Wrestling with the competing priorities of fatigue risk management in transport:
Protection, payments, productivity and politics

Never Stand Still | Science

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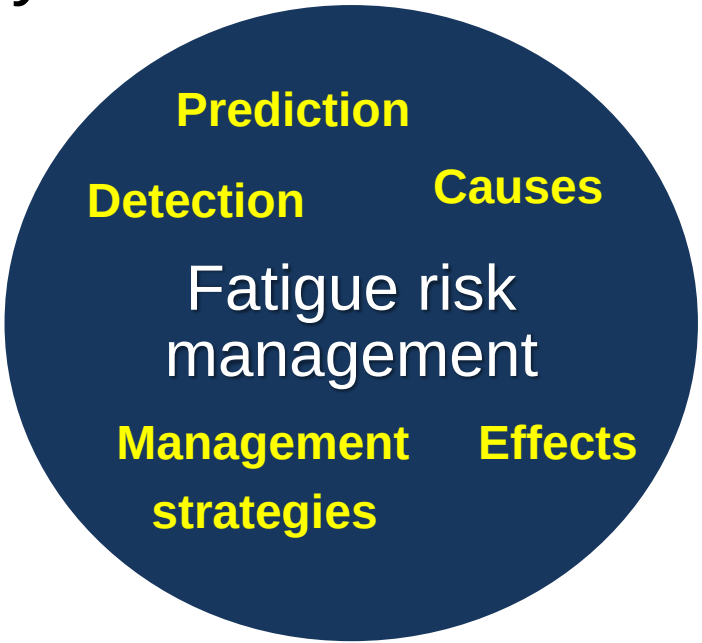
UNSW AVIATION

TARS Research

In this presentation….

- Issues in achieving effective Fatigue Risk Management in a real world setting (road transport)
- What can we learn about getting it right?

Our Primary Focus:



But is this enough?

Success likely to be defined by the context

Fatigue Risk Management in practice

Objective is to reconcile:

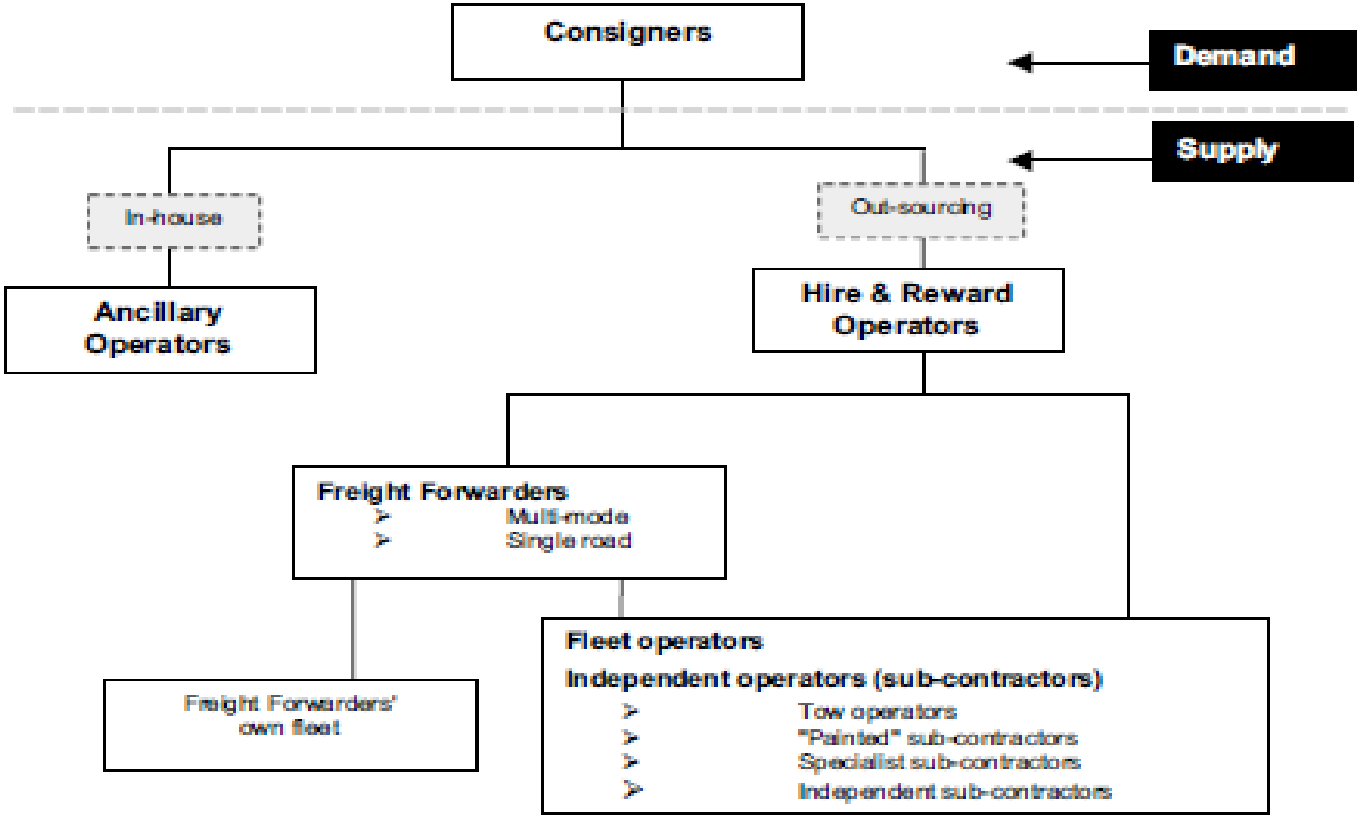
- the need for 24/7 operations with effective fatigue risk management in workplace setting

