

# One engine. Every valuation cycle.

**Performance. Accuracy. Reliability.** Built for the full valuation calendar: monthly and quarterly close, multi-framework reporting, and on-demand impact analysis. Validated against legacy actuarial platforms in parallel-run engagements.

**21x** Up to, peak \*

Faster than legacy actuarial platforms — peak benchmark

**99.9%** \*

Reconciliation against incumbent valuation platforms — framework-by-framework

**12 days** \*

Continuous production stability test — reproducible, end-to-end validated

## INDUSTRY CHALLENGES

- X Production runs are not consistently stable** — legacy engines suffer breakdown runs that force reruns and delay close.
- X Total cost of ownership is high** — performance not optimised for modern hardware; insurers pay for cores that legacy architectures cannot scale down between cycles.
- X Models are hard to maintain** — each product-level assumption is its own line; definitions sprawl across products; every valuation cycle creates more table rows to maintain, not fewer.
- X Legacy stacks weren't built for modern valuation** — modern valuation needs a cloud-native, modern-stack platform built for elasticity, reliability, and the workloads of the next decade.

## THREE ARCHITECTURAL PILLARS

### SIMPLICITY

#### One Model. Every Framework.

**ClassTree** — write IFRS 17 logic once, reuse across Embedded Value, GAAP, and Statutory reporting. Variables inherit from parent nodes; deviations redefined at child nodes only. **Smart Table** reduces maintenance of assumption rows through parent-child inheritance and smart-indexed code-free lookup.

### PERFORMANCE

#### Up to 21x faster, peak

ZeroDegree compiler generates native code for every parameter combination. OmniGraph deduplicates and fuses actuarial logic. CoreAffinity lifts L1 cache hit rates above 95%.

### RELIABILITY

#### Accurate. Stable. Governed.

99.9% reconciliation against incumbent platforms. Validated across a 12-day continuous production stability test. Immutable audit trails — every result defensible.

# Four outcomes your CFO can measure

## OUTCOME 01 · PERFORMANCE

### Closes in hours, not days.

The IFRS 17 measurement run compressed from 12 hours to 1 hour.\* Sub-hour single full-portfolio valuation runs protect the close window — adjustments and reruns fit inside the same business day.

**Business value:** *Up to 21x faster than legacy actuarial platforms at peak.\* Speedup grows with scale — 6x at 35K MPs, 11.8x at 200K MPs.\**

## OUTCOME 02 · ACCURACY

### 99.9% reconciliation against incumbent platforms.

Validated framework-by-framework, product-by-product against the legacy actuarial platforms StrinGaze replaces. Reproducible across runs — bit-exact, deterministic, with full lineage to every line item.

**Business value:** *99.9% reconciliation accuracy — validated in every parallel-run engagement, across IFRS 17, Embedded Value, GAAP, and Statutory.\**

## OUTCOME 03 · STABILITY

### Overnight calculations, protected by design.

Cloud-native architecture, with dual-centre disaster recovery and self-healing nodes. A hardware fault doesn't take the night with it — the platform reroutes and continues.

**Business value:** *Validated across a 12-day continuous production stability test — end-to-end reproducible across 12 consecutive close cycles.\**

## OUTCOME 04 · EFFICIENCY

### Same close, up to 37% fewer cores.

Multi-framework reporting on a single engine — IFRS 17, Embedded Value, GAAP, and Statutory all on the same model. Documented benchmark: the same close on up to 37% fewer cores than legacy actuarial platforms.\*

**Business value:** *Greater than 50% lower TCO than legacy actuarial platforms.\**

## VALUATION IMPLEMENTATION

### Performance, accuracy, and stability at production scale.

Close cycles in hours, reconciled to **99.9%** against your incumbent across every framework you report under (IFRS 17, major RBC frameworks, EV, GAAP, statutory). Delivery covers **cloud deployment** (AWS, Azure, GCP or on-premise), **model migration consulting**, **parallel-run reconciliation** against the legacy engine, and **hands-on enablement**. Outcome: a close cycle running on the new platform, with the legacy vendor contract retired on schedule.

**BUSINESS VALUE** Up to **21x** faster, peak · **99.9%** reconciliation accuracy · **>50%** lower TCO \*

**FRAMEWORKS** IFRS 17 · Embedded Value · GAAP / Statutory

## ACTUARIAL INTELLIGENCE ROADMAP

[stringaze.com/halley](https://stringaze.com/halley) →

### Halley is possible because StrinGaze's ClassTree mirrors the business logic.

**Halley** is the actuarial AI assistant — running software today. It's only possible because StrinGaze's **ClassTree** mirrors your business hierarchy as inheritable structure, and **Smart Table** separates assumption data from lookup logic. Halley reads structure — not flat code — so AI can finally reason about actuarial models.

#### HALLEY · TODAY

**Explain an assumption** in the ClassTree.  
**Build a new product** in the ClassTree.  
**Engine AI layer** — Smart Validation runs against every cycle's results.

#### ON THE ROADMAP

**Variance narration** — what moved between cycles, by product and driver.  
**Reconciliation co-pilot** — drafts the memo line by line.

#### ROADMAP · FURTHER

**Cross-module reasoning** against pricing model conflicts. **Multi-step close orchestration** — actuary approves each gate.

