Analitica IFRS 17 Suite

The new International Financial Reporting Standard 17 takes effect in 2022. Although the standard only prescribes changes in accounting for insurance contracts, the actual impact on insurance companies is by far more extensive. The implementation requirements jointly address the strategic financial decisions, data governance, actuarial modeling and IT of insurance companies.

An implementation approach that looks beyond mere compliance will bring strategic advantages to an insurance company by establishing a higher degree of integral governance of actuarial and accounting technological/data issues within the company. Simulations capabilities and a unified data layer will create a new level of analytical support for actuarial and other business functions.

Analitica IFRS 17 Suite

The Analitica IFRS 17 Suite is a **comprehensive out-of-the-box solution** that automates the critical functions of **input data governance**, calculations of **IFRS 17 measures** for all three valuation approaches (**BBA, PAA, VFA**) and accounting to support compliance with IFRS 17 requirements for insurance and reinsurance companies. The user workflow is **fully automated and transparent**, and it enables actuaries and finance departments to focus on their business missions of analyzing the results of each step of a calculation sequence and managing and reporting financial figures. Furthermore, it is a perfect add-on to existing insurance/ERP systems; the Suite requires contracts' data, actual cash flows, and actuarial cash flow projections originating within existing systems as input data and provides postings to a general ledger as output.

The Suite operates in two modes:

- **Accounting mode,** which guarantees **auditable and repeatable results**
- **Simulation mode,** which enables simulation of different **planning scenarios** and **sensitivity/impact analysis** to other parameters of calculation

The Analitica IFRS 17 architecture consists of an **integrated input data validator and editor**, a **workflow and calculation engine** leveraged with an integrated library of calculation methods and scenario **simulation modules**. The architecture is optimized for processing **high volumes of data**.

International groups can benefit from a common central installation that is multitenant and supports different functional currencies by company and mixing of insurance and reinsurance businesses. IFRS 17 measurements can be performed on an **intra-year** level with consolidation to annual (fiscal year) periods.

Calculation results at the most granular level (i.e. model point, where the model point can be a contract or a set of contracts), including interim calculation steps are available in a data mart for actuarial and financial analysis and reporting and can represent a significant **enhancement of a company's BI capabilities**.

The Analitica IFRS 17 Suite is part of a complete straight-through-processing IFRS solution, which also supports **IFRS 9** classification and measurement of financial instruments. An expert team of actuaries, accountants and IT consultants guarantees smooth implementation and long-term support.

IFRS 17 Suite features

Integrated Input Data Validator and Editor

Aggregating data of sufficient completeness, accuracy, detail, and quality from several source systems is one of the main challenges of IFRS 17 implementation. Analitica IFRS 17 has a **defined input data interface** with an integrated module for input **data quality validation** defined with a set of technical and logical conditions that the input data must satisfy. A user-friendly portal enables users to explore possible errors in input data and make **manual corrections** supported with an audit trail and confirmation by authorized persons (4-eyes principle).

Workflow and Modes of Operation

The Suite supports two modes of operation. The **Accounting mode** has a fully automatic linear workflow of input data confirmation, calculation steps, and generation of general ledger postings and disclosures. It provides full traceability and repeatability of results, which is crucial for accounting auditability purposes. The **Simulation mode** supports an iterative user workflow for simulating various business plans and other financial and actuarial assumptions for managerial purposes.

IFRS 17 Measurement Calculations

Integrated calculation modules provide calculations of all **IFRS 17 measures and analytical values** in interim steps for all three approaches (BBA, PAA, VFA).

Analytical values facilitate clear identification of the impact of changed actuarial assumptions (which adjust CSM) vs. the impact of changed financial conditions (which adjust P&L or OCI).

Discounting of cash flows can be processed in the Suite based on interest rate yield curves or imported as the output of actuarial calculations.

All IFRS 17 measures can be calculated in **intra-year periods** by employing an annual period aggregation mechanism. The Suite supports multiple approaches ranging from the creation of separate monthly cohorts in which each month is a new cohort with new assumptions to the creation of annual cohorts from the interim intra-year monthly cohorts.