- Characteristics of transport operations:
  - Long, irregular hours of work
  - Continuous operations – if vehicle is not moving forward, work is not being done

Road transport industry context in Australia

- Accounts for 33% total freight movements (77% Non-bulk freight)
- Long distances (USA=Aust)
  eg: Syd-Perth=4,000km; Syd-Melb 900km
- Heavy trucks over-represented in crashes. Road transport industry 10 x higher fatality rate than all industries.
- Fatigue acknowledged as major issue

FIGURE 2.1 STRUCTURE OF THE MARKET

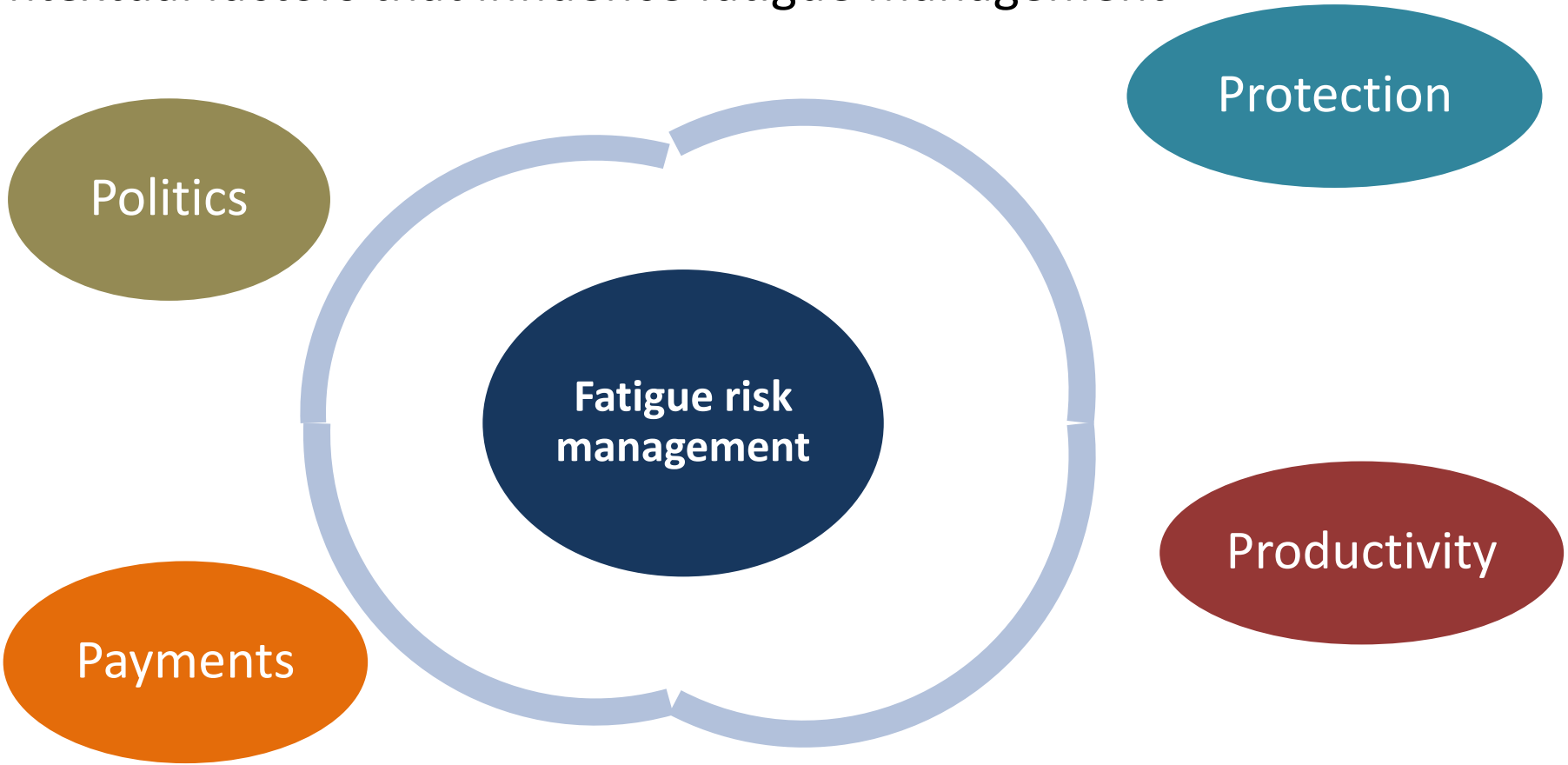


Source: BTRE 2003 overview Aust road freight industry

Organisational context

- Increasing subcontracting and outsourcing of the freight task by ancillary transport sector → increasing hire and reward sector
- For-hire and reward section:
  - Many small operators including owner-driver/owner-operators (~65% businesses but <12% income)
  - Highly competitive, small profit margins
