VIRTUAL RISK MANAGER®

INTERACTIVE® DRIVING SYSTEMS
Targeting Driver Risk Reduction
US Patent: 6,714,894

Driver Training

Dr Will Murray
Interactive Driving Systems

BT
Nestlé
Cummins
Pfizer
SIEMENS
Johnson & Johnson
Mondelēz International
e·on
ASDA
Roche
TNT
SANOFI
IRON MOUNTAIN
McCain
It's all good
Royal Mail
Rentokil Initial

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Contents

- Debate
- Case study based on British Telecommunications
- OHS led approach
- Claims analysis & risk assessment
- Targeted training
- Recommendations

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BT Research

- Wallington D, Murray W, Darby P, Raeside R & Ison S. Work-related road safety: Case study of British Telecommunications (BT). Transport Policy. Volume 32, March 2014, p194–202
- Darby P, Murray W and Raeside R. Applying online fleet driver assessment to help identify, target and reduce occupational road safety risks. Safety Science 47, 2009, p436–442
- Darby P, PhD research submitted August 2015

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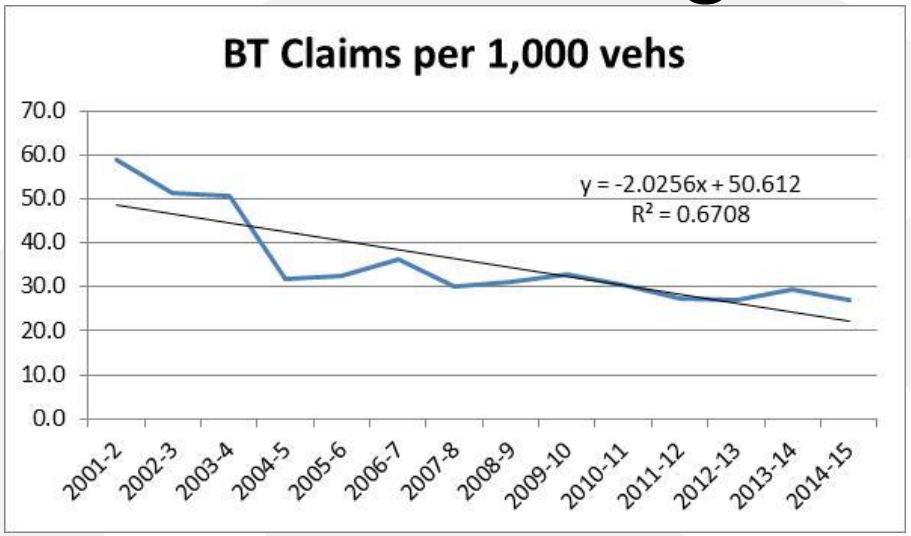
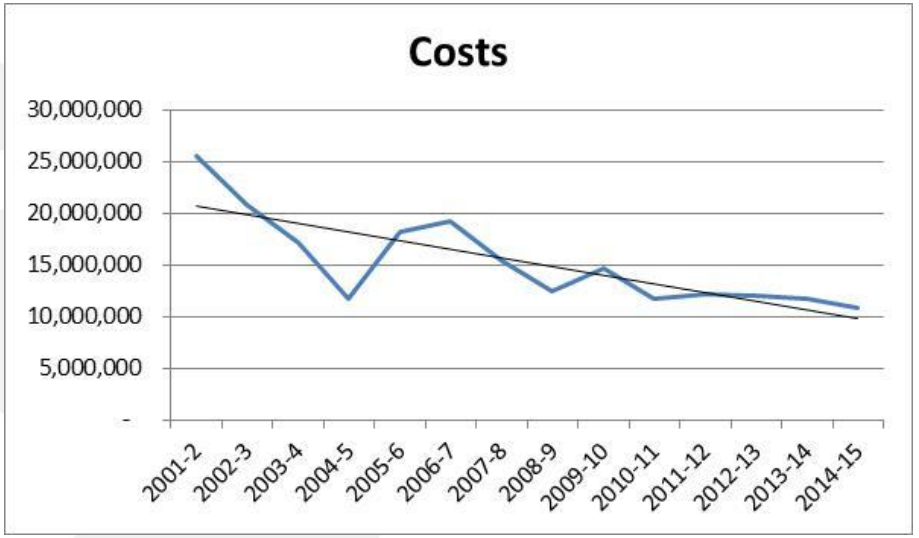
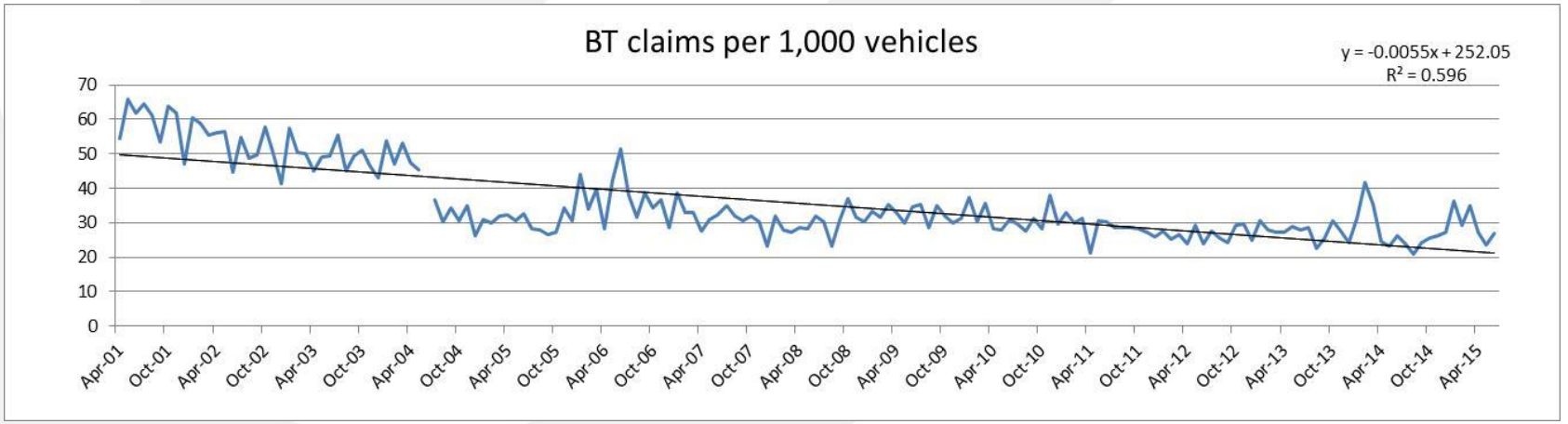
BT long term evaluation







