The Black Book

IFS

NexusBlack

AI FOR THE INDUSTRIES WE RELY ON.

BUILT WITH THE WORKERS WHO RUN THEM.

Hello. We're Nexus Black.

We solve hard industrial problems by putting AI to work at the sites that keep the world turning — up on power lines, down on factory floors, and out in the field.

And we get results in weeks, not months. Because when you're working in industries where one mistake can shut down a production line or trigger legal action, you don't need a vague AI pilot. You need solutions that work, and results you see fast.

WE GET YOU RESULTS IN THE FIRST 3 WEEKS.

"We were very keen to avoid the whole proof of concept trap. We said, do something at scale — not just a proof of concept or an experiment that lives in isolation. And that's what we've been able to do with Nexus Black. The pace at which we've gone from idea to something real has been fantastic."

Badri Narasimhan
Chief Technology & Business Growth Officer
William Grant & Sons

In 1983, five founders pitched a tent at the site of their first customer, and didn't roll up their sleeping mats until the job was done. IFS started out with the idea that the best way to make technology work on the ground is to be there.

Forty two years and a good few step changes in technology later, we founded Nexus Black with the same idea. If we're going to build AI that actually works in an aircraft hangar, a plant, or out in the field — rather than never making it out of the pilot phase — then physically being there with customers is the only way.

So we left the office. We joined the ride-alongs. We donned the hard hats and high-vis jackets (turns out orange is our colour). We followed technicians around all day to figure out what they do and don't need.

Only that way could we learn that engineers need voice recognition — typing into a chatbot isn't much help when you're wearing protective gloves.

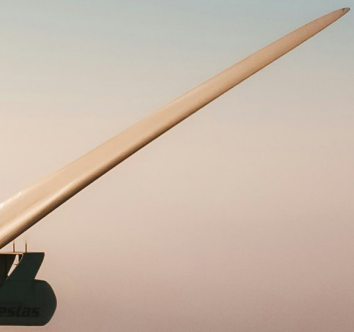
Only that way could we design solutions that can dig out the valuable industrial data trapped in systems designed in the nineties. Or read complex plant schematics with the nuance of a process engineer 20 years on the job.

The companies in this book are our very first partners. Real stories from the time we've spent with them on site, solving hard problems together.

Read on to see how, together, we're turning AI ambition into downtime cut, productivity boosted, millions saved.

And if you like the sound of it, you know where we are. (We'll call you back as soon as we've got the safety gloves off.)

The Nexus Black team



Q:

William Grant & Sons

How do we take a historic distillery from fixing faults to predicting them?

A:

The problem

In a harbor town on the west coast of Scotland, William Grant & Sons' distillery has been perfecting household names like Grant's whisky and Hendrick's gin for decades. But after a significant expansion, operations weren't as efficient as they'd hoped.

Fragmented data meant technicians were reacting to problems, not preventing them — 38% of repairs were for emergencies. The resulting downtime drained resources and stifled output.

The solution

The AI solution from Nexus Black plugs into the distillery's existing systems and sensors — reading detailed plant schematics, and predicting which parts are likely to fail before they do. An AI overview of the whole plant's operations helps cut batch loss and boost yield.

For the engineer diagnosing a fault, they get a new tool: Resolve, a lifeline for technicians on the job. The app doesn't just read text — unhelpful for busy technicians in gloves. It captures video to see how a part's moving strangely, audio to interpret a rattling pipe, even changes in temperature and pressure.

The result

William Grant & Sons estimates that Resolve will save them £8.4 million a year at this one site alone, once they're in business-as-usual mode. That's thanks to more first-time fix rates, less downtime, and output boosted.

"What we really liked about Nexus Black was that they understood our industry — they weren't trying to apply something generic. It's been innovation that's practical, fast, and actually connected to results, not theory."

Badri Narasimhan
Chief Technology & Business Growth Officer
William Grant & Sons

Q:

Major US airline

How do we keep planes safe and compliant, without spending days deciphering dense new directives?

A:

The problem

For an airline, compliance isn't a tick-box exercise. When you're in the business of transporting hundreds of people from A to B with every flight, life is on the line. But this leading US airline spends days interpreting a maze of airworthiness directives and service bulletins, and figuring out what they need to do to stay compliant. Get it wrong, and the price could be a regulatory fine to the tune of $20 million.

