## Company Introduction

Simplifying the complexity of actuarial, regulatory and risk-based requirements.





Experts in sophisticated actuarial models and advanced modeling software.

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### The Company

RNA Analytics aims to provide insurers with simple and efficient ways to meet their complex needs by using innovative software and consulting. This is what we define as simplifying complexity.

We enable businesses to respond to external regulatory pressures and internal analytical demands. At the heart of the solutions we offer is the R<sup>3</sup>S Software suite, which RNA Analytics acquired in July 2017. The software suite has a long-standing track record of providing users with ways to implement new complex standards and techniques.

With the acquisition of the software came a client base of more than 100 companies across all major markets as well as an actuarial consulting team with experience of implementing and reviewing the many varied models of these clients. With entities based in the UK, Europe, Hong Kong, Singapore, Japan and Korea, as well as plans to expand this network, RNA Analytics has a truly global reach to support and assist in any location.

### **Holistic Approach**

By using a single software suite, a consistent set of calculations, models, approaches, processes and skills can be used to improve on the granularity, accuracy and speed in which information and metrics can be produced and presented. The flexibility with which the suite can handle calculations, data and processes enables a business to implement the approach where it can realize most value.

With software that can run full nested stochastic dynamic asset and liability management (ALM) models in the cloud, users can model the real-world interactions and decisions and then stress and investigate these to understand the risks and their impact on the business. All of this is underpinned with a process workflow and governance element that allows automated runs to occur at a time of the user's choice, as well as perform one-off runs as the business responds to internal and external needs.

# RNA Analytics Software Offerings

The R<sup>3</sup>S software suite consists of the following components:

#### R<sup>3</sup>S Modeler

R<sup>3</sup>S Modeler is a latest generation actuarial software designed for all types of actuarial and risk modeling. Principles-based regulation such as Solvency II were key influences in the design and evolution of the system. It allows users to build models for product pricing and design, budgeting, statutory valuation, Market Consistent Embedded Value, IFRS 17, ALM, economic capital, Solvency II and other risk based capital calculations.

#### R<sup>3</sup>S Process Manager

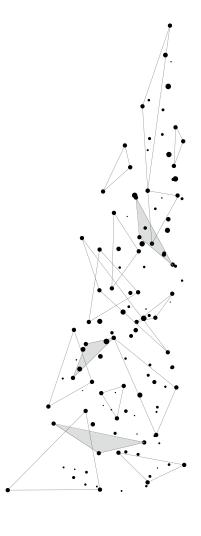
R<sup>3</sup>S Process Manager enables users to publish signed-off model executables from the Modeler development environment to a security-enhanced web server where they can be safely prepared, managed, and scheduled alongside data, assumptions and report management. Hence, the end-to-end process can be fully controlled, automated and monitored.

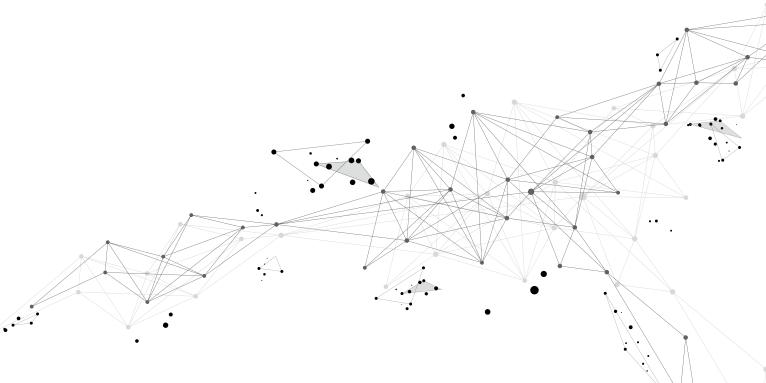
#### R<sup>3</sup>S Toolkit

The R<sup>3</sup>S Toolkit enables users to build their own interfaces and dashboards so that they can run models, or embed the running of models, in other applications to provide flexibility in controlling these processes. Users gain access to the set of APIs that enables a model to be run from a run archive file.

#### R<sup>3</sup>S Development Manager

R<sup>3</sup>S Development Manager enables multiple R<sup>3</sup>S model developers to work on the same codebase at the same time. This allows model developers to check out components in a local sandbox, make changes to these and test the changes before checking them back into the server which maintains the history and allows other users to synchronize to the new changes.





## RNA Analytics Model Packages

RNA Analytics have developed standard code models and processes for use with the R<sup>3</sup>S software suite that cover key modeling requirements:

#### **Standard Code**

To complement the modular design of R<sup>3</sup>S Modeler, the standard code is primarily a collection of modules known as building blocks. These are relevant to most markets and can be fitted together to form assets, liabilities, products and calculation routines.

#### Solvency II Package

RNA Analytics offers Solvency II calculations including a mix of out-of-the-box standard code and template examples. Functionality includes forward-looking assessment of own risk (FLAOR), curve fitting and standard formula stress and aggregation models for solo or group reporting to assist insurers to rapidly develop their full end-to-end Solvency II compliance, for standard-formula or IMAP companies.

#### **IFRS 17 Package**

RNA Analytics offers IFRS 17 calculations including a mix of out-of-the-box standard code and template examples. Functionality includes portfolio-level balance sheet and profit-and-loss results, dynamic ALM best-estimate liability calculations, risk adjustment and the Contractual Service Margin, as well as full end-to-end processing to assist insurers to rapidly develop their IFRS 17 compliance.

## **Consulting Service Offering**

Our actuarial and technical consultants can provide assistance with a range of tasks to help implement, refine and enhance the use of actuarial and risk-based tools within your business. Some key areas of the work undertaken are:

- Model implementation
- Model and process efficiency
- Data-through-to-results process review
- Model documentation

## Goals and Visions

RNA Analytics is driven to meet the challenges of the current and future demands on insurance companies by increased regulation, such as C-ROSS, US-GAAP PBR, Solvency II and IFRS 17, as well as the desire by boards and investors to have more detail on the risks and their impacts on the business. We aim to change the way in which risk and actuarial software is used across the business and look to provide a platform that can be utilized by all departments from product development, pricing, financial and regulatory reporting through to the risk function.



RNA Analytics provides market leading software and services to insurers with our aim to provide the flexible analytics and support that your company needs.



