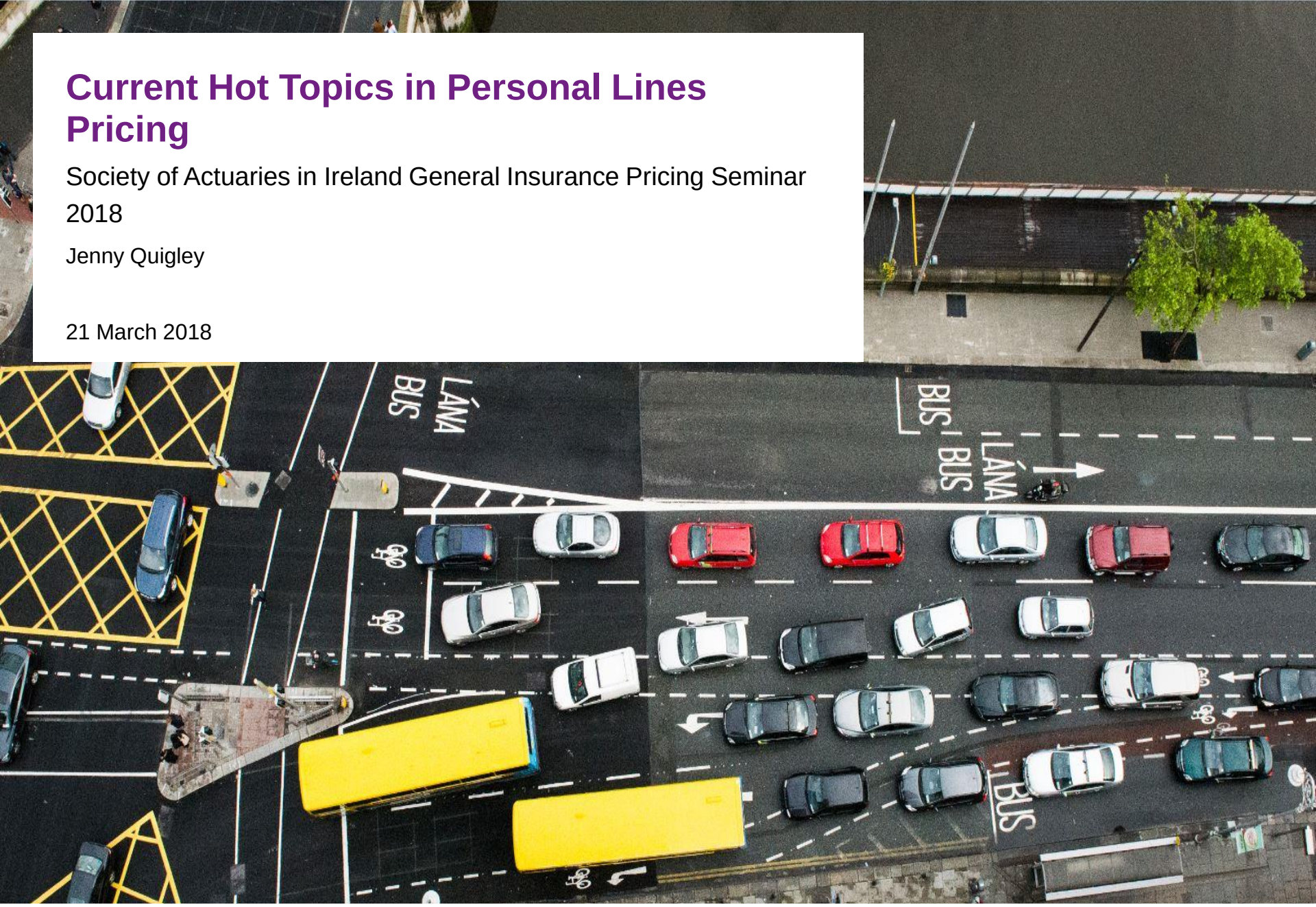
Current Hot Topics in Personal Lines Pricing

Society of Actuaries in Ireland General Insurance Pricing Seminar 2018

Jenny Quigley

21 March 2018

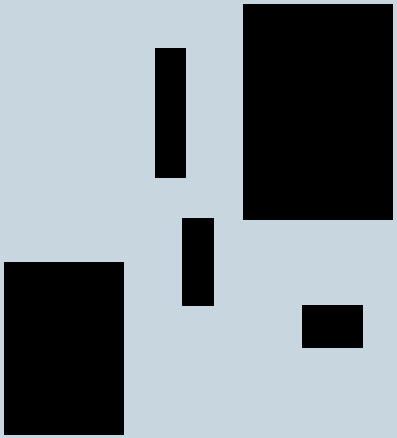


Willis Towers Watson

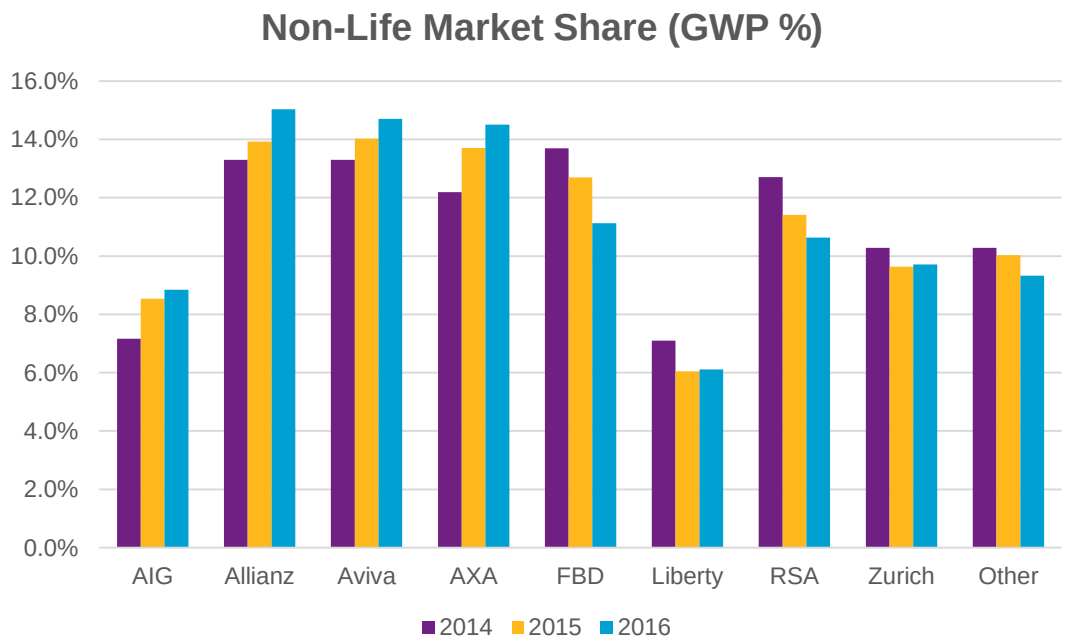
Agenda

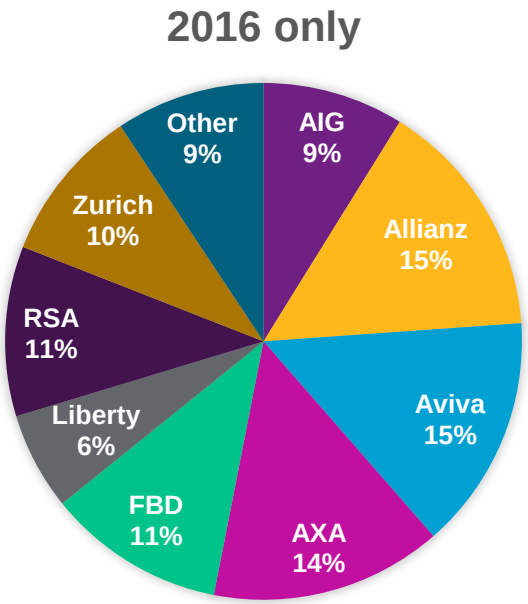
- Market update
- Technology
- Data enrichment
- Fraud prevention
- Market outlook

