‘Technology in Road Safety: Global Best Practice and the Challenges for LMICs’
Rocks Between Us: Agenda

TIME: Thursday 29 September, 1530-1630 CEST (Paris Time)
THEME: ‘Technology in Road Safety: Global Best Practice and the Challenges for LMICs’

CALL AGENDA
1530-1540 Welcome to Roads Between Us: Michael Chippendale, GRSP
1540-1555 1. MARTIN SMALL, ‘Vehicle Safety Technology Challenges in LMICs’
1555-1610 2. CARL McFARLANE, SmartDrive
1610-1625 3. ANDREW PRICE, Zurich
1625-1630 Questions / Discussion and proposed next topic ‘Road Safety in the SDGs – 1 Year In’
Roads Between Us: Events

- Roads Between Us Conference: 4-5 October, Kuala Lumpur, Malaysia

- Insurance and Road Safety Workshop: 27 October, Paris, France
  [https://www.ivvy.com/event/Ins16/](https://www.ivvy.com/event/Ins16/)

- 5th Africa Road Safety 2016: 31 Oct-2 Nov, Durban, South Africa
  [https://www.ivvy.com/event/ars16/](https://www.ivvy.com/event/ars16/)
**Roads Between Us: Agenda**

**TIME:** Thursday 29 September, 1530-1630 CEST (Paris Time)

**THEME:** ‘Technology in Road Safety: Global Best Practice and the Challenges for LMICs’

**CALL AGENDA**

1530-1540  Welcome to Roads Between Us: Michael Chippendale, GRSP

**1540-1555**  1. MARTIN SMALL, ‘Vehicle Safety Technology Challenges in LMICs’

**1555-1610**  2. CARL McFARLANE, SmartDrive

**1610-1625**  3. ANDREW PRICE, Zurich

**1625-1630**  Questions / Discussion and proposed next topic ‘Road Safety in the SDGs – 1 Year In’
Vehicle Safety Technology
Challenges in Low and Middle Income Countries

Martin Small
martin@martinsmallconsulting.com
Roads Between Us: Technology in Road Safety
September 2016
Impact of Sustainable Development Goals on transport safety

• Road safety is now properly recognised as a major development issue, set within overall public health and sustainable transport frameworks

• This suggest significant public policy and investment focus on mass transit and non-motorised users

• While an overall policy imperative may be to reduce or constrain the growth motor vehicle trips (particularly in cities), we must focus up on the safety technology deployed in each trip
Motor vehicle manufacturers and their customers are generating extraordinary safety opportunities through technology.
New Car Assessment Programs have been vital in this progress, but are at least somewhat reliant on regulation.
Focus is needed on increasing safety technology as vehicles enter the fleet, and not on maintaining old technology.
The specification of 7 key international regulations begs the question about the capacity of national systems to deliver...
A relatively sophisticated regulatory approach needs to be developed within low and middle income countries.
Some challenges ahead

• Where does an LMIC start when a country places no safety regulation controls on vehicles entering a country?
• How does an LMIC manage used vehicle imports, and new vehicle imports, and locally produced vehicles?
• What are the necessary processes and projects that need to be established and delivered to get from zero to some basic level of control?
Some starting thoughts for LMICs

• World Forum for Harmonisation of Vehicle Regulations (UNECE Working Party 29)
• Political awareness, professional and consumer advocacy, and respectful engagement with industry
• Institutional development and refocusing of automotive engineers beyond inspections
• Sustained technical assistance, using safety-focused, regulatory-competent, expertise
• Sustained goodwill amongst Governments, Regulators, Industry, and Consumers
Summary

The level of safety technology in the vehicle fleets of low and middle income countries needs to significantly increase.

This will require alignment with UN vehicle safety standards and significant investment in national regulatory systems.
Global Road Safety Partnership

Rods Between Us: Agenda

TIME: Thursday 29 September, 1530-1630 CEST (Paris Time)
THEME: ‘Technology in Road Safety: Global Best Practice and the Challenges for LMICs’

CALL AGENDA
1530-1540 Welcome to Roads Between Us: Michael Chippendale, GRSP
1540-1555 1. MARTIN SMALL, ‘Vehicle Safety Technology Challenges in LMICs’
1555-1610 2. CARL McFARLANE, SmartDrive
1610-1625 3. ANDREW PRICE, Zurich
1625-1630 Questions / Discussion and proposed next topic ‘Road Safety in the SDGs – 1 Year In’
Driver Risk Management
Reducing collisions and risky driving

September 2016
Global innovation leader in video based driver safety performance programmes

Founded 2004  |  Employees 450+
130% growth YOY

150,000,000+ COMMERCIAL DRIVING EVENTS RECORDED
The world’s largest and fastest-growing database of risky driving events.

In the last 15 years, video, data and mobility have fundamentally changed the way we communicate, interact, and do business.
Video Based Driver Risk Management
Taking ‘bad costs’ out of your business
Your driver is still the most advanced technology on the truck
Ask yourself...do you really know?

Who are your riskiest drivers?

Resultant ‘bad costs’ generated in your business?

Who are your best drivers? And why?

True root cause of their incidents and collisions?

