



The safety of work-related driving: a history and reality check

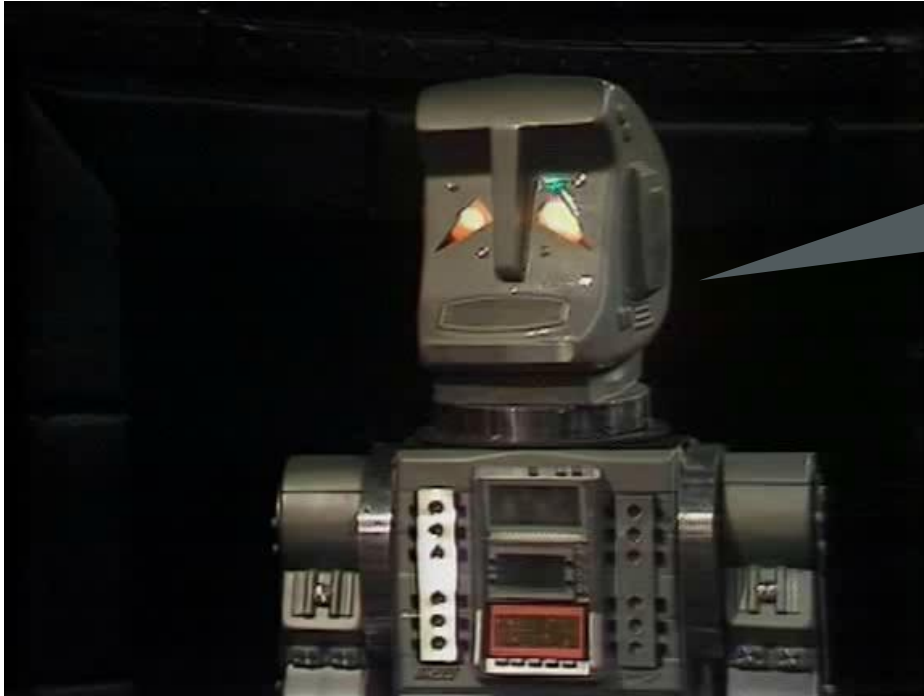
13/07/2023

# Contents



- Prologue: CLOCS – origin story
- WRRS policy/strategy approach and research – origins to present day
- Progress?
- Epilogue: CLOCS – where next?

A warning...



WRRS? Don't talk  
to me about  
WRRS.

## Prologue: CLOCS – origin story

# CLOCS – origin story

**CLOCS** | Construction Logistics and Community Safety

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**Who are you?**

- Regulators >>**  
Set policies and planning conditions
- Communicators >>**  
Encourage others to become CLOCS champions
- Construction Clients / Developers >>**  
Procure the construction of infrastructure and buildings
- Vehicle Manufacturers / Suppliers >>**  
Develop safer vehicles and safety equipment
- Principal Contractors >>**  
Operate construction sites and procure supplies and services that require vehicle deliveries
- Vehicle/Fleet Operators >>**  
Use vehicles to deliver to/from construction sites/developments

# CLOCS – the first project

From 2000/01 to 2011/12, TLRN cyclist flow increased by 173%

From 2000 to 2010, total number of KSI London cyclists increased from 422 to 571

## The statistics

2011: 16 London cyclist fatalities, seven involving a construction vehicle

2001-2006: 38% of cyclist fatalities involve HGV 7.5 tonnes + in weight

Is it possible to define the scale of the problem in the available collision data?

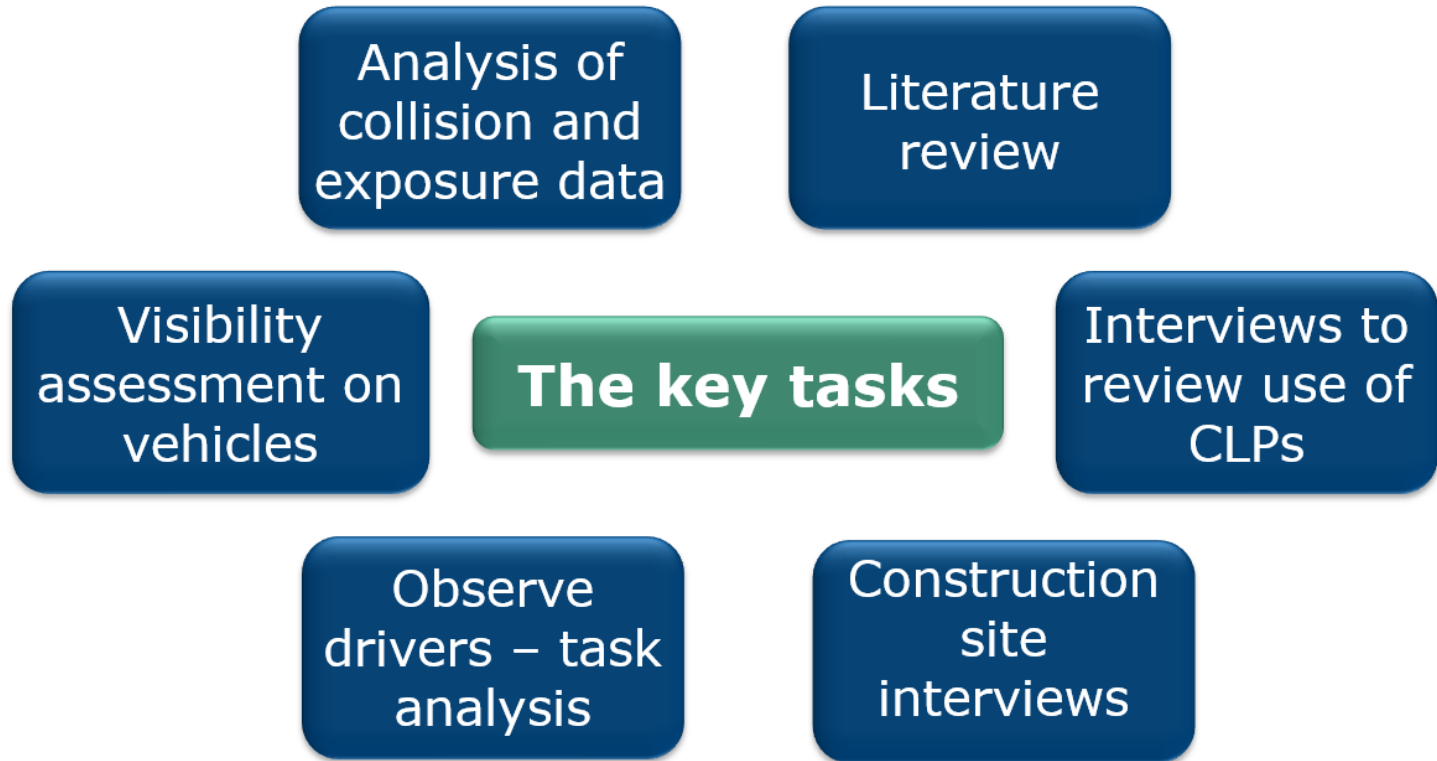
Are there things about the following that contribute to the apparent over-involvement of construction vehicles in fatal collisions with cyclists?

