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Planning for Road Safety, Good Practice in Organisations

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US Patent: 6,714,894

Introduction

- Interactive Driving Systems
- Background to occupational road safety
- Case description
- Discussion and lessons
- Summary

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Interactive Driving Systems

- Fleet risk management research, policy & practice since early 1990's
- Successful 'strategic' relationships with clients & channel partners in 30+ countries
- Research projects with universities in England, Scotland, Australia & USA – including 2 current PhDs
- Government funded research projects on-going in USA, Canada, New Zealand and UK eg www.fleetsafetybenchmarking.net
- >1,000,000 drivers worldwide on data-led driver risk assessment, monitoring & improvement programs in 15+ languages

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Background

- Occupational road safety is an emerging issue, of significance for both road and occupational safety
  - PESTELED framework to set context *
  - WIPE model for process *
- Increasing research quantum, but still very few peer reviewed case studies
- Roche Australia provides P2R case study, with lessons for research, policy and practice

Context

- PESTELED : management tool for analysis of external factors impacting your performance. Examines external macro environment (or big picture):
  - Political
  - Economic
  - Social
  - Technological
  - Environmental
  - Legal
  - Ethical
  - Demographic

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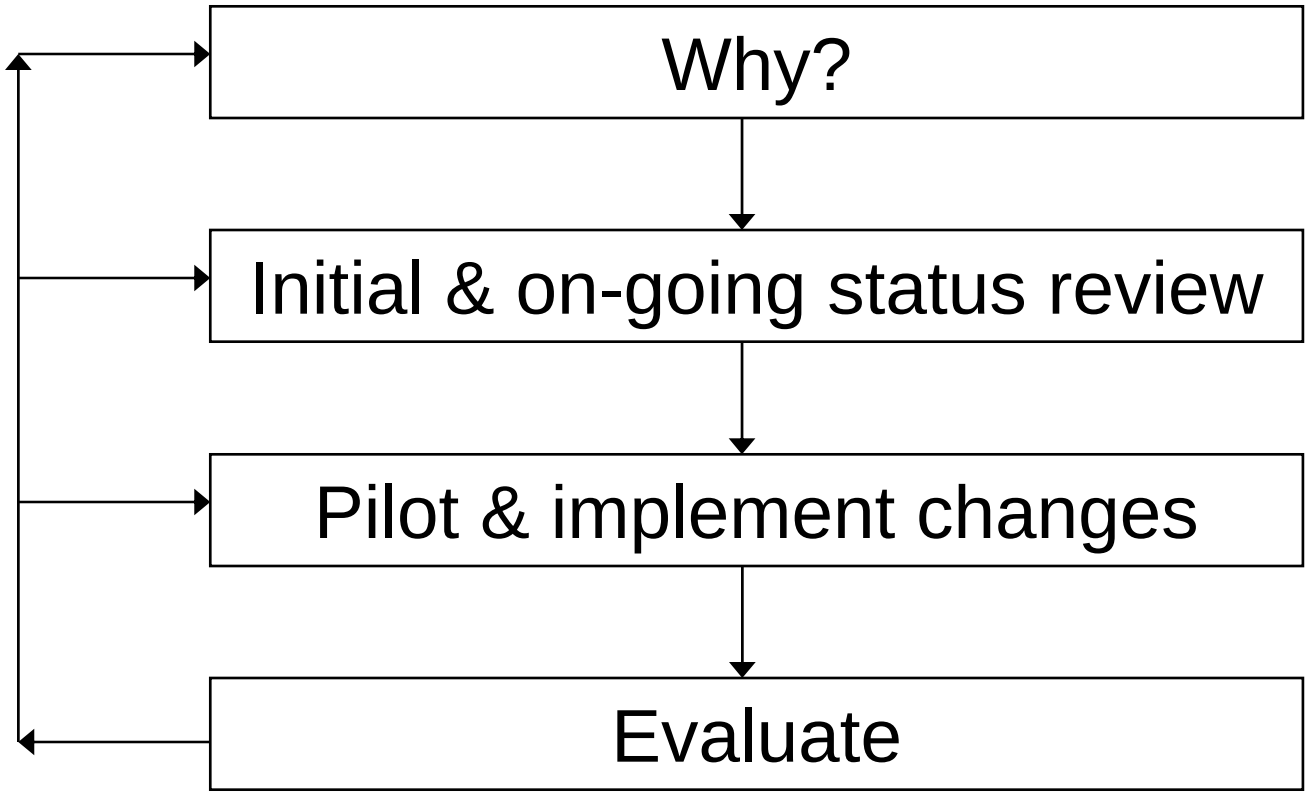
WIPE approach



