



Operational Risk Quantification
Analytics and Modelling

MetricStream has partnered with The Analytics Boutique to help organizations strengthen their operational risk quantification, analytics and modelling capabilities by providing software solutions that focus on translating standard risk metrics (including ratings, default or loss frequency) into monetary metrics. This enables organizations to make strategic and tactical decisions which can drive resource allocation, solvency capital requirements, performance measurement, risk mitigation, net present value, insurance optimization and others.

Analytics Boutique automates analytical processes and data flows with its user friendly and transparent analytical processes, incorporates industry standards and best practices, ensures easy adoption, instills integrity of data and minimizes errors of manual processes.

For operational risk, Analytics Boutique provides operational risk modelling for OpVaR, loss forecasting models and scenario analysis.

Analytics Boutique operational risk management and modelling software solutions include:



Structured Scenario Analysis -

Enables planning, developing and modelling risk scenarios under structured expert judgement methods. It enables users to implement robust and efficient scenario analysis processes to increase the quality of loss estimates, mitigating cognitive biases, linking risk measurement and mitigation, and producing robust potential loss metrics and stable capital estimates.



OpCapital Analytics for operational risk modelling -

Helps institutions gain a deep understanding of operational risk exposures and potential losses. The solution enables the modelling and integration of the four key data elements – internal loss data, external loss data, scenario analysis and business environment internal control factors. This allows estimation of economic and regulatory capital requirements and loss forecasting under stress scenarios.



OpRisk Loss Forecasting -

Allows time series modelling of operational losses to create prediction models based on macroeconomic variables, KRIs and KCIs . It can also be used for the stress testing of operational risk.

MetricStream and The Analytics Boutique Integration

MetricStream Operational Risk Management built on the M7 Integrated Risk Platform – intelligent by design, provides multiple risk quantification and risk analytics capabilities through integration with The Analytics Boutique. MetricStream allows organizations to define multiple quantification parameters and calculation rules to quantify the risk and the detailed risk information is used by the Analytics Boutique for structured scenario analysis, capital calculation, forecasting and loss data analytics. The risk quantification framework supports multiple industry standard frameworks and usage of both internal and external data.

“What if” risk scenario analysis

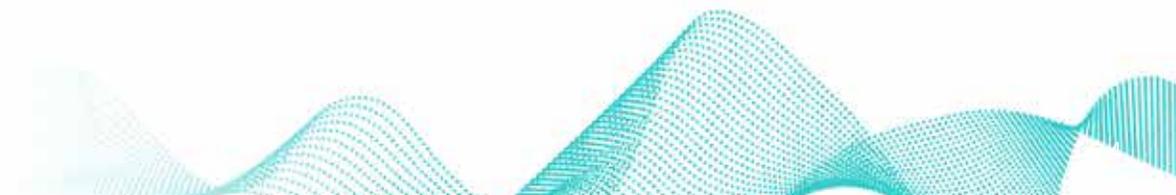
MetricStream provides comprehensive capabilities to assess extreme impacts via Analytics Boutique’s Scenario Analysis. The comprehensive data model allows organizations to map their enterprise hierarchy, risks, controls, assets, loss data, and others in a many-to-many fashion. Scenarios analysis models can be created in Analytics Boutique using this information.