**The design and specification** of the vehicles used by the construction industry

**Driver behaviour** in the construction industry

**Contractual/operational practices** in the construction industry

# CLOCS – the first project





# Findings

- Construction traffic over-represented in collisions with cyclists
- Road risk is viewed as less important than general health and safety



So would you report [an on-road collision] to the site management here?

No, because it's in the roads, it's nothing to do with the site. So if it happens on site then it's generally, it's a totally different story, but if it happens in the street then it's down to whoever it is...these people have got enough to do.



Primary  
subcontractor

# Findings

- Construction traffic over-represented in collisions with cyclists
- Road risk is viewed as less important than general health and safety

When they [your subcontractors] leave the site, do you see any responsibility then for their driving safety?



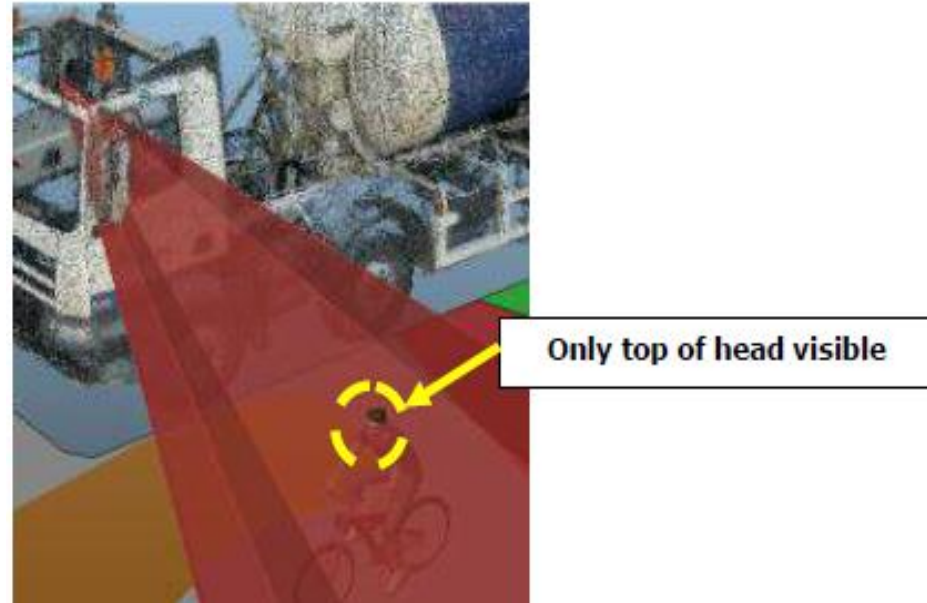
No.



Primary  
subcontractor

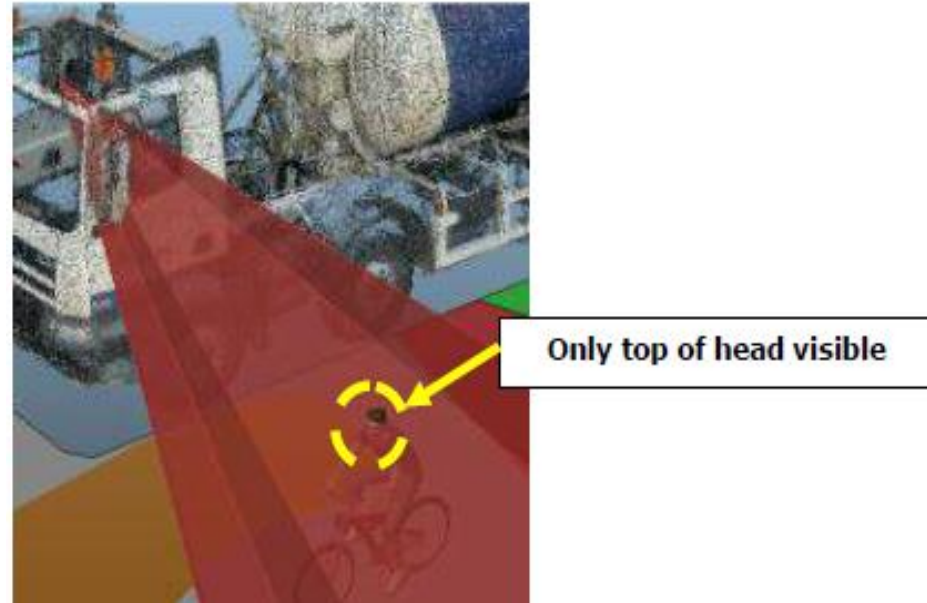
# Findings

- Construction traffic over-represented in collisions with cyclists
- Road risk is viewed as less important than general health and safety
- Data issues leading to lack of awareness
- Route planning
- Some vehicle issues – total blind spots rare but visibility can still be poor



# Findings

- Construction traffic over-represented in collisions with cyclists
- Road risk is viewed as less important than general health and safety
- Data issues leading to lack of awareness
- Route planning
- Some vehicle issues – total blind spots rare but visibility can still be poor
- Potential for driver error and high workload



# Legacy



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# WRRS policy, strategy, research – origins to present day

# A comparator – Asbestos

- Estimated to have caused around 255,000 deaths annually

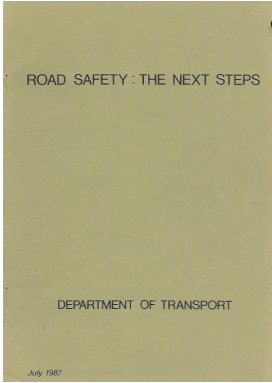
“The First Supplement to the “Occupation and Health—An Encyclopedia of Hygiene, Pathology and Social Welfare” of the International Labor Office, ILO, Vol. I, 999 pp.; Vol. II, 1310 pp. was published in 1938 and contained a Chapter on Asbestos”

“It took 40 years to start international action. The ILO Asbestos Convention No. 162 was adopted in 1986”



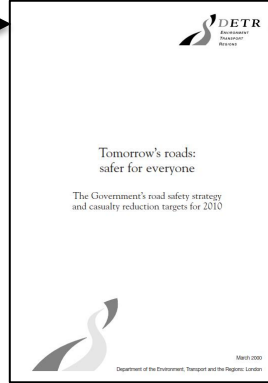
Furuya, S., Chimed-Ochir, O., Takahashi, K., David, A., & Takala, J. (2018). Global asbestos disaster. *International journal of environmental research and public health*, 15(5), 1000.