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Case study of Roche Australia

450 mostly sales staff in company cars

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Program

- Four key initiatives - supported by Insurer:

1. Implemented online DRA program for all existing staff and new employees
2. Policy development
3. Regular targeted communications
4. Ongoing program development 2009/10

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Online Risk Assessment / Improvement

- Launched January 2005
  - For all existing and new staff
- Driver Profile and RoadRISK assessments *
  - Including licence checks and safety policy online
- One More Second attitude and behaviour training *
- RoadSKILLS scenario training *
- MIS to monitor program *
- Achieved almost 100% compliance for existing staff
  - Program ‘touched’ all 450 drivers at least 4 times in 2 years
- New recruits undertake during induction soon after joining

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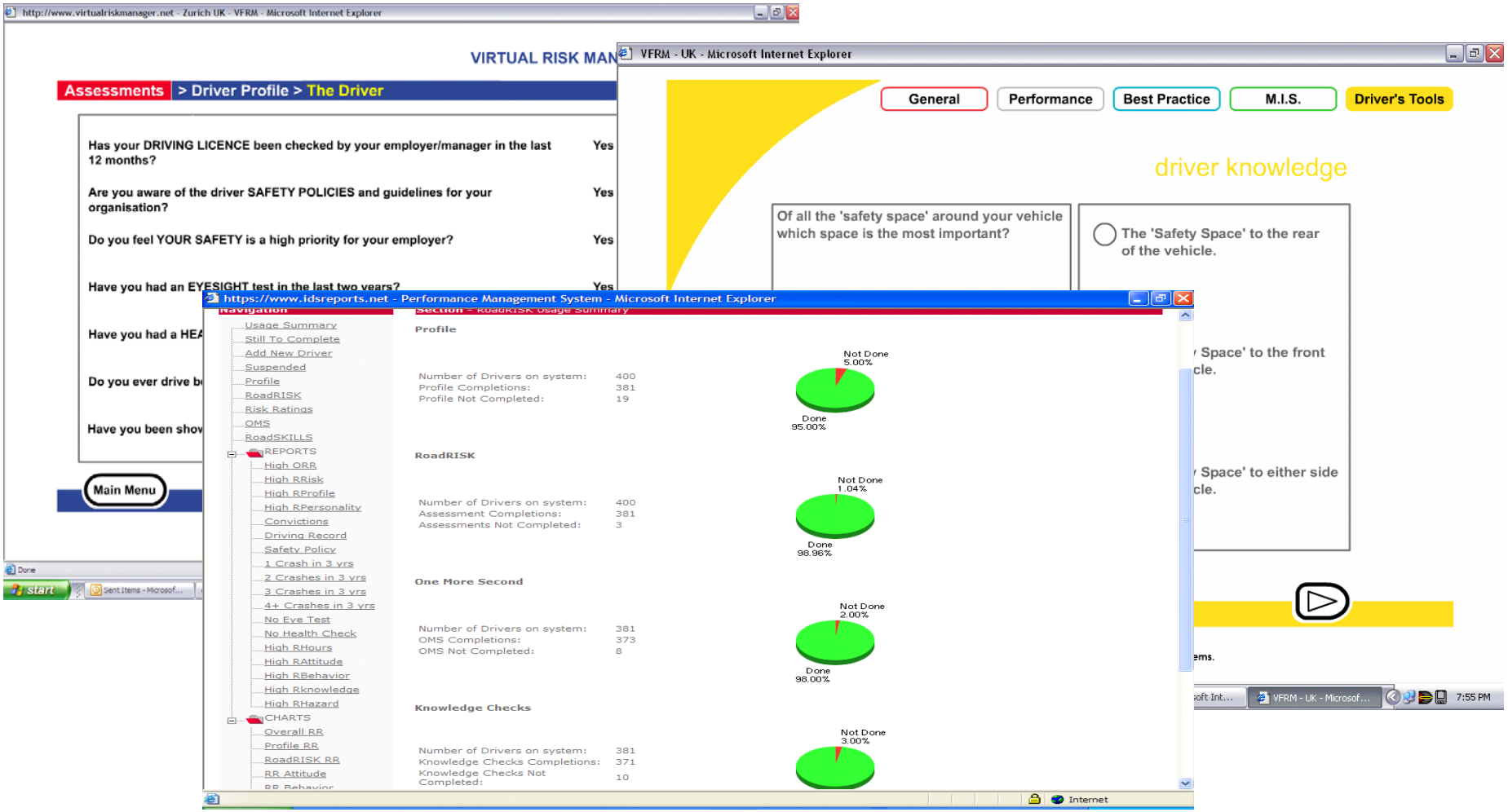
Driver Risk Assessment



