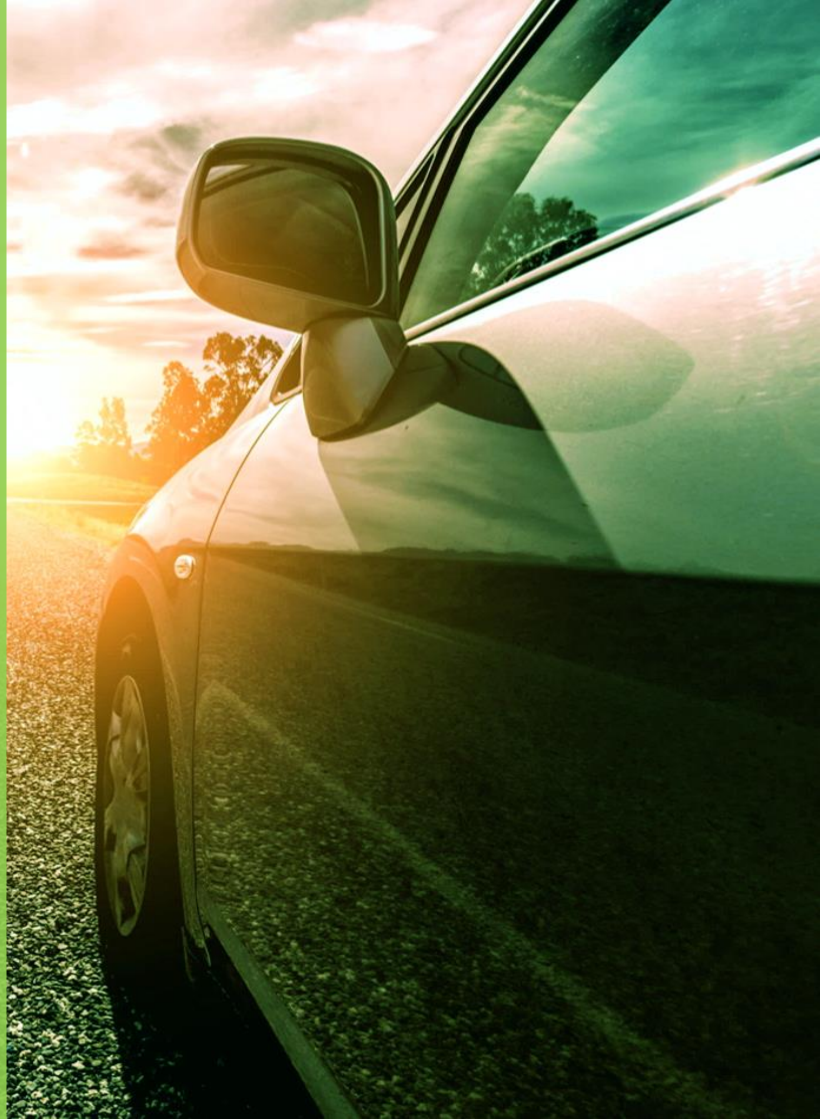
Swiss Re

Telematics



Facing global risks

Two-thirds of global losses are uninsured

Road safety
There are 1.2 million road casualties a year. Driver and vehicle scoring, as well as technologies like driver assistance (ADAS), can help us dramatically reduce road casualties and develop a safer mobility future.

Natural catastrophes
The natural catastrophe protection gap totalled USD 193 billion in 2017. Parametric solutions can make insurance more accessible, affordable and provide immediate pay out for individuals and businesses to bounce back quickly.