The solution

With Nexus Black, the airline can meticulously comb complex directives in minutes, and turn them into actionable instructions based on their current stock and processes.

It tells technicians which parts they need to replace or repair to keep planes safe – across every part, every assembly, every aircraft in the fleet.

The result

This airline could save $1m-$20m in potential fines per compliance fault. Technicians get back thousands of hours on vital aircraft maintenance. And expensive fleet downtime — which could cost anywhere up to $140m a day — is avoided.

Q:

Home emergency repairs company

How do you keep millions of homes across Europe warm throughout winter?

A:

The problem

Busted boilers, no water, washing machine acting up — this emergency repairs firm keeps homes throughout Europe warm and in working order. But with thousands of jobs a week, disconnected data causes chaos.

Technicians can't be scheduled efficiently. Subcontractors are tricky to keep track of. Parts aren't always available. And the costs add up: in longer job times, repeat visits, and inconsistent service that hurts the customer and the bottom line.

The solution

At headquarters, planners can connect jobs, technicians, and parts — cutting repeat visits and shortening response times. Inventory and scheduling systems finally speak to each other – so the right people and parts are on site when they need to be.

Out on the job, engineers make use of Nexus Black's product Resolve — they capture a fault with video, audio, and more, and it helps diagnose and find the proper fix.