Market update



Non-Life Irish Market Share



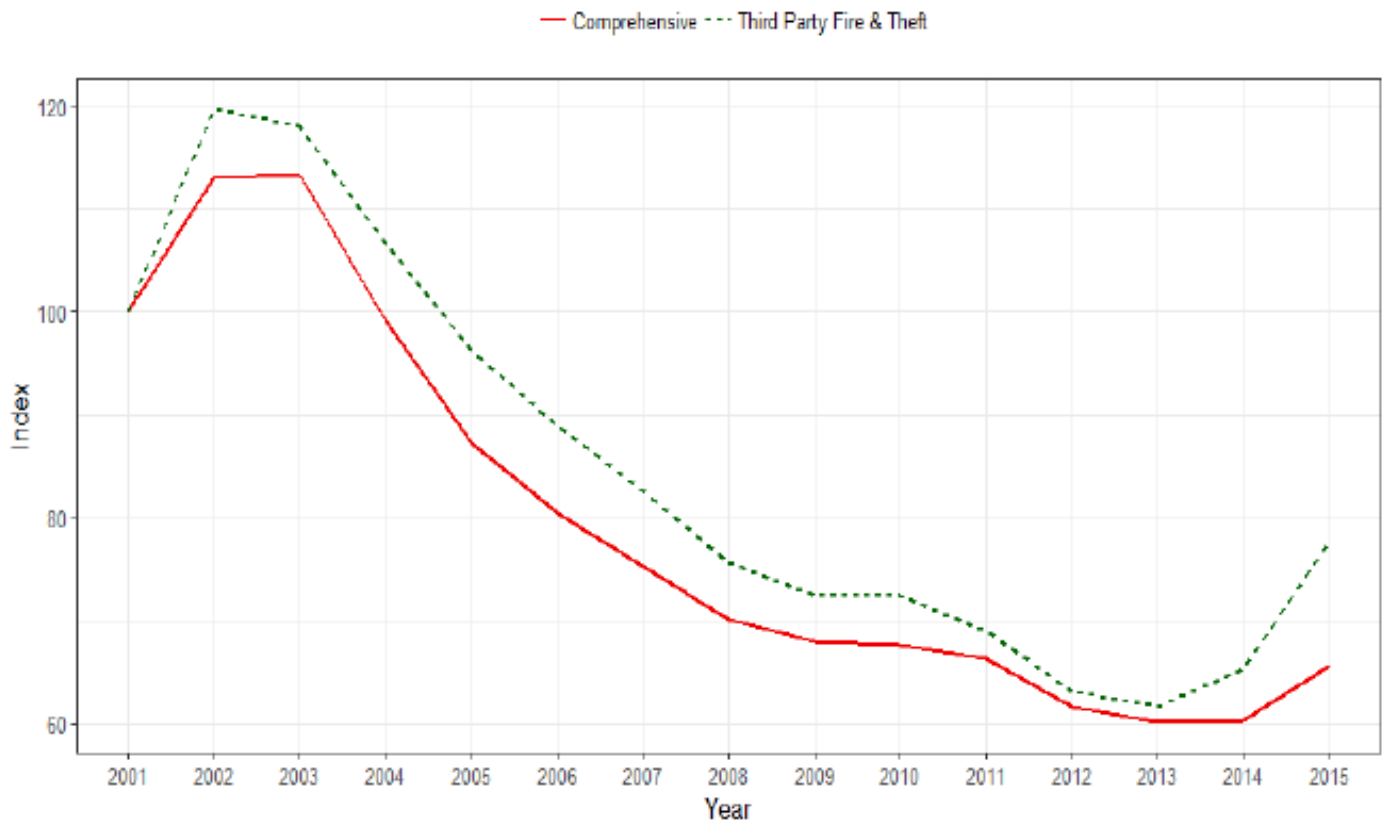


- Potential demise of MGA model in Ireland
  - Failure of Setanta and Enterprise
  - Other recent departures

