dyna·mo

IFRS 17 in
Psicle

Psicle *('saik/)*

Psicle® is a flexible, robust, fit-for-purpose modelling environment with rich statistical, data management and audit functionality, enabling the industrialisation of a wide variety of actuarial and financial models.

The introduction of IFRS 17 poses several challenges to the insurance industry, including the upgrading of data and modelling systems, incorporating an additional technical model into existing process, and complying with an additional standard.

The Psicle IFRS 17 cloud or on-premise solution is used extensively in the insurance market as the actuarial calculation engine for (re)insurers and (re)insurance groups of various sizes and across several territories. It is backed with best-in-class integration and governance features to integrate with your wider systems architecture.

KEY BENEFITS

Validation - Perform a host of validation testing, including sensitivity and scenario testing as well as detailed analysis of change.

Discounting - Full discounting engine that can discount on multiple bases using either the top-down or bottom-up approach.

Measurement - Both the GMM and PAA within the same calculation engine, including class leading governance.

Automation - For rapid model runs from source data through to reporting outputs freeing up time for expert analysis.

Integration - With target systems, including sub-ledgers, ledgers, data warehouses or 3rd party reporting systems.

Modelling - Produces the Fulfilment Cashflows, including Risk Adjustment, Contractual Service Margin and Loss Component.

PAA Eligibility - Module to assess eligibility over a range of scenarios and can be adapted in line with your agreed policy.

Onerous Testing - At initial and subsequent measurement periods to help assess profitability grouping and Loss Component calculation.

Synergies - With existing reporting basis including Reserving (GAAP, IFRS4, etc.) and TPs (SII, BMA, etc.)

> " Psicle is the primary modelling platform for insurers across a growing range of geographies and use cases. "

Fulfilment Cashflows including Risk Adjustment

Actuarial modules to generate IFRS 17 adjustments, including:

- Actuarial cashflow engine (including mortality modelling) to generate undiscounted cashflows at any granularity

- Actuarial discounting engine to apply any cashflow set and any number of yield curves, including locked-in rates

- Detailed breakdowns of discounting credit between periods

- Seamlessly share IFRS 17 cashflow engine with Solvency II / Bermudian EBS / SAM and other relevant bases

- Risk Adjustment using different approaches, from simple loadings to more complex simulation modelling

CSM and Loss Component

Derive CSM/LC on Initial Recognition and Subsequent Measurement

- Implement "batch runs" of the IFRS 17 calculation sequentially to measure adjustments, from the impact of new business, to changing exchange rates, to changes in modelling assumptions which impact the fulfilment cashflows.

- User-defined logic to define the order of adjustments, including derivation of the Loss Component Recovery

- Integrations to locked-in yield curve sets for interest accretion

- Revenue release using coverage units or reliance on the fulfilment cashflows run-off

Liability for Remaining Coverage (LfRC) and Loss Component

Data transformation capability to calculate the LfRC under the PAA:

- Flexibility to build in the full methodology, or apply simplifications

- Measure the impact on the opening position of movements in premiums and acquisition costs

- Accrete interest where there is a significant financing component

- PAA and GMM models exist on the same canvas in Psicle. This makes the LfRC comparison between the two approaches easy to implement to derive the Loss Component on initial or subsequent measurement, either for onerous contracts or where Facts and Circumstances require

PAA Eligibility

Standard template to industrialise the PAA Eligibility process

- Projections of the PAA and GMM for groups of contracts on Initial Recognition and Subsequent Measurement

- Implement a suite of sensitivity and stress tests to adjust modelling assumptions and parameters

- Flexibility to adapt standard template methodology to reflect your exact requirements

- Flexibility to adapt reporting diagnostics and dashboards in line with your agreed thresholds

Native Dashboarding

Users can build their own diagnostics into Psicle models via the point-and-click dashboard module, which offers dynamic visualisation, a range of chart and table options, drilldowns, cross-filtering and flexible formatting and layout management, among other features.

By connecting to the rich outputs of the PAA and GMM calculations, as well as supplementary data sources, actuaries, management and stakeholders can configure the views they need. Psicle's integrations with visualisation tools such as PowerBI allow for broader circulation of results.

