



Crash Investigation

They must be **Investigated** to be **Prevented**



FORENSICCRASH
CONSULTANCY LTD.

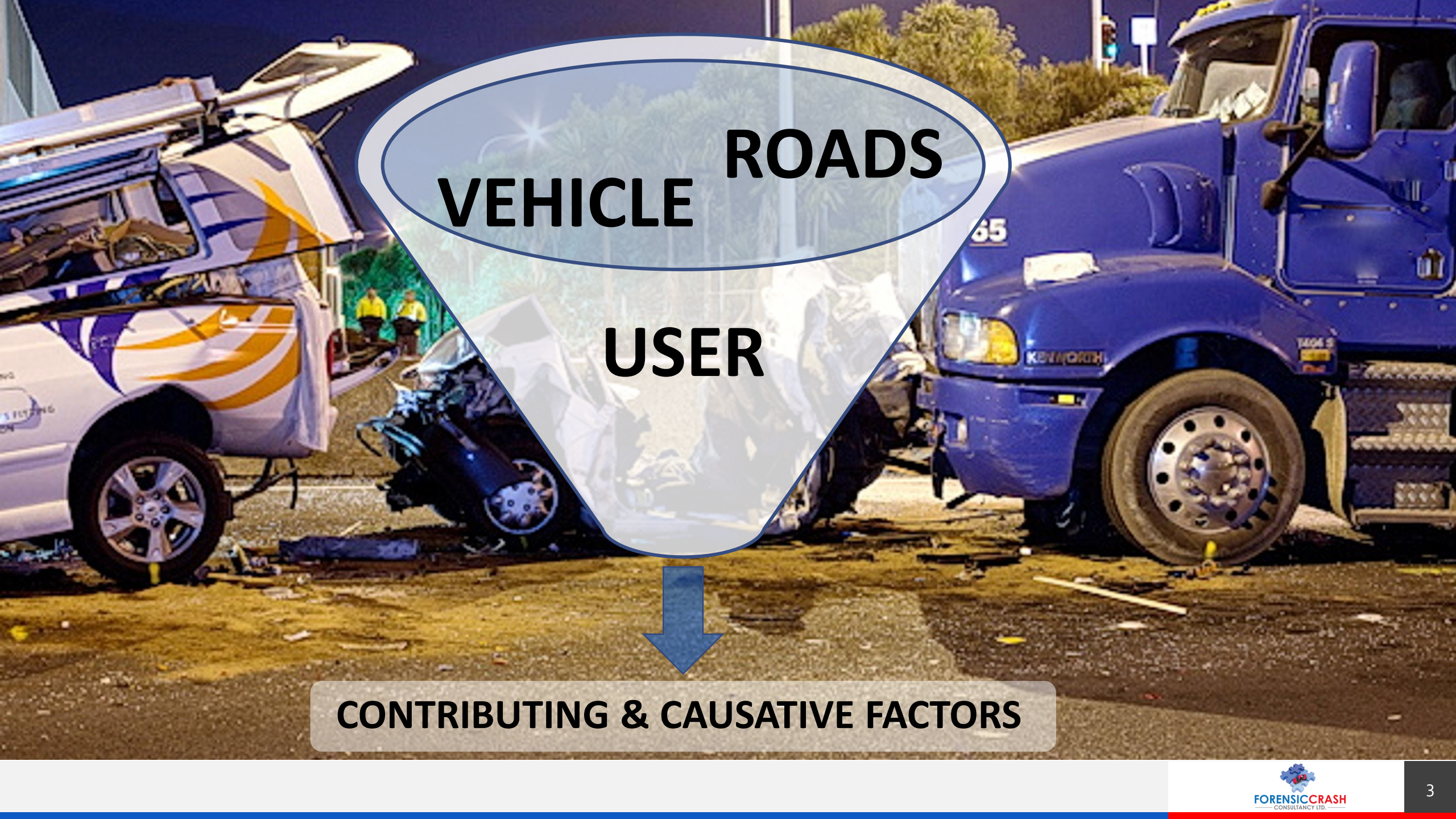
There is no such thing as an accident

Term “accident” promotes the concept that these events are outside of human influence or control