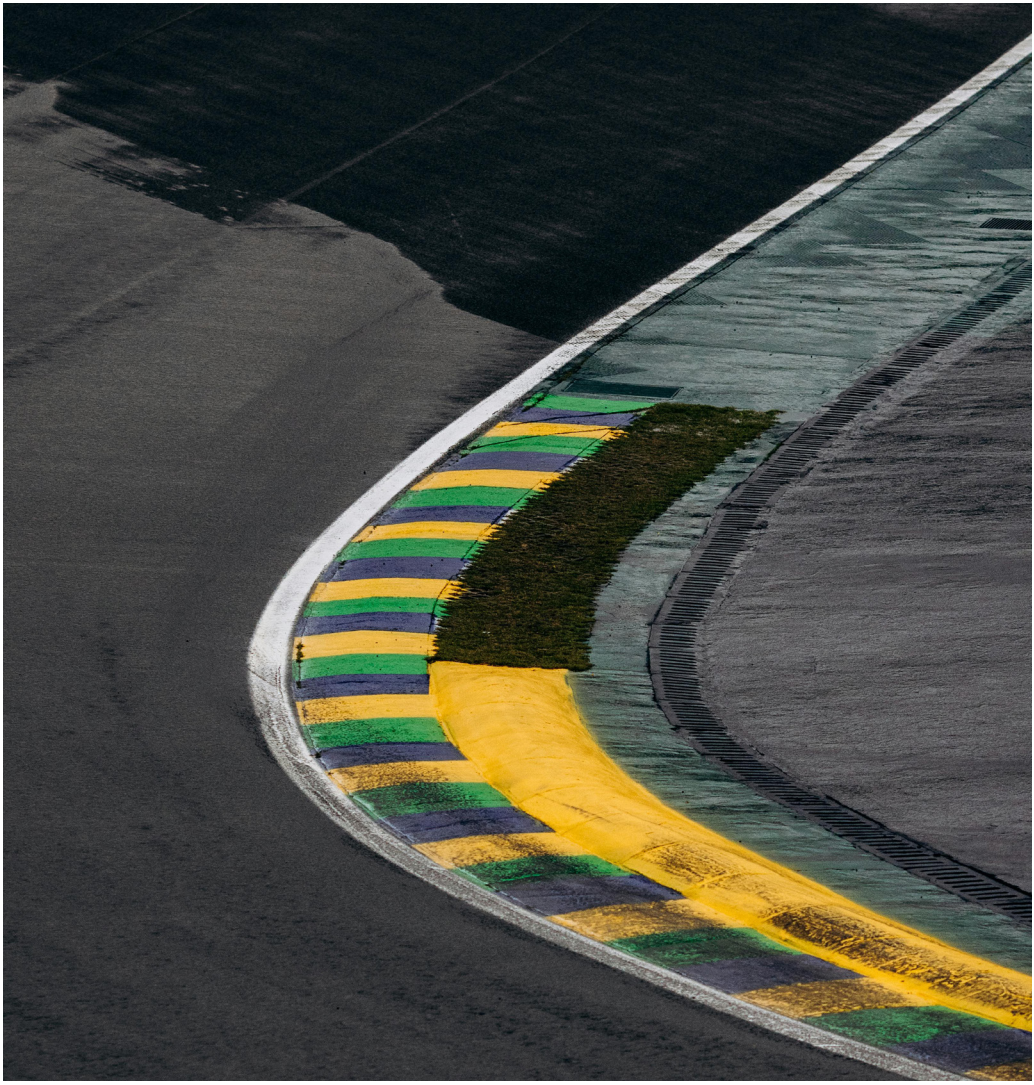
The result

Faults are resolved 25% faster — so technicians can get through more jobs in a day. Repeat visits and cost-per-job are down, and first-time fix rates are up. And customers feeling the stress of broken appliances or lost heating can breathe easier.

Q:

Formula One team

How do you balance speed and spend in the most technologically advanced sport on earth?



A:

The problem

In a world where every millisecond counts, the components that make up a race-winning Formula One car are remarkable feats of engineering. But getting the right parts for the right price can become a race of its own. Will the front wing perform best if we make it ourselves, or source it? How do we connect the exacting standards of our designers with the pragmatism of our engineers? Non-conformance could cost more than money — it could cost them a tournament.

The solution

With Nexus Black, the team can track a labyrinth of parts and assembly — what's in stock, what's being built, and what's on the car.

Our solution combines this with insights on supplier performance, pricing, and sustainability — for better decisions on whether to buy or build in-house.

And we integrate mass production planning, scheduling, and sequencing into one tool — keeping output high, and putting the best car on the track race to race.