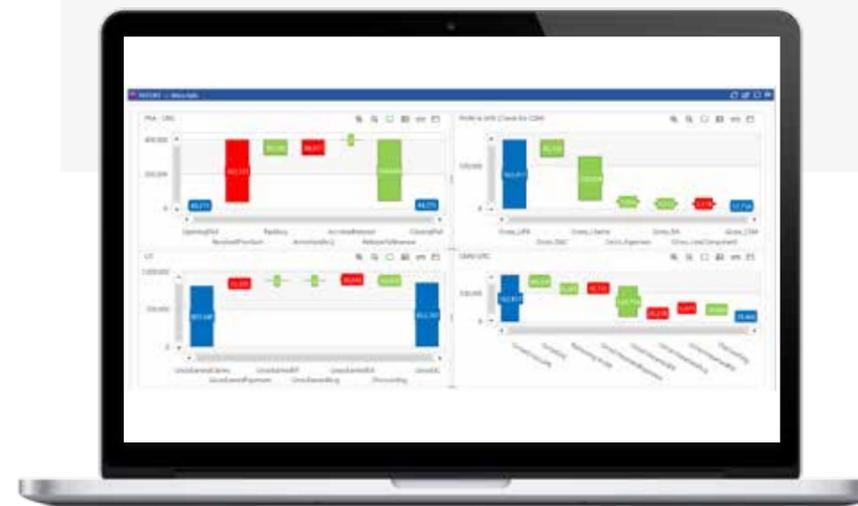### Disclosures and Financial Reporting

Psicle IFRS 17 models conclude with a comprehensive set of in-platform allocations, aggregations and mappings to translate the technical modelling results to a format suitable for downstream reporting, which typically is the IFRS 17 General Ledger or a third-party reporting system.

IFRS 17 Chart of Accounts are typically imported into Psicle to both provide an interim view into the financial statements and feed the GL

Governance

Model and process governance is crucial with the increase in technical modelling requirements, and IFRS 17 reporting involving multiple teams. Psicle is backed with best-in-class features to support:

- Workflow management to restrict, approve and sign-off calculations, including full and partial model lockdown

- Full audit tracking and user permissions management

- Detailed logging to view software access, any changes made, model run times and more
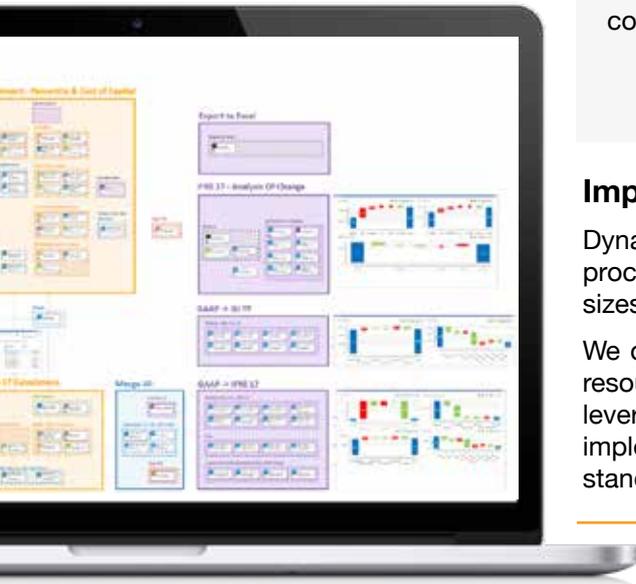
- Notes functionality for documentation

The Psicle platform

From simple monoline insurers to the most complex books - Psicle is the primary modelling platform for insurers across a growing range of geographies and use cases, including business planning, pricing, reserving, Solvency II TPs, Solvency II SCR, IFRS 17 and reporting.

Psicle is a server-based application that can be hosted in the cloud or on-premise, and leverages the latest technology stacks.

Integrations

Psicle integrates well with your existing systems, including on-premises and cloud data stores, ledgers, reporting systems and visualisation packages.

Data

Psicle can read or write directly to relational database storage platforms, including MS SQL, Amazon Redshift, Oracle or via drivers provided by other software providers enabling ODBC connections.

API

Psicle has its own API that can be called to run batched processes configured by edit users of the software and return results to other software via standard restful API calls. Psicle also integrates with other web APIs with minimal bespoke configurations.

File-based transfer

An automated process for reading and writing data files from network locations can be enabled via the batch process module.

Implementation

Dynamo's consulting team has deep and varied experience in tech-enabled process design, from migration to transformation, across a range of insurer sizes, geographies, regulatory regimes and product portfolios.

We offer various support options to suit each project's scale, timelines and resource availability. IFRS 17 calculations can be custom-built to spec or leverage our PAA Template for a more out-the-box solution. Throughout implementation and beyond, our consulting and technical support teams stand ready to make your program a success.

About Dynamo

Experience, expertise, and service. All part of our DNA.

We are actuaries, problem solvers, and strategic thinkers. As a highly innovative team, we are passionate about understanding how the world of business-critical modelling is evolving, and how organisations need to adapt. We apply our mathematical skills, professional expertise, and intelligent automation platform to help our clients navigate their transformational journey with confidence. Brilliant at building relationships and driving change through innovation and a culture of teamwork, we deliver robust, insightful solutions to modernise and industrialise a client's technical models and processes. We give clients greater certainty in increasingly complex times.

For further information on Dynamo and Psicle, including case studies, visit **www.dyna-mo.com** or email us at **psicle@dyna-mo.com**

dyna·mo