1987



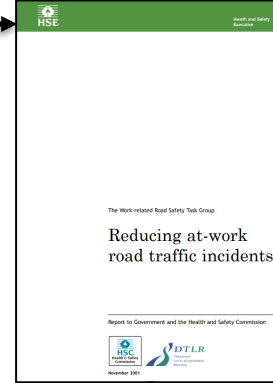
“Um...there might be something in this...”

2000



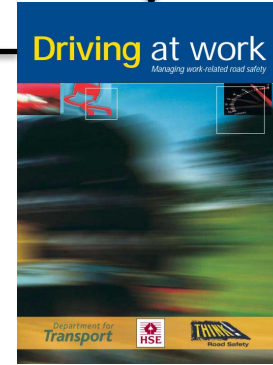
“We should set up a group...”

2001



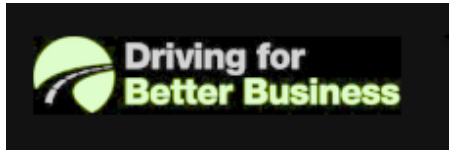
“Hey we think road safety is just like H&S...”

2003



“Like this?”

2007



“We’ve got this...”

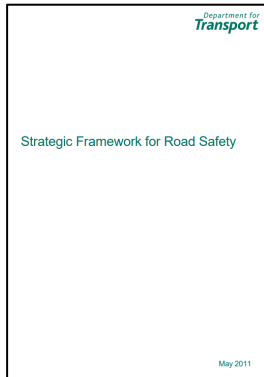
2005



“Yes, but with champions...”



2011



“Everything is great...”

2015

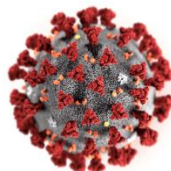


“OK...not everything is great...but we have plans...”

2019



“OK – NOW everything is great..”



# 1987 review

ROAD SAFETY : THE NEXT STEPS

DEPARTMENT OF TRANSPORT

*July 1987*

9. Early in the Review's work, the Transport and Road Research Laboratory undertook a major analysis of all road safety functions to identify the scale of the contribution which each of them makes to casualty reduction. This study confirmed that, for the majority of road safety functions, we simply do not know what returns are being achieved in terms of casualties saved and, moreover, have little prospect of ever finding out.

## 1987 review

10. In large measure the difficulties arise from the fact that many of the activities which one would naturally tend to regard as among the most significant in the promotion of road safety, and which account for the lion's share of public and private resources (eg the driving test, driver licensing, the whole corpus of road traffic law) are so long established and so broadly based that there is no easy way of evaluating their contribution to casualty saving, other than by abandoning each of them in turn (possibly for a substantial period) and attempting to assess the consequences. The problems involved in such a course of action hardly need to be spelt out. Even with activities that are less firmly established than those just mentioned, the scope for genuine evaluation is severely limited.

## SUMMARY OF RECOMMENDATIONS

### 17 : Other Organisations

Although Government has no direct role in the creation of an effective road safety lobby, it can help prepare the ground for such a lobby by stimulating public awareness of and debate on the casualty problem. Possibilities to be explored include public briefing on the facts by all Departments; encouragement of voluntary groups; encouragement of companies to take in accident prevention within their management interests; and persuading insurers to adopt approaches which more directly encourage good driving and discourage bad.

# 1990s to early 2000s TRL and other (e.g. RoSPA) research



- Established the existence of a ‘fleet driver effect’ – increased collision risk (30-50%) even after mileage and demographics are controlled
- Rule of thumb – “One quarter to one third of collisions involve someone driving for work...”
- Established main risk factors (from multiple studies in multiple countries using multiple methods)
  - Mileage
  - Fatigue, distraction, time pressure

# 2000 – Tomorrow's Roads...



## Tomorrow's roads: safer for everyone

The Government's road safety strategy  
and casualty reduction targets for 2010



March 2000

Department of the Environment, Transport and the Regions: London

## Work-related road safety

The Health and Safety Commission (HSC) and the Health and Safety Executive (HSE) have considered their role in the prevention of work-related road incidents. They concluded that they wanted to do more in this area of risk, but recognise that they need to work with others, to discover the best way to reduce work-related traffic risks.

The HSC has therefore agreed with Ministers that an **inter-agency task group** is set up with the mandate to:

- establish accurate casualty and incident statistics for work-related activities on or near our roads;
- establish the main causes and methods of preventing work-related road incidents;
- promote a public debate on best practice in relation to prevention of work-related road incidents;
- agree minimum standards for employers and others in managing the road safety implications of work-related journeys and other work activities on the highway;
- propose mechanisms that will help dovetail road traffic law and its enforcement with health and safety at work law and its enforcement; and
- propose mechanisms for effective liaison between those who enforce road traffic law and those who enforce health and safety at work law.



# 2001 – Work-related Road Safety Task Group

- Many recommendations...including
  - Managing WRRS just like regular H&S
  - RIDDOR reporting
  - Changes to Stats19

The Work-related Road Safety Task Group

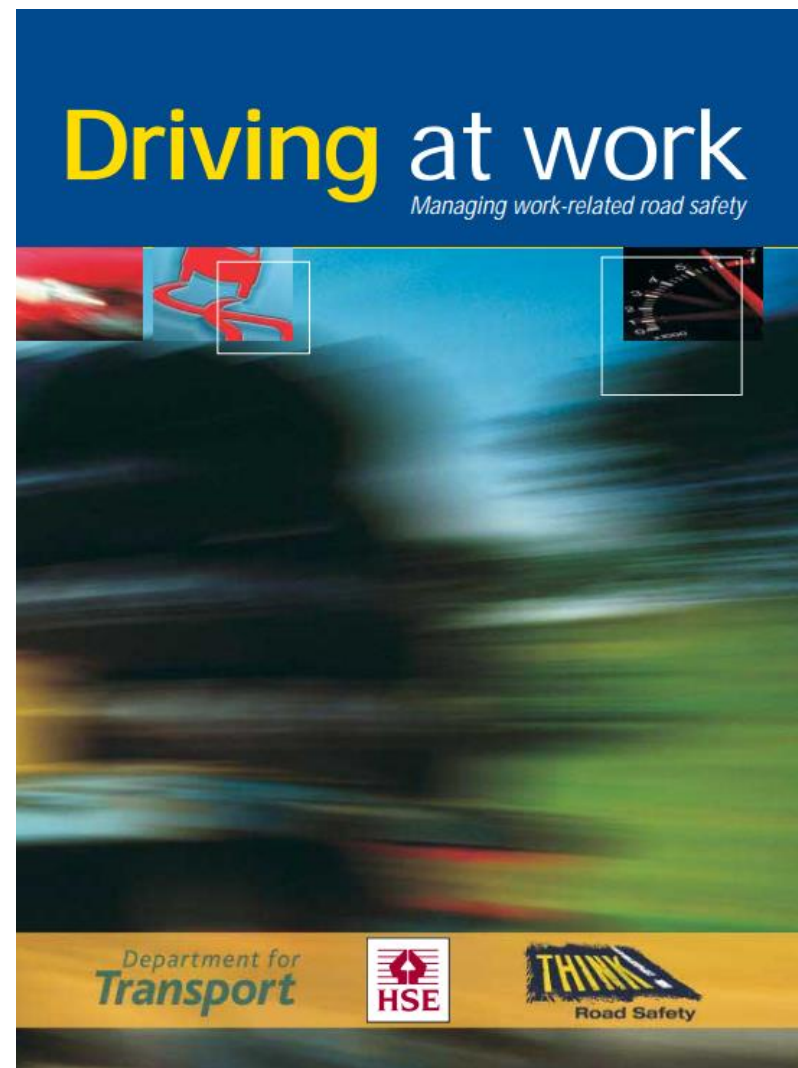
## Reducing at-work road traffic incidents

