Future of motor insurance – the underwriter’s view

Swiss Re Nordic Motor Roundtable, August 2018, Ruta Mikiskaite & Veronic Kindler
The future of car insurance.....TODAY!

Driverless cars

Source: Deloitte Motor Insurance Seminar 2018 Survey Results
Deloitte Motor Insurance Seminar July 2018

Deloitte motor insurance seminar 2015
Registration survey responses – top 3 issues

Driverless Cars
Emerging Technologies
Pricing
Fraud
Solvency
PPOs

Source: Deloitte Motor Insurance Seminar 2014 survey results
Today is not the day for inaction

MOTOR INSURANCE IS UNDERGOING CHANGES...

>40%
Share of motor in global non-life premiums

Motor provides liquidity and access to customers

15x increase in telematics based premium volume expected by 2025

Automated vehicle technology is already in use

... insurance companies that are able to analyse big data coming from vehicles and digitalize their processes will be ahead of the competition
Our research shows a shift in modelling & pricing motor risks
Telematics is the first step

Deliver value to consumer today

Traditional risk pricing model
- Age
- Driving years
- Territory
- Vehicle data
- Previous claims

Risk Proxy

UBI pricing model
- Driver behaviour
- Context of driving
- Surrounding information
- Comparison to other drivers

Behavioural Rating

Automated vehicles model
- UBI pricing model
- Advanced Driver Assistance Systems assessment
- Usage of autonomous features
- Vehicle “behaviour”

Behavioural & Vehicle Rating

Swiss Re supports clients to prepare for the disruptive technological changes that are affecting Motor with a comprehensive telematics solution.
Pay per use insurance

- Driven by technology. Driven by customer needs & preferences
- Designing a tariff, securing distribution, assuring regulatory compliance is a challenge
- Constant monitoring is vital
- Assure that existing systems support digitalisation or build everything from scratch
Zego

- Scooter Insurance
- Car Insurance
- Cyclist Insurance
- Private Hire Insurance
- Public Liability Insurance
- Van Insurance
- Employer’s Liability Insurance
Machine learning and AI in Underwriting

- Algorithms are better in understanding patterns
- Algorithms can work 24/7
- Ability to assess big data sets
- Predictive costing by both the better risk selection and portfolio steering, and dynamic pricing
- Forecasting claims scenarios, improving reserving
- Exploring internal and external factors and enhancing existing actuarial models
- Main challenges:
  - Data quality
  - Change management
  - Data cleaning and preparation
  - Validation of results
  - Incurred costs
Underwriting

Year founded: 2012
Investment to date: $124.6m
Current countries: UK, US and others

Claims

Year founded: 2016
Investment to date: £2.2m
Current countries: UK and US
Revenue growth 2016/17: 400%
Legal notice

©2018 Swiss Re. All rights reserved. You are not permitted to create any modifications or derivative works of this presentation or to use it for commercial or other public purposes without the prior written permission of Swiss Re.

The information and opinions contained in the presentation are provided as at the date of the presentation and are subject to change without notice. Although the information used was taken from reliable sources, Swiss Re does not accept any responsibility for the accuracy or comprehensiveness of the details given. All liability for the accuracy and completeness thereof or for any damage or loss resulting from the use of the information contained in this presentation is expressly excluded. Under no circumstances shall Swiss Re or its Group companies be liable for any financial or consequential loss relating to this presentation.
Big data analytics enables flexible approaches to addressing a large range of business questions. At Swiss Re, we utilize big data methods to drive tech transformation.

Our focus is to continue developing our tech capabilities in the following areas:
- Infrastructure, platforms, clouds, etc
- Algorithms
- Data preparation/formating/linkage
- Enabling analytics on large volumes of data

Big data analytics requires adaptability to a rapidly changing tech landscape while managing an array of new risks & challenges.

With text analytics, Swiss Re’s data scientists can automatically convert text into machine readable & structured form, in order to perform information extraction.

Text analytics enables classification, entity recognition, and sentiment analysis of data – all of which support our mission to make better use of our data.

Some examples of text analytic methods include:
- Natural language processing
- Text summarization
- Signal detection

Machine Learning uses statistical techniques to teach machines how to ‘learn’ about data without being explicitly programmed.

Being in a data driven industry, we are incorporating machine learning into our analysis to improve the accuracy and granularity of our assumptions and predictions.

Data scientists leverage a variety of machine learning techniques for:
- Predictive modelling
- Feature engineering
- Deep learning/neural networks
- Image recognition
- Propensity models
Swiss Re offers two complementary solutions around motor
Motor Market Analyser and Personal Telematics

**Motor Market Analyser**

- Regional / int’l expansion or sales point review
- Tariff design (e.g. pay where you drive)

**Personal Telematics**

- Entry into telematics play for mid-term strategy
- Move away from current hardware-based offering

**Situation**

- No historic data / not enough detail available
- Need for market view on ‘where’ vs own portfolio

**Challenge**

- Deliver value to consumers
- Develop risk-relevant scoring

**Solution**

- Fine-grid¹ frequency & severity predictions
- Bespoke analytics blend relevant data sources
- Engaging app-based end-to-end solution
- Scoring approach at heart of flexible solution

1. Possible to go as fine as 5x5km, depending on use case