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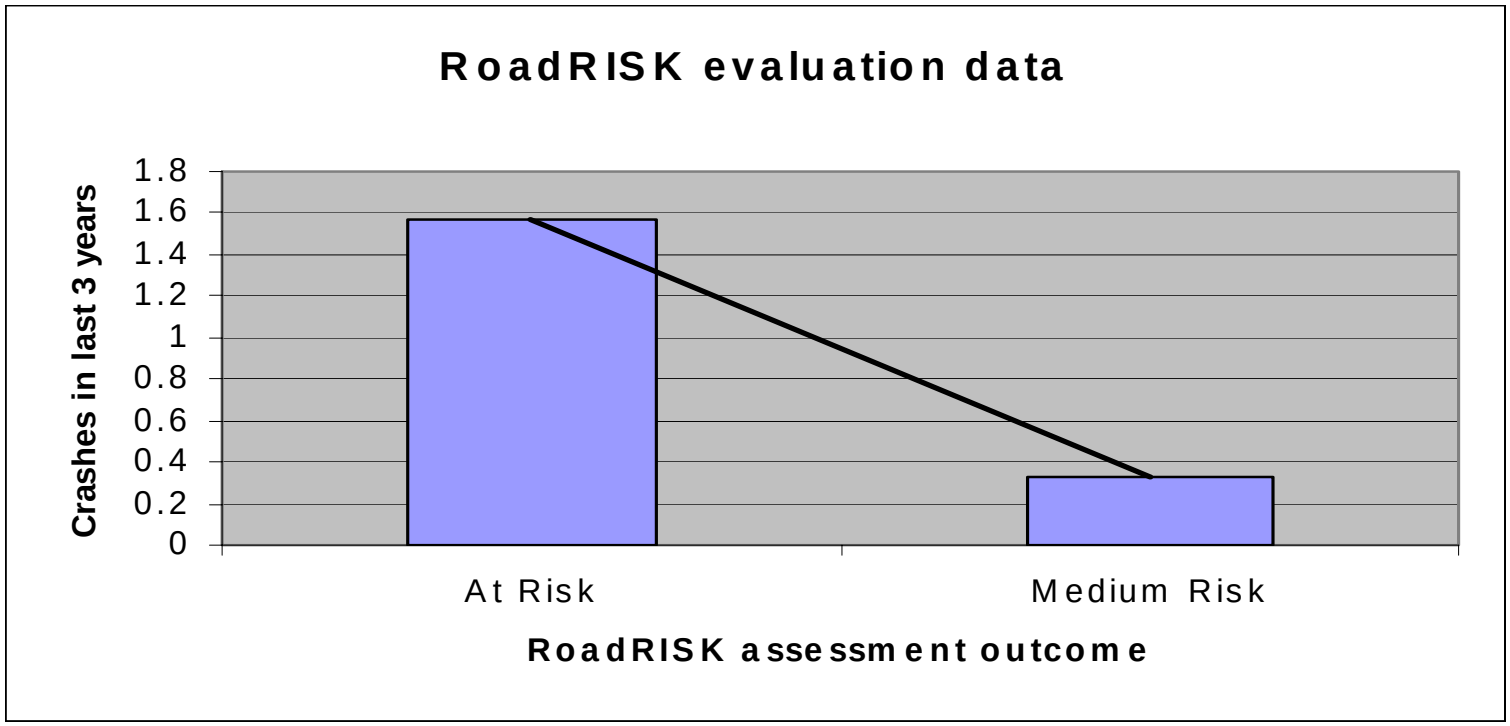
RoadRISK Outcomes