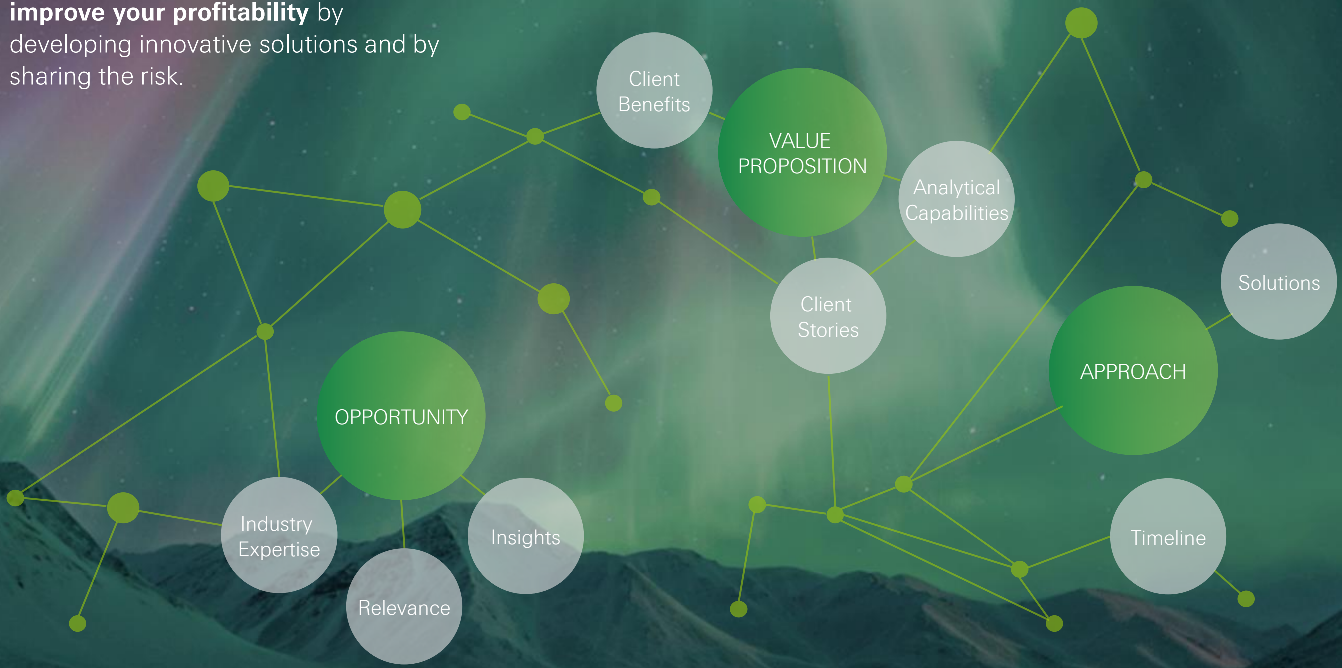
Cyber risk
The annual cost of cyber crime to the global economy exceeds USD 600 billion. Cyber solutions help us better manage and mitigate risks.

Food security
With only 25% of the agricultural market insured, the market is full of opportunities to grow. Agricultural re/insurance solutions leverage latest technologies to help farmers best manage crops and recover from losses faster.

Solutions for a more resilient world

We help you grow your business and improve your profitability

By leveraging our risk expertise, strong capital base and new technology, we help you **grow your business** and **improve your profitability** by developing innovative solutions and by sharing the risk.



P&C Solutions: Support across your entire value chain

From innovative design to claims optimisation

P&C Solutions for your every need

Increase efficiency, steer portfolios and grow into new markets and segments

P&C Analytics

- Portfolio Insights interactive risk visualisation for steering and growth
- Tailored P&C Analytics consultancy services to solve your every need
- Behavioural Economics solutions to boost client conversion & retention

Property & Specialty

- CatNet® natural hazard risk analyser
- CatServer: NatCat modelling and expertise for your tools
- Sophisticated engineering underwriting with PUMA
- Agro Suite modular, end-to-end agriculture solutions

Cyber

- Cyber Product Suite for cyber insurance product development
- Cyber Analytics Platform: Score and manage portfolios & accumulation
- Identify and manage silent cyber exposures with Decrypt

Liability

- Analyse and model liability portfolios with Forward-Looking Modelling (FLM) to grow into new markets and segments
- Manage Casualty Accumulation risks

Parametric

- End-to-end pricing, risk monitoring, policy administration, automated claims pay out and real-time reporting for:
  - Flight delay
  - Earthquake
  - Tropical cyclone

Automotive & Mobility

- Insurance-relevant driver scoring with end-to-end **telematics** solution
- Grow strategically and steer portfolios with Motor Market Analyser
- Assess vehicle safety features with the ADAS Risk Score

SwiftRe®

- Online risk placement, claims and accounting platform
- Cost-effective risk management
- Full transparency into entire portfolio

