

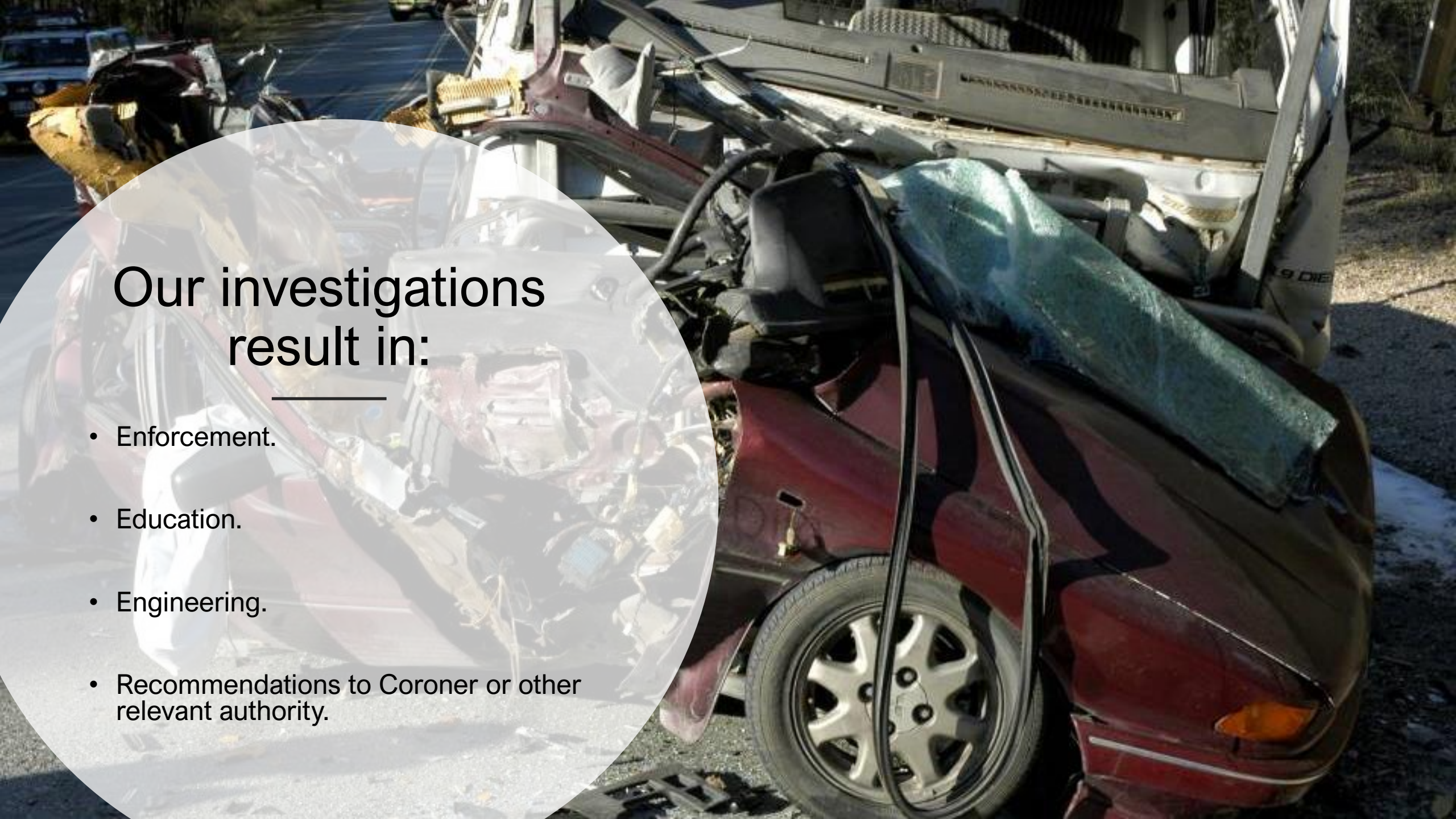


ROCKHAMPTON FORENSIC CRASH UNIT

FORENSIC CRASH UNIT



- Investigate fatal and serious injury transport related incidents (road, rail, water, air).
- Investigate fatal workplace incidents.
- Investigate deaths caused by electrocution.
- Crashes where there is evidence of criminal negligence.