  - freight forwarders and receivers exert considerable market pressure especially due to leaner warehousing practices, eg: Just-in-time etc.

Contextual factors that influence fatigue management



Fatigue Protection

- Managed by Hours of Service regulations
- Enforcement regime through work diaries, roadside and random checking (Police, Road authority inspectors)
- Chain of responsibility
  - Shared responsibility/accountability across transport chain

Hours of Service regulations

Standard hours

= 12 hrs work in 24, 72 hrs/week, 7 hr continuous rest in 24

Basic Fatigue Management (BFM)

= 14hrs work in 24, 84 hrs/week, 7 (6+2) continuous rest in 24

Advanced Fatigue Management (AFM)

= FRMS based on Safety case (with benchmark for outer limits)

(Industrial Awards allow 35-38hrs per week)

- Very long hours of work permitted compared to any other industry, with little time for rest/recovery

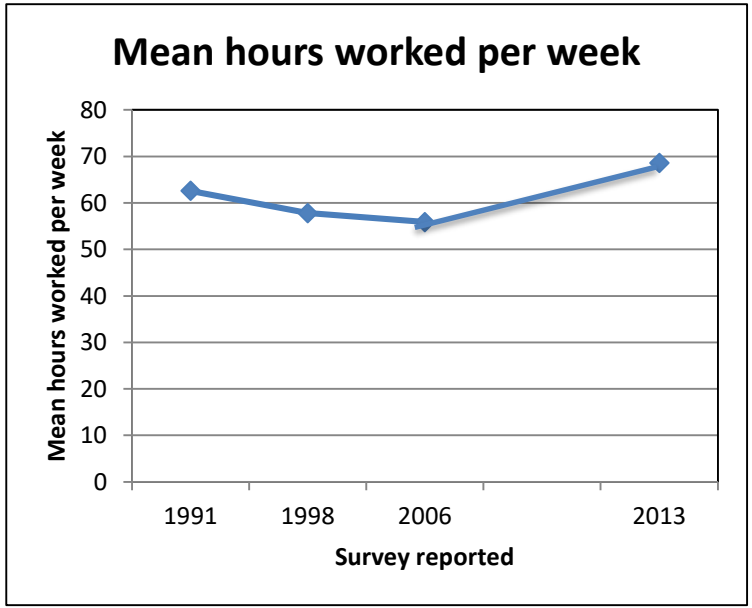
Contextual factors that influence fatigue management

