



# Case Study

## Cost savings from redesigning fraud detection solution

### Claims Fraud Analytics



#### Initial situation

- Client had implemented a vendor developed fraud detection solution
- Predictive model lacked clarity and rule engine using ~20 equally scored and weighted rules
- Low transparency, limited flexibility and no development insights
- Low investigation rate of 7% and fraud detection hit ratio of 10%
- Resultant high fraud leakage and increased claims costs



#### Project approach

- Enhanced existing engine with additional rules from clients' data patterns, supplemented by rules derived from Munich Re's expertise (27 client rules and 46 Munich Re rules)
- Introduced weighting factors to rule set
- Trained and validated multiple Machine Learning techniques; implementing the most robust, high performing model
- Outcome is a decision mechanism based on weighted scores, enhanced rules and advanced machine learning model



#### Results

- 2x enhanced positive fraud detection rate, whilst maintain the 7% investigation rate
- > 5x direct cost savings, due to precision in potential fraud case identification
- Significant positive impact on resource utilization and operational efficiency
- Provided a scalable, transparent solution, ensuring sustainability and adaptability to future challenges
- Continual refinement of fraud detection techniques as part of long-term partnership

Our experts to contact:



**Dean Prendergast**  
Senior Engagement Manager  
dprendergast@munichre.com  
Tel.: +49 89 3891-36 03



**Krishna Dalal**  
Data Scientist  
kdalal@munichre.com  
Tel.: +91 22 40 3206 21



**Dr Weihao Choo**  
Head of Consulting Asia-Pacific  
wchoo@munichre.com  
Tel.: +65 63 18 04 29

## **Munich Re**

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Königinstrasse 107, 80802 München, Germany

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