Simulation Capabilities and Planning

The simulation mode is a strong analytical tool which simulates the consequences of potential **business decisions** as well as the consequences of changing the **business environment** and **actuarial assumptions** in IFRS 17 measures and final financial statements.

A simulation of business decisions involving the product mix is an ideal tool to support the **planning process** by enabling the assessment of the impact of different planning scenarios on financial statements (e.g. P & L).

Before the implementation of IFRS 17, users can simulate and optimize different **aggregation segmentations,** thus reshaping cohorts. After the transition, this functionality can support decisions about the inclusion of new business into the aggregation schema.

Most of the IFRS 17 metrics are simulated with the use of **allocation patterns**, which means that there are different mechanisms for the allocation of CSM, RA, loss components, and acquisition costs to different periods and for the simulation of the effects of changed actuarial assumptions such as claims ratios, lapses, and/or levels of expenses.

The impact of changes in **market assumptions** is simulated by changes in yield curves and FX rates scenarios.

The OCI **accounting policy** is defined on the portfolio level and can be also changed for simulation purposes.

Reporting Module

The Suite supports the creation of tables for **quantitative disclosures**, as required by IFRS 17. This includes the **P&L statement**, aggregated on different levels (whole company, selected portfolios or cohorts, groups, model points) and the related **balance sheet** captions (PV CF, RA, CSM) and their movements from the beginning of the reporting period to its end.

The reporting module of the Suite was designed to maximize utilization of the newly introduced accounting figures. In order to facilitate the analysis and to support reconciliations, the results can be retrieved both in the formats required by IFRS 17 and in the traditional formats currently in use.

Analytical Data Repository (option)

All calculation results, including the results of interim steps, are open for further **analysis** with BI tools by actuaries or the finance/accounting department and provide for **full transparency**. The calculations are executed at the **lowest level of detail** on input data, that is, model points can range from particular risks on a single insurance contract to homogenous segments of contracts or cohorts as prescribed by IFRS 17.

The data repository enables key stakeholders in the IFRS 17 implementation to **quickly adapt analysis** of financial statements and disclosures to the new requirements, including KPIs and incentive frameworks.

Accounting Module (option)

The Suite can export analytical values back to the core insurance systems to support their accounting functionality, or it can include an optional accounting module. The accounting module automatically **generates postings of IFRS 17 measurements** to a general ledger. Generated journal entries consist of changes to IFRS 17 metrics between measurement periods.

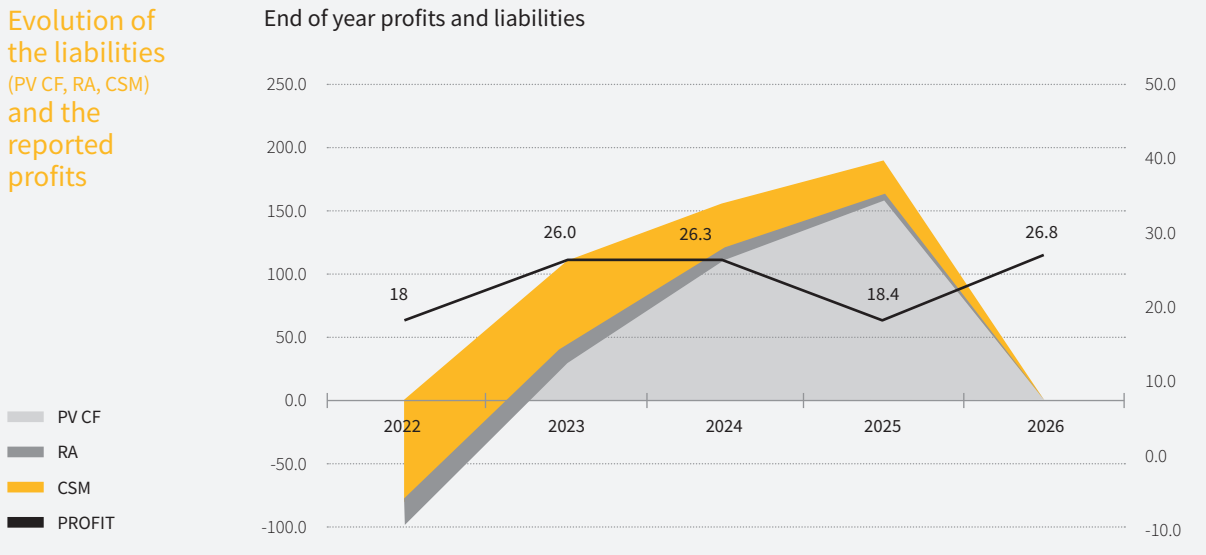
As part of the initial configuration of the application, users can set-up a mapping of postings to the company's chart of accounts and bookkeeping rules.

