Safe System and Vision Zero – what do they mean?

Background information for Road Safety Strategy Reference Groups

September 2018
Where we are now – **Safer Journeys** and the Safe System approach

- New Zealand’s current road safety strategy is **Safer Journeys** which runs from 2010 to 2020
- **Safer Journeys** adopts the internationally accepted Safe System approach
- **Safer Journeys** has been delivered through three Actions Plans: 2011-2012, 2013-2015 and 2016-2020
- This work will continue while the next road safety strategy is being developed
Principles of the Safe System approach

The Safe System principles underpin the approach. **The focus is on what causes crashes to result in death or serious injury, not on the causes of crashes.**

1. **People make mistakes**
   - We need to recognise that people make mistakes and some crashes are inevitable.

2. **People are vulnerable**
   - Our bodies have a limited ability to withstand crash forces without being seriously injured or killed.

3. **We need to share responsibility**
   - Those who design the road system and those who use the roads must all share responsibility for creating a road system where crash forces don’t result in death or serious injury.

4. **We need to strengthen all parts of the system**
   - We need to improve the safety of all parts of the system - roads and roadsides, speeds, vehicles, and road use - so that if one part fails, other parts will still protect the people involved.
The Safe System pillars

The Four Safe System pillars provide a useful way of grouping interventions – they provide the how or the toolbox of the Safe System

- Safe Roads and Roadsides
- Safe Speeds
- Safe Vehicles
- Safe Road Use

The pillars are often interdependent

In some countries overall system governance is also a pillar, while Post Crash Response is generally referred to as the “Fifth Pillar”.

Vision Zero in the Strategy Development Process

• Road safety is a key transport priority, included as one of two strategic priorities alongside Access in the new Government Policy Statement on Land Transport

• Cabinet has asked the Ministry to investigate whether a “Vision Zero” framework should be applied in New Zealand

• The Government has not yet made a decision about Vision Zero for New Zealand

• A key focus of the wider engagement process will be to explore the implications of Vision Zero

• The Reference Groups are not being asked to explore the broader implications of adopting Vision Zero, but the level of ambition associated with the Vision Zero approach is important context for their work.
What is Vision Zero?

Sweden adopted its “Vision Zero” strategy in 1997, stating that:

- eventually no one will be killed or seriously injured within the road transport system, and
- it can never be ethically acceptable that people are killed within the road transport system.

Under Vision Zero, Sweden has been a global leader in reducing road trauma. Vision Zero has subsequently been adopted in a number of other European countries, as well as major cities across the world.
What Vision Zero IS…

Vision Zero means that road danger will be targeted at its source by ensuring the street environment incorporates safe speeds, safe people, safe street design and safe vehicles.

*Mayor of London’s Transport Strategy*

**Vision Zero:**

- Is a **vision** not a prediction or target. It provides something to strive for.
- Involves setting interim stretch targets across the system and rigorously evaluating progress.
- Prevents complacency - there isn’t an acceptable level of death and serious injury on our roads.
- Is strongly focused on collective responsibility and presupposes long-term, systematic work by all participants that influence road traffic safety.
- It is heavily based on science and data - understanding and responding to events to prevent similar events occurring.
How Vision Zero builds on the Safe System approach

Vision Zero doesn’t mean that the Safe System approach is wrong or irrelevant. The principles and pillars still apply and can be used to develop interventions, BUT Vision Zero strengthens these through:

• An explicit values-based or ethical position that no-one should die or be seriously injured while using the road system

• An ambitious commitment to continuously work towards eliminating all road deaths and serious injuries – no death is acceptable

• A change of mindset among system designers – in Sweden this is stated as:
  “In every situation a person might fail, the road system should not”
What Vision Zero is NOT

Vision Zero is the journey not the destination. It is a journey of constant learning and improvement; of experimentation and transparency; moving away from easy blaming and fatalism, towards humane understanding of causes and consequences of failures.