Source: Insurance Ireland Factfile

Motor Insurance Average Premium Index

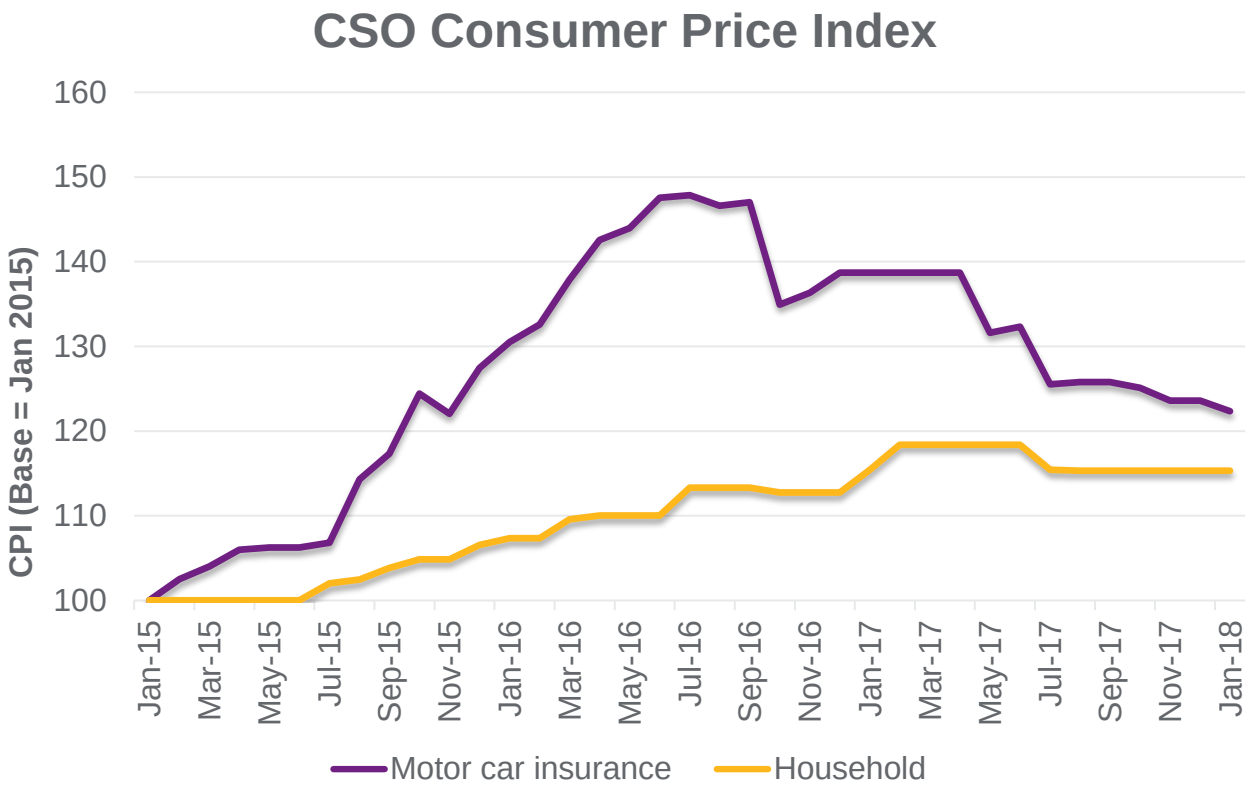
2011-2015



Source: Central Bank of Ireland Private Motor Statistics 2015

CSO Consumer Price Index

2015 to present

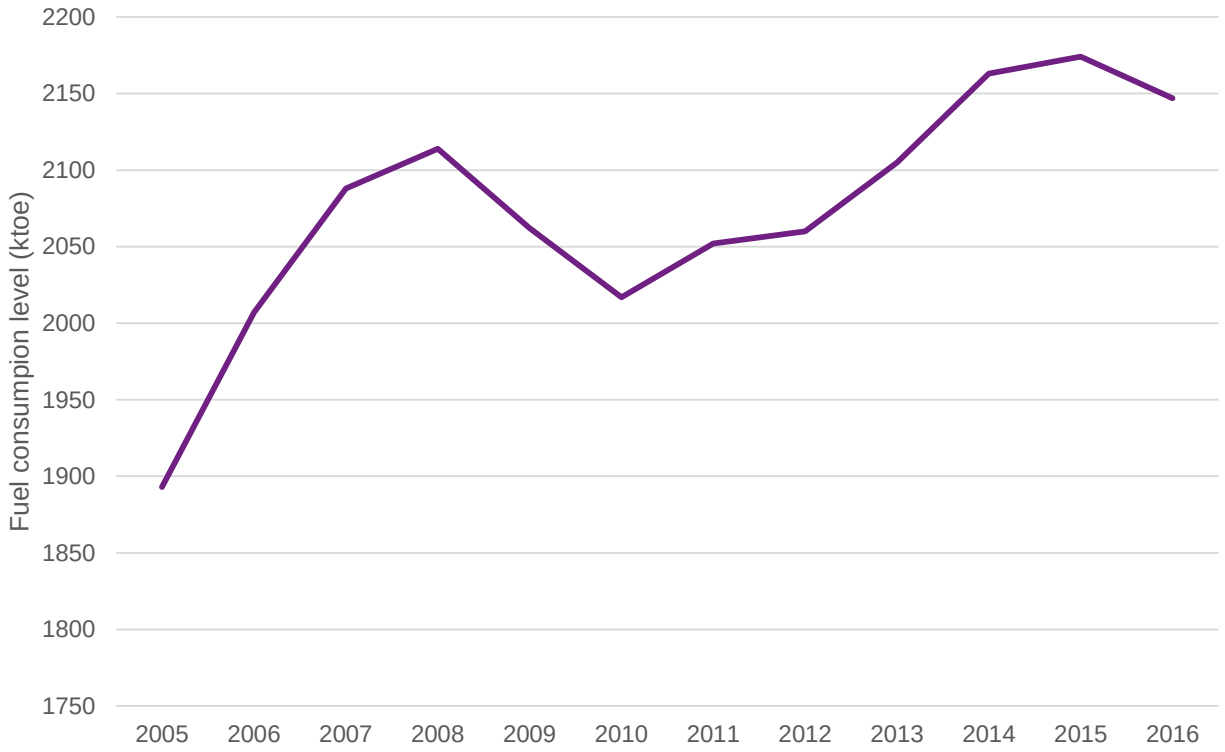


Source: Central Statistics Office

- Reduction in private car premiums of close to 12% at the end of January 2018 on a year-on-year basis.
- Follows nearly three years of price increases