Productivity

- Road transport productivity is increasing:
  - Road freight volumes increased by 67% since 2000, projected to nearly double by 2030
  - Increasing larger trucks – B doubles, triples, road trains

Long hours of work

- Drivers are doing longer hours



- 53.8% drivers do >70hrs per week
- BFM (allowed in 2008), now 65% drivers work it and do up to 84 hrs per week

➔ when we allow longer hours: industry takes them

So what is wrong with long working hours anyway?

Link between context/hours and adverse safety outcomes

- 5 surveys show:

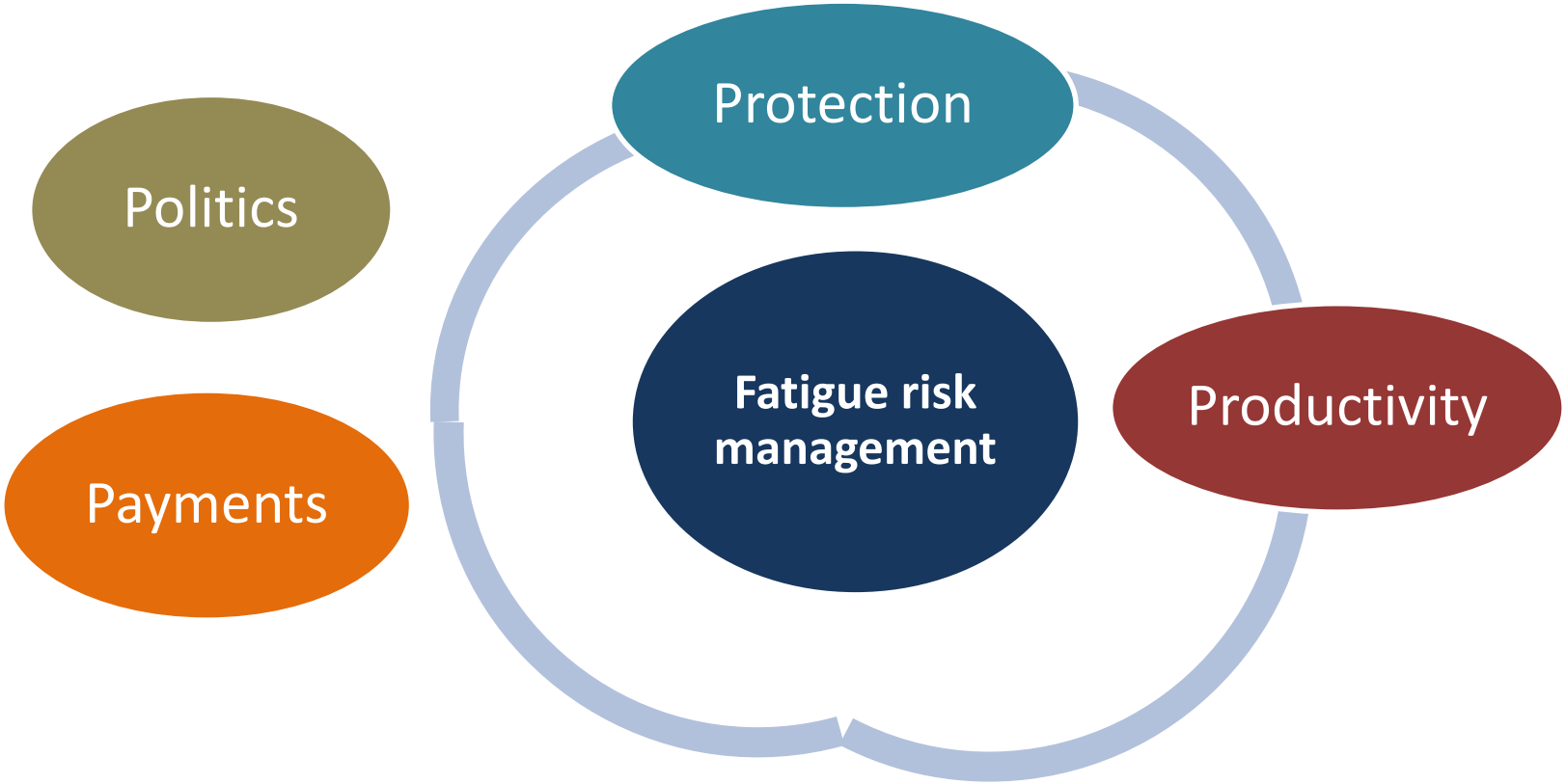
  long hours for drivers = significantly greater fatigue