Haddon framed OHS-led model

	Management Culture (30%)	Journey (10%)	Road/ Site Environment (10%)	People - Drivers and Managers (20%)	Vehicle (10%)	External/ Societal/ Community/ Brand (20%)
Pre-Crash or Pre-Drive	Leadership Business case Legal compliance Safety review Benchmarking Pilot studies Goals & policies Safety culture Committee Pledge Communications Contractors	Travel policy Mode choice Journey planning Routing Risk assessment Emergency preparation Shifts/ working time	Risk assess Observation Guidelines Site layouts Work permits Site rules Road design Hot-spot mapping Engage local road agencies	Recruit Contract Induct Check qualified Handbook Risk assess Train Equip Communicate Engage Monitor Correct	Risk assess Select Specification Safety features Service Maintain Check Use policy Mobile comms ITS/telematics Wear & tear Grey fleet	Regulator/policy engagement CSR Benchmarking Communications Family members Community Road safety weeks/ days Awards
At Scene	Emergency support to driver	Engage local investigators	Manage scene	Process to manage scene	Crashworthy 'ITS' data capture	Escalation process
Post-Crash	Report, record & investigate Change process Data linkages, evaluation & KPIs	Debrief & review journeys	Investigate and improve Review site/road elements of collision data	Reporting and investigation Driver debrief Counselling, trauma support Reassess/train	Strong openable doors Investigate 'ITS' data Inspection & repair	Manage reputation and community learning process

Reasons for driver training

- Two relevant claims in 12 months:
  - Forward facing events @ speed
  - Slow speed manoeuvring
- At risk from online RoadRISK assessment
- Manager allocated
- Job need/specific risk or compliance