Utilisation

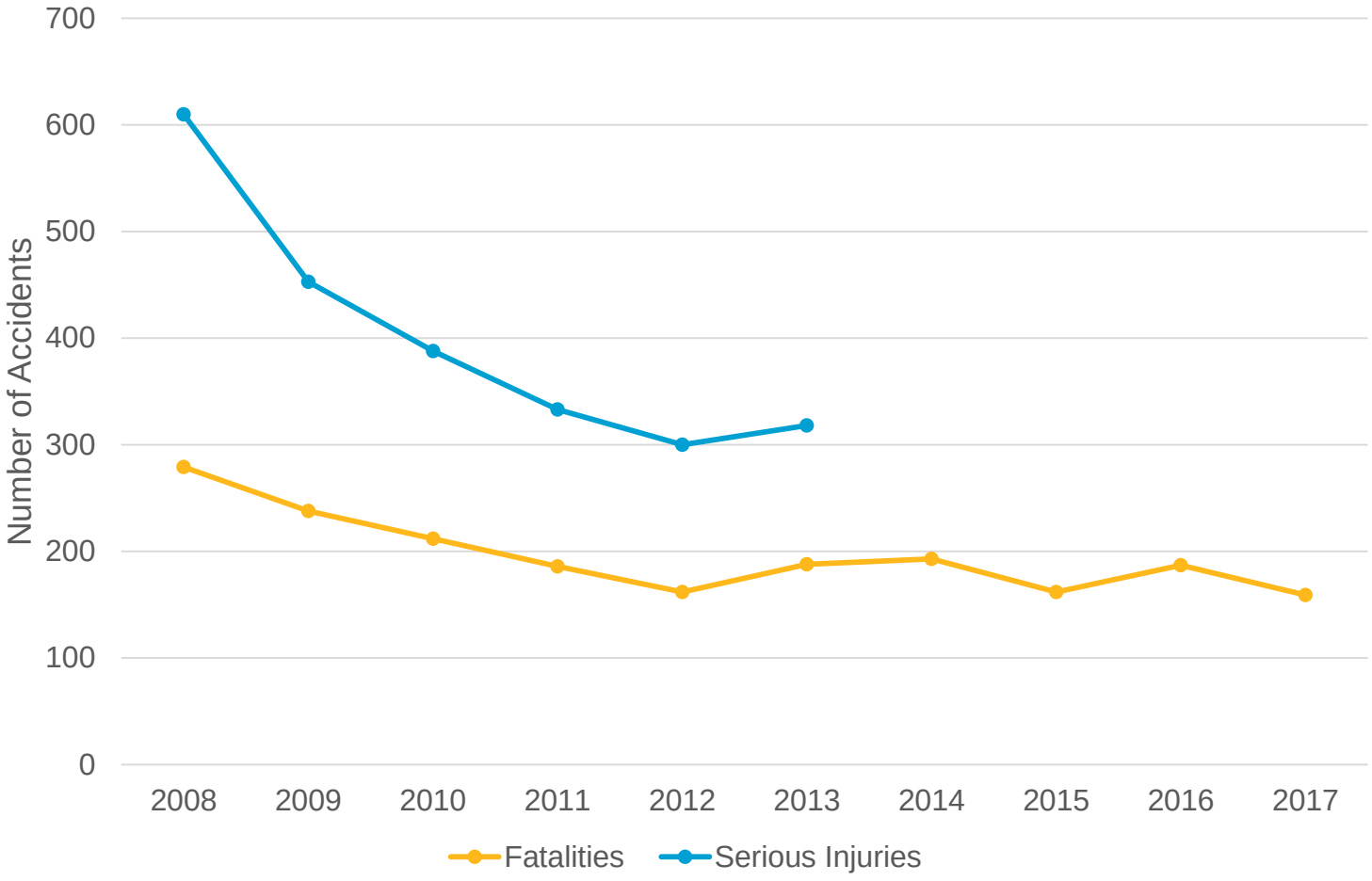
Private car fuel consumption



Source: Central Statistics Office

Garda Road Statistics

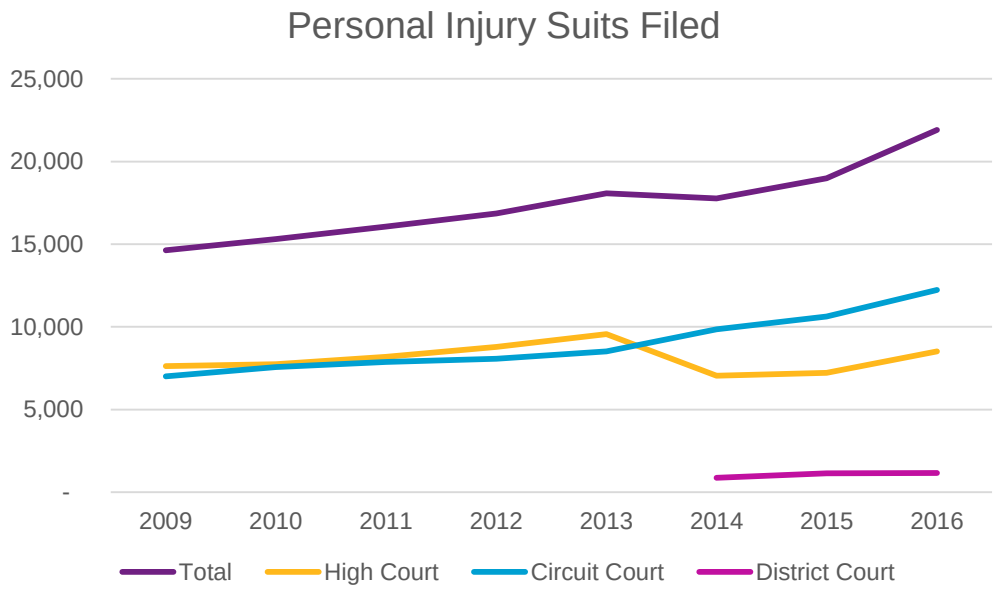
Accident levels



Source: Garda Roads policing statistics

Personal injury trends

Courts statistics

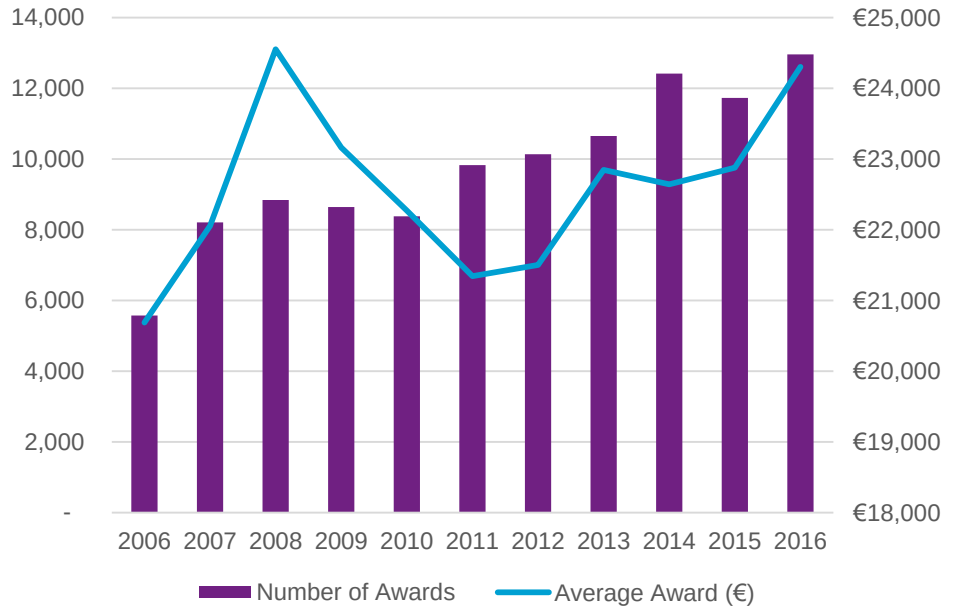


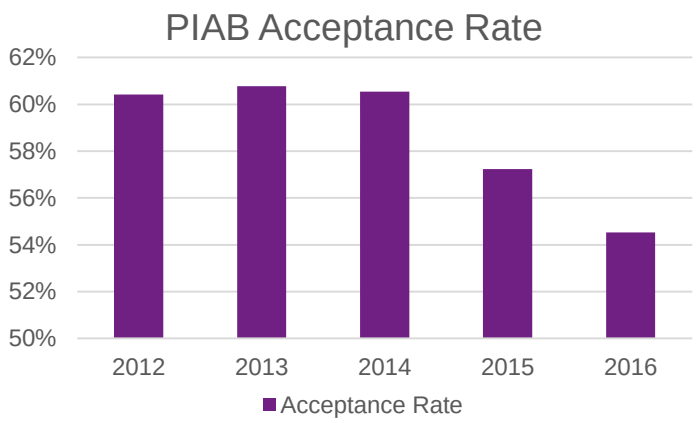
Source: Courts Service Annual Reports 2010-2016

- 50% increase in number of suits files at an overall level since 2009
- Reduction in High Court cases with corresponding increase in Circuit Court cases following changes to court jurisdictions
- Evidence inconclusive whether changes drove an inflationary effect
- Still potential for further discount rate changes following Russell v HSE and Ogden Rate changes

Personal injury trends

PIAB awards



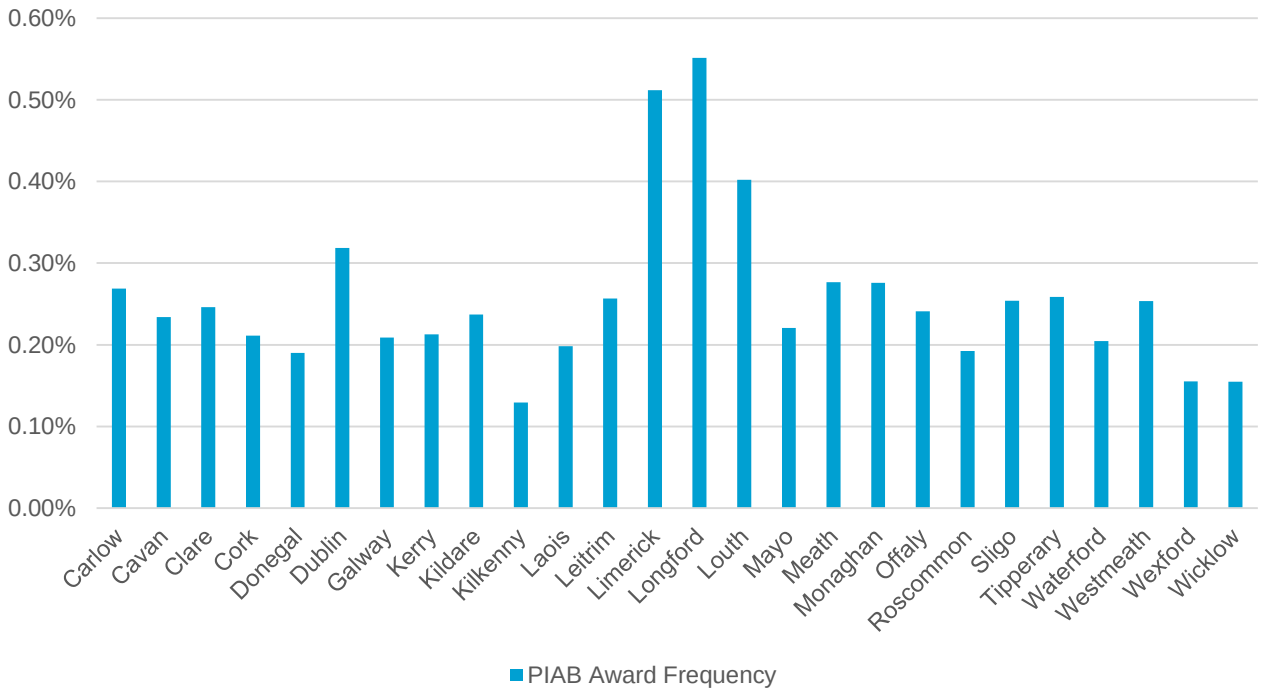


Source: PIAB Annual Report 2016

- Steadily increasing trends in number of awards issued and average award amounts
- Number of awards increased by 32% from 2011 to 2016
- Average award has increased by 14% over the same period
- Award acceptance has reduced by 6% since 2014