Motor vehicle crashes & resulting injuries are predictable & preventable events

They are the predictable result of the laws of physics

We can identify the contributing factors & take action to mitigate those causes, **preventing** further crashes and trauma



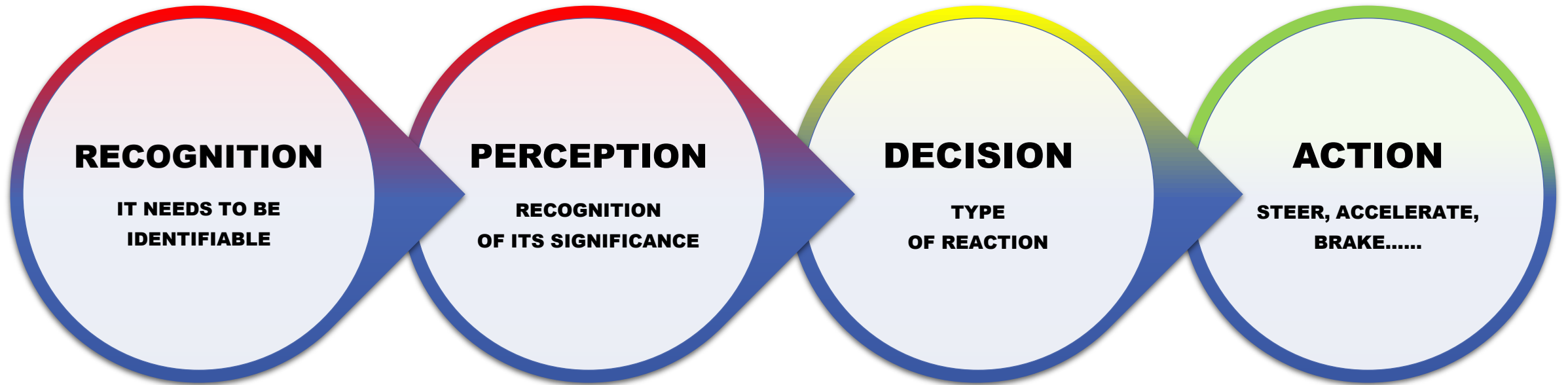
ROADS
VEHICLE

USER

CONTRIBUTING & CAUSATIVE FACTORS

Human Factors - Perception Response

When confronted with a hazard, the evasive tactic a driver takes is the last in a sequence of operations



Perception Response – “I didn’t see it”



