

# Reverse-engineer test coverage from *legacy migrations*

Canada Life's migration programmes generate millions of data transformation records. AI can reverse-engineer the business rules, identify the test scenarios the test team should be running, and then verify every single row arrived correctly — before anyone writes a test script manually.

60–80%

of migration test effort spent manually identifying what to test

100%

data assurance — every row, every column, every transformation verified

Days

not weeks — AI-generated test scenarios from schema analysis alone

## THE CHALLENGE

# Migration testing is manual, incomplete, and slow

Every migration programme faces the same problem: the test team inherits a transformation they did not design and must work out what to test.

**Legacy system migrations** (mainframe to modern, platform consolidation) produce complex data transformations that test teams must understand from first principles.

**Before/after databases** are provided, but the test team has to manually reverse-engineer what changed, why, and whether it was transformed correctly.

**Business rules are undocumented** or spread across tribal knowledge, design documents that may be outdated, or scattered across email threads.

**Result:** incomplete coverage, missed edge cases, and go-live defects that cost time and business credibility.

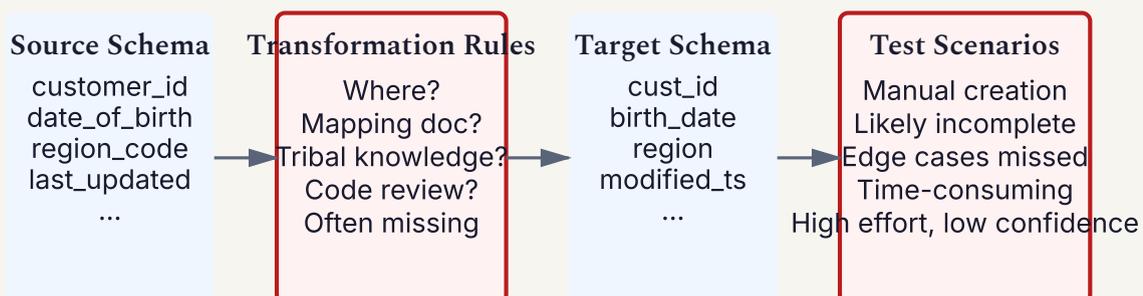
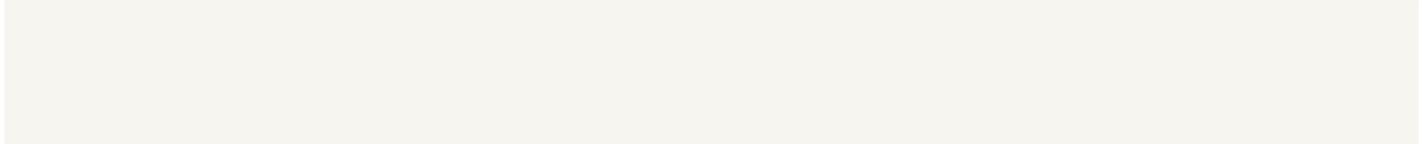


FIG 1 — How test coverage gets lost: transformation rules are often undocumented, making test scenario creation manual and incomplete



THE APPROACH

# Two capabilities. One platform.

AI-powered migration assurance combines reverse-engineering intelligence with exhaustive data verification.

#### CAPABILITY 1

- 
- 
- 
- 
- 

*Think of it as giving the test team a senior analyst who has already read every mapping document and every schema change overnight.*

#### CAPABILITY 2

- 
- 
- 
- 
- 
- 

*Perfect for the conversation that matters: can we prove 100% of data was transformed and loaded as expected?*

## THE PROCESS

# From schemas to sign-off in four steps

1

### **Ingest**

Connect to source and target databases (or receive extracts). AI maps schemas automatically, identifying field names, data types, relationships, and constraints.

2

### **Analyse**

AI reverse-engineers transformation rules by comparing before/after patterns. Generates comprehensive test scenario catalogue covering happy paths and edge cases.