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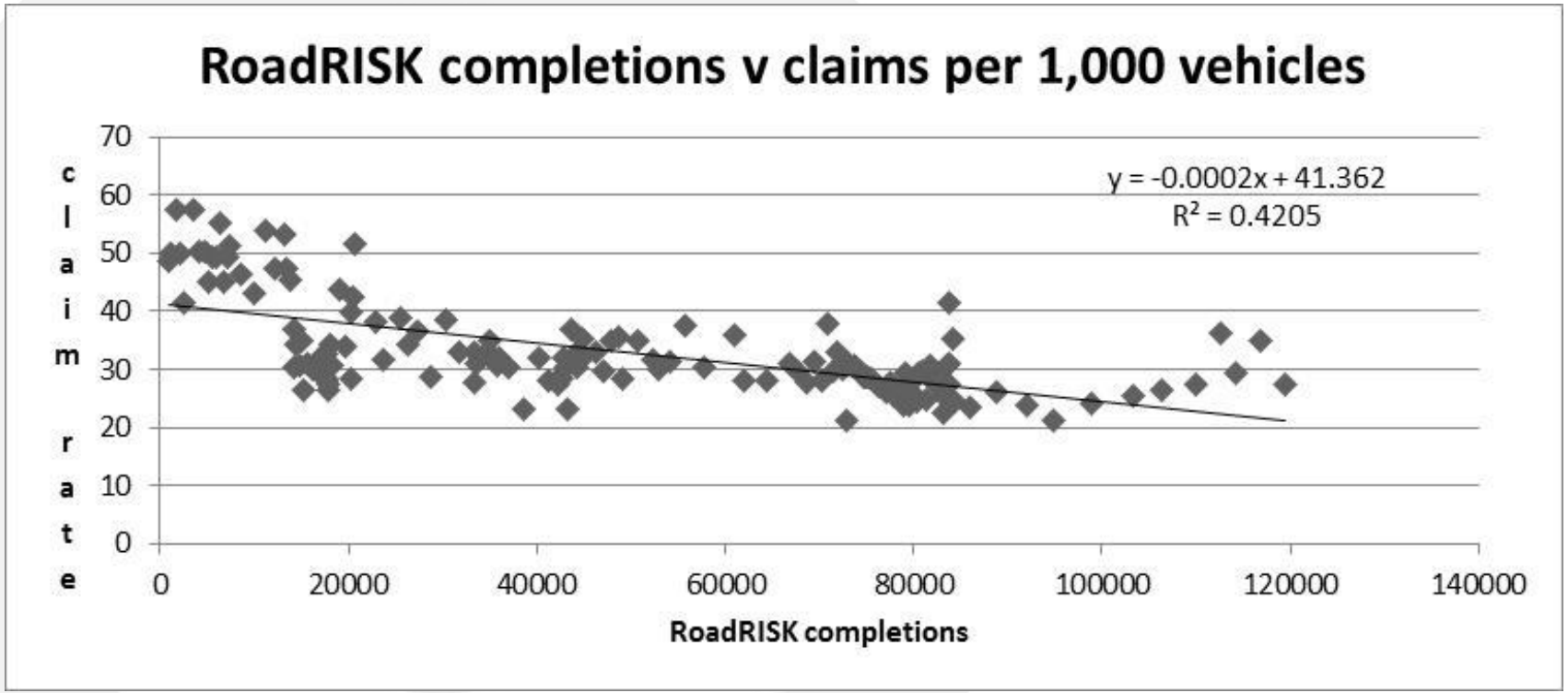
Risk assessment data