Visibility versus Conspicuity

To be a hazard it has to be easily identifiable



Visibility

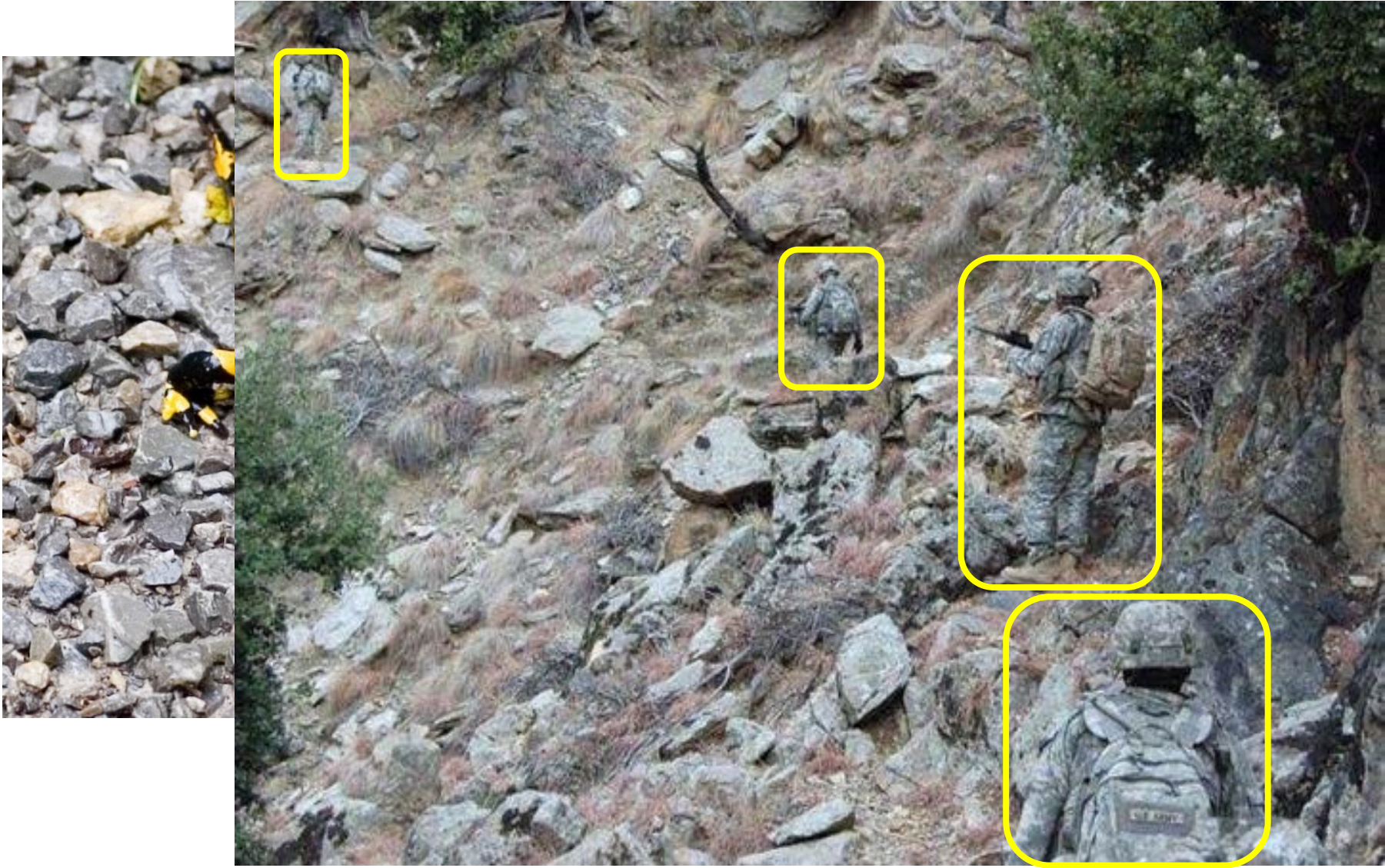
The degree to which something is visible without the aid of an instrument or device i.e., obvious to the naked eye.



Conspicuity

How easy something is noticed i.e., does it attract the person's attention, is it unusual or remarkable?

Visibility versus Conspicuity



Visibility versus Conspicuity – Night Time



Fatigue

- ❄ Typically seen as persistent sleep disturbance & short-term insomnia
- ❄ Also consequence of physical labour or a prolonged experience
- ❄ Results in delay in recognition & perception response
- ❄ Difficult for those affected to be self-aware