Innovation

- Agile (co-)creation of next generation solutions
- Access to new risk pools and markets
- Fast development and time-to-market via Swiss Re's partner ecosystem

01

Opportunity

Telematics

The motor market is changing fast

Insurers who use vehicle data and digitalise gain a competitive edge

Motor provides **liquidity and access** to customers

Automated vehicle technology is already in use

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

15x increase in telematics based premium volume expected by 2025

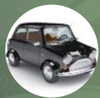
Sources: Swiss Re, Ptolemus 2016, Osservatorio Connected Insurance 2016 Bain & Company and ANIA

Research shows shift in motor risk modelling and pricing

Telematics is the first step in helping insurers transition to new business models

Deliver added value to today's consumers

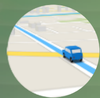
Traditional risk pricing model



- 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 helps you prepare for current and future needs with a comprehensive telematics solution

02

Value Proposition

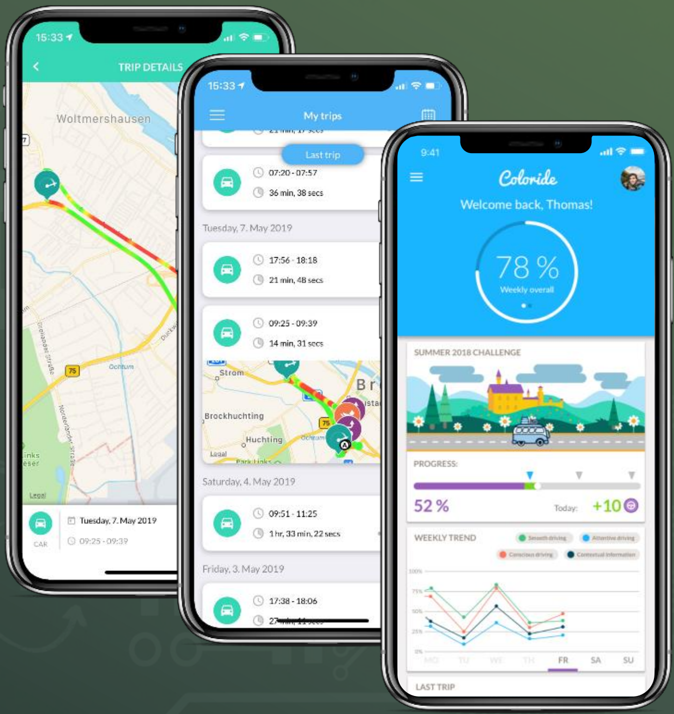
Swiss Re's modular, end-to-end personal telematics solution

Customisable to meet your changing needs

1 App + platform	App (white-labelled app or SDK) + Device-agnostic IoT telematics platform	App and SDK functionality includes data capture, transmission and consumer feedback. Platform includes the entire backbone of IT-architecture required to operate the solution. Selection of hardware available through partners, fully integrated.
2 Scoring + actuarial support	Dynamic, machine learning-based scoring platform developed by data scientists and actuaries	This comprises supporting your in-house product development team regarding the use of driving behaviour data in a tariff
3 Go-to-market support	Support in product roll-out from client segmentation and product definition, through incentive design, to positioning	Insurance portal provides access to data, user management and dynamic dashboard for analysis. Potential support from Swiss Re's behavioural economics capabilities for optimising customer interaction
+1 Reinsurance	Swiss Re shares the risk and helps insurers deploy telematics solutions	Swiss Re only offers its telematics (end-to-end or scoring only) in return for reinsurance. We help mitigate uncertainties and spread costs

Swiss Re mobile app

Customisable, engaging user interface and reliable data collection (white label or SDK)



- Driver distraction detection
- Accurate and automatic trip recording
- Trip Mode Recognition (TMR)
- Data and battery usage optimised
- Scoring (gamification and risk scores)
- Extensive intrinsic gamification concept (only available in white-labelled app)
- Additional services (e.g. breakdown call, claims reporting, driving tips)

Swiss Re scoring and actuarial support

Dynamic, machine learning-based platform with actuarial support

Driving condition
e.g. accelerometer, GPS speed, km driven, time of the day

Contextual information
e.g. speed limit, traffic flow, road type, proximity to schools, bridges/tunnels