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Report to Government and the Health and Safety Commission

## 2003 – INDG382

- First time it was made explicit that a vehicle driven for work purposes is part of the workplace, and therefore subject to H&S regulation



# 2005 – Motorists' Forum report

- The report advocated that employers should be:
  - identifying the risks associated with the typical journeys performed by employees
  - disseminating and promoting a policy to employees that addresses these risks
  - giving employees relevant training to make them aware of risks and give them the skills to manage them
  - monitoring crashes (and near-misses) and using this information to improve training
  - consulting and involving employees in this process
  
- ...and an 'outreach project' with 'champions' to support companies in improving WRRS management

## IF YOU EMPLOY OR MANAGE DRIVERS THIS FREE PROGRAMME IS FOR YOU.

[LEARN MORE >](#)



Reduce risk  
in your business



Improve driver safety  
wellbeing & behaviour



Check your driving for work  
policies are compliant

[HOW IT WORKS >](#)

# 2011 Strategic Framework for Road Safety

## Strategic Framework for Road Safety

May 2011

- 3.19** There is also an important role for all businesses where their employees drive for work. About a quarter to a third of road deaths and injuries are incurred during work time, with some work-related collisions being related to fatigue. The preparation and implementation by employers of policies to make driving safer not only reduces casualties but can cut costs (such as damage to vehicles, employee absence and litigation). There are a growing number of examples of good practice – from the largest companies down to small businesses. This includes local authorities, other public bodies and voluntary organisations.

# IOSH Systematic Review (2011)

- Systematic review looks at all the evidence, rates it for quality and relevance, and assesses overall effects
- Main conclusion – almost no strong evidence for WRRS interventions
- Secondary conclusion – over-reliance on case studies means it is almost impossible to know what works, and what does not

Grayson, G. B. and Helman, S. (2011). Work related road safety: a systematic review of the literature on the effectiveness of interventions. Research report 11.3. Institute of Occupational Safety and Health.

## Work-related road safety

A systematic review of the literature on the effectiveness of interventions

Report submitted to the IOSH Research Committee

Graham B Grayson BSc PhD and Shaun Helman BSc PhD  
Transport Research Laboratory  
Crowthorne House  
Nine Mile Ride  
Wokingham  
Berkshire  
RG40 3GA  
UK



research report

11.3



“The review covered six main areas: driver training, group discussions, incentive schemes, publicity, in-vehicle recorders, and organisational approaches. Although the study set out to provide evidence-based advice to practitioners, this proved to be a surprisingly difficult task. Only four interventions were found in studies of a scientifically acceptable standard that showed statistically meaningful reductions in crash risk. Three were in the same investigation, and all were conducted more than a decade ago.”



## Leads to...TRL's 'start with the basics' approach

- Collect **data**
- Have management system based on '**plan-do-check-act**'
- Simple 'baseline' **good practice** (licence checks, induction, seat belts)
- Measures to **reduce driving**
- Measures to reduce driving during highest risk periods related to **sleepiness and fatigue** (2-6am, 2-4pm)
- Measures to reduce driving while **distracted**
- Measures to reduce driving while under **time pressure**
- Measures focused on **specific risk factors** for a given sector or business

# CLOCS research (2013)

- Over-representation of construction vehicles in cyclist collisions in London
- Safety-imbalance with H&S
- Vehicles
- Drivers
- Routes

Helman, S., Delmonte, E., and Stannard, J. (2013). Construction logistics and cyclist safety: summary report. Published Project report (PPR640). Crowthorne: Transport Research Laboratory.



**PUBLISHED PROJECT REPORT PPR640**

**Construction logistics and cyclist safety**  
Summary report

**S Helman, E Delmonte, J Stannard**

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**Prepared for:** Transport for London (TfL)

**Quality approved:**

J Stannard  
(Project Manager)



A Parkes  
(Technical Referee)



# RoPSA Strategic Review (2014)

- Update of IOSH review
- Talked to stakeholders
- Talked to small businesses
- Looked more closely at the data

Helman, S., Christie, N., Ward, H., Grayson, G., Delmonte, E. and Hutchins, R. (2014). Strategic review of the management of occupational road risk. Published Project Report (PPR699). Crowthorne: Transport Research Laboratory.



**Strategic review of the management of occupational road risk**

**S Helman, N Christie, H Ward, G Grayson, E Delmonte, R Hutchins**

**Prepared for:** The Royal Society for the Prevention of Accidents (RoSPA)

**Quality approved:**

R Hutchins  
(Project Manager)