BUT

➔Why do drivers do such long hours?

➔Why do operators allow them?

Contextual factors that influence fatigue management



Payments

Emphasis in long haul trucking on Productivity-based payments (for employees and contractors)

- Most drivers (65%) paid only for driving-related work (by trip or load)
- Few paid for loading (<50%), or waiting/queueing (< 26%)
- Remuneration based on competitive pressures for loads, not work task required

  - Enormous differences in remuneration for loads between different centres (Melb to anywhere Vs anywhere to Melb)

- Many trips costed at rates below break-even

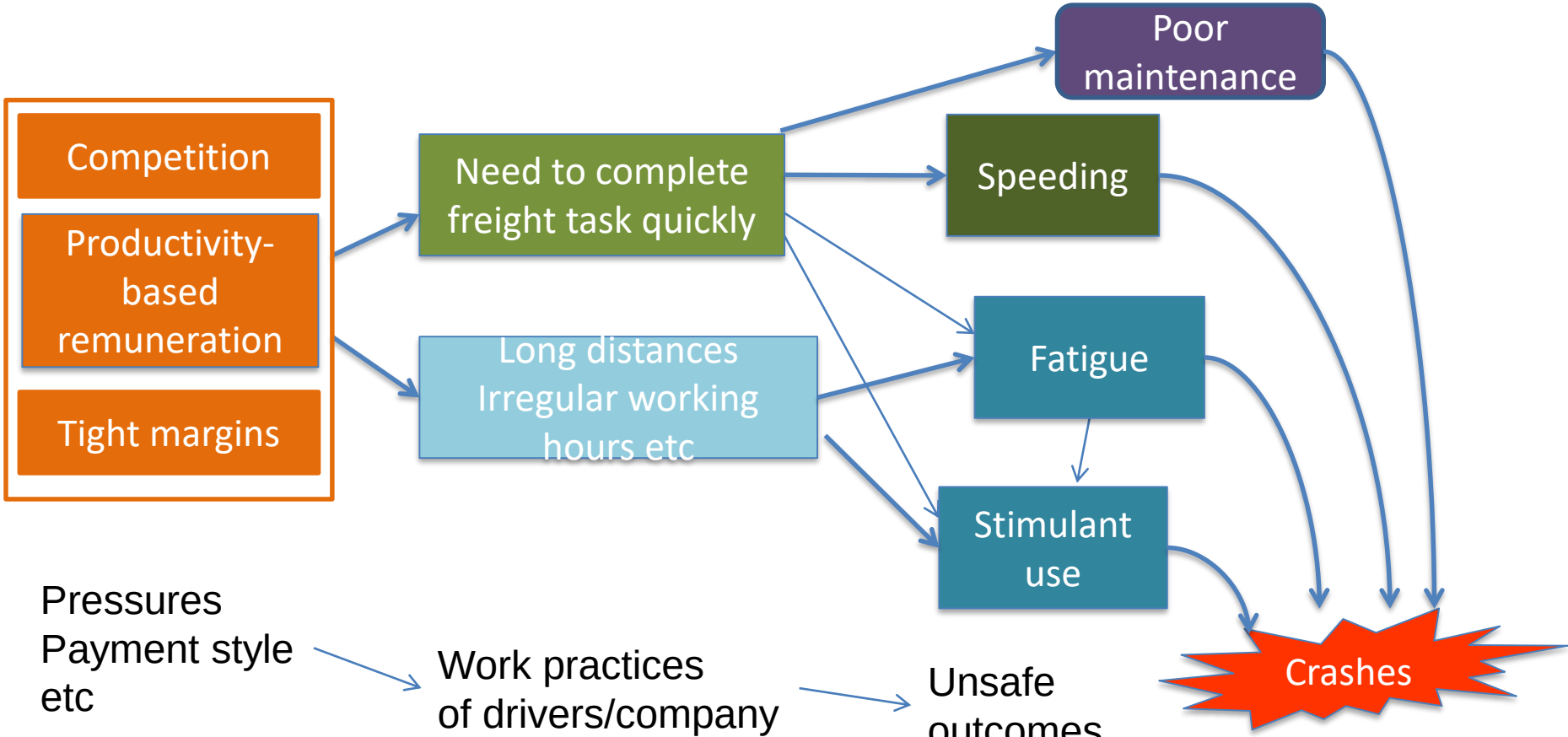
Relationship between payments and fatigue