Predictive link between risk assessment and collisions

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2 interactive CBT modules

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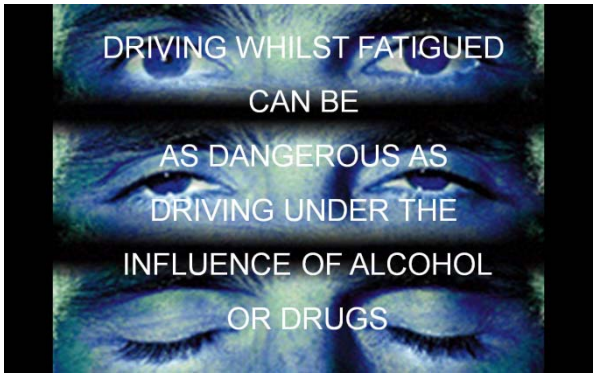
Policy and Communications

- Developed, implemented, monitored and improved its policies, procedures, processes, driver manual and on-going communications:
  - Collision reporting and investigation
  - Anti-lock brakes
  - Speed
  - Seatbelt
  - Alcohol
  - Fatigue
  - Holiday driving
  - Back pain
  - Journey management to minimise employee kilometres
  - Vehicle checks
  - Driving whilst pregnant
  - Tyre safety
  - Mobile phone policy



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Evaluation

- Improved safety on proactive & reactive indicators
- Loss ratio down from 69% to 48%
  - Failed to Yield (30% down 04-05, up 10% 05-06)
  - Hit Stationery Object (down 13% 04-06)
  - Hit in rear by Third Party (down 30%)
  - Hit Third Party in Rear (down 30%)
  - Reversing (down 30%)
  - Incident and premium costs reduced
- External recognition in Road Safety Awards
- Further insurer support secured for program
  - developments ongoing for 2009/10 *

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Ongoing Program 2009/10

- Sustain & maximise program with 100% compliance
  - including company and employee owned vehicles
- Design and implement new online modules & process
  - Privacy Notice *
  - Safe Driving Pledge *
  - Risk Foundation policy assessment *
  - V2 of RoadRISK Profile
  - Risk overview safety climate and other MIS developments *
  - RiskCOACH training modules
  - Driver Index data-warehouse to integrate all data-sets
- Engaging in external programs:
  - reviewing program against Haddon Matrix *
  - detailed claims analysis & benchmarking internally/externally *
  - road safety outreach and community/family member initiatives