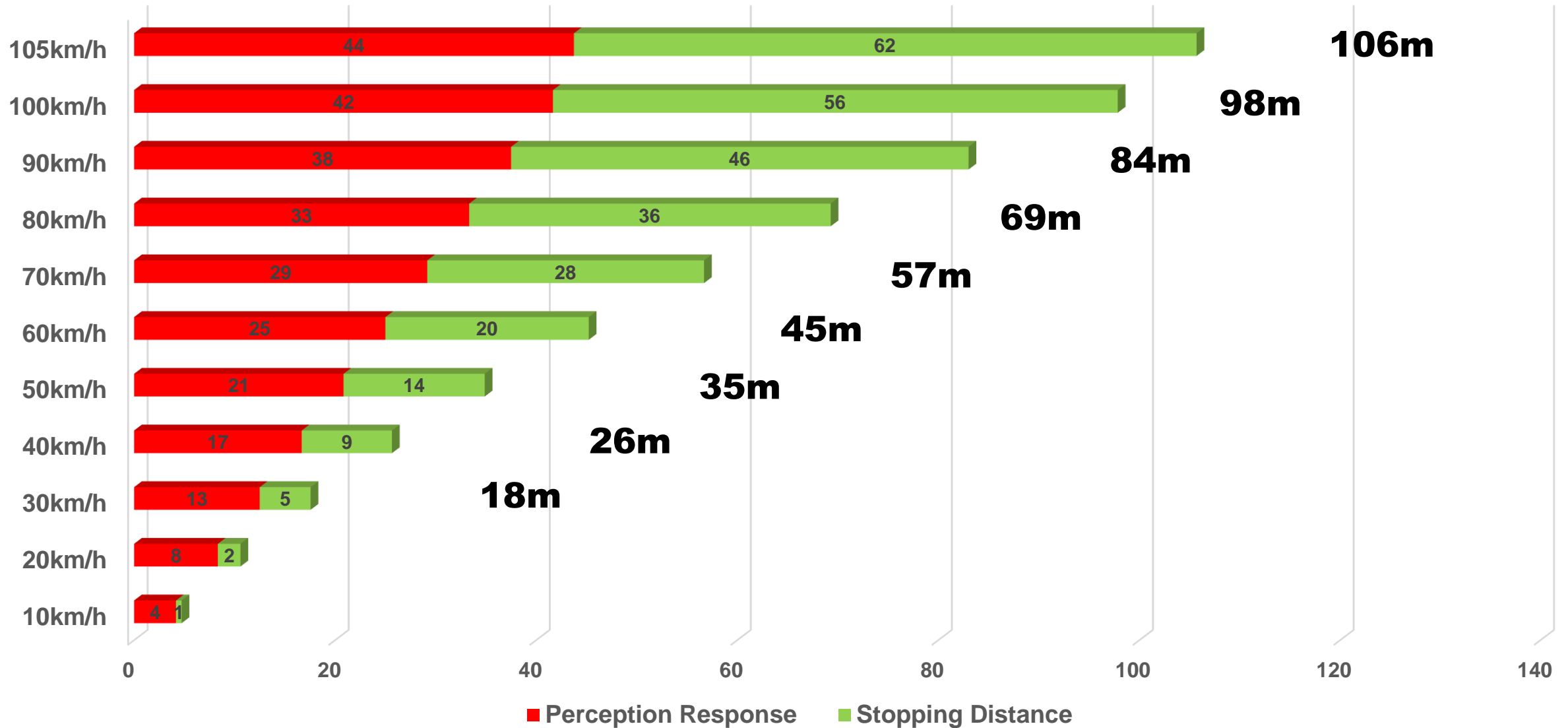


Distraction

- 🧩 Talking on mobile increase crash risk by 400%
- 🧩 Equivalent or worse blood alcohol 0.08
- 🧩 You are **No** better with hands free