- Multiple surveys in USA and Australia show Performance-based pay and no pay or low pay for non-driving tasks is associated with :
  - ↑ fatigue, ↑ stimulant use, ↑ speeding, ↓ vehicle maintenance

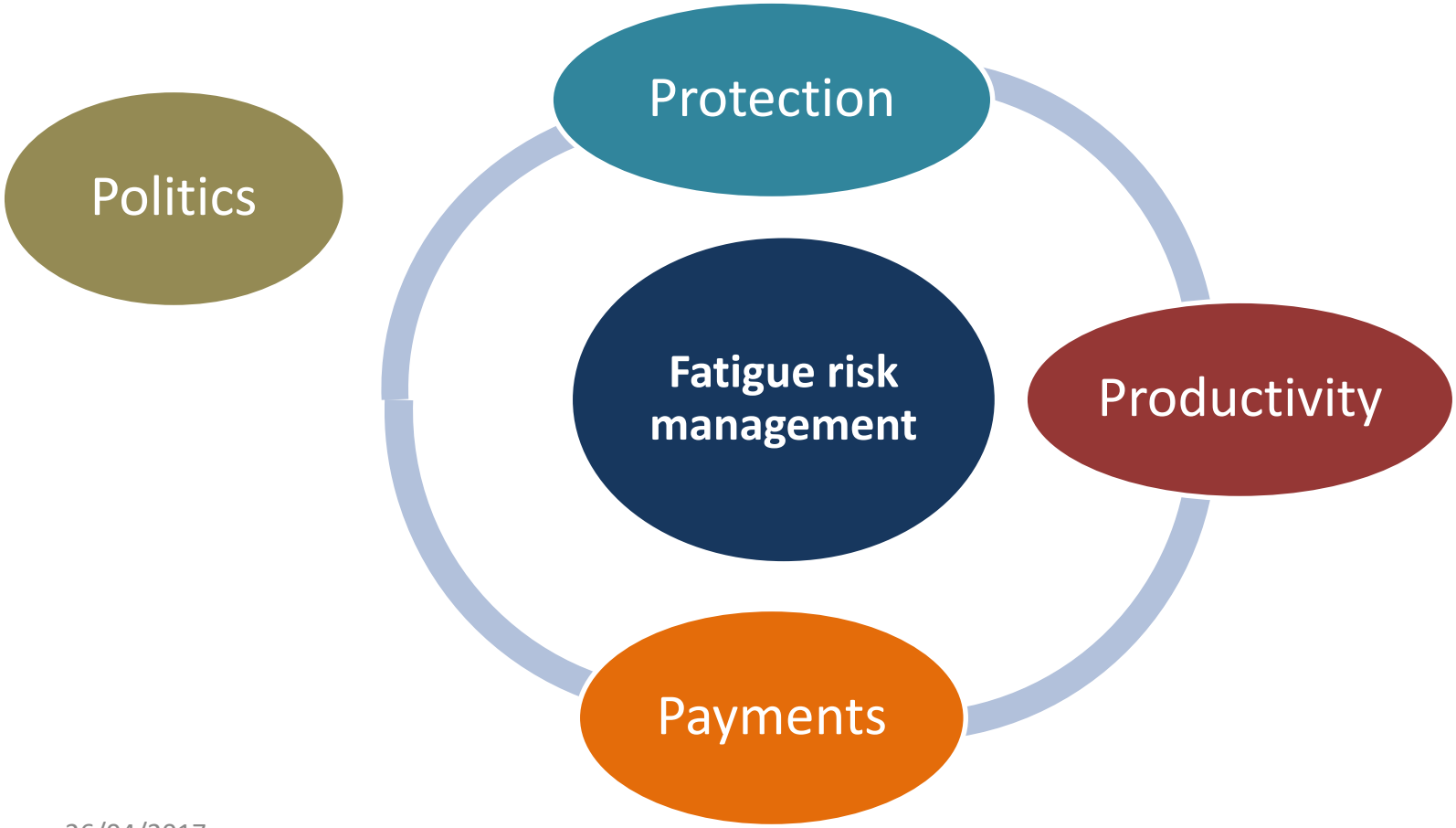
  (eg., Hensher & Batellino, 1990; Williamson et al., 2001; Belzer et al, 2002; Williamson 2007; Thompson & Stevenson, 2014)
- One survey showed: no pay for loading/waiting=longer hours and greater fatigue
- Australian crash case-control study showed predictors of crashes:
  - Empty loads (x2-3)
  - Night driving (x3)
  - No break for >4hrs (x2-3)