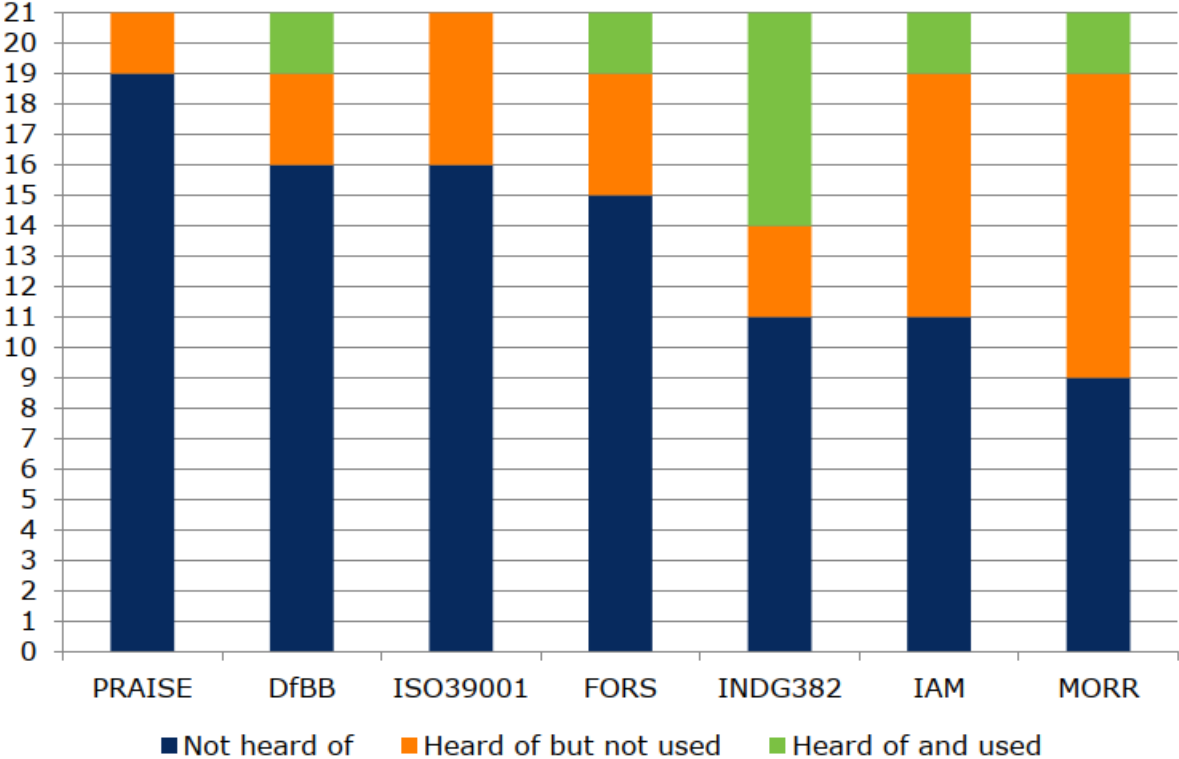
G Grayson  
(Technical Referee)

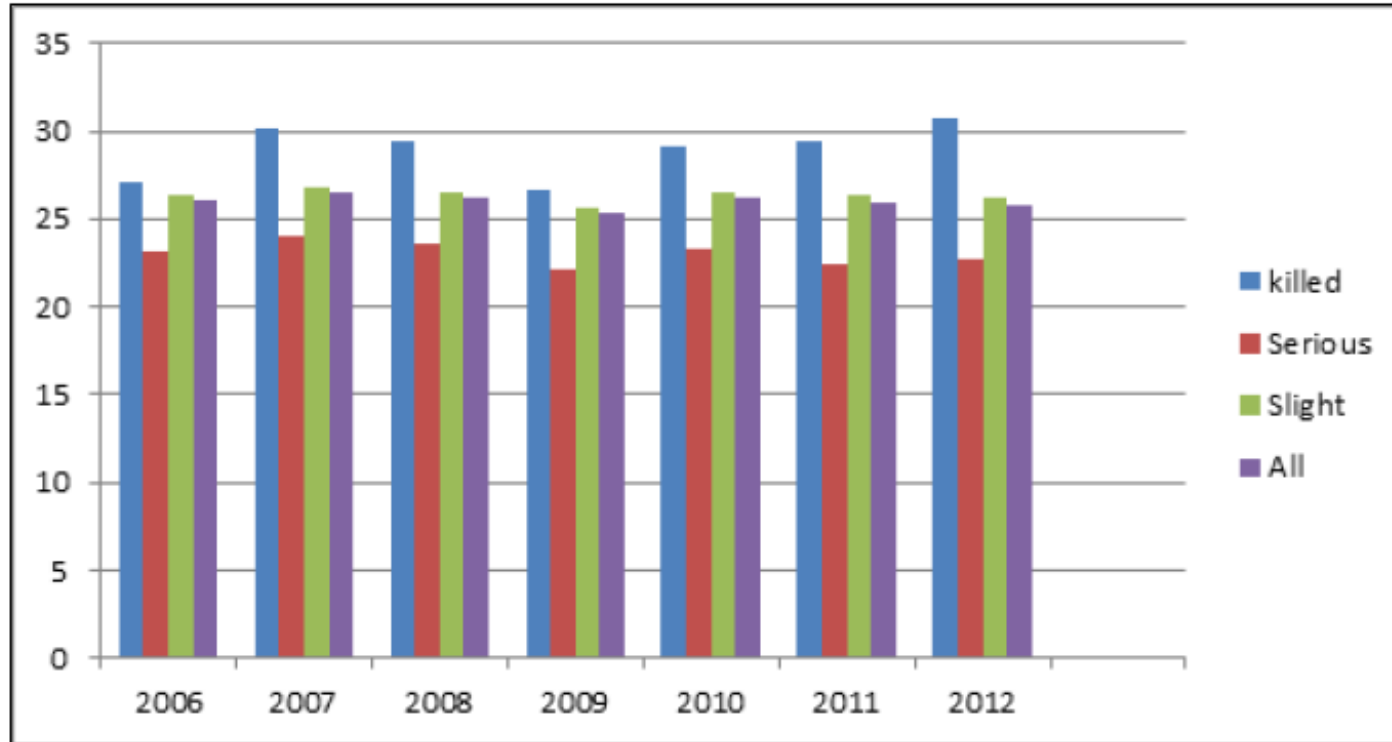
H Ward  
(Technical Referee)

- Main findings
  - No real change in evaluation
  - Data is inadequate, especially given changes in fleets and driving practices
  - Inadequate government leadership, poor data, and inability to manage things well through the supply chain and procurement
  - WRRS is not 'mainstream' like workplace H&S
  - Small businesses do not use (and often are not aware of) the various guides, toolkits and products that are put in place to help them

