inspection emits under 1 kg CO_2 yet enables thousands of kilograms in annual savings. Across a portfolio: hundreds of tons of avoided emissions.

THE BOTTOM LINE

The measurable impact of Inotek.

Cost Savings

Up to 70% lower total cost than traditional methods. Targeted maintenance prevents unnecessary repairs.

Energy & CO_2

1,000–100,000 kWh saved annually per building - several tons of CO_2, at under 1 kg generated per inspection.

Efficiency

Entire buildings mapped in hours, not days. No lifts, scaffolding or access - fast results.

Accuracy

Every finding verified and contextualised by engineers. AI supports efficiency; humans ensure understanding.

Quality

Driven by relevance and truth, not volume. A clean report is as valuable as one full of findings.

Reportable

Consistent, comparable data across every asset in your portfolio, ready for decisions.

WHY CHOOSE INOTEK

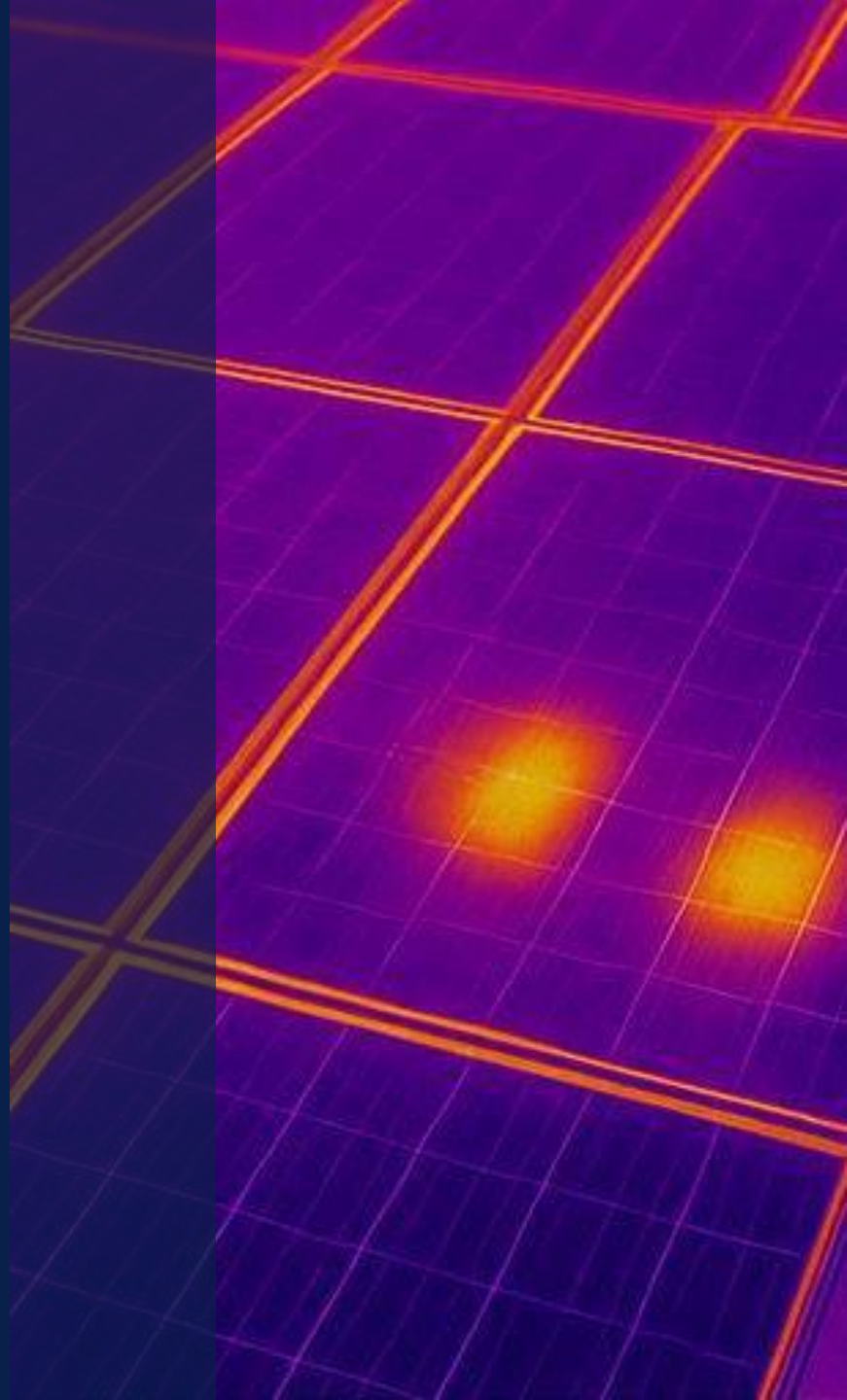
The value isn’t in the flight - it’s in the report.

Drones, sensors and data are only tools. The true value lies in how that data is interpreted, structured and presented.

Each report connects every finding to its technical cause, energy consequence and financial impact giving a complete picture of how a building performs and what matters most. Where automated systems end, our engineers take over.

Drone collects data › **Analysis gives meaning** › **Report delivers value**

Fewer uncertainties. Lower costs. Reduced emissions. Better decisions.



INOTEK

Stop guessing. Start knowing.

Let us show you what your buildings are really telling you. We'll arrange a no-obligation thermal assessment and walk you through a sample report.

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