



Transforming Food Safety Operations with Iris Data Extraction

The AI Engine Behind Data Clarity for South African multinational luxury retail company

A leading retail group in South Africa operates across food, clothing, homeware and financial services in South Africa and beyond. Known for its focus on quality, sustainability, and innovation, the retail giant has built a reputation for setting high standards in retail operations.

Iris is a GenAI-powered extraction engine designed to make sense of any document. It combines computer vision, advanced language models, and dynamic schema prompts to understand whatever you send its way: tables, scanned forms, images, PDFs, Word docs. It doesn't just read, it reasons.

THE CHALLENGE

Inside the company's food safety and supplier quality labs, an avalanche of documents arrives daily: PDF lab results, scanned forms with handwritten notes, images of test sheets, Excel attachments from multiple suppliers. No two labs follow the same format. Hundreds of results pile up every day, and a small team of quality-assurance staff must ensure that each product meets strict safety and quality thresholds.

The existing process: open each document, manually hunt down the numbers, copy-paste into sprawling Excel templates. This manual workflow introduced fatigue, errors, delays, compliance risk, which could potentially jeopardise their hard-earned reputation for quality. At scale, even small mistakes meant big risk.



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THE IRIS SOLUTION

The client partnered with CohesionX to deploy Iris — an advanced “text-to-schema” extraction engine built by VectorMind (CohesionX’s flagship AI platform) that brings order to document chaos.



Iris detects the type of incoming file: text, image, or hybrid.



For PDFs or Word docs, **Gen-AI powered extractors break down content, preserving tables, images, layout.**



A **Gen-AI engine uses dynamic “schema-questions”** (“What is the test result for Salmonella?”, “What is the batch number?”) to parse and validate the right values even in unexpected layouts.



Iris **outputs clean structured JSON**, drops it into Woolworths’ database, ready for dashboards, analytics or compliance workflows.



Because the reasoning is Gen-AI driven, **Iris adapts to new formats with minimal reconfiguration** — no retrain-for-every-lab template.



BENEFITS AND VALUE DELIVERED

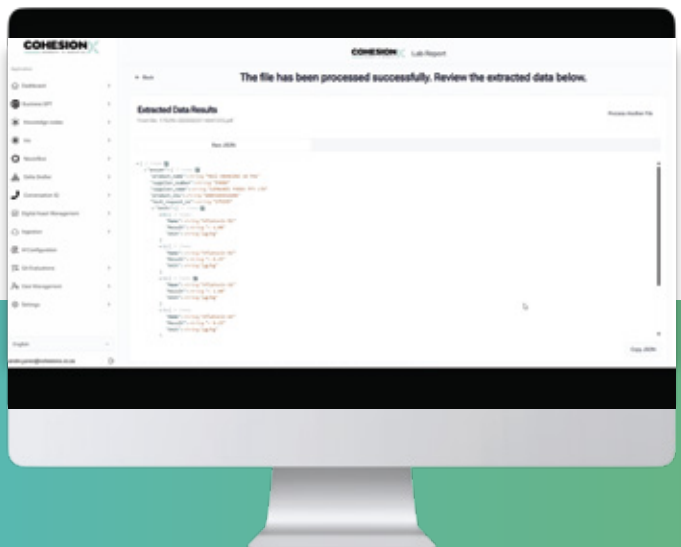
Speed & Efficiency: Instead of hours of manual data entry per document, the client’s QA team now gets structured results nearly instantaneously.

Accuracy & Compliance: Errors from copy-paste and human fatigue are dramatically reduced, lowering compliance risk in food-safety operations.

Scalability & Flexibility: Iris handles highly variable formats from multiple labs and suppliers; as new formats arrive, the system adapts without major rework.

Better Decision Support: Structured data flows into dashboards and analytics, allowing Woolworths to monitor supplier performance, batch-trends, and food-safety metrics in real time.

Reinforced Reputation: By automating a critical part of the supply-chain quality process, Woolworths strengthens its promise of quality and builds trust with customers and regulators.



Significant Time and Cost Savings

Iris eliminated manual data entry across hundreds of daily lab reports. What once took hours of copying and cross-checking now happens in seconds, freeing up QA teams to focus on higher-value quality assurance and supplier management.

Elevated Accuracy and Compliance Confidence

By automatically structuring and validating test results, Iris reduced human error and ensured every data point met the client's strict food safety and compliance standards. This strengthened audit readiness and protected the brand's reputation for quality.

Scalable, Future-Proof Data Operations

Because Iris learns from new document types without retraining, the client gained a resilient, flexible solution that scales effortlessly as suppliers, formats, and reporting demands evolve, ensuring long-term operational agility.

By deploying Iris, a South African Retail giant has transformed a high-risk, labour-intensive process into a streamlined, scalable capability. Where staff were once trapped in spreadsheets and manual workflows, they now operate with real-time structured data driving analytics, insights and compliance.