3

### **Verify**

Exhaustive row-by-row, column-by-column comparison. Every transformation rule checked against every record. Generates reconciliation data and identifies exceptions.

4

### **Report**

Reconciliation dashboard, exception reports, evidence packs for sign-off. Exportable formats for audit, test management systems, and stakeholder review.



FIG 2 — Four-step flow from database ingestion to assurance evidence

MARKET CONTEXT

## A £6.25 billion market — and growing

The data migration testing market is forecast to grow at 6.8% CAGR through 2032. But the real opportunity is in what existing tools cannot do.

£6.25B

Global data migration testing market in 2026

Research and Markets, 2026

14%

ETL testing services growth rate through 2035 — the fastest-growing sub-segment

Business Research Insights, 2026

54%

of new investment in migration testing going to cloud-native validation frameworks

360iResearch, 2025

### UK financial services context

**System modernisation is critical and underway.** Only around one in ten UK insurers have modernised more than half of their systems, with many core platforms 13–15 years old. Every modernisation programme needs migration testing. — *Dajon Data Management, 2026*

**Regulatory deadline driving urgency.** All UK pension providers must connect to the Pensions Dashboards ecosystem by 31 October 2026. Over 700 providers are migrating data now, representing 60 million+ pension records. — *The Pensions Regulator, 2025*

**Legacy cost drag is substantial.** UK financial institutions underestimate the total cost of legacy systems by 70–80%. Modernisation programmes can reduce TCO by 38–52%. Migration testing is the critical path. — *EY UK, 2026*

## Competitive landscape

TOOL	WHAT IT DOES	PRICING	AI CAPABILITY	GAP
QuerySurge	SQL-based automated data validation. Compares source and target via queries.	Annual subscription — 5, 10, 25 user packages. Minimum 12-month term. Custom pricing (not published).	Limited — rule-based, not AI-generated test scenarios.	Does not reverse-engineer test scenarios. Requires manual test query creation.
iCEDQ	Cloud-based ETL and migration validation. Record-level comparisons.	From ~\$30,000/year for 3–5 database connections. Subscription model.	No AI test generation. Automated comparison only.	No schema analysis or business rule discovery. Manual setup.

TOOL	WHAT IT DOES	PRICING	AI CAPABILITY	GAP
<b>Informatica PowerCenter</b>	Enterprise ETL with data validation capabilities.	\$100,000–\$500,000+/year depending on scale. Enterprise licensing.	Some AI features in newer products (CLAIRE).	Primarily an ETL tool, not a dedicated testing platform. Expensive.
<b>DataGaps</b>	Data migration testing automation with wizard-based setup.	Not publicly available. Enterprise licensing.	Claims “100% data validation” but rule-based, not AI-generated.	No reverse-engineering of business rules or test scenario discovery.
<b>AWS Transform for Mainframe</b>	Agentic AI for mainframe modernisation. Auto-generates test plans and scripts.	AWS consumption-based pricing.	Strong — AI-generated test plans, automated test case creation.	AWS-only. Mainframe-specific. Not available for general database-to-database migration.

*Every tool in this market validates data against rules you give it. None of them look at a source and target database and work out what the rules should be. That is the gap. AI-powered reverse-engineering of test scenarios — combined with exhaustive data assurance — is a genuinely new capability.*

## THE OPPORTUNITY

# A differentiator AheadMG can sell into every UK wealth management migration

AheadMG already has resources embedded in Canada Life, Aegon, Nucleus, and Wealthtime migration programmes. This is a tool AheadMG can offer as a value-add into the UK wealth management and pensions sector.

## Why now — the UK context

**Pensions Dashboards deadline (31 October 2026)** is forcing 700+ UK pension providers and schemes to migrate data at pace. Over 60 million pension records need cleansing, validation, and consolidation. Every one requires rigorous migration testing.

**UK wealth management platforms are ageing** — only one in ten insurers have modernised more than half their core systems. Clients like Canada Life, Aegon, Wealthtime, and Nucleus are all navigating platform and system consolidations that require high-confidence migration testing.