Personal injury trends

PIAB frequency by county

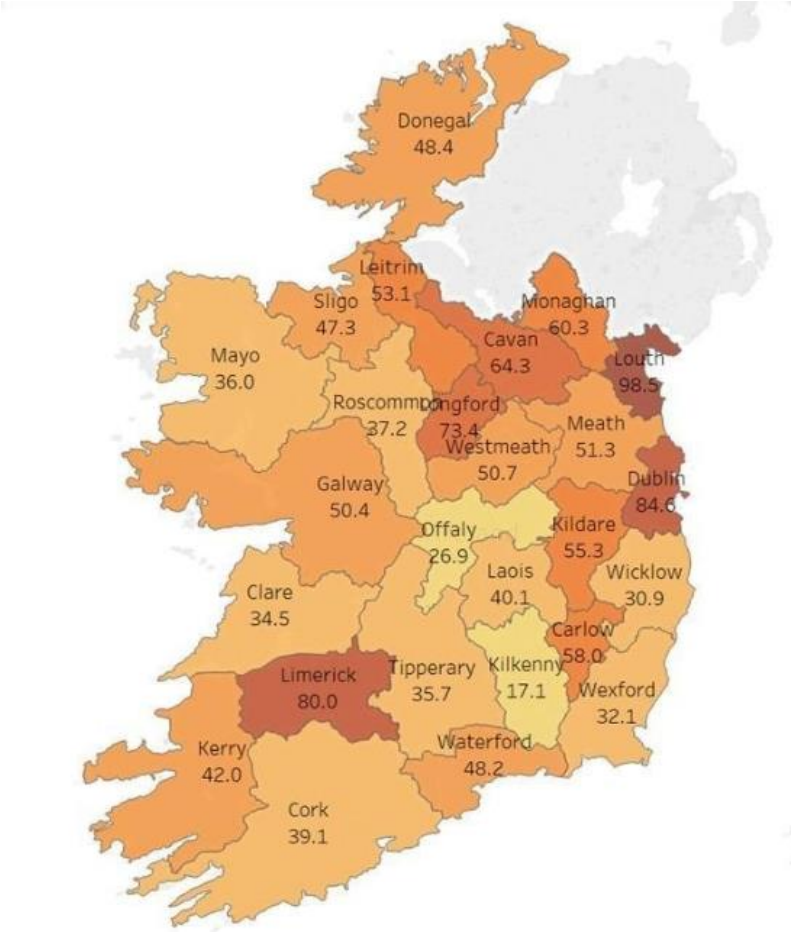


Source: PIAB Annual Report 2016 and Census 2016

- Average frequency per capita is close to 0.3%
- Particularly high levels in Longford, Limerick and Louth
- Lowest levels in Kilkenny, Wicklow and Wexford

Uninsured/untraced claims

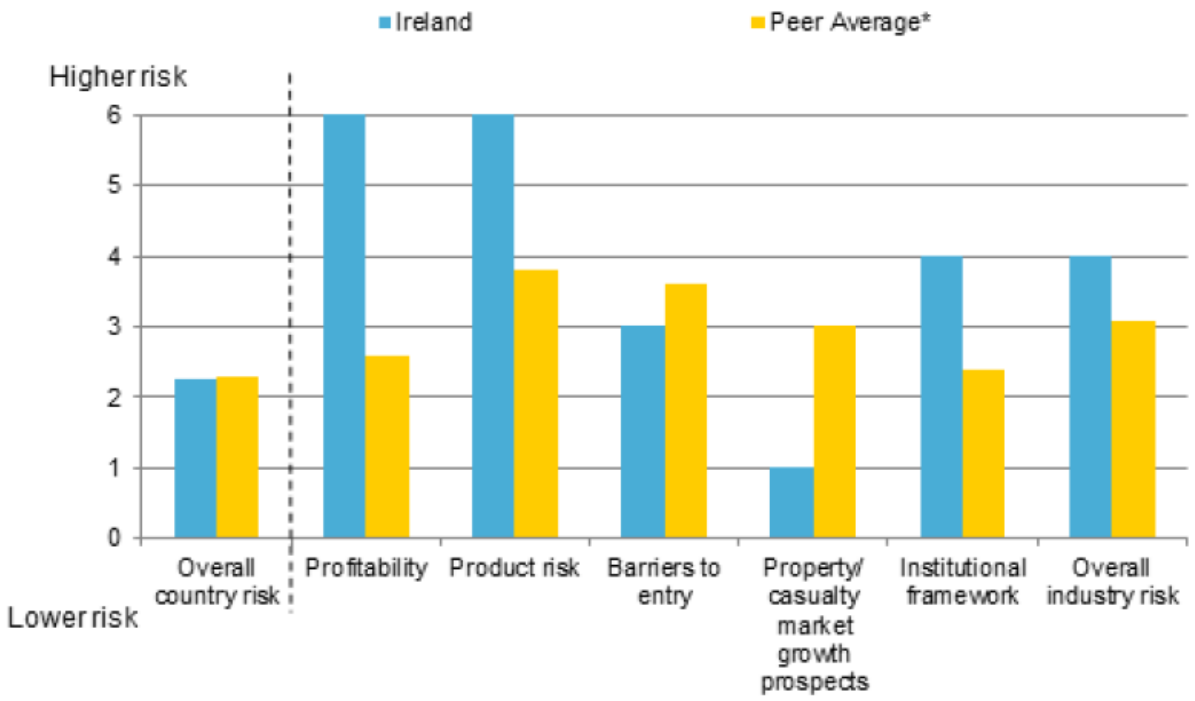
Propensity by county



Source: MIBI

- Similar counties showing highest rates of uninsured/untraced claims per capita

S&P Risk Assessment of Irish Market



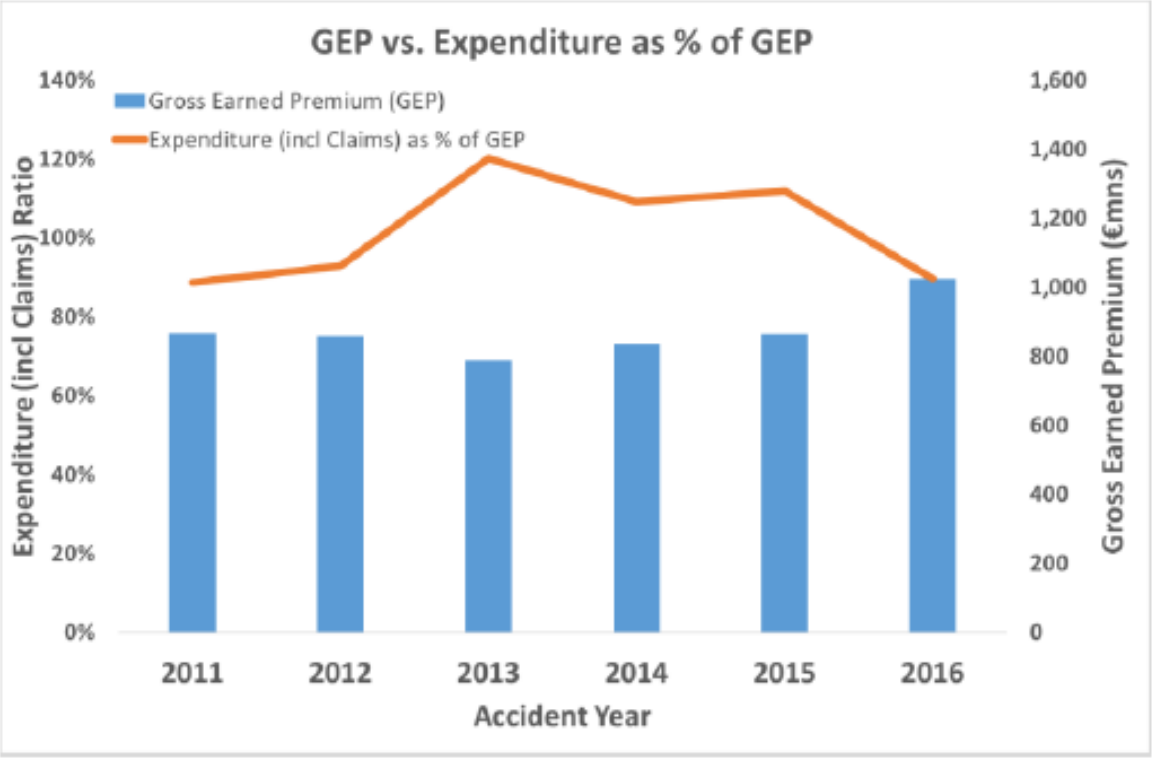
*Peers include Belgium, Czech Republic, the U.K., Spain, and the U.S.

