

# With-Profits Analysis

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Building a better  
working world

# With-Profits Analysis

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# With-Profits Analysis

## Background

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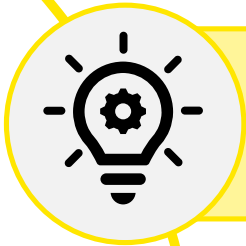
Stochastic modelling is commonly used for with-profits reserving but it can present challenges when analysing the results:

- ▶ Obtaining insightful analysis with which to inform business decisions and actions can be difficult due to the large number of modelled simulations.
  - ▶ Many firms analyse results by aggregating all simulations and looking at the results for a small number of given percentiles.
  - ▶ Few firms look at individual simulation level results.
  - ▶ It can be difficult to isolate particular simulation outliers and identify which scenarios cause the most harm.
- ▶ Grouped model point files are often used to reduce model run times. However, this can also present challenges
  - ▶ The grouping criteria needs to accurately reflect the underlying policies.
  - ▶ Analysis of the effectiveness of grouping can be time consuming and difficult to perform effectively and in the required timeframes.

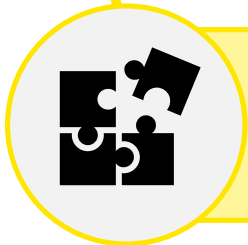
# With-Profits Analysis

## Market Observations

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Use of new Technology



Many firms are embracing change



Developing runoff plans

# With-Profits Analysis

## Using new technologies

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Results are still produced using existing models.  
(e.g. Prophet ALS, MoSes)



R based visualisation tools such as the “EY With-Profits Analysis Dashboard” can make the results more understandable and facilitate in-depth reviews into insurer’s with-profits books.

# With-Profits Analysis

## New technology functionality

### Increased Efficiency

Investigate assumption/bonus setting through accelerated what-if analysis capabilities.

Automate production of valuable routine Management Information.

### Greater Insight

Plot modelled results on a sim-by-sim level of granularity.

Identify, investigate and discard anomalous model runs through an interactive visualisation.  
Investigate correlations between key financial metrics.

## Potential Functionalities

### Improved Impact Analysis

Improve understanding of the impact of management actions.

Understand the impact of applying model point grouping.

### Data Quality Checking

Improve data quality validation through visualisation.

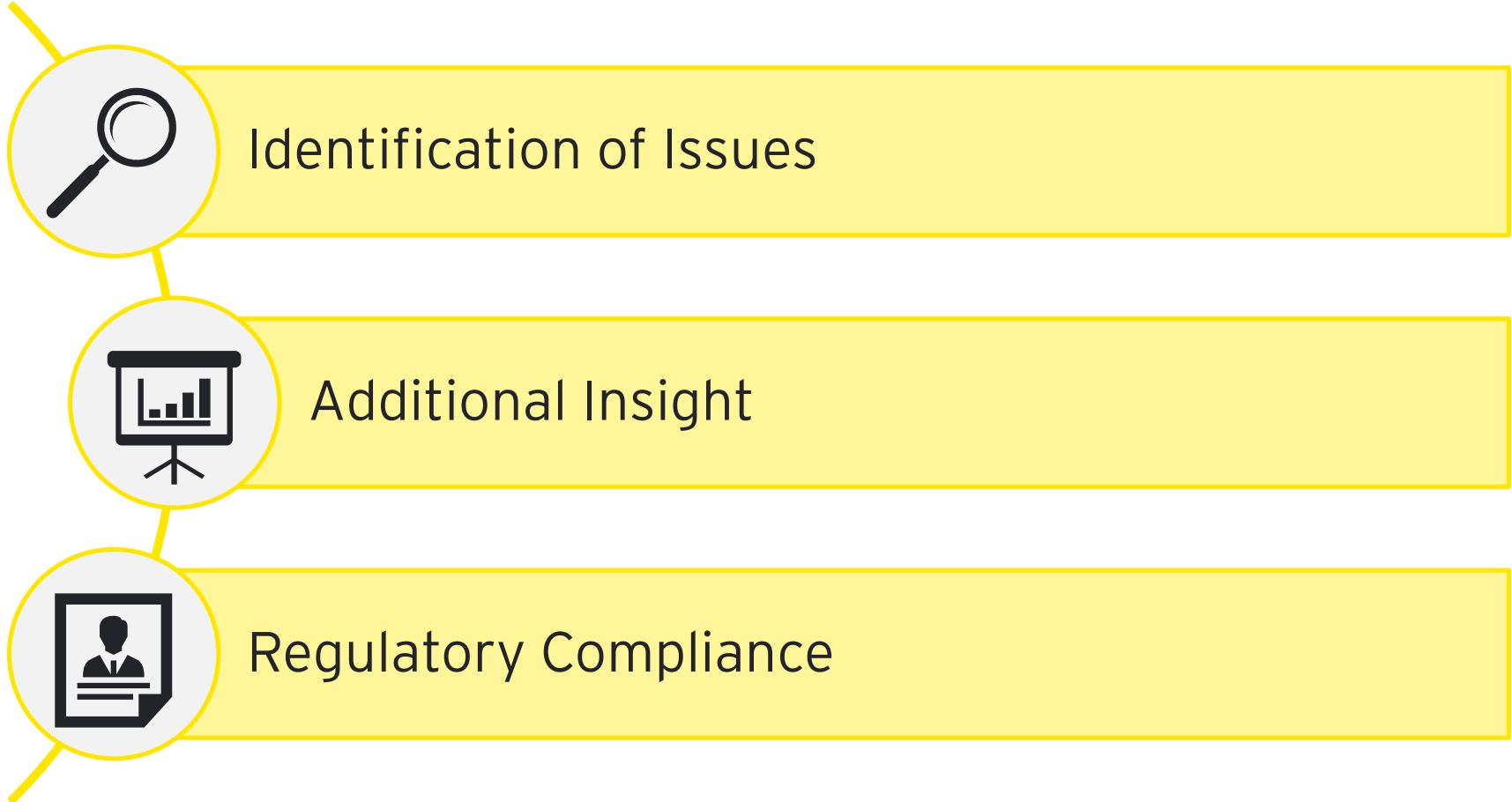
Sense check movement in stressed results and results between time intervals.

# Analysis Dashboard - Demonstration

# With-Profits Analysis

## Value Added - Insights and Risk Identification

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# With-Profits Analysis

## Value Added - Efficiency

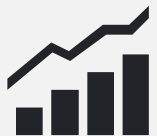
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Analysis and Reporting in One Tool



Multiple Access Rights



Predictive Methods

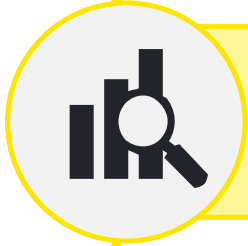
# With-Profits Analysis

Value Added - Additional Added Value

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Stakeholder Communications



Enriched Analysis



Interactive Calculations and Queries