**Can be offered as a service** (FEAW runs it remotely) or a capability (AheadMG team trained to use it) — flexible commercial models for UK wealth management clients.

**Reduces cost and risk** — shorter test cycles, higher confidence, fewer go-live defects = better client outcomes and AheadMG reputation in a market AheadMG dominates.

## Use cases AheadMG can pitch tomorrow

### Platform Migration

Legacy mainframe or mid-market systems moving to cloud-native or commercial platforms. High-risk data transformations, large test scope.

### Data Consolidation

Multiple business units or geographies merging data into a single target system. Complex deduplication and remapping rules.

## **Regulatory Transformation**

Data restructuring for compliance (GDPR, data residency, reporting standards). Audit trail and proof of transformation required.

## **Cloud Migration**

On-premise to cloud (AWS, Azure, GCP), often with schema optimisation. High volume, strict SLAs, zero-tolerance for data loss.

MARKET CONTEXT

# A £6.25 billion market — and nobody owns the AI layer yet

The data migration testing market is growing rapidly. But the current tools are automation platforms, not AI-native intelligence. That gap is the opportunity.

£6.25B

Global data migration testing market (2026)

Research and Markets, 2026

6.83%

CAGR — projected growth to £9.37B by 2032

Research and Markets, 2026

54%

of new investment flowing to cloud-native ETL validation

Business Research Insights, 2026

## The current competitive landscape

TOOL	WHAT IT DOES	PRICING	THE GAP
<b>QuerySurge</b>	SQL-based automated data validation. Compares source and target databases via queries.	Annual subscription: 5/10/25 user packages. Perpetual licences available. ~Enterprise pricing on request.	No AI. No test scenario generation. Requires someone to write the queries first.
<b>iCEDQ</b>	Cloud-based record-level data validation with visual dashboards. ETL testing focus.	From ~£25,000/year for 3–5 database connections. Scales with data sources.	Validates what you tell it to. Does not reverse-engineer what to test.
<b>Informatica PowerCenter</b>	Enterprise ETL platform with data quality and validation modules.	£80,000–£400,000+/year depending on scale. Implementation services additional.	A data integration platform, not a testing intelligence tool. Massive overhead for focused migration validation.
<b>DataGaps</b>	Wizard-driven test automation for data migration. Claims 100% validation.	Pricing on request.	Automates known test patterns. Does not discover unknown business rules from schemas.
<b>AWS Transform for Mainframe</b>	Agentic AI for mainframe modernisation. Auto-generates test plans and validation scripts.	AWS consumption-based pricing.	Closest to AI-native, but locked to AWS and mainframe-to-cloud migrations only.

Every tool in this market automates data comparison. None of them start by asking the intelligent question: what should we actually be testing? That reverse-engineering step — from schemas and transformations to test scenarios — is the gap an AI-native approach fills.

## UK wealth management: the migration wave

AheadMG's client base sits at the centre of a UK-specific migration wave. The Pensions Dashboards deadline (31 October 2026) is forcing every pension provider and scheme to cleanse, consolidate, and migrate data at pace — over 700 providers have already connected, representing 60 million+ records. GMP equalisation continues to force manual intervention across legacy administration records. Meanwhile, UK insurers report that only one in ten have modernised more than half of their core systems, with platforms averaging 13–15 years old. Clients like Canada Life, Aegon, Wealthtime, and Nucleus are all navigating variations of this challenge. Every one of these programmes needs migration testing — and the market has no AI-native solution serving UK wealth management specifically.

UK financial institutions spend nearly 40% of their IT budgets maintaining legacy platforms. Modernisation programmes can reduce total cost of ownership by 38–52%. But every migration carries risk — and the testing is the bottleneck.

