Contact: Neil Cantle
Milliman, Inc.
Tel: +44 20 7847 1537
Neil.Cantle@milliman.com

FOR IMMEDIATE RELEASE

Press Release

Milliman: To optimise financial decision-making, human-and-machine iterative process proves most successful

LONDON – July 6, 2017 – Milliman, Inc., the premier global consulting and actuarial firm, today announced that an innovative new study examining multi-criteria decision-making using an iterative process of advanced computing and human input has shown superior results in risk management when compared to machine algorithms or humans alone. Using an illustrative example from the life insurance industry, the study looked at how optimisation techniques can be used to develop insights into drivers of economic capital within an internal model framework, and how to then use these insights for risk management decisions. The findings illustrate that advanced computing, visualisation, and complex systems-mining techniques that include expert input can deliver superior optimisation results when faced with multiple objectives and multiple constraints which machine algorithms alone find challenging to resolve.

"While not obvious at the outset, combining human input with advanced computer modeling allows domain experts to analyse results and elicit insights into features that subsequent iterations of a model should contain, thereby refining the process," says Neil Cantle, principal in Milliman's London office.

Milliman's study employed the DACORD platform from DRTS, Ltd. to support its system-mining efforts. "Future states are unknown, involve human affairs and are therefore complex," says Jeff Allan, CEO of DRTS, Ltd. "Augmenting experts with the appropriate tools and processes can aid the reasoning and evaluation of a range of solutions."

Adds Milliman's Corey Grigg, "Looking toward the future, this sort of optimisation technique can extend to big data, simulations, and enhanced visualisation, ensuring that even as the complexity of our data and problems increases, experts can continue to add value."

The results suggest a number of practical applications for Insurance ERM, including finding patterns in key risks driving capital losses and understanding diversification in order to enable quick judgements about the similarities and differences in the risk profiles of different portfolio elements.

Milliman's Optimisation study was conducted in conjunction with Dr. Lucy Allan of University of Sheffield. For more information visit milliman.com.

About Milliman
Milliman is among the world's largest providers of actuarial and related products and services. The firm has consulting practices in healthcare, property & casualty insurance, life insurance and financial services, and employee benefits. Founded in 1947, Milliman is an independent firm with offices in major cities around the globe. For further information, visit milliman.com.

###