Vision Zero London

In exploring the concept, keep in mind that Vision Zero is NOT:

• A target to be achieved in the short-medium term.
• A quick fix or silver bullet for reducing deaths and serious injuries
• A slogan that can be applied to give a fresh look to old ways of doing things
• A set of prescriptive solutions, although there is a recognized base of best practice.
Vision Zero in Action: Sweden


**Key Interventions:**

- 4,000 km of 2+1 roads
- 3,000 Speed Cameras
- Roundabouts are more common at busy intersections
- Creating low-speed shared spaces
- Setting interim and stretch targets

**Results**

Between 1997 and 2016 road deaths reduced from 6.1 to 2.7 per 100,000.

Vision Zero provided a common mission that brought together stakeholders, changed public attitudes and raised public expectations.
Norway adopted Vision Zero in 2001 – its geography, population and length of network all very similar to New Zealand.

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Norway</th>
<th>New Zealand</th>
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<tbody>
<tr>
<td>Vision Zero commitment</td>
<td>Full commitment</td>
<td>To be determined</td>
</tr>
<tr>
<td>Clear targets</td>
<td>No more than 500 deaths and serious injuries by 2024</td>
<td>No targets – DSI total for 2017 was 3,219</td>
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<tr>
<td>Speed limits</td>
<td>Maximum speed 80 km/h unless the road has a median barrier</td>
<td>Most 100 km/h roads do not have median barriers</td>
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<tr>
<td>Penalties for speeding</td>
<td>Start at 750 krone ($135)</td>
<td>Start at $30</td>
</tr>
<tr>
<td>Speed cameras</td>
<td>300</td>
<td>56 active from mid-2018</td>
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<tr>
<td>Blood alcohol limits</td>
<td>0.02% (20 mg per 100ml)</td>
<td>0.05% (50mg per 100ml)</td>
</tr>
<tr>
<td>Minimum driving age</td>
<td>18 years</td>
<td>16 years</td>
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**Results:** In Norway fatalities have declined from 6.9 per 100,000 in 1997 to 2.3 per 100,000 in 2015 (*total deaths reduced from 303 in 1997 to 117 in 2015*).
Vision Zero in Action: New York City

The fundamental message of Vision Zero is that death and injury on city streets is not acceptable, and that we will no longer regard serious crashes as inevitable.

- Bill de Blasio, Mayor of New York City

Key points:

• Focus on grassroots, neighbourhood level action
• Pedestrians and other vulnerable users are the priority
• Increased enforcement of speeding and other violations supported by safety cameras
• Proposed citywide speed limit of 25 miles per hour (40 km/h)
• Tackling the most dangerous intersections

Results: Since New York City introduced Vision Zero in 2014 road deaths have fallen by 28 percent, compared to an increase of 15 percent nationally.
What might NZ gain from having Vision Zero?

Vision Zero could:

• Provide a clear ethical and cultural platform for change

• Encourage more collective long-term thinking about road safety

• Help shift public expectations towards a safe road environment

• May help to promote an ongoing political commitment to road safety

• Reduce deaths and serious injuries more quickly than other approaches

It would require NZ to make some courageous changes and more rigorously implement a safe system approach.
What are the risks of Vision Zero?

- People may be distracted by whether Zero is achievable.
- Undertaking significant evidence based interventions will at times be unpopular with some groups.
- It doesn’t mean that funding is limitless. Investments still need to be evidence based, but with more emphasis on saving lives rather than improving travel times.
- Not everyone will agree with a move from the traditional “driver error” focus to a “system” focus which addresses risk and the responsibility of system designers as well as system users.
- It needs patience and sustained effort – it is not a quick fix.
Other approaches

Like New Zealand, many jurisdictions have adopted the Safe System approach, without the full Vision Zero framework.

- **Towards Zero**, adopted in Victoria, NSW, Canada and the European Union, is very similar to Vision Zero, without the explicit ethical rules.

- The UK has traditionally been an outlier among leading jurisdictions, taking a more pragmatic, locally focused approach – however it recently adopted the Safe System.

- Some jurisdictions focus on particular crash types or user groups, but this risks losing a whole of system perspective.
Thank you