Analysis of a block of business until maturity

Reported profits: IFRS 17 format	2022	2023	2024	2025	2026
Release RA		5.5	5.1	6.1	5.9
Release CSM		23.4	19.9	28.7	28.7
Expected claims and expenses		16.0	50.0	54.0	258.0
Incurred claims and expenses		-19.0	-52.0	-66.0	-265.0
Experience adjustments premiums		-2.0	1.0	-2.0	1.0
Non-economic assumption changes		11.4	-10.0	17.1	0.0
Adjustments to CSM		-11.4	10.0	-17.1	0.0
Insurance service result		**23.9**	**24.0**	**20.7**	**28.6**
Investment income		5.2	5.4	6.1	6.8
Interest expense		0.0	-4.2	-7.8	-11.3
Changes in discount rates		-3.1	1.1	-0.6	2.7
Insurance service result		**2.1**	**2.3**	**-2.3**	**-1.8**
Profit and loss		**26.0**	**26.3**	**18.4**	**26.8**

Reported profits: traditional format	2022	2023	2024	2025	2026
Premiums received		148.0	123.0	111.0	94.0
Claims incurred		-19.0	-52.0	-66.0	-265.0
Change in reserves		-108.2	-50.1	-32.7	191.0
Investment income		5.2	5.4	6.1	6.8
Profit and loss		**26.0**	**26.3**	**18.4**	**26.8**

Evolution of the liabilities (PV CF, RA, CSM) and the reported profits



Key Advantages

- The Analitica IFRS 17 Suite supports fully automated, end-to-end processing of input data validation, IFRS 17 measures calculations, and generation of postings to general ledger for all approaches (BBA, PAA and VFA), with full traceability and auditability of the processing steps. The Suite supports intra-year measurement periods, which are reconcilable with financial year periods.
- The Analitica IFRS 17 Suite simulation capabilities provide ideal support for the iterative business planning process with the immediate calculation of impacts on financial statements. To actuaries and finance department personnel, it represents a new level of analytical support for risk and financial management of the insurance company.
- A pre-defined input data structure which is designed to cover all requirements of IFRS 17 measurement compliance means smooth implementation of a project which crucially depends on integrating data from several existing IT systems within the insurance company. The data integration mechanism includes technical and business data quality validation rules, with a user-friendly data management portal for data quality review and manual edits if necessary.
- A user friendly, modern graphical user interface supports the completely automated calculation workflow, with full drill-down and analysis to the lowest level of detail, that is, a single model point, in the calculation steps and final measures. Model points can be at the level of a single insurance contract or risk or on more aggregated levels.
- Actuaries and financial analysts can access a built-in data mart with detailed calculation data with any BI platform for on-request analysis and custom reporting, thus providing a highly valuable tool to support their work.
- International groups can benefit from a centralized multitenant installation with multi-functional-currency support.
- Manual entries include an approval process based on the 4-eyes principle. Comprehensive audit trails and user roles control operational risk.
- High performance solution architecture supports large volumes of data while still enabling calculations at the finest level of detail.
- Analitica IFRS 17 is a part of Analitica IFRS Suite which also covers accompanying standard IFRS 9 for financial instruments and can provide full compliance on the transition date deadline of January 1st, 2022.
- Analitica, in cooperation with Tools4F, provides an expert team with experience in IFRS information technology installation projects and dedicated expertise in IFRS 17, guaranteeing a smooth implementation.

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