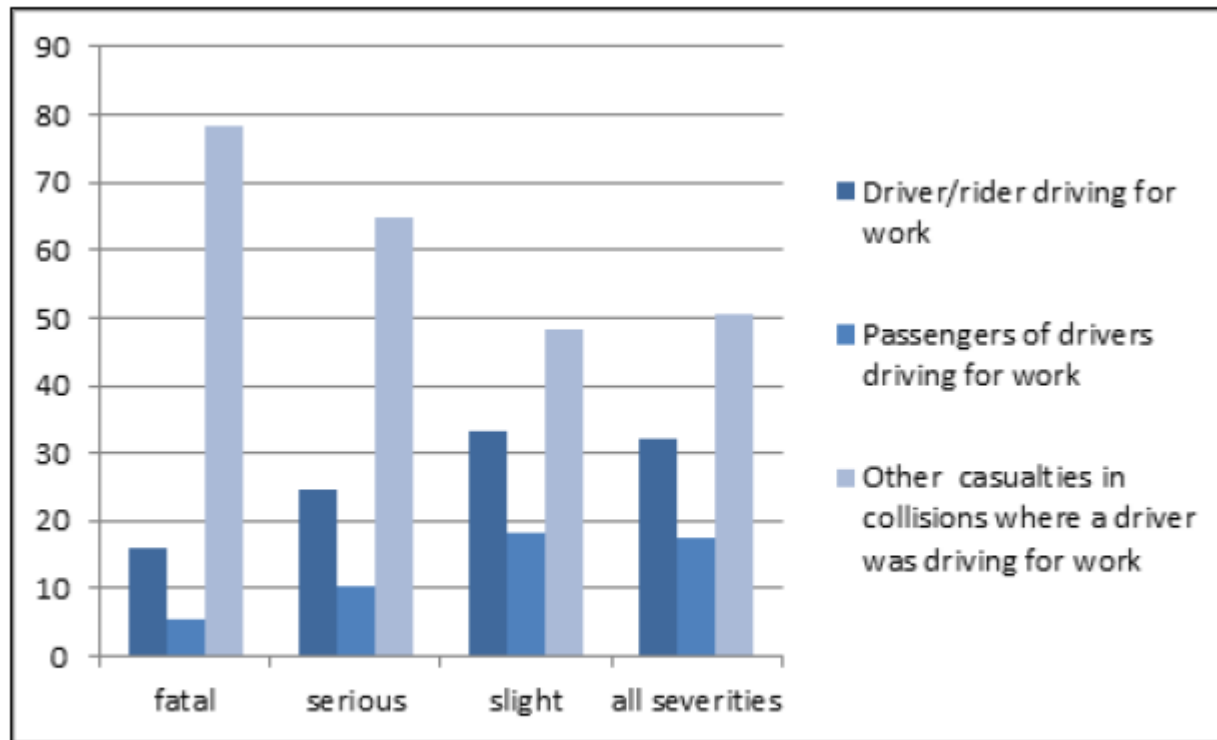
# RoPSA Strategic Review (2014)

- Interviews with 21 small businesses – awareness and use of guidance





**Figure 1: The percentage of casualties by injury severity that were killed or injured in collisions involving driver or rider driving for work.**



**Figure 2: The percentage of drivers and riders driving for work, their passenger or other road users not in their vehicle who are killed or injured.**

# 2015 Road Safety Statement



Department  
for Transport

## Working Together to Build a Safer Road System British Road Safety Statement

**Moving Britain Ahead**



December 2015



2.34 Our efforts to improve occupational road safety will maintain a strong focus on how to reduce deaths, including cyclist deaths, caused by HGVs. That is why we are working at EU level on new laws to improve HGV design to get safer and more aerodynamic lorries on our roads. This includes consideration of both the driver's field of view for new vehicle designs, permitting camera monitor systems as an alternative to mirrors, and improving the front structure of vehicles to provide better protection for pedestrians and cyclists. We will also consult on legislative changes to ensure that sideguards and rear under-run devices, which are required for new vehicle approval, remain fitted to HGVs throughout their life and are not removed.

3.25 We will start this process by evaluating existing safer driving for work schemes to understand what works, with a view to promoting existing good practice to employer networks and other occupational drivers.

3.27 As part of this work, we see great potential for collaborating with the vehicle leasing sector as it accounts for one tenth of cars and up to one quarter of HGVs on our roads. We will also work with fleet buyers to encourage faster take-up of the latest safer designs.

# TfL review (2015)

- Collision data analysis
- Review of 15 fatal collisions
- Documentation review
- Interviews with stakeholders
- Question – how does WRRS differ from workplace safety, and other transport modes?

Delmonte, E. (2014). Investigating the safety imbalance: comparing work-related road safety and workplace safety. Client Project Report (CPR3548). Crowthorne: Transport Research Laboratory.



## CLIENT PROJECT REPORT CPR3548

### Investigating the Safety Imbalance: Comparing Work-Related Road Safety and Workplace Safety

Summary report

**E. Delmonte**

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Prepared for: TfL

Quality approved:

Kirsty Novis  
(Project Manager)

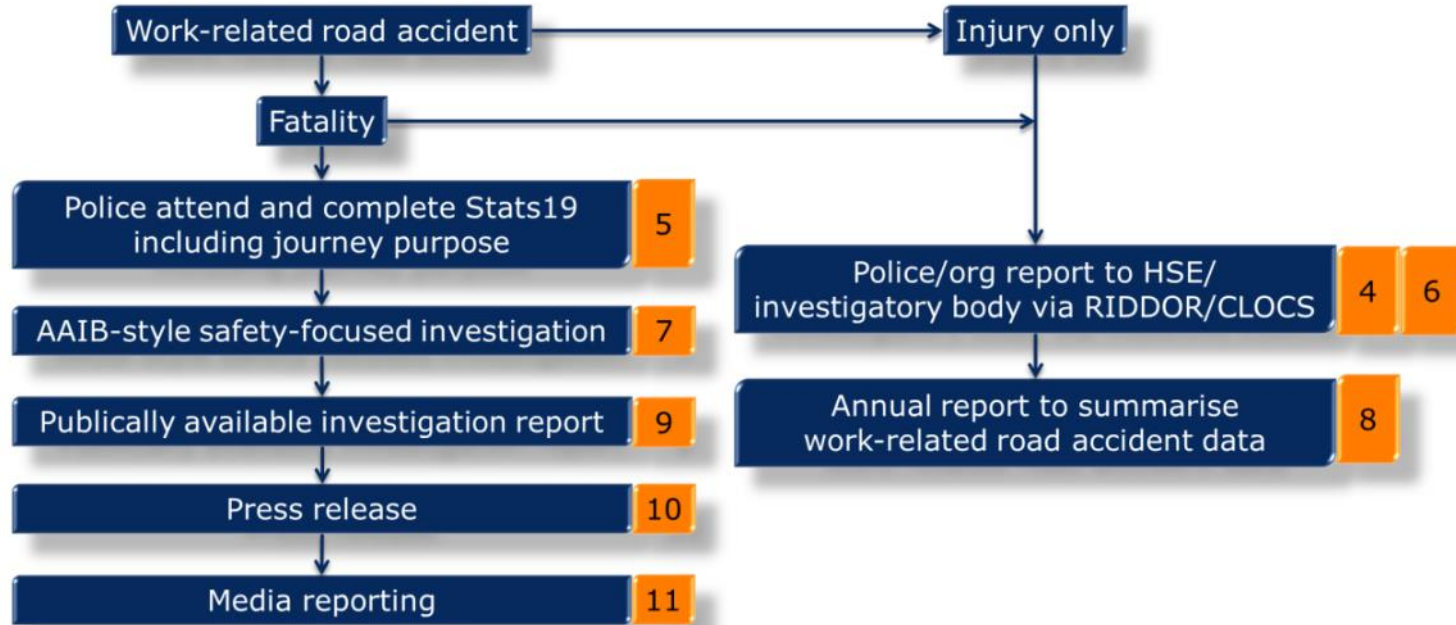


Dr Shaun Helman  
(Technical Referee)