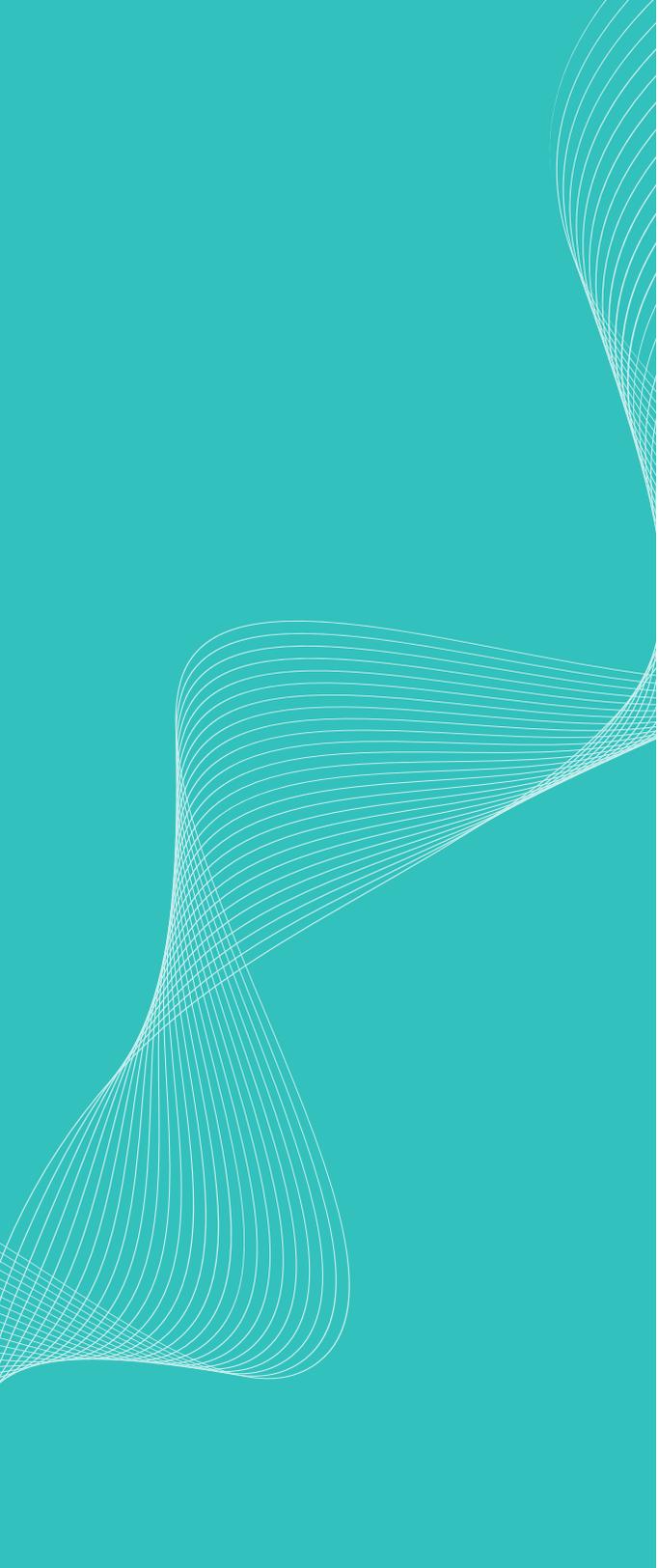
Identify scenarios at multiple levels, capture detailed narrative of the scenario being analyzed, document the underlying assumptions, conduct scenario analysis at any level of granularity, tie or map the risks, controls and mitigation pertaining to a scenario. Comprehensive capabilities help utilize scenario analysis to validate inherent risk assessment within the RCSA. Initiate an RCSA from the scenario analysis directly and track the same through the entire lifecycle process.

Statistical modeling capabilities

MetricStream enables conducting of scenario analysis including the capability to perform Monte Carlo simulation, Value at Risk, Bayesian networks, modelling of internal and external loss data, scenario analysis and stress testing, among others through The Analytics Boutique.

Generate frequency curves, create multiple severity distribution modeling curves, including Extreme Value theory analysis to determine optimal threshold and tail type. Develop and validate the distributions using statistical tools. Advanced analytics functions such as capability to extrapolate from the distribution of observed total loss points curve or extrapolate from the distribution of observed total loss points curve to allows determining of the likely amount of total losses.



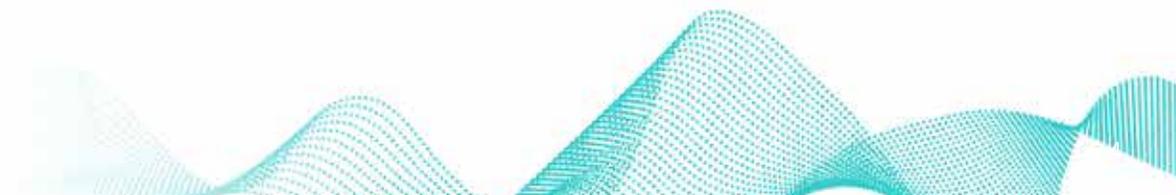


Capital allocation/calculation

With MetricStream and The Analytics Boutique, organizations can enable stress testing, and capital calculation capabilities. Re-calculate input parameters like stress severity, ratios, percentage, macroeconomic indicators, control effectiveness, and anticipated increase, used for stress testing and analysis in case of any change. Allow users to provide input parameters such as stress severity, ratios, percentage, effectiveness and other parameters used for stress testing and analysis. Based on the selected combination, the underlying workflow can be triggered, to recalculate the output. Alert and notifications for any recalculation ensure all stakeholders are informed of any changes.

Scientific evaluation of mitigation actions

With MetricStream and The Analytics Boutique, organizations can build the business case for the justification of mitigation investments using generally accepted and well understood financial concepts by obtaining the net present value of the implementation of action plans facilitating the buy in from senior and upper management. The same is true for the optimization of insurance programs, where it is possible to analyze in detail the impact in the loss profile given very specific conditions of the insurance policies and scientifically assess the effectiveness and economic rational of insurance programs





Contact us

visit: www.metricstream.com

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