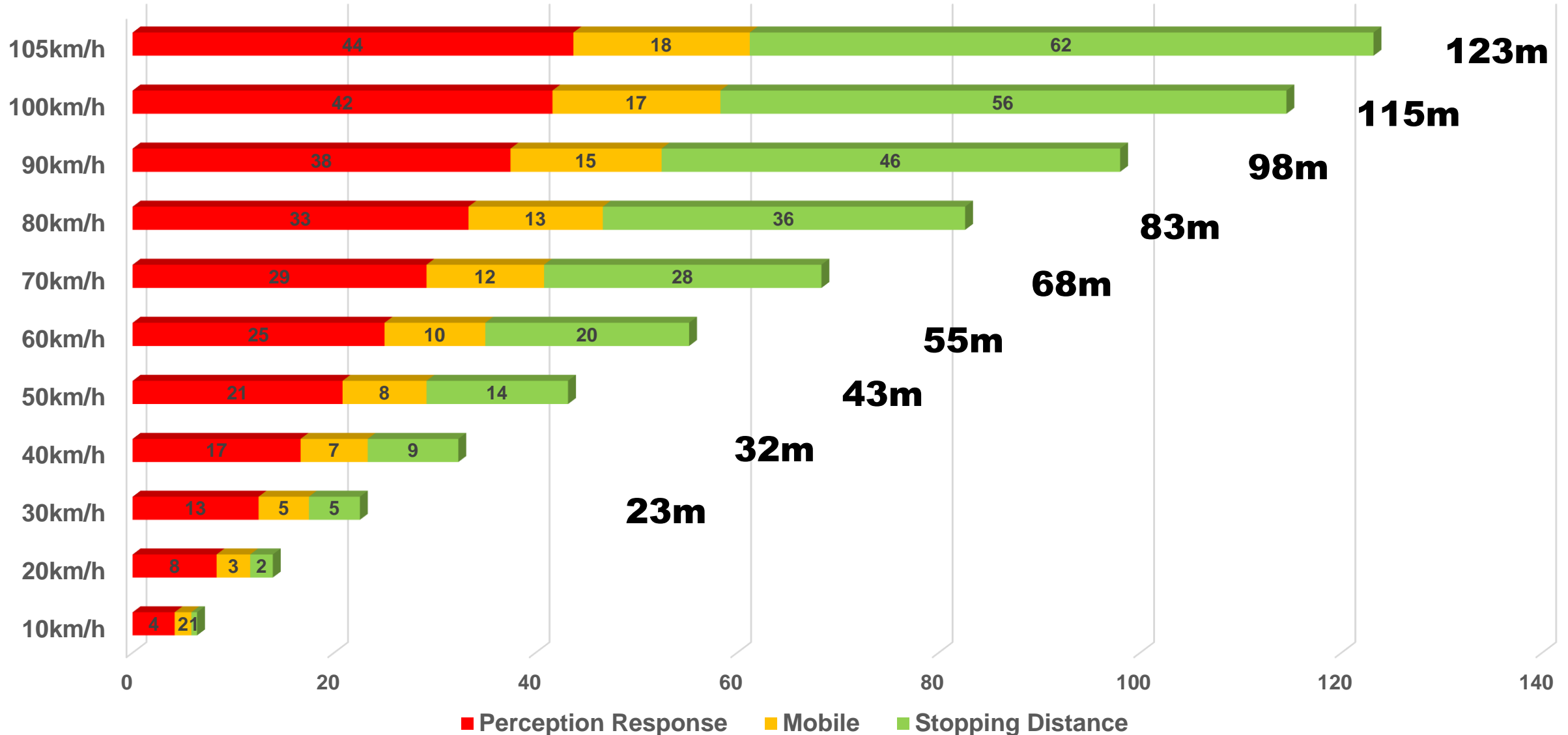


The Physics



Stopping distances with 1.5 second Perception Response Time & 0.7 road drag factor

The Physics – Adding Mobile Distraction



Stopping distances with added average mobile phone distraction of 0.6s



When it all goes wrong – Wellington Street

250,000 vehicles per day under mountain road
157,000 vehicles over the harbour bridge
2200 vehicles per lane per hour

When it all goes wrong – Wellington Street





The Lessons Learnt



What you can do



The most important aspect of crash investigation is the collection and recording of scene evidence



Thank You

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WHEN WE KNOW BETTER WE CAN DO BETTER