Source: Standard and Poor's Financial Services LLC

- *"We assess the profitability of the market as negative, reflecting our belief that the market average combined ratio will remain around 105% in 2017-2019... An improvement in market profitability will be contingent on the evolution of claims costs and Irish P/C insurance companies' actions on premiums, underwriting, and risk selection."*

First Motor Insurance Key Information Report

Profitability



Source: First Motor Insurance Key Information Report

- Private motor market was profitable until 2013, was loss-making from 2013-2015 and returned to profitability in 2016.

First Motor Insurance Key Information Report

Uninsured Drivers

- Department of Transport statistics showed 7% growth in vehicle population in Ireland 2011-2016, but there was only 2% growth in the number of vehicles insured by Insurance Ireland members over the same period.
- The Motor Insurers' Bureau of Ireland (MIBI) saw 17% year-on-year increase in uninsured/untraced drivers claims in first half of 2016.

Claims Trends

- No significant change in frequency levels over 2011-2016
- The average compensation per injury claim settled has increased by approximately 7% from 2013-2015.
- Percentage of business settled pre-PIAB or during PIAB process has dropped 4% between 2013-2016.

Cost of Insurance Working Group Report on the Cost of Motor Insurance

Key recommendations

Transparency and Access

- Communication of large premium increases
- Premium breakdown
- Protocol for recognising drivers' experience abroad

Personal Injuries

- Establishment of Personal Injuries Commission
- Enhance powers of the Injuries Board
- Further improvement to the Book of Quantum

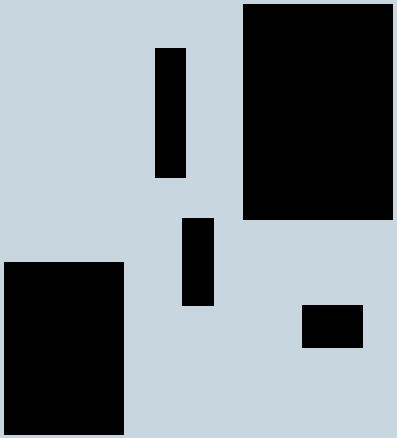
Fraud and Road Safety

- Establish insurance fraud database
- Database to identify uninsured drivers
- Use of technology to benefit consumers, i.e. telematics

Data Availability

- Establish national claims database
- Possibility of longer term claim-by-claim register
- Quarterly publication of metrics on claims costs/trends

Technology



Telematics

- Telematics is now established as the primary young driver proposition in many markets with mass entry of “household name” brands
- Referenced in Cost of Insurance Working Group report – use of technology to benefit customers
- Calls to make telematics-based insurance mandatory for drivers under 25

- With some pricing implications:
  - Two sorts of policy – additional work and demand on resources
  - Provides additional data on driver activity - telematics as data enrichment
  - Learnings from telematics data informing approaches to conventional pricing – true synergy benefits

Autonomous vehicles

- Lots of hype on this, with major companies developing solutions
  - Google, GM, Tesla, …
- But how close is this to becoming a reality?

Autonomous vehicles

Examples

Tesla

- Autopilot feature on their cars is “semi-self driving”
- At least one death and several major accidents
- Direct Line now offering discount to customers to activate Autopilot function

GM

- Plans to mass-produce self-driving cars without steering wheel or pedals by 2019.

Google/Waymo

- Announced in November it is beginning to test cars with no back-up driver

Uber

- Had also been testing robotaxi service in the US – suspended after fatal accident this week

Autonomous vehicles

Practical considerations

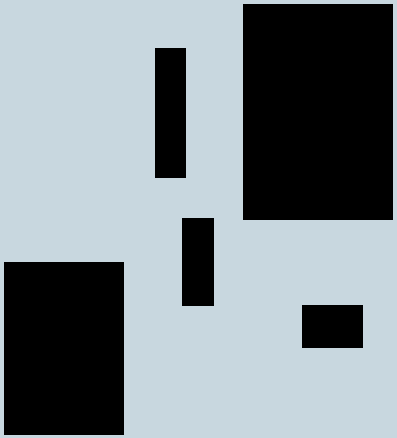
- **Morality questions:** Would you buy a car which will kill you rather than a pedestrian? Who gets to decide between passenger and third party?
- **Map quality:** If sat-navs take you up non-existent roads, what about driverless cars? What do you do where there are no good addresses?
- **Connectivity:** If an autonomous vehicle encounters a situations where it does not know what to do it stops and calls home. A human then has to remotely drive until the system is working again. What happens if you don't have connectivity?
- **Negotiation:** At junctions and on narrow roads, we negotiate with other drivers as to who goes, who reverses etc. How do you make eye contact with a driverless car? Will traffic grid lock due to jaywalkers crossing roads knowing the driverless car will stop?
- **Modifications:** People make modifications to boost performance on their cars. What if they also hack their driverless cars?

Autonomous vehicles

The reality

- For geofenced routes this will happen:
  - Bus routes
  - City centre taxis
  - Long distance truck routes
- Wide roads and grid systems will work better
- Narrow or winding roads and poor connectivity will present significant challenges
- Some people like driving…
  - Won't get to 100% self-driving without legislation
  - Change over will be slow at best - cars stay on road for 10+ years
- But some people don't…
  - Do something more productive (or sleep)
  - Cost of learning to drive and stricter penalties for learner drivers unaccompanied
  - Aging population may be a key driver of change long-term
- Shorter term focus for insurers is impact of "semi-self driving" or driver assist features