- 13 recommendations including:
  - Regulator for work-related driving
  - Work-related collisions should be RIDDOR-reportable
  - Require completion of 'journey purpose' in STATS19
  - Extend CLOCS to other sectors
  - Annual reporting
  - Collision investigation for road (specifically WRRS)
  - Publicly-available reports from investigations
  - Coroner 'Prevention of Future Deaths' reports searchable by journey purpose
  - Media encouraged to take WRRS deaths more seriously

# TfL review (2015)



**Figure 1. Suggested implementation of recommendations**

# 2019 Road Safety Statement



## The Road Safety Statement 2019 A Lifetime of Road Safety

Moving Britain Ahead



July 2019

## Summary of actions for fleets and people who drive for work

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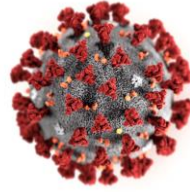
- 39 Work with commercial fleets, employers' organisations and drivers to identify and promote good practice in work related road safety, including supporting the Driving (and Riding) for Better Business

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- 40 Work with the Health and Safety Executive to review work related road safety and the prevention of collisions at workplaces with a rural land focus

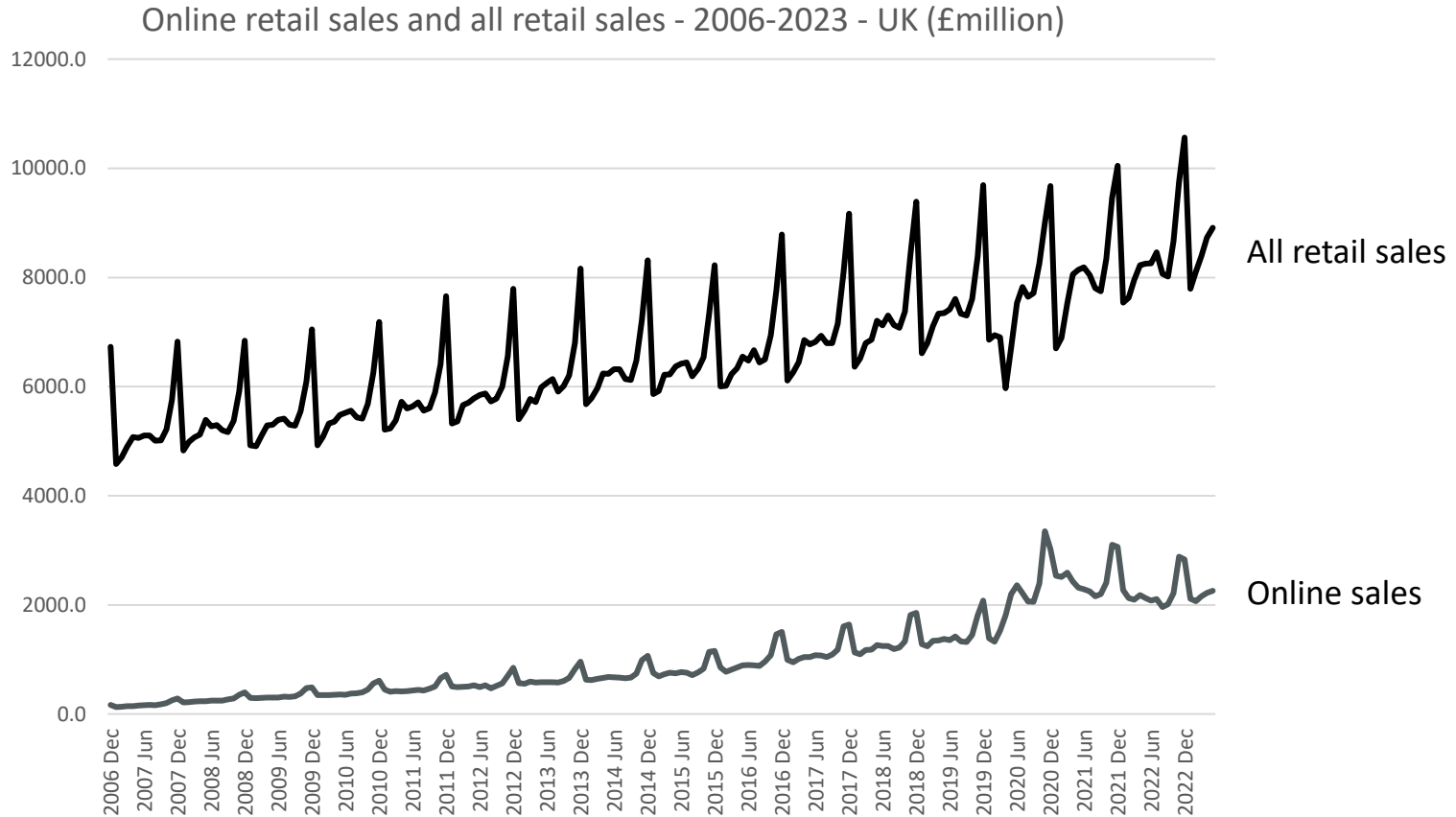
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2020 – present...





# Online sales...



# UCL work on gig economy (2019)

- Interviews (N=48) and survey (N=231)
- 42% said they have been involved in a damage collision, 10% injury collision
- Main risks – fatigue, distraction, speeding...



The health and safety risks for people who drive for work in the gig economy



Nicola Christie\*, Heather Ward

Christie, N; Ward, H; (2019) The health and safety risks for people who drive for work in the gig economy. **Journal of Transport & Health** , 13 pp. 115-127. [10.1016/j.jth.2019.02.007](https://doi.org/10.1016/j.jth.2019.02.007).

# UCL work on gig economy (2019)



“The business model of gig companies works on incentivising people to drive or ride in ways which, from a road risk perspective, are most dangerous for example at night and in dangerous weather conditions, using a distracting work interface in an intrinsically pressured environment. ”

# Progress

# A comparator – Asbestos

- Estimated to have caused around 255,000 deaths annually

“The numbers and costs are increasing practically in every country and region in the world.

**Asbestos has been banned in 55 countries but is used widely today:**

2,030,000 tons consumed annually according to latest available consumption data.”