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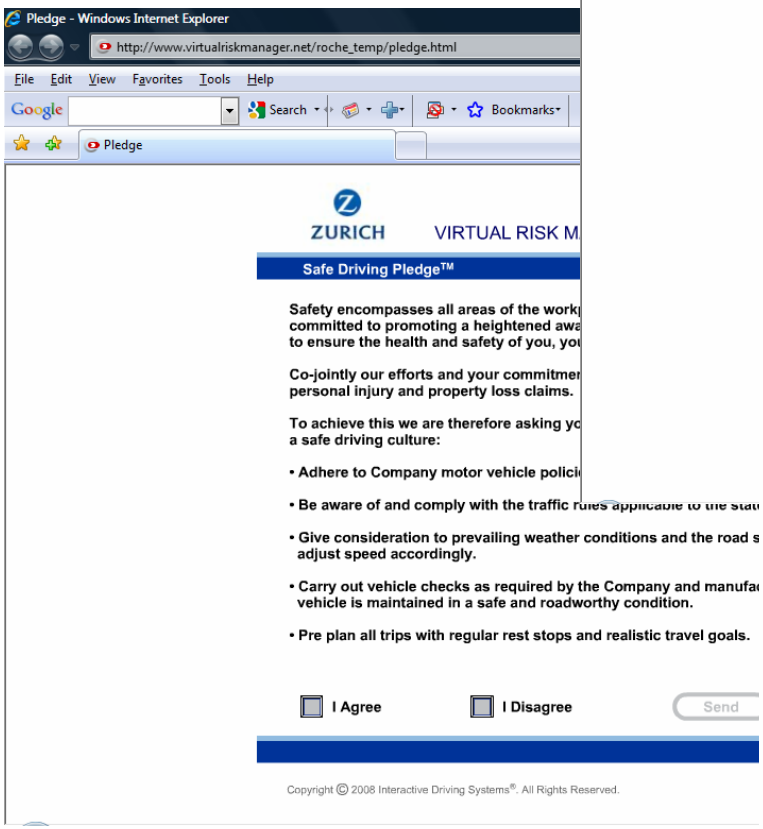
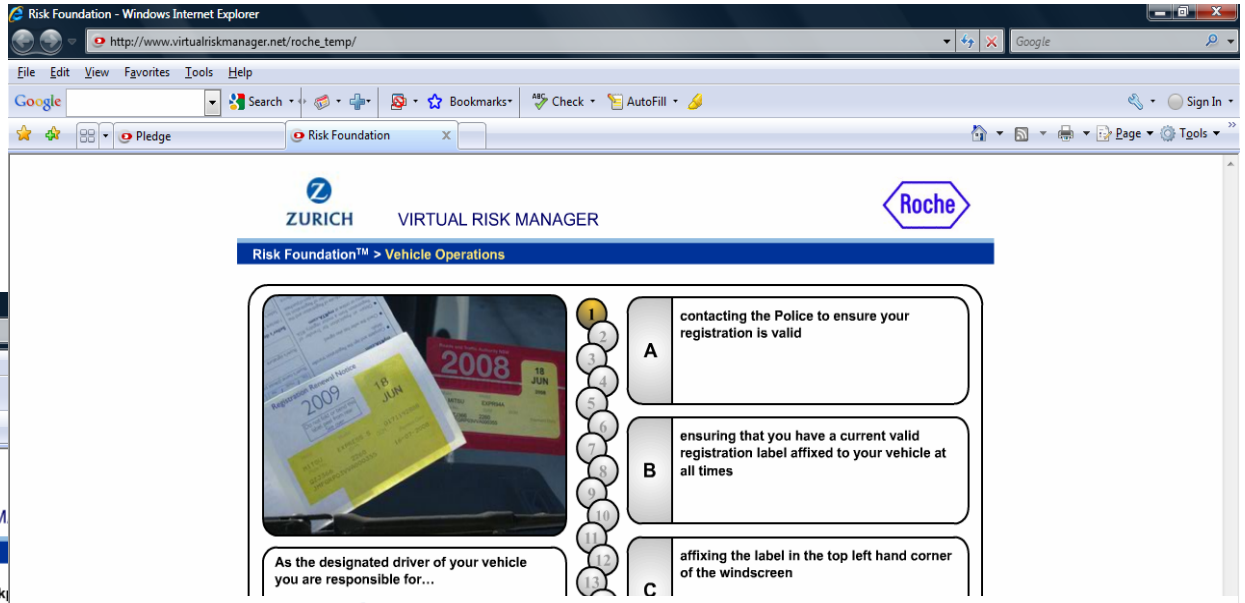
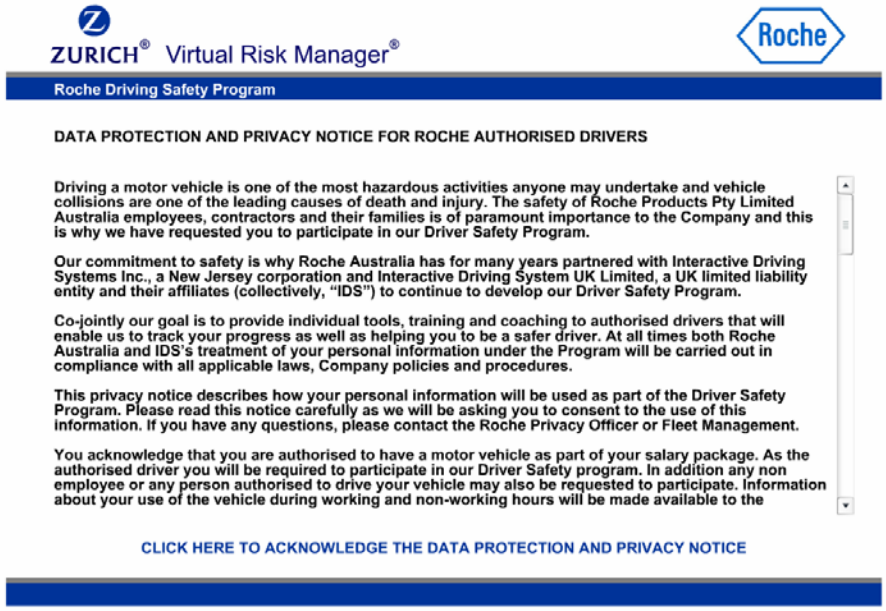
Privacy, Pledge and Risk Foundation