  (Stevenson et al, 2015)

Relationship - External pressures and safety



Contextual factors that influence fatigue management



Politics

- Ensuring safe remuneration rates for trucking varies around the world. Most are deregulated and the market sets payment rates (eg., USA)

  In Australia:

  – Historically and continuing: regulation through industrial agreements (with little effect)

  – 2012 Establishment of Road Safety Remuneration Tribunal (by Act of Parliament)

Road Safety Remuneration Tribunal

- Objectives: Promote safety and fairness in road transport industry
- Make Road Safety Remuneration Orders on issues like:
  - Minimum remuneration and conditions for employee and/or contractor drivers
  - Other conditions: Loading/unloading, waiting time, working hours, payment methods and periods
  - Reducing remuneration-related incentives pressures and practices contributing to unsafe work.

RSRT activities 2012-2016

- 2 RSR Orders and multiple reviews of industry sectors
- RSRO 1 (2014): Road transport and distribution and long distance operations. RSR Order 1 included:

  Safe payment plans, required payments within 30 days, written contracts, alcohol and drug programme, WHS training

  ❖ Accepted by industry

RSRT activities 2012-2016

- RSRO 2 (2016): Contractor Driver Minimum Payments RSR Order included:
  - Minimum hourly and km rates (developed based on research by independent 3rd party (KPMG) and repeated rounds of draft and review by industry over three years),
  - Minimum rates could be averaged over 4 weeks so total paid to driver ≥ minimum (to allow for differential payments on some routes)
  - Remuneration rates to include ALL time taken in providing the road transport service – loading/unloading, queueing, waiting etc.

Review of impact of RSRO 2

- Independent cost-benefit analysis of both RSR Orders (PWC, 2016)
  - Estimated cost of minimum rates in RSR Order 2 = $40 mill pa, or $20 per week per contractor
  - Estimated benefit to road safety – 28% reduction in heavy vehicle crashes

"The operation of these Orders will have the largest impact on hire and reward and ancillary operations who will in turn pass some of these costs onto consignors and consignees that demand road freight services and consumers. Drivers are likely to benefit the most due to increased remuneration and fewer road accidents followed by government and members of society who face costs following road crashes and will therefore benefit from an improvement in safety"

(PricewaterhouseCoopers, Review of the Road Safety Remuneration System Final Report, January 2016)

What happened then?

- Continued submissions on alternative costings, requests for delay of implementation of Order (intended for 4 April 2016)
- Two further sets of hearings held

RSRT decision to not delay as:

- > 3 yrs of consultations already
- the industry change was needed
- Uncertainty and confusion was evident, but being manufactured by others
- Evidence that contractors were losing work due to the minimum rates was not sound

- Application to stay the Order to the Full Federal Court of Australia from some employer/hirer representatives
- Application dismissed by the Court

- Media speculation about contractors losing work
- Rallies and protest convoys of trucks based on same potential issue