Data enrichment



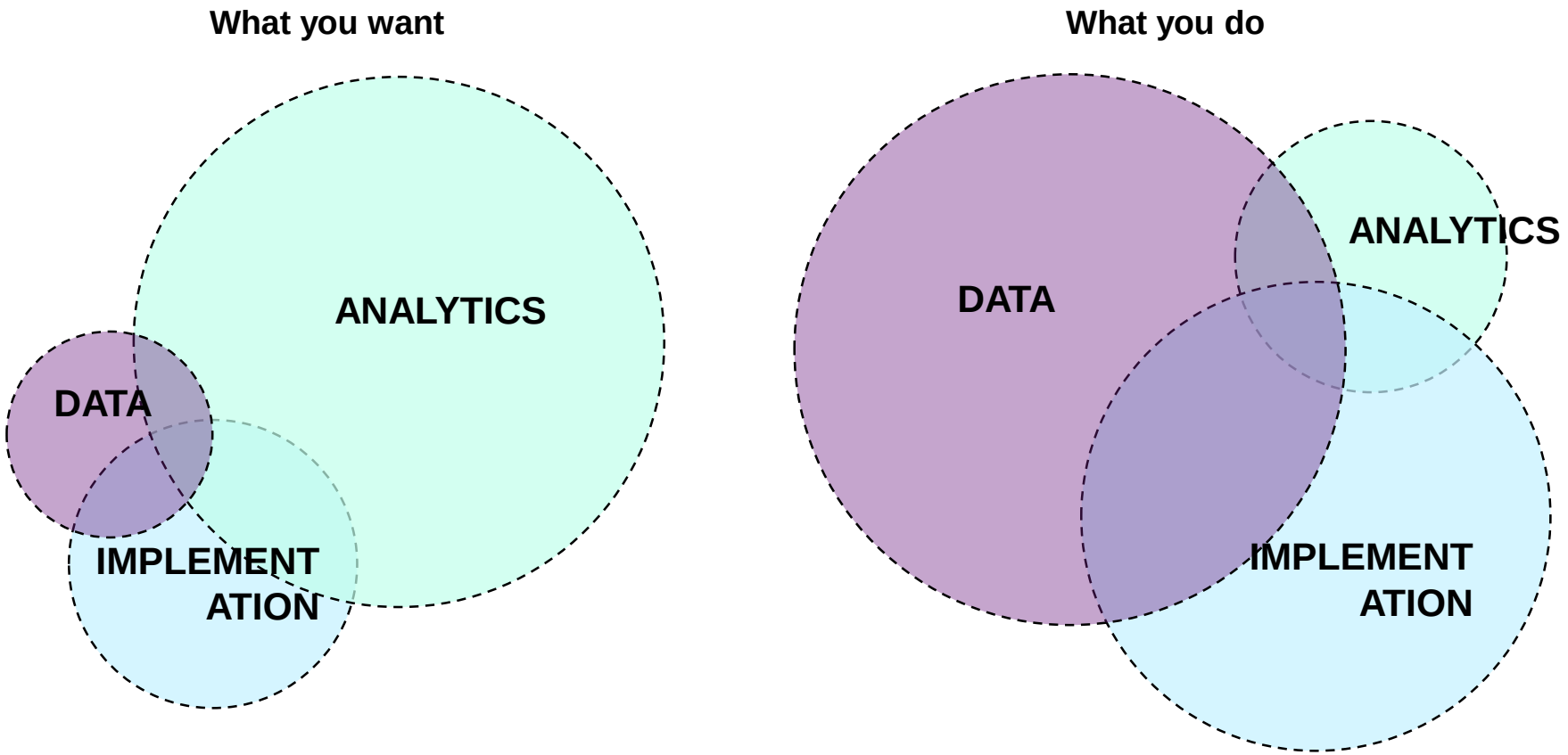
Data enrichment

- Some sources used:
  - Linked by geography (e.g. census data)
  - Linked by vehicle license plate/model (e.g. engine capacity, Audatex repairs data)
  - Linked by membership or rewards scheme (e.g. purchasing behaviour)
  - Linked by customer identity (e.g. credit history)

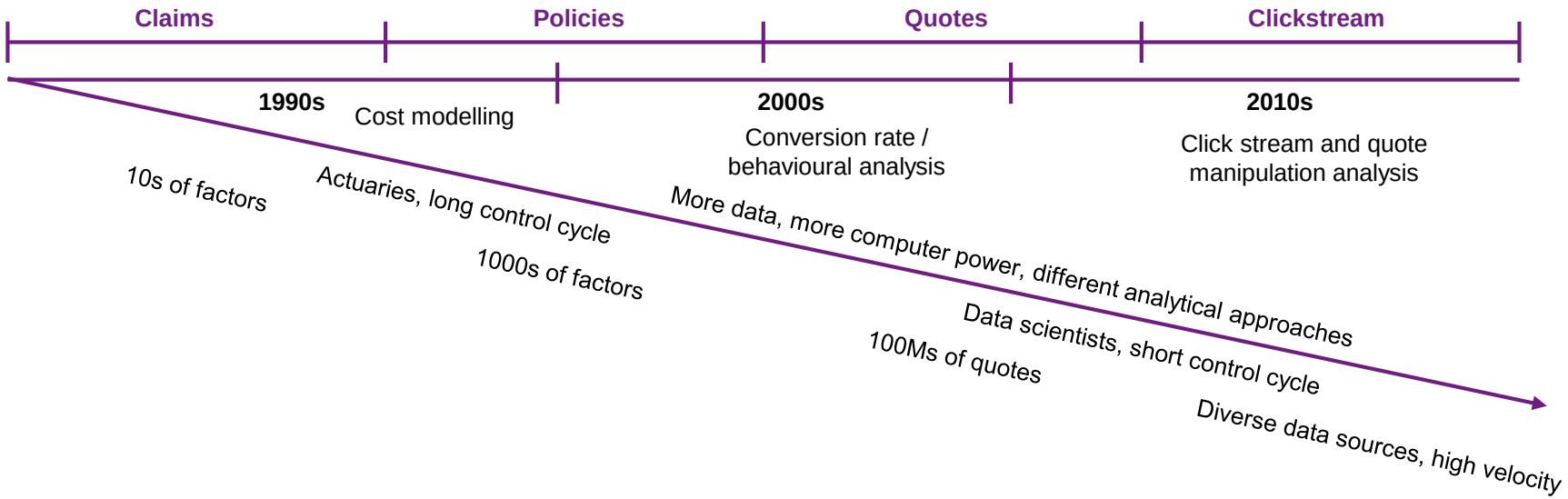
- Anything from 10s to 100s of additional data items

- Key consideration on where data is used:
  - Back office (e.g. pricing modelling)
  - Point of quote (e.g. to reduce question set)
  - Point of sale (e.g. to prevent identity fraud)

Data enrichment



Funnel of data



- To state the obvious….
  - Data volumes are growing exponentially…
  - ...sources are multiplying…
  - …and technology around data is ever improving
- But the question is what matters for personal lines pricing, and what doesn't, and in what order of priority?

So what are companies doing?