Our investigations result in:

- Enforcement.
- Education.
- Engineering.
- Recommendations to Coroner or other relevant authority.

FORENSIC CRASH UNIT



- Criminal Investigations
- Coronial Investigations
- Civil court matters

CRASH INVESTIGATION

- Witnesses.
- Photographs.
- Mapping.
- Crash Analysis – inspections / tests.



CRASH INVESTIGATION

Vehicle inspections.

Mechanical condition.



CRASH INVESTIGATION



Vehicle Inspection

CDR
(airbag module)

Berla
(entertainment unit)

CRASH INVESTIGATION

Pre-Crash Data, -5 to 0 seconds (3rd Prior Event, TRG 1)

Time (sec)	-4.6	-4.1	-3.6	-3.1	-2.6	-2.1	-1.6	-1.1	-0.6	-0.1	0 (TRG)
Vehicle Speed (MPH [km/h])	70.2 [113]	70.8 [114]	71.5 [115]	71.5 [115]	72.1 [116]	72.7 [117]	72.1 [116]	67.1 [108]	56.5 [91]	46 [74]	47.8 [77]
Accelerator Pedal, % Full (%)	54.5	54.5	54.5	54.0	54.0	50.0	34.5	0.0	0.0	0.0	0.0

Engine RPM (RPM)	2,100	2,100	2,100	2,200	2,200	2,200	2,200	2,000	1,500	1,100	1,100
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Service Brake, ON/OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON
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Yaw Rate (deg/sec)	-1.95	-1.46	-0.98	-0.98	0.00	-1.46	-4.39	4.39	6.34	17.57	14.64
Steering Input (degrees)	-10.5	-9.0	-6.0	-3.0	1.5	-10.5	9.0	60.0	91.5	121.5	115.5
Shift Position	D	D	D	D	D	D	D	D	D	D	D

CRASH INVESTIGATION

Environment



CRASH INVESTIGATION

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The Human Element

Driver error

The Fatal Five

Speeding

Alcohol, drugs, medication

Mobile phones

Seat Belts

Fatigue

FATIGUE

- Fatigue contributes to 20-30% of all deaths and severe injuries on the roads.
- Fatigue doesn't only relate to falling asleep at the wheel, even brief lapses in concentration can have serious consequences.
- On average, 31 people are killed and 462 seriously injured each year on Queensland roads as a result of crashes where fatigue played a part – the number is probably much higher as fatigue is difficult to police and prove.





FATIGUE

Fatigue is more likely a contributing factor in crashes involving:

- Long trips.
- Driving when your body wants to sleep.
- Driving alone.
- Driving on rural roads (lack of stimuli).
- Lack of sleep.

Being awake for 17 hours has a similar effect on your driving ability as having a blood alcohol content of 0.05.

Driving on less than 5hrs sleep in 24hrs raises the crash risk threefold.

Most sleep related crashes happen between 2am and 6am or alternatively between 2pm and 4pm.

Fatigue related crashes are often severe.

OFFICIAL

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OFFICIAL



The vehicle from the previous slide.

OFFICIAL



OFFICIAL

OFFICIAL



OFFICIAL

FATIGUE

Driver is personally responsible for their actions on the road.

At 100 km/hr you travel 28m/second. That's a football field every 3.5seconds.

Fatigue – you can feel it coming.

Fatigue – a predictable consequence of not sleeping.

Fatigue – can be due to coming down off drugs.

Police will look at driver's actions pre-crash.



FATIGUE

Legal Consequences:

Dangerous Operation of a Vehicle (*3 years*);

Whilst Adversely Affected (*5 years*);

Causing GBH / Death (*10 years*);

Causing GBH/Death whilst Adversely Affected (*14 years*).

^{SO} **REST**
before you
hit the **road.**



FATIGUE

Personal Consequences

Loss of job = Loss of income.

Loss of lifestyle.

Loss of family/friends.

Living with the trauma of killing or severely injuring someone else.