## UNDER THE HOOD

# Built for enterprise data at scale

- **Multi-database support:** SQL Server, Oracle, DB2, PostgreSQL, MySQL, flat files (CSV/XML/JSON)
- **Data privacy by design:** Schemas analysed by AI; customer data never sent to cloud. Option for on-premise LLM processing.
- **Deployment flexibility:** Data comparison runs on-premise, in client's cloud, or hybrid — data never leaves client environment
- **Enterprise scale:** Handles millions of rows, designed for large-scale migrations and data warehouses
- **Configurable rules engine:** Transformation rules defined via UI, no coding required. Business logic translatable to executable test logic.
- **Tool integration:** Export test scenarios to Excel, JIRA, Azure DevOps, TestRail. Reconciliation reports in multiple formats.

# Flexible deployment options

Migration Assurance AI works in whatever environment AheadMG's clients need.

## SaaS (FEAW-Hosted)

FEAW runs the platform. AheadMG's teams access via browser. Data comparison and AI analysis in secure cloud. Ideal for quick start, minimal infrastructure.

## Client Cloud

Deploy into client's AWS, Azure, or GCP account. FEAW manages the service. Client retains full data residency control. Common for regulated industries.

## On-Premise

Deployed on client infrastructure. FEAW provides support and updates. Zero data egress. Ideal for highly restricted environments or air-gapped networks.

## Hybrid

Combination of the above. E.g., schema analysis in SaaS, data comparison on-premise. Optimises cost, privacy, and operational complexity.

# What happens next

This capability is ready to demonstrate. The logical next step is a focused session with the Canada Life test team to show what AI-generated test scenarios and data assurance look like against real schemas.

## Step 1

**Identify** a current or upcoming Canada Life migration workstream as a pilot candidate. Ideally: known complexity, fixed timeline, high test risk.

## Step 2

**Demonstrate** the capability against the pilot schemas. FEAW generates test scenarios and data assurance report. (Schemas can be anonymised if needed.)

## Step 3

**Evaluate** results with the test team. Agree on how AheadMG packages and sells this to clients: service offering, training, pricing model.

## Ready to explore?

Rob — FEAW Services Ltd · [enquiries@feaw.co.uk](mailto:enquiries@feaw.co.uk)

### Sources and references

Research and Markets (2026). *Data Migration Testing Market Global Forecast*. [researchandmarkets.com](https://www.researchandmarkets.com) — Business Research Insights (2026). *ETL Testing Service Market Size and Forecast to 2035*. [businessresearchinsights.com](https://www.businessresearchinsights.com) — 360iResearch (2025). *Data Migration Market Report*. [360iresearch.com](https://www.360iresearch.com) — Dajon Data Management (2026). *UK Insurance Legacy System Modernisation*. [dajon.com](https://www.dajon.com) — The Pensions Regulator (2025). *Pensions Dashboards: Connection Deadlines and Data Standards*. [thepensionsregulator.gov.uk](https://www.thepensionsregulator.gov.uk) — EY UK (2026). *Legacy Technology Modernisation in UK Financial Services*. [ey.com](https://www.ey.com)

— DAMA International. *DAMA-DMBOK: Data Management Body of Knowledge*. [dama.org](http://dama.org) — ISTQB (2024). *Certified Tester Foundation Level — Migration Testing*. [istqb.org](http://istqb.org) — NIST (2023). *AI Risk Management Framework (AI RMF 1.0)*. [nist.gov](http://nist.gov) — AWS (2025). *AWS Transform for Mainframe Modernization*. [aws.amazon.com](http://aws.amazon.com) — QuerySurge. *Automated Data Testing Platform*. [querysurge.com](http://querysurge.com) — iCEDQ. *Data Validation and ETL Testing*. [icedq.com](http://icedq.com) — Informatica. *PowerCenter Data Integration*. [informatica.com](http://informatica.com) — DataGaps. *ETL and Migration Testing*. [datagaps.com](http://datagaps.com).

*Prepared by FEAU Services Ltd for AheadMG. March 2026. Confidential — not for distribution.*