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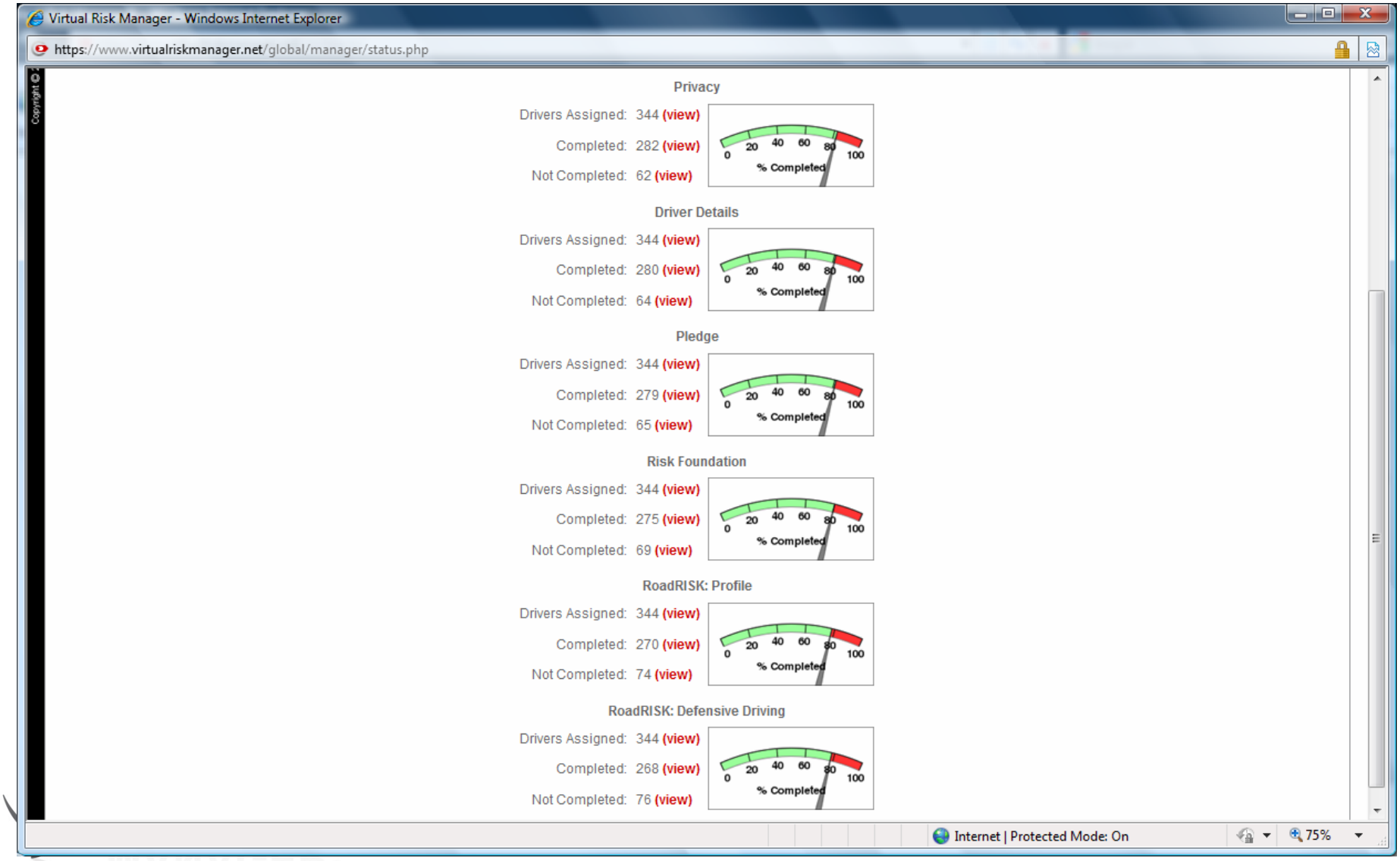
Management information