International Journal of  
*Environmental Research  
and Public Health*



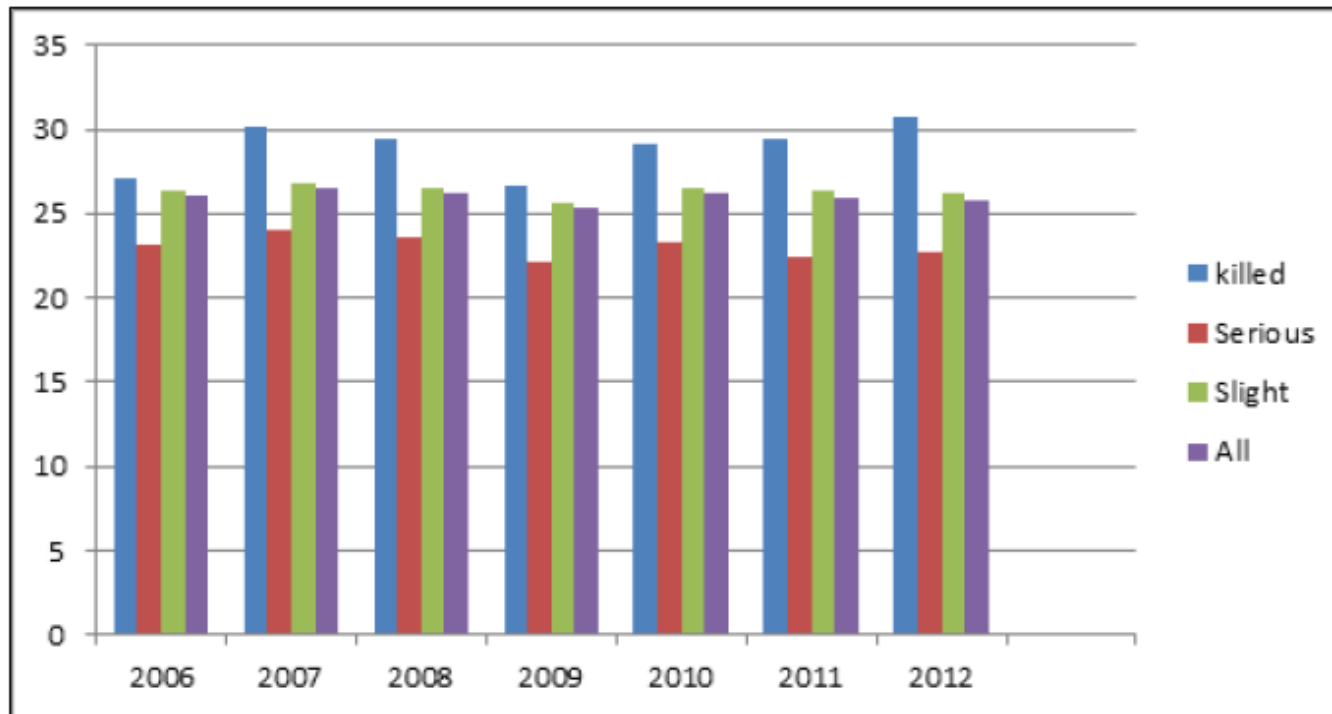
Article

## Global Asbestos Disaster

Sugio Furuya <sup>1</sup>, Odgerel Chimed-Ochir <sup>2</sup>, Ken Takahashi <sup>3</sup> , Annette David <sup>4</sup>   
and Jukka Takala <sup>5,\*</sup> 

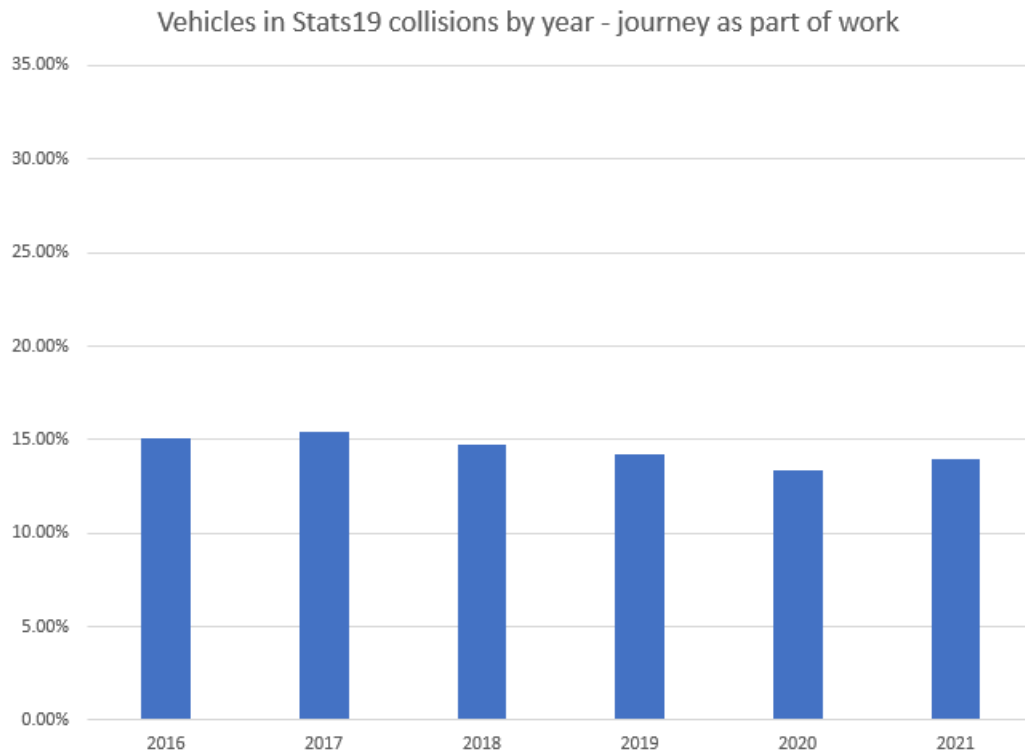
Furuya, S., Chimed-Ochir, O., Takahashi, K., David, A., & Takala, J. (2018). Global asbestos disaster. *International journal of environmental research and public health*, 15(5), 1000.

# Where are we (2006-2012)?



**Figure 1: The percentage of casualties by injury severity that were killed or injured in collisions involving driver or rider driving for work.**

# Where are we (2016-2021)



# Where are we?

*“...speeding and use of the mobile phone...it's just built into the business model unfortunately.”*





## Epilogue: CLOCS – where next?


## Given the lack of progress...

- How can CLOCS show leadership in this area? Can it change the game outside of construction?
- Is risk built into the business model of businesses undertaking deliveries or other time-based activities?
- If so, how does this align with the safe system?
- Do we want to address this? If so, how?



## Questions?

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