



Institute  
and Faculty  
of Actuaries

# GIRO40

8 – 11 October, Edinburgh



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## Emerging Mobile Technologies

*Report of the Emerging Mobile Technologies GIRO  
Working Party*

**Charles More - Chairman**

eritise  
ponsorship  
Thought leadership  
Progress  
Community  
Sessional Meetings  
Education  
Working parties  
Volunteering  
Research  
Shaping the future  
Networking  
Professional support  
Enterprise and risk  
Learned society  
Opportunity  
International profile  
Journals  
Support

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## Agenda

- The Insurance Cycle
  - Sales
  - Underwriting
  - Policy Management
  - Claims
- Risks
- Case Studies
- Questions & Comments

## The Insurance Cycle - Sales

- Text Messaging
- Apps
- Social Media
- QR Codes
- Proximity Marketing
- Advergaming
- Mobile payments

## The Insurance Cycle - Underwriting

- Validating Risk Details
- Telematics
  - Vehicle tracking and events
  - Various device types
    - Professionally installed
    - Self-install
    - Apps
    - Manufacturer fitted (E-call)
  - Claims & FNOL
    - Impact on reserving

## The Insurance Cycle - Underwriting

- Telematics
  - Assessment of risk
    - Exposure: Vehicle year vs. vehicle mile
    - Environmental factors: time & place
    - Behaviour
    - Third-party models (cf. Catastrophe modelling)
    - Integration with existing rating factors

## The Insurance Cycle - Underwriting

- Telematics
  - Product design
    - How to apply additional risk information
    - Pay as you drive & Pay how you drive
    - “Snapshot”
    - Renewals / MTA’s
    - Policyholder engagement and Fleet risk management

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## The Insurance Cycle – Policy management

- Update policy details online via your mobile device
- Buy additional cover
- “Top-ups”

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## The Insurance Cycle - Claims

- Messaging to manage workflow in claims assessment
- Mobile apps to manage workflow in claims assessment
- Claims prevention through text messaging and mobile app campaign
- Claims prevention through advanced security systems
- Claims notification through mobile apps
- Automatic notification through Telematics devices
- Claims validation through telematics/LBS/positioning
- Claims settlement through mobile coupons

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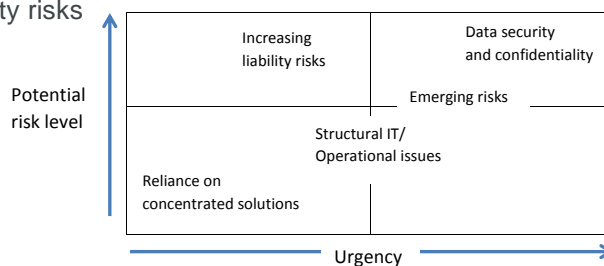
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## Risks - Overview

- Data security
- Structural IT/Operational issues
- Emerging risks
- Reliance on concentrated solutions
- Increasing liability risks



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## Risks – Data Security

- Spoofing
- Tampering
- Repudiation
- Information disclosure
- Denial of service
- Elevation of privilege

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## Risks – Structural/IT

- Legacy systems
- Insufficient storage and processing capacity
- Increased interactivity with third-parties

## Risks - Emerging

- Choice and timing of technology adoption
- User errors (e.g., input / billing errors)
- Reputation risk
- Third-party regulatory compliance

## Risks – Reliance/Concentration

- There are currently only 2 fully operational global navigation satellite systems - US NAVSTAR GPS and Russian GLONASS
  - Signal interference due to poor weather conditions or other factors
  - Satellite stations failure due to changes in normal operating conditions
  - Removal of service/degradation of precision by the operator
  - Hacking
  - Signal jamming
  - Natural catastrophes affecting ground communications systems, including satellite stations
  - Risk of military attack for satellites in low earth orbit

## Risks – Increased liability

- Health risks
  - Employer liability
  - Personal health risks
- Aggregation of personal data
  - Increased access to property



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- **Case Studies**
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## Case Studies - Metropolitan Cover2go

- Access to insurance for low-income groups
- Accidental death cover of about £1,000
- Premium paid by SMS
- Policy management through SMS
- High expense levels

## Case Studies – insurethebox

- Largest Telematics insurance provider in UK
- Customer buys “Policy miles” (6,000 to 10,000 p.a.)
- “Bonus miles” for safe driving
  - Based on behavioural and well as environmental factors
- “Top-up miles” available in bundles
- “Reward miles” for shopping at reward partners

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Questions



Comments

Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenter.

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