Haddon Matrix framework

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	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 C&D 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

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Detailed claims analysis & benchmarking

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Description	2004	2005	2006	2007	2008	2009	Change 2004-09
Vehicles	259	226	219	211	166	149	**-42%**
Claims	94	65	73	65	42	41	**-56%**
Claims Ratio	36%	29%	16%	31%	25%	28%	**-24%**
Cost	169,735	124,813	110,540	122,641	94,652	76,851	**-55%**
Failed to Yield	11%	11%	15%	11%	12%	7%	**-31%**
Damaged while Parked	12%	23%	16%	17%	21%	5%	**-58%**
Hit Stat. Object	16%	17%	18%	15%	14%	22%	**38%**
Hit in Rear by TP	15%	11%	14%	19%	19%	24%	**64%**
Hit TP in Rear	11%	12%	10%	8%	5%	7%	**-31%**
Reversing	21%	17%	19%	11%	9%	7%	**-66%**
Other	15%	9%	8%	20%	21%	27%	**80%**

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Discussion and Lessons

- Roche:
  - Invested management time in program
  - Engaged with insurer
  - Focused on process and outcomes-based KPIs
  - Took a data-led, systems based approach covering management, drivers, journeys and vehicles
  - Attitude and aptitude of KEY manager (s) is vital
  - Suggests occupational road safety is an opportunity to target a large number of drivers through the workplace
  - P2R is important as well as R2P
  - Chronological case approach

Conclusion

- Occupational road safety has potential to help reduce road toll and improve worker safety
- Frameworks such as PESTELED, WIPE and Haddon are important
- Paper has added to the limited number of existing published cases & provided some lessons for organisations & policy
- Starting point for similar program:
  - Fleet gap analysis: www.fleetsafetybenchmarking.net
- Questions and feedback ?????
- Contact:
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