The damage to your brand and reputation?
Video based driver risk management – what it is

A standardised process, consistently applied

- Videos captured
- Consistent expert review and scoring verifies risk
- Drivers and risk prioritised
- Your coaching sessions
Risky Driver Behaviour

Some facts!
88% of collisions can be avoided through improved driving skills

Driver Decision (Speeding, Aggressive), 39%

Driver Recognition (inattention), 28%

Driver Performance (error), 12%

Environment (Weather, Roadway), 2%

Driver Non Performance (Sleep, Sick), 12%

Vehicle, 10%

Source: Virginia Tech Crash Causation Study
A driver risk management programme addresses unsafe acts and driver distraction to reduce collision frequency.
Correlation between crash risks and driver activity

- Taking long glances away from the road doubles likelihood of crashing

- Risk of crash increases sixfold when driver is dialing a cell phone

- Writing on a pad, notebook, etc. increases risk of crash by nine times

- Text messaging increases the risk of a crash or potential collision by twenty three times!

Source: Virginia Tech Crash Causation Study
Implementing video based driver risk management
How do you really know what’s happening on the road?

SMARTDRIVE®
Telematics can only tell you so much

A hard braking incident...

- Why did it happen?
- What was the outcome?

You’ve only got the drivers word for it!

What do you think might have happened?
Adding video to the equation – forward facing camera

- Why does the vehicle come to a hard stop at the zebra crossing?
- Why does the pedestrian to the left stop before crossing?

You’ve still only got the drivers word for it!

Are you changing your mind on what you think might have happened?
Adding video to the equation – forward and interior cameras

This is what really happened!

- Using mobile
- No seatbelt
Video based driver risk management exoneration
A managed service- consistent expert video reviews

Fundamental Driving Errors
Unprofessional Driving
- Unsafe Backing
- Unsafe Braking

- Unsafe Lane Change / Merging / Passing
- Unsafe Railroad Crossing
- Unsafe Turning
- Lane Departure/Straddling Lanes
- Competitive/Aggressive Driving
- Driving the Wrong Way - On Roadway
- Driving the Wrong Way - Off Roadway
- Curb Check/Jumped Curb
Vehicle Control
- Driving with Two Hands off Wheel
- Unattended Moving Vehicle

Stopping
- Incomplete Stop at Light
- Incomplete Stop at Stop Sign
- Failure to Attempt to Stop at Light
- Failure to Attempt to Stop at Stop Sign
- False Start
- Failure to Yield to Pedestrian(s)
- Failure to Yield to Vehicle(s)

Speeding
- Moderate Speeding (≤ 10 mph Over Limit)
- Excessive Speeding (> 10 mph Over Limit)

Exceeded Maximum Fleet Speed

Situational Awareness
- Unsafe Following (≤ 1 second)
- Unsafe Following (1.25 - 2 seconds)
- Unsafe Following (2.25 - 3 seconds)
- Unsafe Following (3.25 - 4 seconds)
- Not Checking Mirrors
- Not Scanning Road Ahead
- Not Scanning Intersection
A managed service – management reporting and KPIs

Robust metrics, reports and interactive dashboards measure overall program performance

- Target the right information to the right person at the right time
- Emphasise what is most important for improving safety
- Provide clear comparison metrics to measure safety across sites, drivers
- Quickly identify areas for improvement
- Fast drill-down for root cause analysis
DRM – drill down to driver performance profiles
Overall reductions in risky driving

10% improvement in safety score = 8.2% reduction in collision frequency

[ Based on 11,000 vehicle years of data across nearly 36,000 drivers ]
THANK YOU FOR YOUR ATTENTION

ANY QUESTIONS?
THE SMARTDRIVE PROMISE

We put our customers first.

We deliver video in minutes, not days.

We safeguard your drivers and business in every collision.

We will save you the most money in the shortest time.

We protect your investment with a solution you won’t outgrow.
Rocks Between Us: Agenda

TIME: Thursday 29 September, 1530-1630 CEST (Paris Time)
THEME: ‘Technology in Road Safety: Global Best Practice and the Challenges for LMICs’

CALL AGENDA
1530-1540 Welcome to Roads Between Us: Michael Chippendale, GRSP
1540-1555 1. MARTIN SMALL, ‘Vehicle Safety Technology Challenges in LMICs’
1555-1610 2. CARL McFARLANE, SmartDrive
1610-1625 3. ANDREW PRICE, Zurich
1625-1630 Questions / Discussion and proposed next topic ‘Road Safety in the SDGs – 1 Year In’
Technology in road safety – ADAS
Where do most collisions occur?
Autonomous Emergency Braking (AEB)
VW Golf mark VII
Where does this technology fit in with the Decade of Action and the Sustainable Development Goals?
Summary
Rocks Between Us: Agenda

TIME: Thursday 29 September, 1530-1630 CEST (Paris Time)
THEME: ‘Technology in Road Safety: Global Best Practice and the Challenges for LMICs’

CALL AGENDA
1530-1540 Welcome to Roads Between Us: Michael Chippendale, GRSP
1540-1555 1. MARTIN SMALL, ‘Vehicle Safety Technology Challenges in LMICs’
1555-1610 2. CARL McFARLANE, SmartDrive
1610-1625 3. ANDREW PRICE, Zurich
1625-1630 Questions / Discussion and proposed next topic ‘Road Safety in the SDGs – 1 Year In’
Next Call: 1 December 2016

SDGs – 1 year In

➢ What progress has been made?
➢ Who is doing what?
➢ Are we coordinating well enough?
➢ What are the next steps?

Speaker suggestions to michael.chippendale@ifrc.org
Global Road Safety Partnership Secretariat

c/o International Federation of Red Cross and Red Crescent Societies

P. O. Box 372
17, chemin des Crêts
CH-1211 Geneva 19
Switzerland

Tel: +41 (0) 22 730 42 49
Fax: +41 (0) 22 733 03 95
E-mail: grsp@ifrc.org
Website: www.grsproadsafety.org