Event detection
e.g. harsh acceleration/braking, cornering

Manoeuver and distracted driving detection
e.g. overtaking, zig-zag

Advanced driver analytics (in R&D)
Comparison of driving behaviour to other road participants

Automated vehicles (R&D, in partnership with BMW)
Scoring of automated driving features

PAYD – Contextual risk + **PHYD – Behavioural risk**

Swiss Re risk score + **Tariff implications and/or other applications**
Our team of scoring & actuarial experts support you in turning telematics data into risk relevant insights for client segmentation

Partnering with Swiss Re

- Risk sharing vs. fee business model
- End-to-end scalable proposition
- Low upfront costs & pre-financing deal
- Improved customer experience
- Insurance relevant data analytics
- Superior actuarial support

150+ years of experience

AA- Standard & Poor's rating

No.1 Leading P&C reinsurer globally*

* NMG Consulting's 2017 Non Life Global Flaspöhler Study

A client story: Telematics app to engage users and encourage safe driving

The client

Domestic insurer in Germany.

Active in telematics with an on-board diagnostics (OBD) based solution since 2014.

The challenge

Goal to grow consumer base and increase conversion rates with an app-based solution.

Using telematics to encourage young policyholders to drive safely.

Creating an engaging app, striking the balance between reliability and ease of use and requiring minimal IT integration efforts.

Our support

White-labelled telematics app, including leaderboards and voucher-shop, customised to the client's corporate identity.

Swiss Re delivered scoring for the leaderboards and analytics insights to realize the integrated voucher-based reward system for consumers.

Solution runs on Swiss Re cloud based IoT platform and includes service and support.

The result

Doubled user registration rate compared to prior solution

Go-live within 4 months of signing the contract

Positive experience led client to expand into app based insurance solutions with on demand elements

A client story: Pioneering telematics to stabilise rates in price driven market

The client

Domestic insurer in the Middle East.

Following market developments and tech-trends, client wanted to be early mover with telematics offering.

The challenge

Price-driven market.

Cementing modern image of progressive insurance brand.

Improving policy holder data quality.

Getting ready to launch an app-based telematics and rewards solution in order to attract and reward good drivers.

Our support

White-labelled app including leaderboards and A/B testing with minimal customisation to the client's corporate identity.

Scoring and analytics to engage users with quarterly prizes to encourage safer driving.

Solution required minimal integration with client's IT systems despite client data quality issues.

The result

Comprehensive solution including support on go-to market strategy

Positioning client as market pioneers for high grade telematics solution

Close collaboration on telematics opened the door for the client to further development of growth opportunities

A client story: Testing the waters with more than 1000 policyholders

The client

Domestic insurer in Germany.

Following market developments with some initial experience in telematics through several minor pilots.

The challenge

Getting ready to launch an app-based telematics and rewards solution in order to innovate and stay competitive in a fast-changing market.

Learning how to boost conversion rates.

Building-up a driving database to improve pricing accuracy through actuarial insights.

Our support

White-labelled app including leaderboards with minimal customisation to the client's corporate identity to keep pilot costs low.

Scoring and analytics to engage users with quarterly prizes and workshops for the client to demonstrate actuarial insights.

Solution runs on Swiss Re cloud based IoT platform and includes service and support.

The result

Comprehensive solution enabling client to fully comply with data privacy regulations

End-to-end support to accelerate time-to-market

03

Rollout

Project scope and duration flexibly tailored to your needs

We work closely with you to adjust to your preferences*

Week 1

Objectives and project planning:
Determination of scope, timeline, and dedicated project resources from both you and Swiss Re

Week 2

Pilot (up to 12 weeks) for your team: Access to Swiss Re white-label app for testing basic functions; closing Scoring & Analytics Workshop on insights into data collected

Week 4*

Formalisation and kick-off:
Signature of MoU and NDA, on-boarding of project team, official kick-off meeting

Week n*

Joint product development:
Know-how exchange, workshop and feedback loops. Regular project team interaction between your internal team and our Swiss Re team.
External pilot (optional):
3 months – 1 year external pilot with selected end-customers including feedback loops for agile product development

Week x*

Official project end:
Roll-out of UBI product to your customers

Onwards

Further tracking sessions:
Regular check-ins on progress and project impact

* Exact timing depends on project scope

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We're smarter together

Swiss Re