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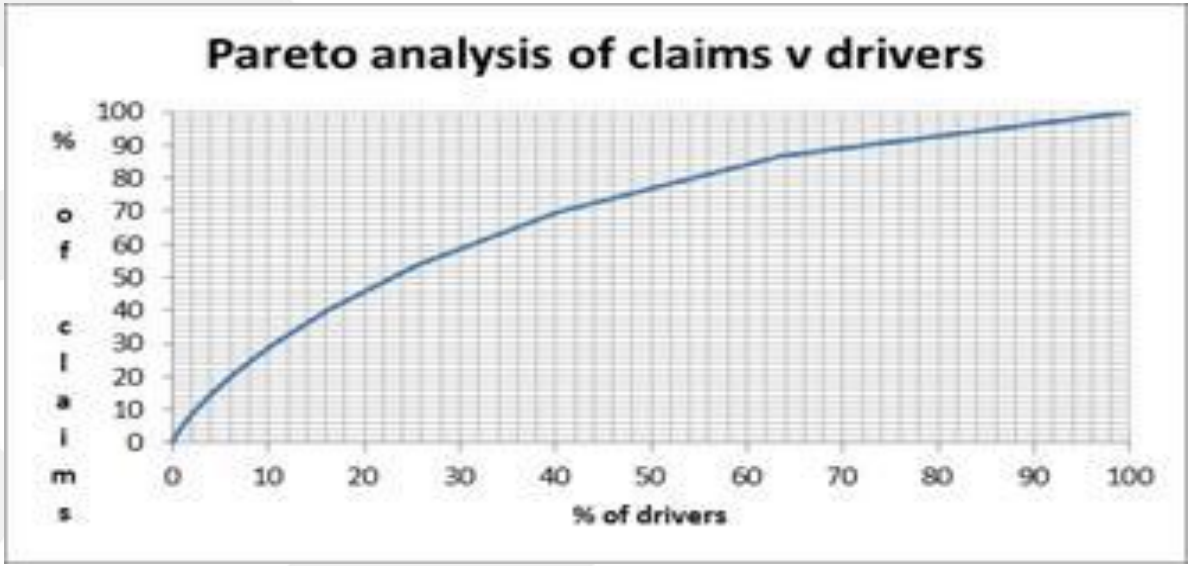
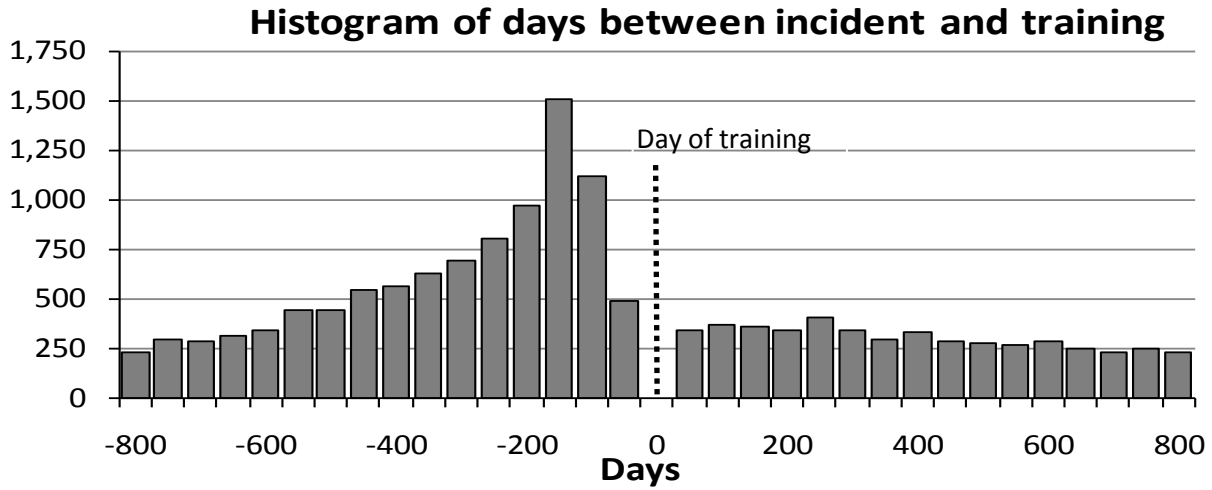
Pareto analysis of claims

% of drivers	% of claims
10	29
20	46
50	77
80	93
100	100



Course	Pre 2006	2006	2007	2008	2009	2010	2011	2012	2013	Total
4 x4 Training								4	2	6
Ambulance Driving							12			12
Apprentice		92	113	35			280	4		524
Back in Control	161	1	226	317	368	407	358	566	281	2,685
BT SaFED Assess				47						47
CPC workshop									342	342
Driver Development								1		1
ESaFED					311	151				462
Foundation					1	2				3
Fuelwise					93					93
Induction	83	177	102	84	34					480
LCV					1	3				4
Managing Safe Driving						1,366	296			1,662
Modern Apprentice								57	57	114
Personal Focus				1	1	3		5	2	12
SaFED		2	52	34	409	650	386	173	209	1,915
Starting Point WebEx							34	200	23	257
Towing			2			5	4	10		21
Turning Point	4,122	405	917	544	12					6,000
Who's Risk	1,510	460	406	158						2,534
Total	5,876	1,137	1,818	1,220	1,230	2,587	1,370	1,020	916	17,174

Behind the wheel outcomes



Benefit of BTW starts before training undertaken!

- All employees = 0.029 claims per year, never trained = 0.025
- Training = 0.347 per year before training - falling to 0.125 after training
- Claim rate improved with training, but still 5* higher than ‘never trained’ group
- Regression to the mean suspected
- Work-related road safety goes beyond drivers

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PhD conclusions

- 3 studies: 1) driver training, 2) manager training & 3) claims segmentation
- Econometric models indicated that slow speed & forward driver training reduced total & targeted claims
- Regression to mean = approximately ½ of effect
- Although claims fell, modelling could not confirm manager training was an effective safety intervention
- Segmentation models by driver/claim types offer further opportunity to target risks

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Summary/recommendations

- Risk-based driver training one element of effective work-related road safety
- OHS & data-led systems-based approach
- Managing drivers, vehicles & mobility can benefit costs, collisions & CSR
- Next step:
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  - will.murray@virtualriskmanager.net