Spectrum of activity

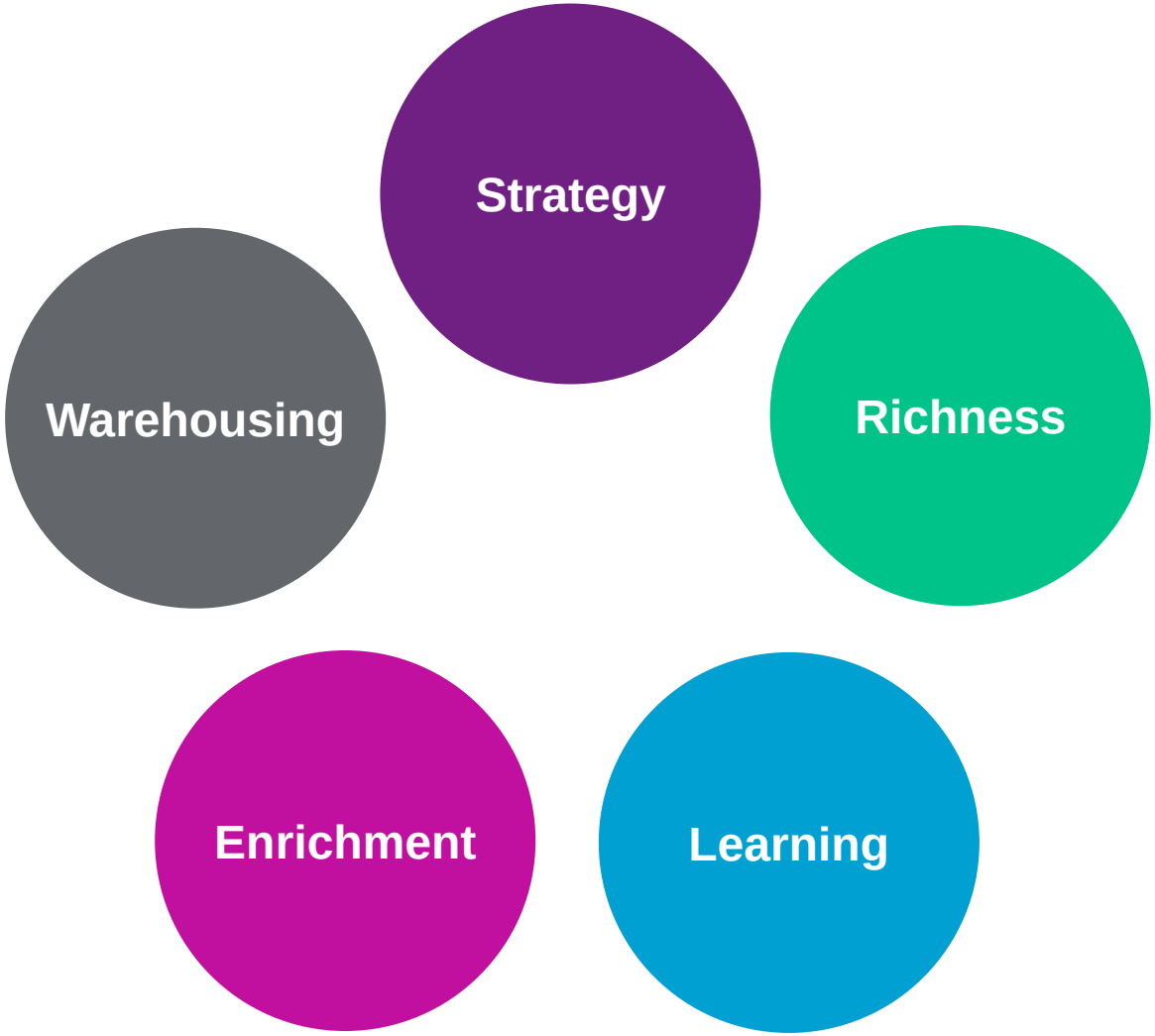
	Behind the curve	With the market	Ahead of the game
Typical statements	▪ "We're assessing our priorities at the moment" ▪ "The current focus is turning the business round"	▪ "We're happy that our data is fit for purpose today" ▪ "The current focus is on developing new data capabilities"	▪ "We're using all the data available to us directly in analytics"

Opportunities and threats

- Customer insight
- Cross-product / lifestage targeting
- Enabled analytics
- Competitive edge

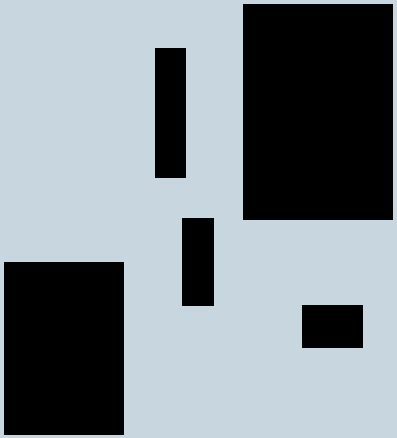
- Lack of focus on what matters
- Inadequate infrastructure
- Too much internal focus
- Conduct risk

Areas of data focus



- What's an appropriate "formal" data strategy or DE strategy?
- What data do you absolutely need in order to compete?
- Are you using the data you have to its full potential within analytics?
- Does the way in which you're structured or operate or distribute provide access to unique data, and if so how to exploit?
- How to organise the quest for new data sources
- How can I organise and access my customer/group data?
- Is the data readily available to analysts?

Fraud prevention



Statistics

- Insurance Ireland estimates that fraud adds approximately **€50** to the average motor premium.
- The cost of fraud to the industry is estimated at **€200 million** per year
- MIBI estimate that:
  - there are **151,000** vehicles without insurance on Irish roads.
  - **1 out of every 8** claims they handle is suspicious

Recent developments

- The processing of insurance policies and claims is becoming increasingly automated.
- Easier for fraudsters to target insurance companies through weaknesses, disconnects and inertia within these automated processes.
- The increasing cost of motor insurance and demographic changes have increased the imperative and opportunity for application fraud
- The fraud landscape is reportedly changing, with evidence of fraudsters travelling from the UK to take advantage of Ireland's more generous compensation regime
- Insurers are moving away from short-term view of paying out small fraudulent claims which encourages further fraudulent activity
- Regular high profile court cases - recent example of fraudulent claim for jewellery theft resulting in an 18 month jail sentence.

Headlines

“Plans 'at advanced stage' for new insurance fraud unit in gardaí”
“Nicholas Kearns, who has been appointed by the Government to head up the Personal Injuries Commission to compare award levels here with those internationally, said fraud was paying a huge part in the cost of insurance. The cost of fraud was estimated at €200m a year. But the true cost was probably a multiple of this if the cost of exaggerated claims is added in.”

Irish Independent – March 2018

“Motor Insurers Bureau to send fraudulent motor claims to gardaí. Motor Insurers Bureau of Ireland estimates that one in eight claims are ‘suspicious’”
Irish Times – August 2017

Whiplash claims cap could save motorists €150 a year
Awards in Ireland average €15,000 which is five times higher than in Spain and Italy
Irish Times – April 2017

“Failed jewellery insurance fraud results in 18-month jail term”
Irish Times – November 2017

“Zurich and Motor Insurers' Bureau of Ireland (MIBI) believe they have uncovered a sophisticated, multi-million euro eastern European fraud ring behind damages claims.”
Irish Independent - July 2017

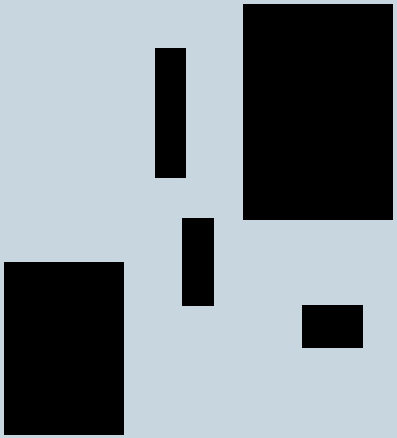
Fraud prevention

- It is essential that fraud prevention processes need to focus on point of quote/payment rather than post-sale – may be too late
- Fraud checks should be applied across all channels, products, etc.
- Significant investment in fraud prevention – development of teams and resources
- Late adopters at risk – increased exposure
- Staying active in industry bodies and networks to remain up to date with latest developments

Common fraud prevention tools

Area / tool	Description
ID checks	Customer ID checking is the single most important application fraud check employed at PoQ.
Device ID	Particular objectives are to identify cases in which the same device is being used for multiple quotes; if the location of that device is deemed to be suspicious; how many times it is seen to be associated with bad outcomes; and whether its characteristics are inherently dubious
Credit	Public credit is used as a means to rate on affluence, financial distress and propriety, with low credit scores often being declined.
Block lists	All insurers will typically hold a block list for which no quote will be provided
Quote manipulation rules	Quote manipulation rules are set up to identify those individuals deliberately making many quotes by flexing the data submitted in pursuit of a lower premium, especially soft unverifiable data items.
Fraud/fronting scorecards	Fraud scorecards are based on a combination of analytics and expert judgement. They involve activities such as identifying combinations of factors that seem odd, a standard set of factor checks which apply e.g. age vs licence years vs NCD and assessing the likelihood of a fronted risk e.g. young driver fronting.
Single Customer View (SCV)	Typically a separate analytical project to check whether customers have been seen before either buying the same product in the past or other products.
Payment checks	Checks on payment identity, card checks, premium refunds and misuse of details
Use fraud	Checking for e.g. commercial drivers on private policies or vice versa

Outlook



Outlook

Willis Towers Watson