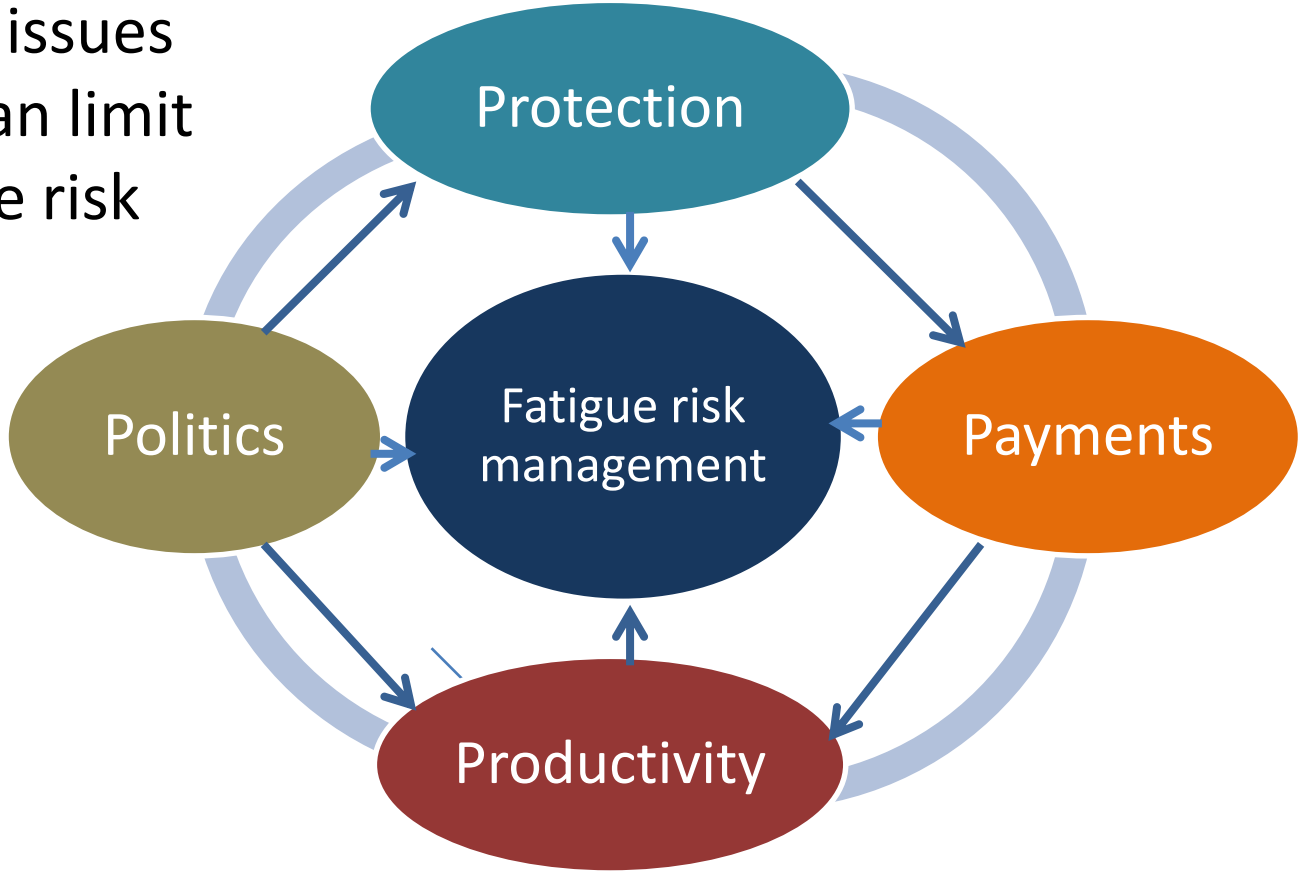
2016 Payments RSR Order commenced 4 April, 2016

- Government proposal to delay the order then abolish the RSRT Act

RSRT Act repealed and RSRT abolished 18 April, 2016

So where are we now?

The contextual issues still exist and can limit effective fatigue risk management.



The future...what can we learn from all of this?

- Consideration of the context for fatigue risk management is crucial.
- Politics must be factored in (as barrier and solution), but politics can undermine and make potentially good solutions ineffective and disappear.

The future...what can we learn from all of this?

- We need to be innovative and opportunistic in exploring new strategies for managing fatigue
- But we should be prepared for set-backs!

Thank you