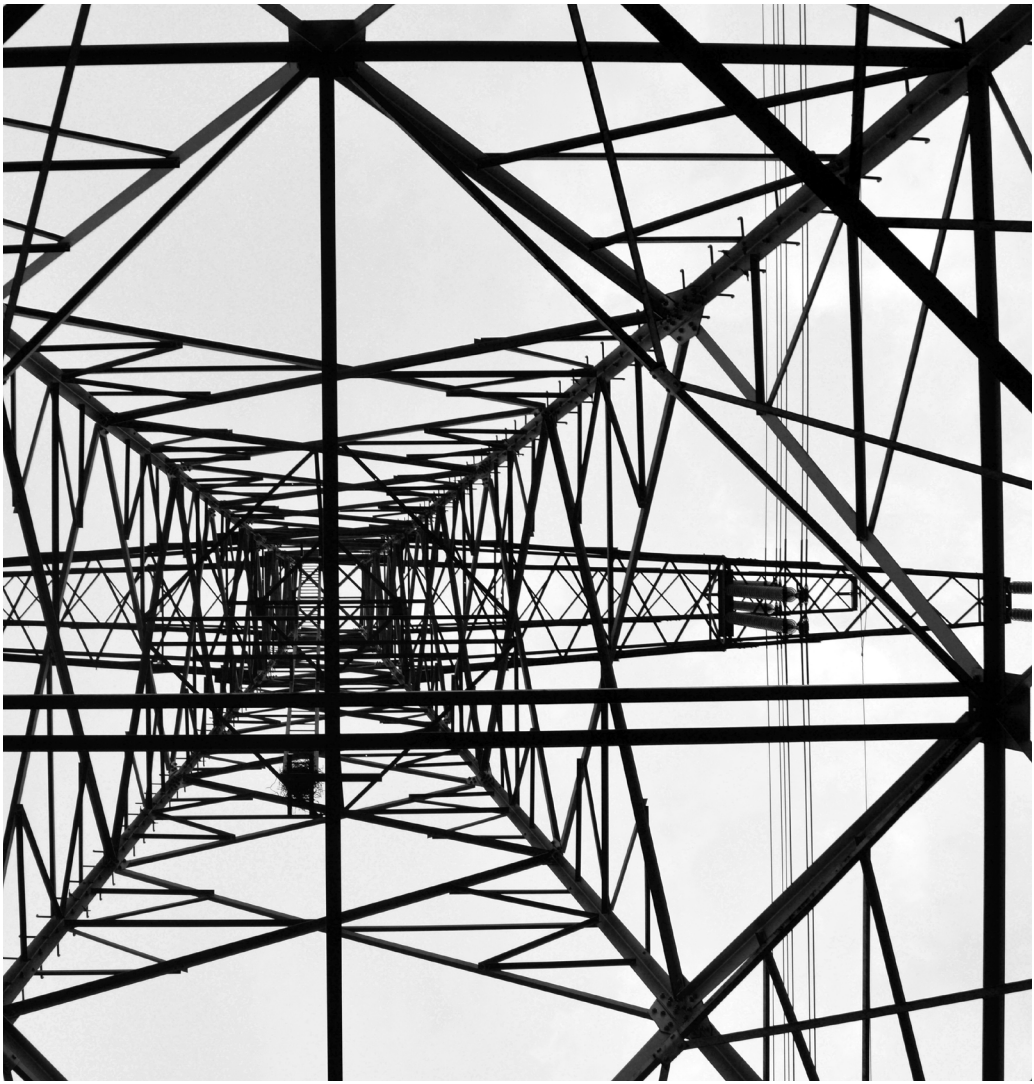
The result

Millions freed up in engineering budget, thanks to more efficient processes. More resilient sourcing. And cars that drive as fast as science allows.

Q:

Major US utility

How do you find what you're looking for without learning 15-digit part codes by heart?



A:

The problem

When you're an engineer with 30 years on the job, you learn to speak a curious language. The language of Part IDs. EXF-38fs800? That's the insulator you can rely on not to crack in a cold snap. IN5225OI? We call that 'the stubborn one' – the transformer that never fails in a storm.

But the engineers who speak that language are getting fewer and farther between. As a generation retires — and as you acquire more systems categorized in totally different ways — how do you get a clear picture of what parts you have where?

The solution

Nexus Black takes data from all those systems, and makes it AI-ready. Our solution enriches data with a clear product description, so the number strings start to mean something.

Engineers can then use natural-language search to find what they're looking for — *Show me all the switchgear panels we have in Illinois*. And if the particular part they're looking for isn't available, the system can suggest in-stock alternatives that will work instead.

The result

Smartly categorized, findable data wipes out duplication — and, for one major US utility firm, could cut overstock by up to 20%, leading to an estimated $20 million in savings each year.

Q:

PG&E

How do you make an energy grid built in another era work in this one?

A:

The problem

Much of the US energy grid was built in the 60s and 70s. This infrastructure wasn't designed to withstand hotter summers and the growing threat of wildfires — or to operate in an age of cleaner, greener power.

But across Pacific Gas & Electric's portfolio of assets that communities rely on, how do they decide what to upgrade first? Which power lines need to go underground? Or how to prioritize vegetation to clear, based on how likely trees are to spark a fire?

The solution

IFS is already helping PG&E with investment planning — assessing the value each investment will bring, and scheduling upgrades based on the age of each asset. Nexus Black makes the significant volume of data around these assets accessible to decision-makers, and connects it to other critical systems, and real-time data to make better decisions.

With their previously siloed data talking to each other in one system, PG&E can get a single clear answer about what to upgrade when.

And that clarity means responding to asks from regulatory bodies is less of a headache.

Type a request into our solution — like "Can you show that your upgrade schedule aligns with the highest wildfire-risk areas?" — and the AI joins the dots in data to give a natural language answer.

The result

A safer, future-ready grid. The risk of wildfires mitigated. Smarter investment planning. And expensive regulatory fines avoided.

"With IFS, we can aggregate all of our investments in one place, value them consistently, and plan for the next decade — something we simply couldn't do before."

Wen Tu
Senior Director of Integrated Grid Planning
Pacific Gas & Electric


COME AND SOLVE
HARD PROBLEMS
WITH US
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AI for the industries we rely on.
Built with the workers who run them.

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